



Central Valley Regional Water Quality Control Board

19 June 2026

Yvonne Kimball
City Manager
City of Williams
735 7th Street
Williams, CA 95987

VIA EMAIL:
YKimball@cityofwilliams.org

CERTIFIED MAIL
7022 2410 0002 2881 5507

NOTICE OF APPLICABILITY (NOA); MUNICIPAL WASTEWATER DISCHARGERS THAT MEET OBJECTIVES/CRITERIA AT THE POINT OF DISCHARGE TO SURFACE WATER ORDER R5-2023-0025 (MUNICIPAL GENERAL ORDER), NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CAG585001; CITY OF WILLIAMS, WASTEWATER TREATMENT PLANT, COLUSA COUNTY

Our office received a Notice of Intent (NOI) dated 31 May 2022 from the City of Williams (Discharger), for discharge of tertiary treated domestic wastewater to surface water from the City of Williams Wastewater Treatment Plant (Facility) to Salt Creek. The Municipal General Order requires the submittal of an NOI to apply for regulatory coverage of a surface water discharge. Based on the NOI and subsequent information submitted by the Discharger, staff have determined that the NOI requirements have been fulfilled and the Facility is eligible for coverage under the Municipal General Order. This Facility's discharge is assigned Municipal General Order Enrollee Number R5-2023-0025-009 under NPDES Permit CAG585001. Please reference your Municipal General Order Enrollee Number, **R5-2023-0025-009**, in your correspondence and submitted documents.

Discharges to surface water from the Facility are currently regulated by the Municipal General Order R5-2017-0085-02 through an NOA issued by the Executive Officer on 28 June 2019, Municipal General Order Enrollee Number R5-2017-0085-008 (NOA R5-2017-0085-008). This NOA, Enrollee Number R5-2023-0025-009 (NOA R5-2023-0025-009), authorizing coverage under the Municipal General Order, shall become effective on **1 October 2026**, at which time the terms and conditions in the Discharger's NOA R5-2017-0085-008 and General Order R5-2017-0085-02 will cease to be effective except for enforcement purposes. To meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements contained in the Municipal General Order and as specified in this NOA R5-2023-0025-009. This action in no way prevents the Central Valley Regional Water Quality Control Board (Central Valley Water Board) from taking enforcement action for past violations of NOA R5-2017-0085-008.

NICHOLAS AVDIS, CHAIR | PATRICK PULUPA, EXECUTIVE OFFICER

The enclosed [Municipal General Order](https://www.waterboards.ca.gov/centralvalley/board_decisions/general_orders/r5-2023-0025_npdes.pdf) is available online (https://www.waterboards.ca.gov/centralvalley/board_decisions/general_orders/r5-2023-0025_npdes.pdf) and can be requested by email or phone from the [NPDES Permitting Contacts webpage](https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/contacts/) (https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/contacts/). You are urged to familiarize yourself with the entire contents of the enclosed document.

The Monitoring and Reporting Program, Attachment E to the Municipal General Order, contains the general monitoring and reporting requirements. The Discharger-specific monitoring and reporting requirements are included within this NOA R5-2023-0025-009 as Appendix D. **Only the monitoring and reporting requirements specifically listed in Appendix D of this NOA R5-2023-0025-009 are applicable to this Facility.**

The discharge of treated domestic wastewater shall be in accordance with the requirements contained in the Municipal General Order, as specified in this NOA R5-2023-0025-009.

Table 1. Facility Information

WDID	5A060103001
CIWQS Facility Place ID	272631
Discharger	City of Williams
Name of Facility	Wastewater Treatment Plant
Facility Street Address	501 N. Colusa Cut Opf Road
Facility City, State, Zip Code	Williams, CA 95987
Facility County	Colusa
Facility Contact, Title and Phone	Damian Garcia, Chief Plant Operator, (530) 723-2964
Authorized Person to Sign and Submit Reports	Yvonne Kimball, City Manager, (530) 235-3275
Mailing Address	P.O. Box 310, Williams, CA 95987
Billing Address	Same as Mailing
Type of Facility	Publicly Owned Treatment Works (POTW)
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	A
Pretreatment Program	Not Applicable
Recycled Water Requirements	Not Applicable
Facility Design Average Dry Weather Flow (ADWF)	0.5 Million Gallons Per Day (MGD)
Permitted ADWF	0.5 MGD
Watershed	Sacramento – Stone Corral
Receiving Water	Salt Creek (ephemeral)
Receiving Water Type	Inland Surface Water
Discharge Point 001	Latitude: 39° 10' 11" N, Longitude: 122° 9' 13" W

I. FACILITY INFORMATION

The Discharger provides sewerage service for the community of Williams and serves a population of approximately 5,487. The design average dry weather flow capacity of the Facility is 0.5 MGD.

The Facility is built to provide protection from a 100-year flood event. The Discharger noted that the Facility is equipped with a flood lift station adjacent to the re-aeration basin that is intended to provide added hydraulic pressure during periods of high-water level (a 100-year storm event) in Salt Creek, when the final effluent cannot flow by gravity to the outfall in Salt Creek. The 100-year storm event creek level in Salt Creek is at 76.8 feet. The Facility and pond dikes are around 78 feet or greater, indicating that the Facility is built above the 100-year storm event elevation.

Tertiary treatment system. The Facility provides nitrification and denitrification for nitrogen removal and uses tertiary filtration followed by ultraviolet light (UV) for disinfection. The treatment system at the Facility includes the following:

- headworks with flow meter, mechanically cleaned basket screen, and standby manual bar screen;
- flow equalization basin – 100 mil (2.54 mm) HDPE-lined;
- biological selector with submerged mixers
- aeration basin with floating diffused air system (three blowers) – 100 mil (2.54 mm) HDPE-lined;
- secondary clarifier;
- filter feed, return activated sludge, waste activated sludge, scum, and drainage pump stations;
- cloth media disk filters;
- UV disinfection; and
- re-aeration basin.

The treatment system at the Facility also includes a chemical feed system, storage for polymer and sodium hypochlorite, a flocculation basin, and a rapid mix basin. However, the chemical feed system and chemical storage have never been used and the floc basin and rapid mix basin were only briefly used once in 2023 in an attempt to address operational issues, but were deemed unsuccessful and have not been used since.

Solids handling. Sludge is dewatered using a belt filter press. The dewatered sludge is discharged directly to transfer trucks and hauled offsite by a separate commercial entity to a solid waste landfill. The former solids drying yard is a concrete pad with an approximate 3-foot wall on three sides. The former solids drying yard has a 6-inch drain that returns any water collected on this area back to the Facility drain pump station. The former solids drying yard is not currently used for storage of solids, rather it is currently used for storage area for the City's Public Works Department and there are no current plans to bring it back into operation as a solids drying yard. Sludge is not stored anywhere else on-site or anywhere surrounding the Facility. The sludge accumulated in the ponds from the former pond treatment system has been removed as of 11 March 2020. Former Pond 1 no longer exists and Ponds 2, 3, and 4 are only used as emergency storage basins (see below). The sludge in Ponds 1 and 2 was removed in 2010 by the contractor that

built the existing Facility and hauled to a landfill. The sludge in Pond 3 was removed by the Discharger and hauled to a landfill in 2017. The sludge in Pond 4 was removed and stored in Pond 2 in 2019 and subsequently removed from Pond 2 in 2020. The separate Monitoring and Reporting Program (MRP) Order R5-2026-0803 contains pond decommissioning requirements to ensure and confirm that any remaining contaminated soil is removed from the ponds.

Emergency storage basins. There are three unlined emergency storage basins (Ponds 2, 3, and 4) at the Facility that are remnants of the former pond treatment system used prior to the construction of the current tertiary wastewater treatment plant. The Facility is on the site of the former Pond 1 which was decommissioned and regraded to make room for the current Facility. The basins are only used in the case of plant upset. The basins are not used for diversion of raw influent and are only used to hold non-compliant treated effluent. If non-compliant treated effluent wastewater is diverted to the basins, the wastewater is pumped back through the treatment system to be retreated. If the basins are used, the Discharger uses a pump to manually pump from each pond into Pond 2 and then pump from Pond 2 into the Equalization Basin. From the Equalization Basin the wastewater is pumped back to the headworks. The volume of Pond 2 is approximately 4.2 million gallons (MG) and has a depth of approximately 5 feet while maintaining 2 feet of freeboard. The volume of Pond 3 is approximately 6.2 MG and has a depth of approximately 8 feet while maintaining 2 feet of freeboard. The volume of Pond 4 is approximately 5.5 MG and has a depth of approximately 8 feet while maintaining 2 feet of freeboard. Monitoring of any discharges from the basins is covered under MRP Order R5-2026-0803. There are no stormwater basins at the Facility. Surface runoff is collected by several drop inlets and diverted offsite of the Facility.

II. RECEIVING WATER BENEFICIAL USES

The Facility discharges from Discharge Point 001 to Salt Creek, an ephemeral stream and water of the United States, which is tributary to the Sacramento River via Freshwater Creek and the Colusa Basin Drain within the Sacramento – Stone Corral watershed. According to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) and the Tributary Rule, the following existing beneficial uses apply to Salt Creek:

- Municipal and Domestic Supply (MUN);
- Agricultural Supply (AGR);
- Water Contact Recreation (REC-1);
- Warm Freshwater Habitat (WARM);
- Wildlife Habitat (WILD);
- Migration of Aquatic Organisms (MIGR); and
- Spawning, Reproduction, and/or Early Development (SPWN).

The following potential beneficial use also applies to Salt Creek:

- Cold Freshwater Habitat (COLD);

According to the Basin Plan, groundwater underlying the Facility is designated with the following existing beneficial uses:

- Municipal and Domestic Supply (MUN);
- Agricultural Supply, Including Irrigation and Stock Watering (AGR);
- Industrial Service Supply (IND); and
- Industrial Process Supply (PRO).

III. RECEIVING WATER TOTAL MAXIMUM DAILY LOADS (TMDLS)

Salt Creek is not listed on the CWA 303(d) List of impaired water bodies. Therefore, no additional 303(d) based effluent limitations or monitoring requirements are included in this NOA R5-2023-0025-009.

IV. DISCHARGE PROHIBITIONS

Discharge prohibitions are contained in section IV of the Municipal General Order. Only the discharge prohibitions listed below are applicable to this Facility.

- A.** The discharge of wastes, other than those described in section I.A and meeting the eligibility criteria in section I.B of the Municipal General Order, is prohibited unless the Discharger obtains coverage under another general or individual Order that regulates the discharge of such wastes. The discharge of wastes at a location or in a manner different from that described in the NOI and this NOA R5-2023-0025-009 is prohibited.
- B.** The bypass or overflow of wastes to surface waters is prohibited, except as allowed by Federal Standard Provisions sections I.G. and I.H in Attachment D, Standard Provisions, of the Municipal General Order.
- C.** Neither the discharge nor its treatment shall create a nuisance as defined in section 13050 of the Water Code.
- D.** Discharge of waste classified as 'hazardous', as defined in the California Code of Regulations, Title 22, section 66261.1 et seq., is prohibited.
- E. Average Dry Weather Flow.** Discharges exceeding an average dry weather flow of 0.5 MGD are prohibited.

V. EFFLUENT LIMITATIONS

A. Effluent Limitations – Discharge Point 001

The Discharger shall maintain compliance with the following effluent limitations in sections V.A.1 through V.A.4 of this NOA R5-2023-0025-009 when discharging to Discharge Point 001. Effluent limitations are provided in the Municipal General Order. Only the effluent limitations listed below in sections V.A.1 through V.A.4 are applicable to this Facility. Unless otherwise specified in this NOA R5-2023-0025-009, compliance with effluent limitations in sections V.A.1 through V.A.4 shall be measured at Monitoring Location EFF-001, as described in the Monitoring and Reporting Program (MRP), Appendix D of this NOA R5-2023-0025-009.

1. The Discharger shall maintain compliance with the effluent limitations specified in Table 2.

Table 2. Effluent Limitations

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Annual Average
Biochemical Oxygen Demand, 5-day @ 20°C (BOD ₅)	milligrams per liter (mg/L)	10	15	--	--
Total Suspended Solids (TSS)	mg/L	10	15	--	--
Ammonia, Total (as N)	mg/L	0.74	1.7	--	--
Nitrate plus Nitrite, Total (as N)	mg/L	10	17	--	--
Zinc, Total Recoverable	µg/L	140	--	280	--

2. **pH.** The pH shall at all times be within the range of 6.5 and 8.5.
3. **Percent Removal.** The average monthly percent removal of BOD₅ and TSS shall not be less than 85 percent.
4. **Total Coliform Organisms.** Effluent total coliform organisms shall not exceed:
 - a. 2.2 most probable number per 100 milliliters (MPN/100 mL), as a 7-day median;
 - b. 23 MPN/100 mL, more than once in any 30-day period; and
 - c. 240 MPN/100 mL, at any time.

VI. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations for surface water are contained in section VI.A of the Municipal General Order. Based on the information provided in the NOI, only the following receiving water limitations listed in Municipal General Order (section number given below) are applicable to this Facility.

- Biostimulatory Substances (section VI.A.3);
- Chemical Constituents (section VI.A.4);
- Color (section VI.A.5);
- Dissolved Oxygen (section VI.A.6.a.i, ii, and iv);
- Floating Material (section VI.A.7);
- Oil and Grease (section VI.A.8);
- pH (section VI.A.9.a);
- Pesticides (section VI.A.10.a and b);
- Radioactivity (section VI.A.11);
- Suspended Sediments (section VI.A.12);
- Settleable Substances (section VI.A.13);
- Suspended Material (section VI.A.14);

- Taste and Odors (section VI.A.15);
- Temperature (section VI.A.16.a);
- Toxicity (section VI.A.17); and
- Turbidity (section VI.A.18.a).

B. Groundwater Limitations

Release of waste constituents from any storage, treatment, or disposal component associated with the Facility shall not cause the underlying groundwater to contain waste constituents in concentrations greater than background water quality or groundwater quality objectives, whichever is greater.

VII. MONITORING AND REPORTING

MRP requirements are contained in Appendix D of this NOA R5-2023-0025-009.

VIII. PROVISIONS

Provisions are contained in section VII of the Municipal General Order and the applicable provisions are referenced below:

A. Standard Provisions

Applicable to all Dischargers.

B. Monitoring and Reporting Program Requirements

The MRP applicable to this Facility is contained in Appendix D of this NOA R5-2023-0025-009.

C. Special Provisions

Special Provisions are contained in section VII.C of the Municipal General Order. Only the following Special Provision sections from the Municipal General Order apply to this Facility, as specified in Table 3 below:

Table 3. Summary of Applicable Special Provisions

Special Provision	Section Reference
1. Reopener Provisions	a. Major Modification of Treatment Works
2. Special Studies, Technical Reports and Additional Monitoring Requirements	Not applicable
3. Best Management Practices and Pollution Prevention	b. Salinity Evaluation and Minimization Plan (SEMP) for the Alternative Salinity Permitting Approach. Annual average electrical conductivity trigger of 2400 µmhos/cm.

Special Provision	Section Reference
4. Construction, Operation and Maintenance Specifications	a. Filtration System Operating Specifications, subpart i only b. UV Disinfection System Operating Specifications i. UV Dose, subpart (a) only; and ii. UV Transmittance, subpart (a) only; and iii-vi. c. Treatment/Storage Pond, i-xiii, excluding iv.(a) and vii.
5. Special Provisions for Municipal Facilities	b. Sludge/Biosolids Treatment or Discharge Specifications
6. Other Special Provisions	a. Disinfection Requirements
7. Compliance Schedules	Not applicable

Table 3 Notes:

1. **SEMP.** The Discharger shall continue to implement a SEMP as necessary to identify and address sources of salinity discharged from the Facility (see section II.A in Appendix C of this NOA).
2. **Filtration System Operating Specifications.** Turbidity measurements at FIL-001 shall be used to determine compliance. Station FIL-001 is defined in this NOA R5-2023-0025-009 as the filter effluent, which is equivalent to FIL-002 described in the Municipal General Order.

IX. COMPLIANCE DETERMINATION

Compliance determination language is contained and more fully described in section VIII of the Municipal General Order. Additional reporting requirements are included in section X of the MRP, Appendix D. Only the following compliance determination sections from the Municipal General Order apply to this Facility:

- A. BOD₅ and TSS Effluent Limitations;
- E. Average Dry Weather Flow Effluent Prohibition;
- F. Total Coliform Organisms Effluent Limitations;
- I. Effluent Limitations;
- J. Dissolved Oxygen Receiving Water Limitation;
- K. Whole Effluent Toxicity Effluent Limitations or Triggers;
- O. Period Average, Calendar Month Average, and Annual Average; and
- P. Turbidity Receiving Water Limitation.

X. ANTI-BACKSLIDING REQUIREMENTS

Anti-backsliding requirements are specified in the Municipal General Order, section V.D.3, Attachment F (Fact Sheet). Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 Code of Federal Regulations (C.F.R.) section 122.44(l)

restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

The effluent limitations for acute toxicity and the AWEL for nitrate plus nitrite are less stringent than prescribed in NOA R5-2017-0085-008. A more detailed anti-backsliding analysis is provided in Appendix C to this NOA R5-2023-0025-009 in section II.C.1 Satisfaction of Anti-Backsliding Requirements. The relaxation of these effluent limitations meet the exceptions provided in the federal anti-backsliding regulations.

XI. ANTIDegradation Requirements

Antidegradation requirements are specified in the Municipal General Order, section V.D.4, Attachment F (Fact Sheet). This NOA R5-2023-0025-009 does not allow an increase in flow or mass of pollutants to the receiving water and the relaxation of effluent limitations for acute toxicity and nitrate plus nitrite is consistent with the antidegradation provisions of 40 C.F.R. 131.12 and State Water Resources Control Board (State Water Board) Resolution 68-16.

A more detailed discussion of antidegradation is provided in Appendix C to this NOA R5-2023-0025-009, section II.C.2 Antidegradation Policies.

XII. Rationale for Limitations and Monitoring Requirements

Additional rationale for limitations and monitoring requirements is included in Attachment F, section II (Rationale for Effluent Limitations and Discharge Specifications), of the Municipal General Order and Appendix C of this NOA R5-2023-0025-009.

XIII. Enforcement

Failure to comply with the applicable requirements of the Municipal General Order, as specified in this NOA R5-2023-0025-009, may result in enforcement actions, which could include civil liability (penalties). Effluent limitation violations may be subject to a Mandatory Minimum Penalty (MMP) of \$3,000 per violation. In addition, late monitoring reports may be subject to MMPs and/or discretionary penalties of up to \$1,000 per day late. If discharges do not occur during any report monitoring period, the Discharger must still submit the monitoring report indicating that no discharge occurred to avoid being subject to enforcement actions.

XIV. Communication

Until this NOA R5-2023-0025-009 becomes effective on 1 October 2026, you will need to comply with the effluent limitations, and monitoring and reporting requirements, contained in your NOA R5-2017-0085-008. For your monthly self-monitoring reports (SMRs), you will need to demonstrate compliance with your NOA R5-2017-0085-008, through 30 September 2026. You will need to demonstrate compliance with this NOA R5-2023-0025-009 beginning 1 October 2026.

The Central Valley Water Board is implementing a Paperless Office system to reduce our paper use, increase efficiency, and provide a more effective way for our staff, the public, and interested parties to view documents in electronic form. Therefore, the Discharger is required to submit all self-monitoring, technical, and progress reports required by this NOA R5-2023-0025-009 via California Integrated

Water Quality System (CIWQS) submittal. In general, if any monitoring data for a monitoring location can be submitted using a computable document format (CDF) file upload, then it should be submitted as a CDF file upload, such as characterization monitoring data. However, certain parameters that cannot be uploaded to the CIWQS data tables, such as Annual Operations Reports, should be uploaded as a Portable Document Format (PDF), Microsoft Word, or Microsoft Excel file attachment. Also, please upload or enter a cover letter summarizing the content of the report to the submittal tab of the CIWQS module for each submittal.

All other documents not required to be submitted via CIWQS shall be converted to a searchable PDF and submitted by email to centralvalleysacramento@waterboards.ca.gov. Please include the following information in the body of the email:

- Attention: NPDES Compliance and Enforcement Section
- Discharger: City of Williams
- Facility: Wastewater Treatment Plant
- County: Colusa County
- CIWQS Place ID: 272631

Documents that are 50 megabytes or larger must be transferred to a DVD or flash drive, and mailed to our office, attention "ECM Mailroom-NPDES".

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, Title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date this NOA R5-2023-0025-009 is issued, except that if the thirtieth day following the date this NOA R5-2023-0025-009 is issued 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. [Links to the laws and regulations applicable to filing petitions](#) (http://www.waterboards.ca.gov/public_notices/petitions/water_quality) may be found on the Internet or will be provided upon request.

Now that your NOA R5-2023-0025-009 has been issued, the Central Valley Water Board's Compliance and Enforcement Section will take over management of your case. Jon Rohrbough of the Compliance and Enforcement section is your point of contact for any questions regarding this NOA R5-2023-0025-009. If you find it necessary to make a change to your permitted operations, you will be directed to the appropriate Permitting staff. You may contact Jon Rohrbough by phone at (916) 464-4822 or email at Jon.Rohrbough@waterboards.ca.gov.

Patrick Pulupa
Executive Officer

Appendices:
Appendix A – Facility Location Map

Appendix B1 – Flow Schematic
Appendix B2 – Facility Site Map
Appendix B3 – Expanded Facility Site Map
Appendix C – Supplemental Fact Sheet
Appendix D – Monitoring and Reporting Program
Appendix E – Determination of WQBELs

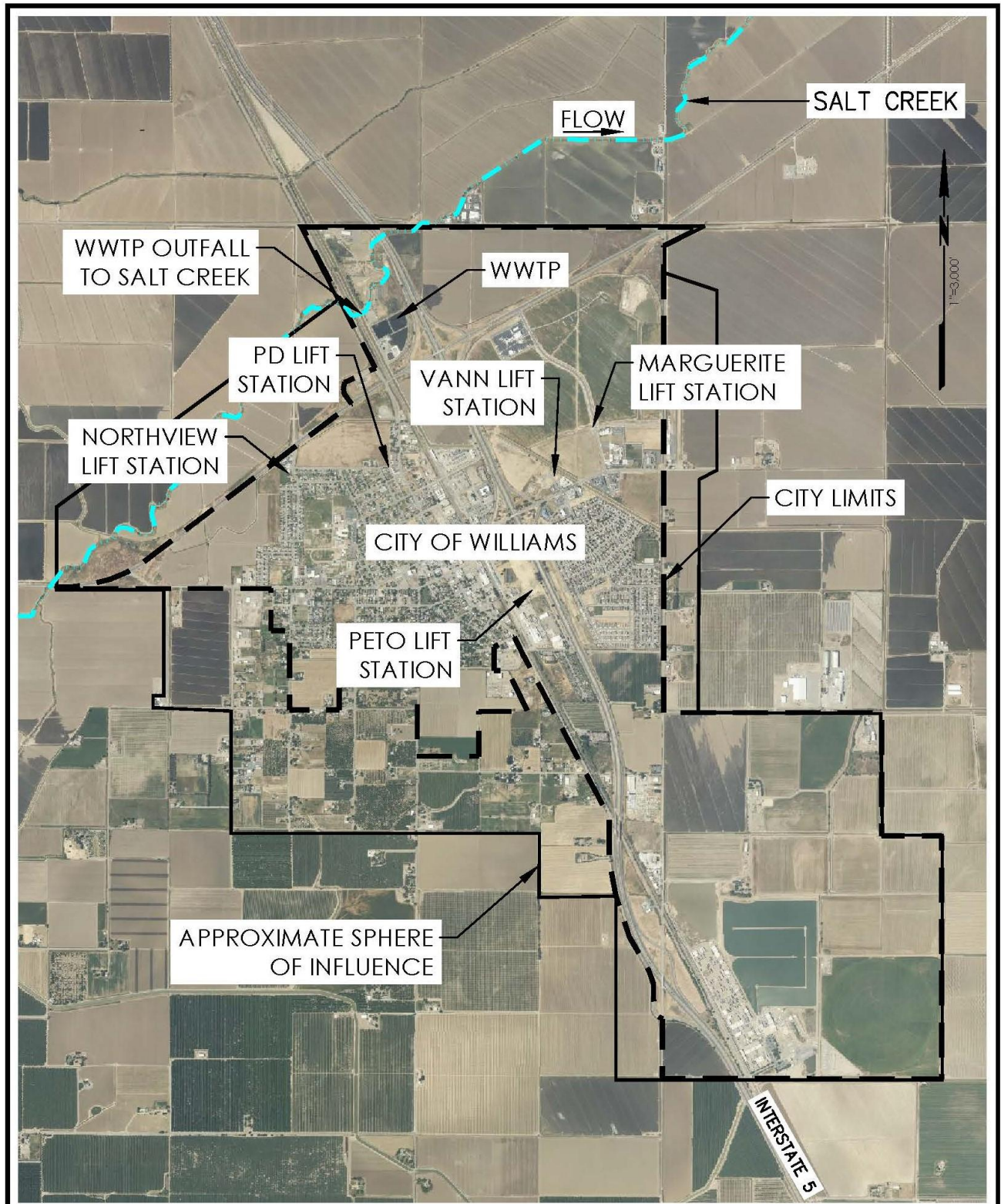
Enclosures (2):

Municipal General Order R5-2023-0025 (Discharger Only [email only])
Monitoring and Reporting Program Order R5-2026-0803 (Discharger Only [email only])

cc:

Peter Kozelka, U.S. EPA, Region IX, San Francisco (email only)
Prasad Gullapalli, U.S. EPA Region IX, San Francisco (email only)
Afrooz Farsimadan, California State Water Resources Control Board (email only)
Renan Jauregui, California State Water Resources Control Board (email only)
Jarma Bennett, California State Water Resources Control Board (email only)
Discharge Monitoring Reports, California State Water Resources Control Board (via
email at dmr@waterboards.ca.gov)
Chron File (RB5S-chron@Waterboards.ca.gov)
Xuan Luo, Central Valley Water Board, Rancho Cordova (email only)
CWQIS Program Support (RB5CIWQSProgramSupport@waterboards.ca.gov)

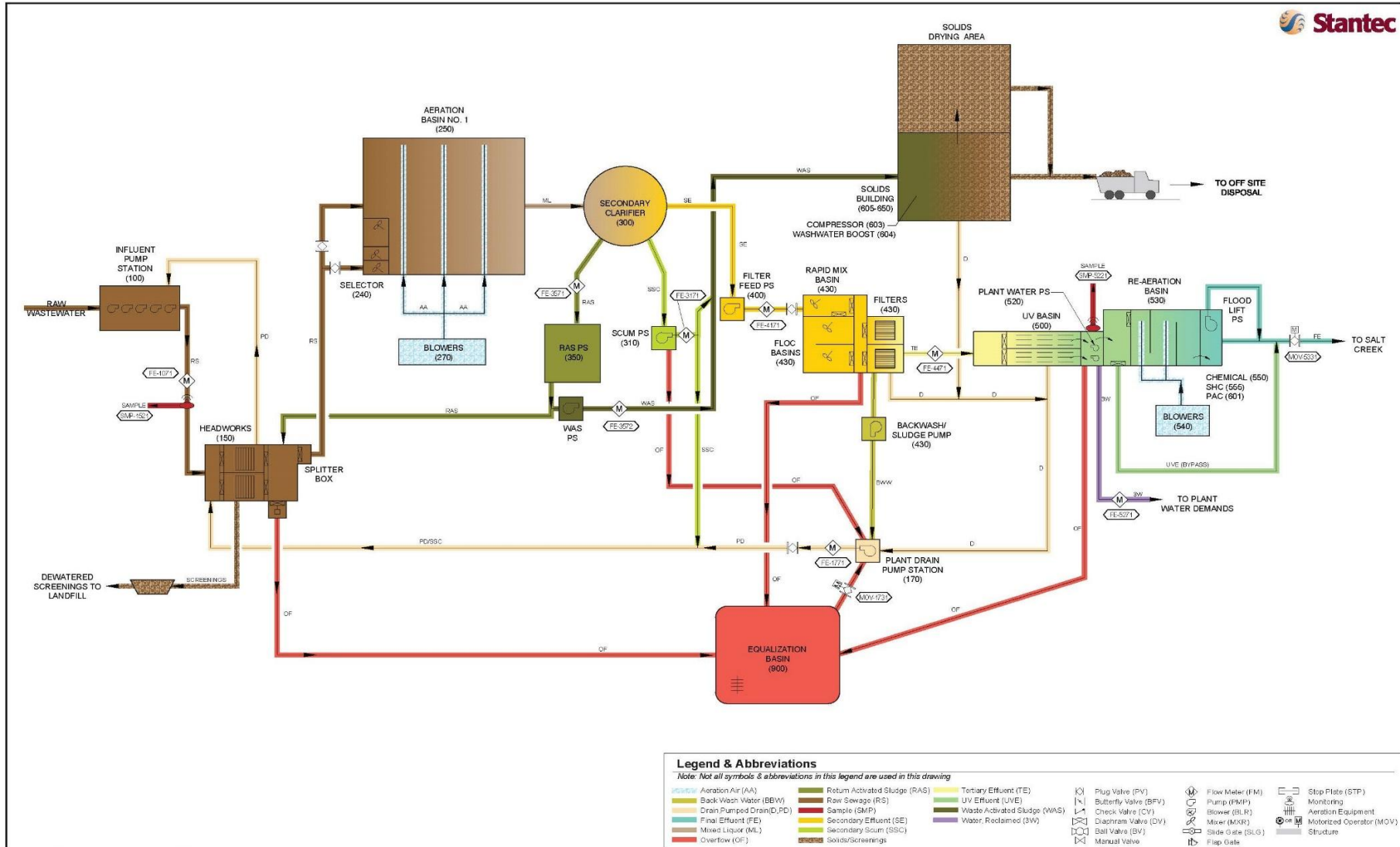
APPENDIX A – FACILITY LOCATION MAP



CITY OF WILLIAMS
2022 NOI
SERVICE AREA BOUNDARY MAP

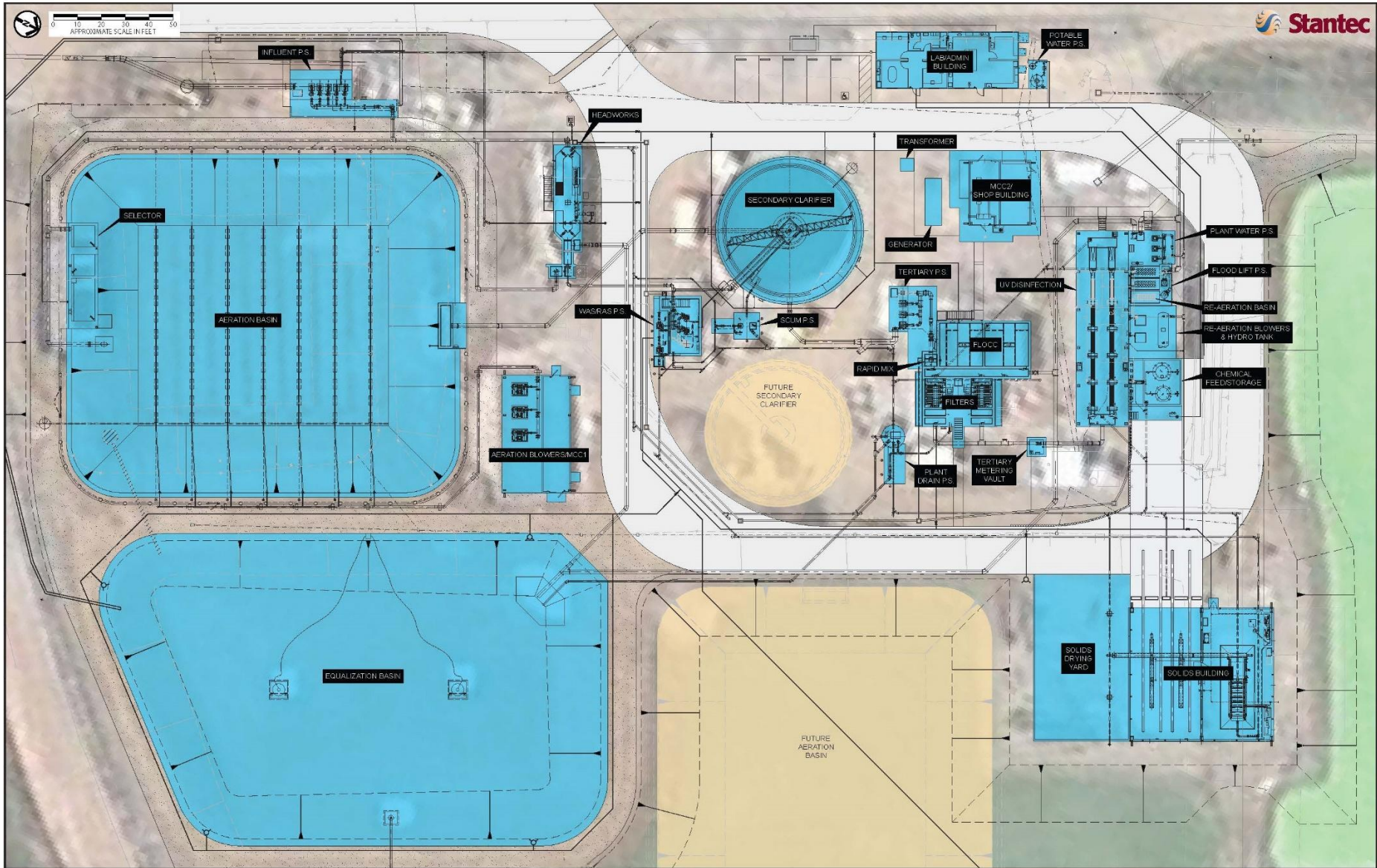
FIGURE 1
DATE: 3/2022
JOB # 2290.07

APPENDIX B1 – FLOW SCHEMATIC



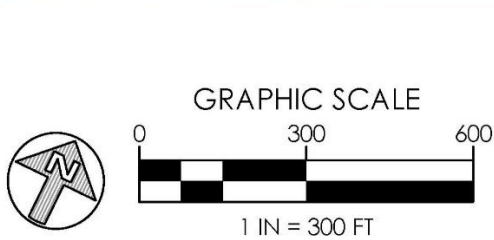
City of Williams - Wastewater Treatment Plant
Operations and Maintenance Manual




APPENDIX B2 – FACILITY SITE MAP



City of Williams - Wastewater Treatment Plant
Operations and Maintenance Manual

APPENDIX B3 – EXPANDED FACILITY SITE MAP



LEGEND	
	DRAINAGE DITCH
	GCID CANAL
	SALT CREEK

DATE 6/25		EXPANDED WWTP FACILITY SITE MAP	FIGURE 1 JOB #2290.20
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Plot Date: June 18, 2025 - 7:49 am Logn Name: jkrantz
 File Name: M:\Land Projects\2290.20 As-Needed WW Ops Services\01 CAD\Tasks\MGO\WWTP Monitoring Well Locations.dwg, Layout: 8.5x11 Portrait

APPENDIX C – SUPPLEMENTAL FACT SHEET

I. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this NOA R5-2023-0025-009 are based on the requirements and authorities described in Attachment F of the Municipal General Order. In addition to the Fact Sheet contained in the Municipal General Order, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) incorporates this Supplemental Fact Sheet as findings of the Central Valley Water Board supporting the issuance of this NOA R5-2023-0025-009.

II. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Salinity (Electrical Conductivity or EC)

The following table is a summary of EC monitoring data in $\mu\text{mhos/cm}$ collected from August 2019 through September 2024.

Table C-1. EC Monitoring Sample Data

Monitoring Location	Maximum ($\mu\text{mhos/cm}$)	Minimum ($\mu\text{mhos/cm}$)	Annual Average ($\mu\text{mhos/cm}$)
Influent at INF-001	4920	1531	2427
Effluent at EFF-001	2810	1486	1852
Upstream Receiving Water (Salt Creek) at RSW-001	1728	202	530
Downstream Receiving Water (Salt Creek) at RSW-002	1804	223	610
Municipal Supply Water at SPL-001	1208	1082	1154

Table C-1 Note:

1. Applicable Salinity Water Quality Objectives:
 - a. Secondary maximum contaminant level, upper level = 1600 $\mu\text{mhos/cm}$.
 - b. Secondary short-term maximum level = 2200 $\mu\text{mhos/cm}$.

Secondary maximum contaminant level objectives are for the protection of the municipal and domestic supply beneficial use, which applies to Salt Creek. Even with the average reduction of approximately 650 $\mu\text{mhos/cm}$ of EC by the treatment system, the Facility’s effluent discharge exceeds the upper level objective for EC due to the extremely high concentration of EC in the influent. The effluent discharge consistently meets the short-term maximum objective for EC. However, due to the small portion of effluent discharged to Salt Creek versus the typical flows in Salt Creek, once effluent is discharged to Salt Creek the downstream receiving water monitoring location in Salt Creek (RSW-002) consistently complies with both EC objectives. The maximum sample result of 1804 $\mu\text{mhos/cm}$ in the downstream Salt Creek sample was the only sample that exceeded the upper level objective of 1600 $\mu\text{mhos/cm}$ from 269 weekly samples of the five-year data range.

The objectives are in place to protect the receiving water quality from being degraded, ensuring the beneficial uses of the receiving water are not negatively impacted. Since the intent of the EC objectives is to protect the beneficial uses of the receiving water and the receiving water data demonstrates consistent EC concentrations well below the

objectives, Central Valley Water Board staff have determined that there is no reasonable potential for the discharge to cause or contribute to the exceedance of the EC objectives in Salt Creek even if the effluent is at times above the secondary maximum contaminant level upper level objective.

Due to the Region-wide concerns regarding salinity and to ensure implementation of the Basin Plan's Salt Control Program, the Municipal General Order includes performance-based effluent triggers for EC that are applicable to this Facility. The EC concentration of the effluent is greater than the background concentration observed in Salt Creek; therefore, limited degradation is occurring in a high-quality water. Under the State Antidegradation Policy, the waste discharge requirements must result in the best practicable treatment or control (BPTC) of the discharge necessary to assure that (a) a pollution or nuisance will not occur; and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained. In this case, the Discharger is currently utilizing BPTC, and a performance-based calendar annual average effluent trigger of 2400 $\mu\text{mhos/cm}$ for EC is applied limiting the discharge to current levels (thus ensuring that BPTC will continue to be met). In accordance with the Basin Plan's Salt Control Program, the Discharger is participating in the Alternative Salinity Permitting Approach. Accordingly, this NOA R5-2023-0025-009 includes a performance-based calendar annual average effluent trigger for EC of 2400 $\mu\text{mhos/cm}$.

The source water for the Discharger has been identified as the main problem regarding high salinity levels. The Discharger has implemented measures and tasks to address sources of salinity. The Discharger passed an Urgency Ordinance that amended the Municipal Code to prohibit the sales or installations of automatic (self-regenerating) water softeners. The Discharger conducted a water softener survey and performed site visits of non-residential users to evaluate the use of water softeners. The Discharger is considering a public outreach program that would inform the public of the high salinity issue and indicate what the public could do in their everyday lives to minimize salinity in their wastewater. The Discharger also monitors the discharge of large and high-strength commercial and residential contributors to the wastewater system. The Discharger shall continue to implement a salinity evaluation and minimization plan (SEMP) to identify and address sources of salinity discharged from the Facility. If the effluent calendar annual average EC concentration exceeds the effluent trigger of 2400 $\mu\text{mhos/cm}$ during the term of this NOA R5-2023-0025-009, the Discharger shall evaluate the effectiveness of the SEMP and provide a summary with the submittal of the Notice of Intent.

B. Chronic Toxicity

Based on the chronic toxicity testing results from March 2021 through September 2024, the effluent did not exceed 10 percent effect at the Instream Waste Concentration of 100 percent effluent for the most sensitive species (*Pimephales promelas*) and no test failed the Test of Significant Toxicity. Therefore, the reasonable potential analysis determines the discharge does not have a reasonable potential to cause or contribute to an exceedance of the Statewide Toxicity Provisions for chronic toxicity. Chronic toxicity effluent limitations are not required for the discharge. However, in accordance with the Statewide Toxicity Provisions, this NOA R5-2023-0025-009 does include chronic toxicity effluent targets (see Appendix D, section V.B).

C. Final Effluent Limitation Considerations

1. Satisfaction of Anti-Backsliding Requirements

The Clean Water Act specifies that a revised permit may not include effluent limitations that are less stringent than the previous permit unless a less stringent limitation is justified based on exceptions to the anti-backsliding provisions contained in CWA sections 402(o) or 303(d)(4), or, where applicable 40 Code of Federal Regulations (C.F.R.) section 122.44(l).

The effluent limitations in this NOA R5-2023-0025-009 are at least as stringent as the effluent limitations in the Facility's NOA R5-2017-0085-008, with the exception of the effluent limitations for acute toxicity and the average weekly effluent limitation (AWEL) for nitrate plus nitrite. This relaxation and/or removal of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

a. **CWA section 402(o)(1) and 303(d)(4).** CWA section 402(o)(1) prohibits the establishment of less stringent water quality-based effluent limits (WQBELs) "except in compliance with section 303(d)(4)." CWA section 303(d)(4) has two parts: paragraph (A) which applies to nonattainment waters and paragraph (B) which applies to attainment waters.

- i. For waters where standards are not attained, CWA section 303(d)(4)(A) specifies that any effluent limit based on a TMDL or other waste load allocation (WLA) may be revised only if the cumulative effect of all such revised effluent limits based on such TMDLs or WLAs will assure the attainment of such water quality standards.
- ii. For attainment waters, CWA section 303(d)(4)(B) specifies that a limitation based on a water quality standard may be relaxed where the action is consistent with the antidegradation policy.

Salt Creek is considered an attainment water for acute toxicity and nitrate plus nitrite because the receiving water is not listed as impaired on the 303(d) list for these constituents. The exceptions in section 303(d)(4) address both waters in attainment with water quality standards and those not in attainment, i.e., waters on the section 303(d) impaired waters list (State Water Resources Control Board Order WQ-2008-0006, Berry Petroleum Company, Poso Creek/McVan Facility). As discussed below, relaxation of the AWEL for nitrate plus nitrite and the removal of the acute toxicity effluent limitations comply with federal and state antidegradation requirements. Thus, relaxation and/or removal of these effluent limitations meets the exception in CWA section 303(d)(4)(B).

b. **CWA section 402(o)(2).** CWA section 402(o)(2) provides several exceptions to the anti-backsliding regulations. CWA 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.

Updated information that was not available at the time NOA R5-2017-0085-008 was issued indicates that acute toxicity does not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives in the receiving water. The updated information that supports the removal of the effluent limitations for acute toxicity includes the following:

- i. **Acute Toxicity.** Acute toxicity testing performed from October 2021 through September 2024 did not exceed the toxicity effluent limitations contained in NOA R5-2017-0085-008. The discharge does not show reasonable potential to cause acute toxicity in the receiving water.
- ii. **Nitrate plus Nitrite.** Effluent and receiving water monitoring data collected from October 2021 through September 2024 is new information that was not available when issuing NOA R5-2017-0085-008. The new monitoring data collected resulted in calculation of a less stringent AWEL for nitrate plus nitrite.

Thus, removal of the effluent limitations for acute toxicity and the relaxation of the AWEL for nitrate plus nitrite from this NOA R5-2023-0025-009 is in accordance with CWA section 402(o)(2)(B)(i), which allows for the relaxation or removal of effluent limitations based on information that was not available at the time NOA R5-2017-0085-008 was issued.

- c. **Flow.** NOA R5-2017-0085-008 included flow as an effluent limit at Discharge Point 001 based on the Facility design flow. Compliance with the flow limit was calculated using the average daily flow over three consecutive dry weather months. Flow is not a pollutant; therefore, flow has been changed from an effluent limit to a discharge prohibition in this NOA R5-2023-0025-009, which is an equivalent level of regulation. This NOA R5-2023-0025-009 is not less stringent because compliance with flow as a discharge prohibition will be calculated the same way as in NOA R5-2017-0085-008. Flow as a discharge prohibition adequately regulates the Facility, does not allow for an increase in the discharge of pollutants, and does not constitute backsliding.

2. Antidegradation Policies

This NOA R5-2023-0025-009 does not allow for an increase in flow or mass of pollutants to the receiving water. Therefore, a complete antidegradation analysis is not necessary. This NOA R5-2023-0025-009 requires compliance with applicable federal technology-based standards and with WQBELs where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. The permitted discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and the State Anti-Degradation Policy. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.

This NOA R5-2023-0025-009 relaxes or removes effluent limitations for acute toxicity and nitrate plus nitrite. Based on Facility performance, the relaxation or removal of these effluent limitations is not expected to result in an increase in pollutants concentration or loading, a decrease in the level of treatment or control, or

a reduction of water quality. Implementation of this NOA R5-2023-0025-009 will result in the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the State will be maintained. Thus, the relaxation and removal of effluent limitations for these constituents is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Resources Control Board (State Water Board) Resolution No. 68-16.

III. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

CWA section 303(a-c), requires states to adopt water quality standards, including criteria where they are necessary to protect beneficial uses. The Central Valley Water Board adopted water quality criteria as water quality objectives in the Basin Plan. The Basin Plan states that “[t]he numerical and narrative water quality objectives define the least stringent standards that the Regional Water Board will apply to regional waters in order to protect the beneficial uses.” The Basin Plan includes numeric and narrative water quality objectives for various beneficial uses and water bodies. This NOA R5-2023-0025-009 contains receiving surface water limitations based on the Basin Plan numerical and narrative water quality objectives for biostimulatory substances, color, chemical constituents, dissolved oxygen, floating material, oil and grease, pH, pesticides, radioactivity, suspended sediment, settleable substances, suspended material, tastes and odors, temperature, toxicity, and turbidity.

B. Groundwater

Groundwater limitations are required to protect the beneficial uses of the underlying groundwater.

IV. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Valley Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program, Attachment E of the Municipal General Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring requirements contained in Monitoring and Reporting Program (MRP), Appendix D, of this NOA R5-2023-0025-009.

A. Influent Monitoring

1. Influent monitoring is required to collect data on the characteristics of the wastewater and to assess compliance with effluent limitations (e.g., BOD₅ and TSS reduction requirements). All monitoring frequencies from NOA R5-2017-0085-008 have been carried forward in this NOA R5-2023-0025-009.

B. Effluent Monitoring

1. Pursuant to the requirements of 40 C.F.R. section 122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. Effluent monitoring is necessary to assess compliance with effluent limitations, assess the effectiveness of the

treatment process, and to assess the impacts of the discharge on the receiving stream and groundwater.

The following effluent monitoring frequencies have been revised from NOA R5-2017-0085-008. All other effluent sampling frequencies from NOA R5-2017-0085-008 are carried forward to this NOA R5-2023-0025-009:

Table C-2. Revised Sampling Frequencies for Effluent Monitoring

Parameter	Unit	Prior Sample Frequency	Revised Sample Frequency	Rationale for Sample Frequency Revision
Zinc, Total Recoverable	µg/L	Not Required	1/Quarter	Add monitoring to evaluate compliance with new effluent limits.
Dissolved Oxygen	mg/L	Not Required	1/Month	Add monitoring to determine effluent DO impact on the receiving water.
Dissolved Organic Carbon	mg/L	Not Required	1/Quarter	Add monitoring to calculate site-specific freshwater aluminum criteria for the next renewal.
Acute Toxicity	% survival	2/Year	Discontinue	A chronic aquatic toxicity test is generally protective of both chronic and acute aquatic toxicity.

C. Whole Effluent Toxicity Testing Requirements

1. Acute Toxicity – Not Applicable

2. Chronic Toxicity. Twice per year (2/Year) effluent monitoring frequency for chronic toxicity bioassay testing has been retained from NOA R5-2017-0085-008. Chronic whole effluent toxicity testing is required when discharging to Salt Creek in order to demonstrate compliance with the Statewide Toxicity Provisions.

D. Land Discharge Monitoring

1. Land discharge monitoring was not required in NOA R5-2017-0085-008; however, monitoring is necessary to assess the water quality impacts from long-term use of the emergency storage basins during NOA R5-2017-0085-008 term to assess any impacts the Facility may have on groundwater. Land discharge monitoring is covered under a separate MRP Order R5-2026-0803 issued to the Discharger in accordance with Water Code sections 13267 and 13383 which authorize the Central Valley Water Board to require, in part, technical and monitoring reports.

E. Recycled Water Monitoring – Not Applicable

F. Receiving Water Monitoring

1. Salt Creek

- a. Receiving water monitoring is necessary to assess compliance with receiving water limitations and to assess the impacts of the discharge to Salt Creek.

The following receiving water monitoring frequencies have been revised from NOA R5-2017-0085-008. All other receiving water sampling frequencies from NOA R5-2017-0085-008 are carried forward to this NOA R5-2023-0025-009:

Table C-3. Revised Sampling Frequencies for Receiving Water Monitoring

Parameter	Unit	Prior Sample Frequency	Revised Sample Frequency	Rationale for Sample Frequency Revision
Dissolved Organic Carbon	mg/L	Not Required	1/Quarter	Add monitoring to calculate site-specific freshwater aluminum criteria for the next permit renewal.
Hardness, Total (as CaCO ₃)	mg/L	1/Month	1/Quarter	Quarterly monitoring is adequate for reasonable potential analysis.
Turbidity	NTU	1/Week	1/Month	Monthly monitoring is adequate for compliance.

2. Groundwater

- a. Groundwater monitoring was not required in NOA R5-2017-0085-008. Groundwater is shallow in the Facility area and at times can be higher than the bottom elevation of the emergency storage basins. Groundwater monitoring is covered under a separate MRP Order R5-2026-0803 issued to the Discharger in accordance with Water Code sections 13267 and 13383 which authorize the Central Valley Water Board to require, in part, technical and monitoring reports.

G. Biosolids Monitoring

1. Biosolids monitoring for compliance with 40 C.F.R. part 503 regulations administered by U.S. EPA is not included in the Municipal General Order, and therefore, is not included in this NOA R5-2023-0025-009.

The following webpage provides information on compliance with [U.S. EPA's part 503 biosolids program](https://www.epa.gov/biosolids/compliance-and-annual-biosolids-reporting) (<https://www.epa.gov/biosolids/compliance-and-annual-biosolids-reporting>).

Biosolids monitoring is required to ensure compliance with pretreatment requirements contained in C.F.R. part 403, included in the Municipal General Order and as specified in the MRP, Appendix D of this NOA R5-2023-0025-009. Biosolids monitoring is required per U.S. EPA guidance to evaluate the effectiveness of the pretreatment program.

H. Ponds Monitoring

1. Pond monitoring is required of the emergency storage basins to ensure proper operation. When any type of wastewater is diverted to the emergency storage

basins, a daily log shall be kept and include general observations and details regarding the diversion. This requirement for the daily log has been retained from NOA R5-2017-0085-008. Whenever any type of wastewater diverted to the emergency storage basins is held in any basin for more than seven days, the following monitoring requirements have been added in this NOA R5-2023-0025-009 in order to evaluate any impacts to groundwater. Additional pond monitoring requirements are included in MRP Order R5-2026-0803.

Table C-4. Revised Sampling Frequencies for Pond Monitoring

Parameter	Unit	Prior Sample Frequency	Revised Sample Frequency	Rationale for Sample Frequency Revision
Dissolved Oxygen	mg/L	Not Required	1/Month	Required when wastewater is held in any basin for more than seven days to evaluate any impact to groundwater.
pH	standard units	Not Required	1/Month	Required when wastewater is held in any basin for more than seven days to evaluate any impact to groundwater.
Odors	observation	Not Required	1/Day	Required when wastewater is held in any basin for more than seven days to evaluate any impact to groundwater.

I. Municipal Water Supply Monitoring

1. Municipal water supply monitoring of electrical conductivity has been retained from NOA R5-2017-0085-008.

J. Filtration System Monitoring

1. The monitoring frequency for turbidity (continuous) is retained from s NOA R5-2017-0085-008 to evaluate compliance with the filtration system operating specifications.

K. UV Disinfection System Monitoring

1. Monitoring frequencies for flow (continuous), number of UV banks in operation (continuous), UV transmittance (continuous), UV dose (continuous), and total coliform organisms (3/Week) have been retained from NOA R5-2017-0085-008, to evaluate compliance with UV disinfection system operating specifications.

L. Pyrethroid Pesticides Monitoring – Not Applicable

M. Effluent and Receiving Water Characterization Monitoring

1. NOA R5-2017-0085-008 included quarterly effluent characterization monitoring for one year. This NOA R5-2023-0025-009 requires **two effluent characterization monitoring in two separate quarters to be completed between 1 October 2027**

and 30 September 2028, while discharging to Salt Creek, as specified in section IX.G of Appendix D. The revised monitoring frequency is adequate for determining reasonable potential.

2. NOA R5-2017-0085-008 included two upstream receiving water characterization monitoring events. This NOA R5-2023-0025-009 requires **one upstream receiving water characterization monitoring event to be completed between 1 October 2027 and 30 September 2028 and concurrent with one of the effluent characterization sampling events**, while discharging to Salt Creek, as specified in section IX.G of Appendix D. The revised monitoring frequency is adequate for determining reasonable potential.

N. Discharge Monitoring Report Quality Assurance (DMR-QA) Study Program

1. Under the authority of section 308 of the CWA (33 U.S.C. section 1318), U.S. EPA requires all dischargers under the NPDES Program to participate in the annual DMR-QA Study Program. The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. There are two options to satisfy the requirements of the DMR-QA Study Program: (1) The Discharger can obtain and analyze a DMR-QA sample as part of the DMR-QA Study; or (2) Per the waiver issued by U.S. EPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from their own laboratories or their contract laboratories. A Water Pollution Performance Evaluation Study is similar to the DMR-QA Study. Thus, it also evaluates a laboratory's ability to analyze wastewater samples to produce quality data that ensures the integrity of the NPDES Program. The Discharger shall submit annually the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study to the State Water Board. The State Water Board's Quality Assurance Program Officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to U.S. EPA's DMR-QA Coordinator and Quality Assurance Manager.

O. Recycled Water Policy Annual Reports

1. On 11 December 2018, the State Water Board adopted Resolution 2018-0057, which amends the Recycled Water Policy, section 3, to require wastewater and recycled water dischargers to annually report monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. Therefore, to incorporate monitoring and reporting required by the Recycled Water Policy, the Municipal General Order requires annual reporting of wastewater and recycled water use into Geotracker and confirmation of annual reporting to Geotracker is required by this NOA R5-2023-0025-009.

V. PRETREATMENT PROVISION

A. Pretreatment Requirements – Not Applicable

VIII. SUMMARY OF REASONABLE POTENTIAL ANALYSIS

Abbreviations used in Table C-5:

- MEC = Maximum Effluent Concentration
- B = Maximum Receiving Water Concentration
- C = Criterion used for Reasonable Potential Analysis
- CMC = Criterion Maximum Concentration
- CCC = Criterion Continuous Concentration
- Water and Org = Human Health Criterion for Consumption of Water and Organisms
- Org Only = Human Health Criterion for Consumption of Organisms Only
- Basin Plan = Numeric Site-Specific Basin Plan Water Quality Objective
- MCL = Drinking Water Standards Maximum Contaminant Level
- RP= Reasonable Potential

Table C-5. SUMMARY OF REASONABLE POTENTIAL ANALYSIS

Parameter	Units	MEC	B	C	CMC	CCC	Water and Org	Org. Only	Basin Plan	MCL	RP
Ammonia, Total (as N)	mg/L	9.8	ND	0.84	2.60	0.84	--	--	--	--	Yes
Nitrate Plus Nitrite (as N)	mg/L	9.9	0.64	10	--	--	--	--	--	10	Yes
Zinc, Total Recoverable	µg/L	56	180	143	--	--	--	--	--	--	Yes

1. Table C-5 Notes:

- i. **CMC.** For ammonia, the CMC or criterion maximum concentration is based on the U.S. EPA National Recommended Ambient Water Quality Criteria Freshwater Aquatic Life Protection, 1-hour average.
- ii. **CCC.** For ammonia, the CCC or criterion continuous concentration is based on the U.S. EPA National Recommended Ambient Water Quality Criteria Freshwater Aquatic Life Protection, 30-day average.
- iii. **Ammonia and Nitrate plus Nitrite.** Reasonable potential exists due to the biological processes inherent to the treatment of domestic wastewater.

Table C-6. SUMMARY OF CHRONIC TOXICITY DATA

Date	<i>Pimephales promelas</i>			
	Survival		Growth	
	% Effect	TST Result	% Effect	TST Result
03/22/2021	-1.72	Pass	-16.15	Pass
09/20/2021	-1.69	Pass	-4.73	Pass
03/28/2022	0.00	Pass	0.44	Pass
11/28/2022	0.00	Pass	-1.17	Pass
03/27/2023	1.67	Pass	-10.67	Pass
09/18/2023	-1.69	Pass	-1.63	Pass
03/25/2024	1.67	Pass	1.70	Pass
09/24/2024	-1.69	Pass	1.66	Pass

1. Table C-5 Notes:

- i. **% Effect** at 100% effluent.
- ii. **TST**. Test of Significant Toxicity.
- iii. **Reasonable potential does not exist** due to no failure of the TST and no percent effect greater than 10%.
- iv. ***Pimephales promelas*** (Fathead minnow) is retained as the most sensitive species.

APPENDIX D – MONITORING AND REPORTING PROGRAM

I. GENERAL MONITORING PROVISIONS 28

II. MONITORING LOCATIONS 29

III. INFLUENT MONITORING REQUIREMENTS 30

 A. Monitoring Location INF-001 30

IV. EFFLUENT MONITORING REQUIREMENTS 31

 A. Monitoring Location EFF-001 31

V. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS 33

 A. Acute Toxicity Testing – Not Applicable 33

 B. Chronic Toxicity Testing 33

 C. Quality Assurance and Additional Requirements..... 36

 D. WET Testing Notification Requirements 36

 E. WET Testing Reporting Requirements 36

 F. Most Sensitive Species Screening 37

 G. Toxicity Reduction Evaluations..... 38

VI. LAND DISCHARGE MONITORING REQUIREMENTS 39

VII. RECYCLED WATER MONITORING REQUIREMENTS – NOT APPLICABLE 40

VIII. RECEIVING WATER MONITORING REQUIREMENTS 40

 A. Monitoring Locations RSW-001 and RSW-002..... 40

 B. Groundwater Monitoring 41

IX. OTHER MONITORING REQUIREMENTS 42

 A. Biosolids – Not Applicable 42

 B. Ponds 42

 C. Municipal Water Supply 43

 D. Filtration System..... 44

 E. Ultraviolet Light (UV) Disinfection System 44

 F. Pyrethroid Pesticides Monitoring – Not Applicable 46

 G. Effluent and Receiving Water Characterization 46

X. REPORTING REQUIREMENTS 52

 A. General Monitoring and Reporting Requirements 52

 B. Self-Monitoring Reports 52

 C. Discharge Monitoring Reports (DMRs)..... 56

 D. Other Reports 56

Tables

Table D-1. Monitoring Station Locations 29

Table D-2. Influent Monitoring 31

Table D-3. Effluent Monitoring..... 32

Table D-4. Receiving Water Monitoring Requirements 40

Table D-5. Pond Monitoring Requirements 42

Table D-6. Pond Monitoring Requirements 43

Table D-7. Filtration System Monitoring Requirements 44

Table D-8. UV Disinfection System Monitoring Requirements 44

Table D-9. Effluent and Receiving Water Characterization Monitoring..... 47

Table D-10. Monitoring Periods and Reporting Schedule 52

Table D-11. Technical Reports..... 58

APPENDIX D – MONITORING AND REPORTING PROGRAM (MRP)

The Municipal General Order contains monitoring and reporting requirements in Attachment E. Some of the monitoring and reporting requirements listed in the Municipal General Order are not applicable to the Facility. The monitoring and reporting requirements applicable to the Facility are contained in this Appendix and are described herein.

The Code of Federal Regulations (40 C.F.R. § 122.48) requires that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Central Valley Regional Water Quality Control Board (Central Valley Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement state and federal regulations.

I. GENERAL MONITORING PROVISIONS

- A.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of the Central Valley Water Board.
- B.** Final effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
- C.** Chemical, bacteriological, and bioassay analyses of any material required by this NOA R5-2023-0025-009 shall be conducted by a laboratory accredited for such analyses by the State Water Resources Control Board (State Water Board), Division of Drinking Water (DDW), in accordance with the provision of Water Code section 13176. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Central Valley Water Board. Data generated from field measurements, such as pH, dissolved oxygen, electrical conductivity (EC), turbidity, and temperature, are exempt pursuant to Water Code section 13176. A manual containing the steps followed in this program for any field measurements, such as but not limited to, pH, dissolved oxygen, EC, turbidity, and temperature, must be kept onsite in the treatment facility laboratory and shall be available for inspection by Central Valley Water Board staff. The Discharger must demonstrate sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform these field measurements. The Quality Assurance-Quality Control Program must conform to U.S. EPA guidelines or to procedures approved by the Central Valley Water Board.
- D.** Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. All monitoring instruments and devices used by the Discharger to fulfill the prescribed

monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

- E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this MRP.
- F. Laboratory analytical methods shall be sufficiently sensitive in accordance with the Sufficiently Sensitive Methods Rule (SSM Rule) specified under 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv). A U.S. EPA-approved analytical method is sufficiently sensitive for pollutant/parameter where:
 - The method minimum level (ML) is at or below the applicable water quality objective for the receiving water, or;
 - The method ML is above the applicable water quality objective for the receiving water but the amount of the pollutant/parameter in the discharge is high enough that the method detects and quantifies the level of the pollutant/parameter, or;
 - The method ML is above the applicable water quality objective for the receiving water, but the ML is the lowest of the 40 C.F.R. 136 U.S. EPA-approved analytical methods for the pollutant/parameter.
- G. The Discharger shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually, via email, to QualityAssurance@waterboards.ca.gov to the State Water Resources Control.
- H. The Discharger shall file with the Central Valley Water Board technical reports on self-monitoring performed according to the detailed specifications contained in this MRP.
- I. The results of all monitoring required by this MRP shall be reported to the Central Valley Water Board and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of the NOA R5-2023-0025-009. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.

II. MONITORING LOCATIONS

The Discharger shall establish the monitoring locations listed in Table D-1 to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this NOA R5-2023-0025-009.

Table D-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	A location where a representative sample of the influent to the Facility can be collected.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	A location where a representative sample of the effluent can be collected following tertiary treatment and disinfection. Latitude: 39° 10' 11" N - Longitude: 122° 9' 13" W
--	RSW-001	In Salt Creek, 50 feet upstream of Discharge 001.
--	RSW-002	In Salt Creek, 200 feet downstream of Discharge 001.
--	PND-002	A location where a representative sample from the unlined emergency storage basin PND-002 can be collected.
--	PND-003	A location where a representative sample from the unlined emergency storage basin PND-003 can be collected.
--	PND-004	A location where a representative sample from the unlined emergency storage basin PND-004 can be collected.
--	FIL-001	A location where a representative sample of the filter effluent can be collected immediately downstream of the filters and prior to the ultraviolet light (UV) disinfection system.
--	UVS-001	A location where a representative sample of wastewater can be collected immediately upstream of the UV disinfection system.
--	UVS-002	A location where a representative sample of wastewater can be collected immediately downstream of the UV disinfection system.
--	SPL-001	A location where a representative sample of the municipal supply water can be collected. If this is impractical, water quality data provided by the water supplier(s) may be used.

Table D-1 Note:

1. The North latitude and West longitude information in Table D-1 are approximate for administrative purposes.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

1. The Discharger shall monitor influent to the Facility at Monitoring Location INF-001 when discharging to Salt Creek as specified in Table D-2 and the testing requirements described in section III.A.2 below:

Table D-2. Influent Monitoring

Parameter	Units	Sample Type	Sampling Frequency
Flow	million gallons per day (MGD)	Meter	Continuous
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hour Composite	2/Month
Total Suspended Solids	mg/L	24-hour Composite	2/Month
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Month

2. **Table D-2 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-2:
 - a. **Applicable to all parameters.** Parameters shall be analyzed using the analytical methods described in 40 C.F.R. part 136; or by methods approved by the Central Valley Water Board or the State Water Board. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 C.F.R. part 136 allowed sample type.
 - b. **Composite Sample.** All composite samples shall be collected from a 24-hour flow proportional composite.
 - c. **Grab Sample.** A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
 - d. **Field Meter.** A hand-held field meter may be used for **electrical conductivity** provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this MRP shall be maintained at the Facility.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor treated domestic wastewater at Monitoring Location EFF-001 when discharging to Salt Creek as specified in Table D-3 and the testing requirements in section IV.A.2. If there was no discharge to receiving water during the designated monitoring period, monitoring is not required for that period. If there was no discharge, the Discharger shall so state in the monthly self-monitoring report (SMR).

Table D-3. Effluent Monitoring

Parameter	Units	Sample Type	Sampling Frequency
Flow	MGD	Meter	Continuous
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hr Composite	1/Week
Biochemical Oxygen Demand (5-day @ 20°C)	percent removal	Calculate	1/Month
pH	standard units	Grab	1/Week
Total Suspended Solids	mg/L	24-hr Composite	1/Week
Total Suspended Solids	percent removal	Calculate	1/Month
Ammonia, Total (as N)	mg/L	Grab	1/Week
Chlorine, Total Residual	mg/L	Grab	1/Day
Dissolved Oxygen	mg/L	Grab	1/Month
Dissolved Organic Carbon (DOC)	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Month
Hardness, Total (as CaCO ₃)	mg/L	Grab	1/Quarter
Nitrate Plus Nitrite, Total (as N)	mg/L	Calculate	1/Month
Nitrate (as N)	mg/L	Grab	1/Month
Nitrite (as N)	mg/L	Grab	1/Month
Temperature	°F	Grab	1/Week
Total Dissolved Solids	mg/L	Grab	1/Month
Zinc, Total Recoverable	µg/L	Grab	1/Quarter

2. **Table D-3 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-3:

- a. **Applicable to all parameters.** Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 C.F.R. part 136 allowed sample type.
- b. **Composite Sample.** All composite samples shall be collected from a 24-hour flow proportional composite.
- c. **Grab Sample.** A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
- d. **Field Meter.** A hand-held field meter may be used for **dissolved oxygen, electrical conductivity, pH, and temperature**, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this MRP shall be maintained at the Facility.
- e. **Ammonia.** Ammonia samples shall be taken at approximately the same time and on the same date as the pH and temperature samples.
- f. **Total Chlorine Residual.** Monitoring for total chlorine residual is only required every time chlorine is used at the Facility within the treatment system. Total chlorine residual shall be sampled using an analytical method that is sufficiently sensitive to measure at a reporting level of 0.01 mg/L or lower.
- g. **Dissolved Organic Carbon.** Dissolved organic carbon samples shall be taken at approximately the same time and on the same date as the hardness and pH samples.
- h. **Temperature, pH, Hardness, Dissolved Oxygen, and Dissolved Organic Carbon.** The effluent samples for temperature, pH, hardness, dissolved oxygen, and dissolved organic carbon shall be taken at approximately the same time and on the same date with the receiving water samples for these parameters (see Table D-4).
- i. **Flow.** Flow shall be reported in terms of the monthly average and the daily maximum.

V. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS

A. Acute Toxicity Testing – Not Applicable

B. Chronic Toxicity Testing

The Discharger shall meet the following chronic toxicity testing requirements:

1. **Instream Waste Concentration (IWC) for Chronic Toxicity.** The chronic toxicity IWC is 100 percent effluent.

2. **Routine Monitoring Frequency.** The Discharger shall perform reduced routine chronic toxicity testing **twice per toxicity calendar year** when there is expected to be at least 15 days of discharge within the toxicity calendar year.
3. **Toxicity Calendar Month, Quarter, and Year**
 - a. **Toxicity Calendar Month.** The toxicity calendar month is defined as the period of time beginning on the day of the initiation of the routine toxicity monitoring to the day before the corresponding day of the next month if the corresponding day exists, or if not to the last day of the next month (e.g., from January 1 to January 31, from February 15 to March 14, etc.).
 - b. **Toxicity Calendar Quarter.** A toxicity calendar quarter is defined as **three consecutive toxicity calendar months**. For purposes of this NOA R5-2023-0025-009, the toxicity calendar quarters **begin on January 1, April 1, July 1, and October 1** (i.e., from January 1 to March 31, from April 1 to June 30, from July 1 to September 30, etc.).
 - c. **Toxicity Calendar Year.** A toxicity calendar year is defined as **twelve consecutive toxicity calendar months**. For purposes of this NOA R5-2023-0025-009, the toxicity calendar year **begins on January 1** (i.e., January 1 to December 31).
4. **Chronic Toxicity Median Monthly Effluent Target (MMET) Compliance Testing.** If a routine chronic toxicity monitoring test results in a “Fail” (as defined in section V.C below) at the IWC, then a maximum of two chronic toxicity MMET tests shall be completed. The chronic toxicity MMET tests shall be initiated within the same toxicity calendar month that the routine monitoring chronic toxicity test was initiated that resulted in the “Fail” at the IWC. If the first chronic toxicity MMET test results in a “Fail” at the IWC, then the second chronic toxicity MMET test is unnecessary and is waived.
5. **Additional Routine Monitoring Tests for Toxicity Reduction Evaluation (TRE) Determination.** In order to determine if a TRE is necessary, an additional routine monitoring test is required when one chronic toxicity maximum daily effluent target (MDET) or MMET is not met, but not two in a single toxicity calendar month. The toxicity calendar month in which the MMET or MDET was not met and the toxicity calendar month of the additional routine monitoring shall be considered “successive toxicity calendar months” for purposes of determining whether a TRE is required. This additional routine monitoring test could result in the need to conduct MMET tests per Section V.B.4 above.
6. **Sample Volumes.** Adequate sample volumes shall be collected to provide renewal water to complete the test in the event that the discharge is intermittent.
7. **Test Species.** The testing shall be conducted using the most sensitive species. The Discharger shall conduct chronic toxicity tests with the **fathead minnow (*Pimephales promelas*)**.

The Executive Officer shall have discretion to allow the temporary use of the

- next appropriate species as the most sensitive species when the Discharger submits documentation and the Executive Officer determines that the Discharger has encountered unresolvable test interference or cannot secure a reliable supply of test organisms. The “next appropriate species” is a species in Table 1 of the Statewide Toxicity Provisions in the same test method classification (e.g., chronic aquatic toxicity test methods, acute aquatic toxicity test method), in the same salinity classification (e.g., freshwater or marine), and in the same taxon as the most sensitive species. When there are no other species in Table 1 in the same taxon as the most sensitive species (e.g., freshwater chronic toxicity tests), the “next appropriate species” is the species exhibiting the highest percent effect at the IWC tested in the species sensitivity screening other than the most sensitive species.
8. **Test Methods.** The Discharger shall conduct the chronic toxicity tests on effluent samples at the IWC for the discharge in accordance with species and test methods described in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/821/R02/013, 2002; Table IA, 40 C.F.R. part 136).
 9. **Dilution and Control Water.** Dilution water and control water shall be prepared and used as specified in the test methods manual. If dilution water and control water are different from test organism culture water, then a second control using culture water shall also be used. A receiving water control or laboratory water control may be used as the diluent.
 10. **Test Failure.** If the effluent chronic toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method in EPA/821-R-02-013, the Discharger must conduct a Replacement Test as soon as possible, as specified in subsection B.11, below.
 11. **Replacement Test.** When a required toxicity test for routine monitoring or an MMET test is not completed, a new toxicity test to replace the toxicity test that was not completed shall be initiated as soon as possible. The new toxicity test shall replace the routine monitoring or MMET test, as applicable, for the toxicity calendar month in which the toxicity test that was not completed was required to be initiated, even if the new toxicity test is initiated in a subsequent toxicity calendar month. The new toxicity test for routine monitoring or for the MMET test, as applicable, and any MMET tests required to be conducted due to the results of the new toxicity test shall be used to compare with the monitoring targets for the toxicity calendar month in which the toxicity test that was not completed was required to be initiated. The new toxicity test and any MMET test required to be conducted due to the results of the new toxicity test shall not be used to substitute for any other required toxicity tests.

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

C. Quality Assurance and Additional Requirements

Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are below:

1. The discharge is subject to determination of “Pass” or “Fail” from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in section IV.B.1.c of the Statewide Toxicity Provisions.
2. The null hypothesis (Ho) for the TST statistical approach is:

Mean discharge IWC response \leq RMD x Mean control response, where the chronic RMD = 0.75 and the acute RMD = 0.80.

A test result that rejects this null hypothesis is reported as “Pass”. A test result that does not reject this null hypothesis is reported as “Fail”.

3. The relative “Percent Effect” at the discharge IWC is defined and reported as:

Percent Effect = ((Mean control response – Mean discharge IWC response) / (Mean control response)) x 100.

This is a t-test, a statistical analysis comparing two sets of replicate observations, i.e., a control and IWC. The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC concentration differs from the control, the test result is “Fail”). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances.

D. WET Testing Notification Requirements

The Discharger shall notify the Central Valley Water Board of test results exceeding the chronic toxicity monitoring target as soon as the Discharger learns of the exceedance, but no later than 24-hours after receipt of the monitoring results.

E. WET Testing Reporting Requirements

The Discharger shall submit the full laboratory report for all toxicity testing (routine, MMET, TRE, etc.) and, if applicable, progress reports on TREs as attachments to the biannual SMRs in CIWQS for the reporting period, and shall provide the data (i.e., Pass/Fail) in the PET tool for uploading into CIWQS. The laboratory report shall include:

1. The valid toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent Effect” at the IWC for the discharge, the dates of sample collection and initiation of each toxicity test, and all results for effluent parameters monitored concurrently with the toxicity test(s);
2. The statistical analysis used in section IV.B.1.c of the Statewide Toxicity Provisions; and
3. Statistical program (e.g., TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.

F. Most Sensitive Species Screening

If the effluent used in the species sensitivity screening is no longer representative of the current effluent, the Discharger shall perform rescreening to re-evaluate the most sensitive species. The species sensitivity screening shall be conducted as follows:

1. **Frequency of Testing for Species Sensitivity Screening.** Species sensitivity screening for chronic toxicity shall include, at a minimum, a set of chronic WET testing conducted in **each toxicity calendar quarter in which there is expected to be at least 15 days of discharge**. Species sensitivity screening for chronic toxicity shall be conducted using the water flea (*Ceriodaphnia dubia*), fathead minnow (*Pimephales promelas*), and green alga (*Pseudokirchneriella subcapitata*). The tests shall be performed at an IWC of no less than 100 percent effluent.

When there is no representative effluent available to complete tests in one of the sets in a species sensitivity screening, that set of testing shall not be required.

2. **Determination of Most Sensitive Species.** The Central Valley Water Board will determine the most sensitive species from the water flea (*Ceriodaphnia dubia*), fathead minnow (*Pimephales promelas*), and green alga (*Pseudokirchneriella subcapitata*) using the following procedure. If a single test in the species sensitivity screening testing results in a “Fail” using the TST statistical approach, then the species used in that test shall be established as the most sensitive species. If there is more than a single test that results in a “Fail”, then of the species with results of a “Fail”, the species that exhibits the highest percent effect shall be established as the most sensitive species. If none of the tests in the species sensitivity screening results in a “Fail”, but at least one of the species exhibits a percent effect greater than 10 percent, then the single species that exhibits the highest percent effect shall be established as the most sensitive species. In all other circumstances, the Executive Officer shall have discretion to determine which single species is the most sensitive considering the test results from the species sensitivity screening.

The “next appropriate species” is a species in Table 1 of the Statewide Toxicity Provisions in the same test method classification (e.g., chronic aquatic toxicity test methods, acute aquatic toxicity test method), in the same salinity classification (e.g., freshwater or marine), and in the same taxon as the most sensitive species. When there are no other species in Table 1 in the same taxon as the most sensitive species (e.g., freshwater chronic toxicity tests), the “next appropriate species” is the species exhibiting the highest percent effect at the IWC tested in the species sensitivity screening other than the most sensitive species. The Executive Officer shall have discretion to allow the temporary use of the next appropriate species as the most sensitive species when the Discharger submits documentation and the Executive Officer determines that the Discharger has encountered unresolvable test interference or cannot secure a reliable supply of test organisms.

The most sensitive species shall be used for chronic toxicity testing for the remainder of the permit term. The Discharger may use the four most recent tests for use in determining the most sensitive species if the tests were conducted in a manner sufficient to make such determination.

If the most sensitive species cannot be determined from the species sensitivity screening discussed above, the Discharger shall rotate the test species as the most sensitive species every toxicity calendar year as follows:

- a. *Ceriodaphnia dubia* (survival and reproduction test) for the remainder of the toxicity calendar year this NOA R5-2023-0025-009 is issued;
- b. *Pimephales promelas* (larval survival and growth test) for the entire toxicity calendar year following the toxicity calendar year this NOA R5-2023-0025-009 is issued;
- c. *Pseudokirchneriella subcapitata* (growth test) for the entire toxicity calendar year of the second year following the toxicity calendar year this NOA R5-2023-0025-009 is issued; and
- d. Cycling back to *Ceriodaphnia dubia* (survival and reproduction test) after *Pseudokirchneriella subcapitata* (growth test) and continuing through the same rotation as above.

If a single test exhibits toxicity, demonstrated by a test that results in a “Fail” using the TST statistical approach, then the species used in that test shall be established as the most sensitive species until the next NOA reissuance.

G. Toxicity Reduction Evaluations

Reports for TREs shall be submitted in accordance with the schedule contained in the Discharger’s approved TRE Work Plan (see section V.G.3 below), or as amended by the Discharger’s TRE Action Plan.

1. TRE Targets

- a. **Chronic Whole Effluent Toxicity MMET.** No more than one chronic aquatic toxicity test using the fathead minnow (*Pimephales promelas*) initiated in a toxicity calendar month shall result in a “fail” at the IWC for any endpoint.
- b. **Chronic Whole Effluent Toxicity MDET.** No chronic aquatic toxicity test using the fathead minnow (*Pimephales promelas*) 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.

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 exceedances within a single toxicity calendar month or within two successive toxicity calendar months (as defined in paragraph V.B.5 above). If other information indicates toxicity (e.g., results of additional monitoring, results of monitoring at a higher concentration than the IWC, fish kills, or 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 MMEL compliance 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 be ended at any stage if monitoring finds there is no longer toxicity.
3. **TRE Work Plan Guidance.** The Discharger submit to the Central Valley Water Board a TRE Work Plan for approval by the Executive Officer by the due date specified in the Technical Reports Table D-11. 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.

VI. LAND DISCHARGE MONITORING REQUIREMENTS

- A. Land discharge monitoring requirements are covered under separate MRP Order R5-2026-0803 issued to the Discharger in accordance with Water Code sections 13267 and 13383.

VII. RECYCLED WATER MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Locations RSW-001 and RSW-002

- 1. The Discharger shall monitor Salt Creek at Monitoring Locations RSW-001 and RSW-002 as specified in Table D-4 and the testing requirements in section VIII.A.2. If there was no discharge to the receiving water during the designated monitoring period, monitoring is not required during that period. If there is no upstream flow in the receiving water during the designated monitoring period, monitoring is not required at RSW-001 during that period. Whenever monitoring is not required, the Discharger shall state so in the monthly SMR.

Table D-4. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
pH	standard units	Grab	1/Week
Dissolved Oxygen	mg/L	Grab	1/Week
Dissolved Organic Carbon (DOC)	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Week
Hardness, Total (as CaCO ₃)	mg/L	Grab	1/Quarter
Temperature	°F	Grab	1/Week
Turbidity	NTU	Grab	1/Month

2. **Table D-4 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-4:
 - a. **Applicable to all parameters.** Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
 - b. **Grab Sample.** A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
 - c. **Field Meter.** A hand-held field meter may be used for **dissolved oxygen, electrical conductivity, pH, temperature, and turbidity**, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this MRP shall be maintained at the Facility.
 - d. **Dissolved Organic Carbon.** Dissolved organic carbon samples shall be taken at approximately the same time and on the same date as the hardness and pH samples.
 - e. **Temperature, pH, Hardness, Dissolved Oxygen, and Dissolved Organic Carbon.** The receiving water samples for temperature, pH, hardness, dissolved oxygen, and dissolved organic carbon shall be taken at approximately the same time and on the same date with the effluent samples for these parameters (see Table D-3).
3. In conducting the receiving water sampling required by section VIII.A.1 above, a log shall be kept of the receiving water conditions throughout the reach bounded by Monitoring Locations RSW-001 and RSW-002. Attention shall be given to the presence or absence of:
 - a. Floating or suspended matter;
 - b. Discoloration;
 - c. Bottom deposits;
 - d. Aquatic life;
 - e. Visible films, sheens, or coatings;
 - f. Fungi, slimes, or objectionable growths; and
 - g. Potential nuisance conditions.

Notes on receiving water conditions shall be summarized in the monitoring report.

B. Groundwater Monitoring

1. Groundwater monitoring requirements are covered under separate MRP Order R5-2026-0803 issued to the Discharger in accordance with Water Code sections 13267 and 13383.

IX. OTHER MONITORING REQUIREMENTS

A. Biosolids – Not Applicable

B. Ponds

1. Monitoring Locations PND-002, PND-003, and PND-004

- a. The Discharger shall monitor the unlined emergency storage basins at Monitoring Locations PND-002, PND-003, and PND-004, as specified in Table D-5 and the testing requirements in section IX.B.2. Each storage basin shall be monitored whenever wastewater is diverted to the basin and the wastewater is held for more than seven consecutive days. When the storage basins hold wastewater for less than seven consecutive days, monitoring shall not be required. **If monitoring is not required, the Discharger shall so state in the SMR.**

Table D-5. Pond Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency
Daily Log	--	Observation/ Data Tabulation	1/Day
Odors	--	Observation	1/Day
Dissolved Oxygen	mg/L	Grab	1/Month (between 7 a.m. and 10 a.m., see testing requirement 2.e below)
pH	standard units	Grab	1/Month

- 2. **Table D-5 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-5:

- a. **Daily Log.** A daily emergency storage basin log shall be kept when any wastewater is diverted to any emergency storage basin. The emergency storage basin log shall include the following:
 - i. The date(s) when the wastewater is diverted to the basin(s);
 - ii. The type(s) of wastewater (e.g., untreated due to plant upset, tertiary treated, etc.) diverted to the basin(s);
 - iii. The total volume of wastewater diverted to the basin(s) (volume may be estimated);
 - iv. The daily freeboard in the basin(s); and,
 - v. The date when all wastewater in each basin has been redirected to the wastewater treatment plant for treatment.

- b. **Applicable to all parameters.** Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 C.F.R. part 136 allowed sample type.
- c. **Grab Sample.** A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
- d. **Field Meter.** A hand-held field meter may be used for **dissolved oxygen and pH**, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this MRP shall be maintained at the Facility.
- e. **Dissolved Oxygen.** At minimum, the monthly grab sample for dissolved oxygen shall be taken between 7 a.m. and 10 a.m. to account for the diurnal effects of algae respiration. The Discharger may collect additional samples during different time periods.

C. Municipal Water Supply

1. Monitoring Location SPL-001

- a. The Discharger shall monitor the municipal water supply at Monitoring Location SPL-001, as specified in Table D-6 and the testing requirements in section IX.C.2.

Table D-6. Municipal Water Supply Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Quarter

- 2. **Table D-6 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-6:
 - a. If the water supply is from more than one source, electrical conductivity shall be reported as a weighted average and include copies of supporting calculations.
 - b. **Applicable to all parameters.** Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 C.F.R. part 136 allowed sample type.

- c. **Grab Sample.** A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.

D. Filtration System

1. Monitoring Location FIL-001

- a. The Discharger shall monitor the filtration system at Monitoring Location FIL-001 as specified in Table D-7 and the testing requirements in section IX.D.2.

Table D-7. Filtration System Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency
Flow	MGD	Meter	Continuous
Turbidity	NTU	Meter	Continuous

- 2. **Table D-7 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-7:

- a. **Continuous Analyzers.** If analyzers are taken out of operation for routine maintenance activities and no continuous measurements are available from a redundant meter, the Discharger shall divert flow to another filtration device or to storage to the extent feasible. If the Discharger is not able to divert away from the analyzer, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation and no continuous measurements are available from a redundant meter. If analyzer(s) fail to provide continuous monitoring for more than two hours and influent and/or effluent from the disinfection process is not diverted for retreatment, the Discharger shall obtain and report hourly manual and/or grab sample results.
- b. **Turbidity.** Report daily average and maximum turbidity.

E. Ultraviolet Light (UV) Disinfection System

1. Monitoring Locations UVS-001 and UVS-002

- a. The Discharger shall monitor the UV disinfection system at Monitoring Locations UVS-001 and UVS-002 as specified in Table D-8 and the testing requirements in section IX.E.2.

Table D-8. UV Disinfection System Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Monitoring Location
Number of UV Banks in operation	Number	Observation	Continuous	N/A

Parameter	Units	Sample Type	Sampling Frequency	Monitoring Location
UV Transmittance	Percent	Meter	Continuous	UVS-001
UV Dose	mW-sec/cm ²	Calculate	Continuous	UVS-002
Total Coliform Organisms	MPN/100 mL	Grab	3/Week	UVS-002

2. **Table D-8 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-8:
- a. **Applicable to all parameters.** Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
 - b. **Continuous Analyzers.** If analyzers are taken out of operation for routine maintenance activities and no continuous measurements are available from a redundant meter, the Discharger shall divert flow to another filtration device or to storage to the extent feasible. If the Discharger is not able to divert away from the analyzer and the analyzer is out of operation for longer than 30 minutes, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation and no continuous measurements are available from a redundant meter. If analyzer(s) fail to provide continuous monitoring for more than two hours and influent and/or effluent from the disinfection process is not diverted for retreatment, the Discharger shall obtain and report hourly manual and/or grab sample results.
 - c. **Continuous Analyzers.** The Discharger shall not decrease power settings or reduce the number of UV lamp banks in operation while the continuous analyzers are out of service and water is being disinfected.
 - d. **UV Banks.** Report daily minimum number of UV banks in operation.
 - e. **UV Transmittance.** Report daily minimum hourly average UV transmittance. The minimum hourly average transmittance shall consist of lowest average transmittance recorded over an hour of a day when flow is being discharged. If the system does not operate for an entire hour interval on a given day or if effluent flow is not discharged for an entire hour, the transmittance will be averaged based on the actual operation time when discharges are occurring.
 - f. **UV Dose.** Report daily minimum hourly average UV dose. The minimum hourly average dose shall consist of lowest hourly average dose provided in any channel that had at least one bank of lamps operating during the hour interval. For channels that did not operate for the entire hour interval or when effluent flow is not discharged for the entire hour, the dose will be averaged based on the actual operation time when discharges occurred.

- g. **Total Coliform Organisms.** Collection of total coliform organism samples from the end of the lead UV channel as water cascades down into the collection trough is allowed. The Discharger shall identify the lead channel at the time of sample collection.

F. Pyrethroid Pesticides Monitoring – Not Applicable

G. Effluent and Receiving Water Characterization

The Discharger shall monitor the effluent at Monitoring Location EFF-001 and Salt Creek at Monitoring Location RSW-001 while discharging to Salt Creek for the constituents listed in Table D-9, as described in this section.

1. Monitoring Frequency

- a. **Effluent Sampling.** Samples shall be collected from the effluent (Monitoring Location EFF-001) **twice**, once between **1 January 2028 and 31 March 2028** and once between **1 July 2028 and 30 September 2028**. The two effluent sampling events shall be conducted in two different quarters.
- b. **Receiving Water Sampling.** A sample shall be collected from the upstream receiving water (Monitoring Location RSW-001) **once** between **1 January 2028 and 31 March 2028**. The upstream receiving water sample shall be collected concurrent (on the same date and at approximately the same time) with one of the effluent sampling events required in the section above.

All sampling shall be analyzed for the constituents listed in Table D-9, below. The results of such monitoring shall be submitted to the Central Valley Water Board with the quarterly SMRs.

2. **Sample Type.** Effluent samples shall be taken as described in Table D-9, below and the testing requirements in section IX.G.4 below.
3. **Analytical Methods Report Certification.** Prior to beginning the Effluent Characterization monitoring, the Discharger shall provide a certification acknowledging the scheduled start date of the Effluent Characterization monitoring and confirming that samples will be collected and analyzed as described in the previously submitted Analytical Methods Report (see section X.D.3). If there are changes to the previously submitted Analytical Methods Report, the Discharger shall outline those changes. A one-page certification form will be provided by the Central Valley Water Board staff with this NOA R5-2023-0025-009 that the Discharger can use to satisfy this requirement. The certification form shall be submitted electronically via the State Water Board's California Integrated Water Quality System (CIWQS) in accordance with the reporting requirements in Technical Reports Table D-11.

Table D-9. Effluent and Receiving Water Characterization Monitoring

VOLATILE ORGANICS

CTR Number	Volatile Organic Parameters	CAS Number	Units	Effluent Sample Type
25	2-Chloroethyl vinyl Ether	110-75-8	µg/L	Grab
17	Acrolein	107-02-8	µg/L	Grab
18	Acrylonitrile	107-13-1	µg/L	Grab
19	Benzene	71-43-2	µg/L	Grab
20	Bromoform	75-25-2	µg/L	Grab
21	Carbon Tetrachloride	56-23-5	µg/L	Grab
22	Chlorobenzene	108-90-7	µg/L	Grab
24	Chloroethane	75-00-3	µg/L	Grab
26	Chloroform	67-66-3	µg/L	Grab
35	Methyl Chloride	74-87-3	µg/L	Grab
23	Dibromochloromethane	124-48-1	µg/L	Grab
27	Dichlorobromomethane	75-27-4	µg/L	Grab
36	Methylene Chloride	75-09-2	µg/L	Grab
33	Ethylbenzene	100-41-4	µg/L	Grab
89	Hexachlorobutadiene	87-68-3	µg/L	Grab
34	Methyl Bromide (Bromomethane)	74-83-9	µg/L	Grab
94	Naphthalene	91-20-3	µg/L	Grab
38	Tetrachloroethylene (PCE)	127-18-4	µg/L	Grab
39	Toluene	108-88-3	µg/L	Grab
40	trans-1,2-Dichloroethylene	156-60-5	µg/L	Grab
43	Trichloroethylene (TCE)	79-01-6	µg/L	Grab
44	Vinyl Chloride	75-01-4	µg/L	Grab
21	Methyl-tert-butyl ether (MTBE)	1634-04-4	µg/L	Grab
41	1,1,1-Trichloroethane	71-55-6	µg/L	Grab
42	1,1,2-Trichloroethane	79-00-5	µg/L	Grab
28	1,1-Dichloroethane	75-34-3	µg/L	Grab
30	1,1-Dichloroethylene (DCE)	75-35-4	µg/L	Grab
31	1,2-Dichloropropane	78-87-5	µg/L	Grab
32	1,3-Dichloropropylene	542-75-6	µg/L	Grab
37	1,1,2,2-Tetrachloroethane	79-34-5	µg/L	Grab
101	1,2,4-Trichlorobenzene	120-82-1	µg/L	Grab
29	1,2-Dichloroethane	107-06-2	µg/L	Grab
75	1,2-Dichlorobenzene	95-50-1	µg/L	Grab
76	1,3-Dichlorobenzene	541-73-1	µg/L	Grab
77	1,4-Dichlorobenzene	106-46-7	µg/L	Grab

SEMI-VOLATILE ORGANICS

CTR Number	Semi-Organic Volatile Parameters	CAS Number	Units	Effluent Sample Type
60	Benzo(a)Anthracene	56-55-3	µg/L	Grab

CTR Number	Semi-Organic Volatile Parameters	CAS Number	Units	Effluent Sample Type
85	1,2-Diphenylhydrazine	122-66-7	µg/L	Grab
45	2-Chlorophenol	95-57-8	µg/L	Grab
46	2,4-Dichlorophenol	120-83-2	µg/L	Grab
47	2,4-Dimethylphenol	105-67-9	µg/L	Grab
49	2,4-Dinitrophenol	51-28-5	µg/L	Grab
82	2,4-Dinitrotoluene	121-14-2	µg/L	Grab
55	2,4,6-Trichlorophenol	88-06-2	µg/L	Grab
83	2,6-Dinitrotoluene	606-20-2	µg/L	Grab
50	2-Nitrophenol	88-75-5	µg/L	Grab
71	2-Chloronaphthalene	91-58-7	µg/L	Grab
78	3,3-Dichlorobenzidine	91-94-1	µg/L	Grab
62	Benzo(b)Fluoranthene	205-99-2	µg/L	Grab
52	4-Chloro-3-methylphenol	59-50-7	µg/L	Grab
48	2-Methyl-4,6-Dinitrophenol	534-52-1	µg/L	Grab
51	4-Nitrophenol	100-02-7	µg/L	Grab
69	4-Bromophenyl Phenyl Ether	101-55-3	µg/L	Grab
72	4-Chlorophenyl Phenyl Ether	7005-72-3	µg/L	Grab
56	Acenaphthene	83-32-9	µg/L	Grab
57	Acenaphthylene	208-96-8	µg/L	Grab
58	Anthracene	120-12-7	µg/L	Grab
59	Benzidine	92-87-5	µg/L	Grab
61	Benzo(a)Pyrene	50-32-8	µg/L	Grab
63	Benzo(ghi)Perylene	191-24-2	µg/L	Grab
64	Benzo(k)Fluoranthene	207-08-9	µg/L	Grab
65	Bis (2-Chloroethoxy) Methane	111-91-1	µg/L	Grab
66	Bis (2-Chloroethyl) Ether	111-44-4	µg/L	Grab
67	Bis (2-Chloroisopropyl) Ether	108-60-1	µg/L	Grab
68	Bis(2-Ethylhexyl) Phthalate	117-81-7	µg/L	Grab
70	Butylbenzyl Phthalate	85-68-7	µg/L	Grab
73	Chrysene	218-01-9	µg/L	Grab
81	Di-n-butyl Phthalate	84-74-2	µg/L	Grab
84	Di-n-Octyl Phthalate	117-84-0	µg/L	Grab
74	Dibenzo(a,h)anthracene	53-70-3	µg/L	Grab
79	Diethyl Phthalate	84-66-2	µg/L	Grab
80	Dimethyl Phthalate	131-11-3	µg/L	Grab
86	Fluoranthene	206-44-0	µg/L	Grab
87	Fluorene	86-73-7	µg/L	Grab
88	Hexachlorobenzene	118-74-1	µg/L	Grab
90	Hexachlorocyclopentadiene	77-47-4	µg/L	Grab
91	Hexachloroethane	67-72-1	µg/L	Grab
92	Indeno(1,2,3-cd) Pyrene	193-39-5	µg/L	Grab
93	Isophorone	78-59-1	µg/L	Grab
98	N-Nitrosodiphenylamine	86-30-6	µg/L	Grab

CTR Number	Semi-Organic Volatile Parameters	CAS Number	Units	Effluent Sample Type
96	N-Nitrosodimethylamine	62-75-9	µg/L	Grab
97	N-Nitrosodi-n-Propylamine	621-64-7	µg/L	Grab
95	Nitrobenzene	98-95-3	µg/L	Grab
53	Pentachlorophenol (PCP)	87-86-5	µg/L	Grab
99	Phenanthrene	85-01-8	µg/L	Grab
54	Phenol	108-95-2	µg/L	Grab
100	Pyrene	129-00-0	µg/L	Grab

INORGANICS

CTR Number	Inorganic Parameters	CAS Number	Units	Effluent Sample Type
NL	Aluminum	7429-90-5	µg/L	24-hour Composite
1	Antimony, Total	7440-36-0	µg/L	24-hour Composite
2	Arsenic, Total	7440-38-2	µg/L	24-hour Composite
15	Asbestos	1332-21-4	µg/L	24-hour Composite
3	Beryllium, Total	7440-41-7	µg/L	24-hour Composite
4	Cadmium, Total	7440-43-9	µg/L	24-hour Composite
5a	Chromium, Total	7440-47-3	µg/L	24-hour Composite
6	Copper, Total	7440-50-8	µg/L	24-hour Composite
14	Iron, Total	7439-89-6	µg/L	24-hour Composite
7	Lead, Total	7439-92-1	µg/L	24-hour Composite
8	Mercury, Total	7439-97-6	ng/L	Grab
NL	Mercury, Methyl	22967-92-6	ng/L	Grab
NL	Manganese, Total	7439-96-5	µg/L	24-hour Composite
9	Nickel, Total	7440-02-0	µg/L	24-hour Composite
10	Selenium, Total	7782-49-2	µg/L	24-hour Composite
11	Silver, Total	7440-22-4	µg/L	24-hour Composite
12	Thallium, Total	7440-28-0	µg/L	24-hour Composite
13	Zinc, Total	7440-66-6	µg/L	24-hour Composite

NON-METALS/MINERALS

CTR Number	Non-Metal/Mineral Parameters	CAS Number	Units	Effluent Sample Type
NL	Boron	7440-42-8	µg/L	24-hour Composite
NL	Chloride	16887-00-6	mg/L	24-hour Composite
14	Cyanide, Total (as CN)	57-12-5	µg/L	Grab
NL	Sulfate	14808-79-8	mg/L	24-hour Composite
NL	Sulfide (as S)	5651-88-7	mg/L	24-hour Composite

PESTICIDES/PCBs/DIOXINS

CTR Number	Pesticide/PCB/Dioxin Parameters	CAS Number	Units	Effluent Sample Type
110	4,4-DDD	72-54-8	µg/L	24-hour Composite
109	4,4-DDE	72-55-9	µg/L	24-hour Composite
108	4,4-DDT	50-29-3	µg/L	24-hour Composite
112	alpha-Endosulfan	959-98-8	µg/L	24-hour Composite
103	alpha-BHC (Benzene hexachloride)	319-84-6	µg/L	24-hour Composite
102	Aldrin	309-00-2	µg/L	24-hour Composite
113	beta-Endosulfan	33213-65-9	µg/L	24-hour Composite
104	beta-BHC (Benzene hexachloride)	319-85-7	µg/L	24-hour Composite
107	Chlordane	57-74-9	µg/L	24-hour Composite
106	delta-BHC (Benzene hexachloride)	319-86-8	µg/L	24-hour Composite
111	Dieldrin	60-57-1	µg/L	24-hour Composite
114	Endosulfan Sulfate	1031-07-8	µg/L	24-hour Composite
115	Endrin	72-20-8	µg/L	24-hour Composite
116	Endrin Aldehyde	7421-93-4	µg/L	24-hour Composite
117	Heptachlor	76-44-8	µg/L	24-hour Composite
118	Heptachlor Epoxide	1024-57-3	µg/L	24-hour Composite
105	gamma-BHC (Benzene hexachloride or Lindane)	58-89-9	µg/L	24-hour Composite
119	Polychlorinated Biphenyl (PCB) 1016	12674-11-2	µg/L	24-hour Composite
120	PCB 1221	11104-28-2	µg/L	24-hour Composite
121	PCB 1232	11141-16-5	µg/L	24-hour Composite
122	PCB 1242	53469-21-9	µg/L	24-hour Composite
123	PCB 1248	12672-29-6	µg/L	24-hour Composite
124	PCB 1254	11097-69-1	µg/L	24-hour Composite
125	PCB 1260	11096-82-5	µg/L	24-hour Composite
126	Toxaphene	8001-35-2	µg/L	24-hour Composite
16	2,3,7,8-TCDD (Dioxin)	1746-01-6	mg/L	24-hour Composite

CONVENTIONAL PARAMETERS

CTR Number	Conventional Parameters	CAS Number	Units	Effluent Sample Type
NL	pH	--	SU	Grab
NL	Temperature	--	°F	Grab

NON-CONVENTIONAL PARAMETERS

CTR Number	Nonconventional Parameters	CAS Number	Units	Effluent Sample Type
NL	Foaming Agents (MBAS)	MBAS	mg/L	24-hour Composite
NL	Hardness (as CaCO3)	471-34-1	mg/L	Grab
NL	Specific Conductance (Electrical Conductivity or EC)	EC	µmhos/cm	Grab

CTR Number	Nonconventional Parameters	CAS Number	Units	Effluent Sample Type
NL	Total Dissolved Solids (TDS)	TDS	mg/L	24-hour Composite
NL	Dissolved Organic Carbon (DOC)	DOC	mg/L	Grab

NUTRIENTS

CTR Number	Nutrient Parameters	CAS Number	Units	Effluent Sample Type
NL	Ammonia, Total (as N)	7664-41-7	mg/L	Grab
NL	Nitrate (as N)	14797-55-8	mg/L	Grab
NL	Nitrite (as N)	14797-65-0	mg/L	Grab
NL	Phosphorus, Total (as P)	7723-14-0	mg/L	24-hour Composite

4. **Table D-9 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-9:
- a. **Applicable to all parameters.** Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
 - b. **Grab Sample.** A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
 - c. **Composite Sample.** All composite samples shall be collected from a 24-hour flow proportional composite.
 - d. **Redundant Sampling.** The Discharger is not required to conduct effluent monitoring for constituents that have already been sampled in a given month, as required in Table D-3, except for dissolved organic carbon, hardness, pH, and temperature, which shall be conducted concurrently with the characterization sampling.
 - e. **Concurrent Sampling.** When effluent and receiving water samples are required during the same calendar quarter, effluent and receiving water sampling shall be conducted on the same date, at approximately the same time.
 - f. **Bis (2-ethylhexyl) phthalate.** In order to verify if bis (2-ethylhexyl) phthalate is truly present in the effluent discharge, the Discharger shall take steps to assure that sample containers, sampling apparatus, and analytical equipment are not sources of the detected contaminant.
 - g. **Total Mercury and Methylmercury.** Samples for total mercury and methylmercury shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, for collection of equipment blanks (section 9.4.4.2), and shall be analyzed by U.S. EPA method 1630/1631 (Revision E) with a maximum reporting limit (RL) of 0.05 ng/L for methylmercury and 0.5 nanograms per liter (ng/L) for total mercury.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D of the Municipal General Order) related to monitoring, reporting, and recordkeeping. Upon written request of the Central Valley Water Board, the Discharger shall submit a summary monitoring report. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s)
2. 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.
3. Monitoring frequencies may be adjusted by the Executive Officer to a less frequent basis if a Discharger makes a request and the request is backed by statistical trends of monitoring data submitted.

B. Self-Monitoring Reports

1. The Discharger shall electronically submit SMRs using the State Water Board's CIWQS [Program website](https://www.waterboards.ca.gov/ciwqs/index.html) (https://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS Web site will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this MRP. SMRs are to include all new monitoring results collected during the monitoring period covered by the applicable SMR. If the Discharger monitors any pollutant more frequently than required by this MRP, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
3. Monitoring periods and reporting for all required monitoring shall begin on 1 October 2026 and be completed according to the following Table D-10. All chronic toxicity test results shall be reported in the biannual (2/Year) SMR as specified in this MRP under section E.

Table D-10. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period	SMR Due Date
Continuous	All	Submit with monthly SMR
1/Day	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR

Sampling Frequency	Monitoring Period	SMR Due Date
1/Week	Sunday through Saturday	Submit with monthly SMR
3/Week	Sunday through Saturday	Submit with monthly SMR
1/Month	1st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
2/Month	1st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
1/Quarter	1 January through 31 March; 1 April through 30 June; 1 July through 30 September; 1 October through 31 December	1 May; 1 August; 1 November; 1 February of following year (respectively)
1/Year	1 January through 31 December	1 February of following year
2/Toxicity Calendar Year	1 January through 30 June; 1 July through 31 December	1 August; 1 February of following year (respectively)

4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable RL and the current laboratory’s method detection limit (MDL), as determined by the procedure in 40 C.F.R. part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory’s MDL, shall be reported as “Detected, but Not Quantified,” or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be

- percent accuracy (\pm a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
 - d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
5. **Multiple Sample Data.** When determining compliance with an AMEL, average weekly effluent limitation (AWEL), or MDEL, and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or ND. In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
- a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
 - b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.
6. The Discharger shall submit SMRs in accordance with the following requirements:
- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
 - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements; discuss corrective actions taken or planned; explain all unusual results, and/or events which affect interpretation of the results; and discuss the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was

- violated and a description of the violation. The cover letter must be uploaded directly into CIWQS and violations must be entered into CIWQS under the Violations tab for the reporting period in which the violation occurred in addition to them being identified in the cover letter.
- c. The Discharger shall attach final laboratory reports for all contracted commercial laboratories, including quality assurance/quality control information, with all its SMRs for which sample analyses were performed. This requirement only applies to Effluent and Receiving Water Characterization monitoring per section IX.G of Appendix D. Bench sheets are not required but should be available upon request by Regional Board staff.
7. The Discharger shall submit in the SMRs calculations and reports in accordance with the following requirements.
- a. **Calendar Annual Average Limitations. – Not Applicable**
 - b. **Mass Loading Limitations. – Not Applicable**
 - c. **Removal Efficiency (BOD₅ and TSS).** The Discharger shall calculate and report the percent removal of BOD₅ and TSS in the SMRs. The percent removal shall be calculated as specified in section VIII.A of the Waste Discharge Requirements in the Municipal General Order.
 - d. **Total Coliform Organisms Effluent Limitations.** The Discharger shall calculate and report the 7-day median of total coliform organisms for the effluent. The 7-day median of total coliform organisms shall be calculated as specified in section VIII.F of the Waste Discharge Requirements in the Municipal General Order.
 - e. **Dissolved Oxygen Receiving Water Limitations.** The Discharger shall report monthly in the SMR the dissolved oxygen concentrations in mg/L in the effluent at Monitoring Location EFF-001 and receiving water at both Monitoring Locations RSW-001 and RSW-002.
 - f. **Turbidity Receiving Water Limitations.** The Discharger shall calculate and report the monthly difference in turbidity of the receiving water based on the difference in turbidity at Monitoring Locations RSW-001 and RSW-002. A monthly averaging period may be used to calculate the monthly difference in turbidity.
 - g. **Temperature Effluent Limitation. – Not Applicable**
 - h. **Temperature Receiving Water Limitations.** The Discharger shall calculate and report the temperature change in the receiving water based on the difference in temperature of the monthly averages at Monitoring Locations RSW-001 and RSW-002.
 - i. **Chlorpyrifos and Diazinon Effluent Limitations. – Not Applicable**
 - j. **Total Calendar Annual Mass Loading Mercury Effluent Limitations. – Not Applicable**

k. Amador Lake Percent Effluent (Compliance with the 20:1 Dilution Ratio). – Not Applicable

C. Discharge Monitoring Reports (DMRs)

1. The Discharger shall electronically submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic submittal of DMRs will be in addition to electronic submittal of SMRs. Information about electronic submittal of DMRs is provided by the [Discharge Monitoring Report website](https://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring/) (https://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring/).

D. Other Reports

1. **Special Study Reports – Not Applicable**
2. Each Discharger shall report the results of any special studies, PMP, and Pollution Prevention Plan required by Special Provisions, section VIII.C of this NOA R5-2023-0025-009. The Discharger shall submit reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date.
3. **Analytical Methods Report.** The Discharger shall complete and submit an Analytical Methods Report, electronically via CIWQS submittal, by the due date specified in Table D-11 below. The Analytical Methods Report shall include the following for each constituent listed in tables D-3, D-4, D-5, and D-9 of this NOA R5-2023-0025-009: 1) applicable water quality objective, 2) reporting level (RL), 3) method detection limit (MDL), and 4) analytical method. The analytical methods shall be sufficiently sensitive with RLs consistent with the SSM Rule (see also General Monitoring Provision F in the MRP, Attachment E of the Municipal General Order), and with the Minimum Levels (MLs) in the SIP, Appendix 4. The “Reporting Level or RL” is synonymous with the “Method Minimum Level” described in the SSM Rule. If an RL is greater than the applicable water quality objective for a constituent, the Discharger shall explain how the proposed analytical method complies with the SSM Rule. Central Valley Water Board staff will provide a tool with this NOA R5-2023-0025-009 to assist the Discharger in completing this requirement. The tool will include the constituents and associated applicable water quality objectives to be included in the Analytical Methods Report.
4. **Annual Operations Report.** The Discharger shall submit, by the due dates shown in the Technical Reports Table D-11, a written Annual Operations Report containing the following:
 - a. The names, certificate grades, and general responsibilities of all persons employed at the Facility.
 - b. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.
 - c. A statement certifying when the flow meter(s) and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration.

- d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the wastewater treatment plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.
 - e. A summary of the emergency storage basin log containing the information gathered as required by section IX.B.2.a of this MRP.
 - f. The Discharger may also be requested to submit an annual report to the Central Valley Water Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.
5. **Annual Pretreatment Reporting Requirements – Not Applicable**
6. **Recycled Water Policy Annual Reports.** In accordance with section 3 of the Water Quality Control Policy for Recycled Water (Recycled Water Policy) and as specified in this NOA R5-2023-0025-009, the Discharger shall electronically submit an annual report of monthly data to the State Water Board by 30 April each year covering the previous calendar year. The report shall be submitted using the State Water Board’s [GeoTracker website](https://geotracker.waterboards.ca.gov/) (<https://geotracker.waterboards.ca.gov/>). Information for setting up and using the GeoTracker system can be found in the ESI Guide for Responsible Parties document on the State Water Board’s website for [Electronic Submittal of Information](https://www.waterboards.ca.gov/ust/electronic_submittal/index.html) (https://www.waterboards.ca.gov/ust/electronic_submittal/index.html).
- The annual report must include volumetric reporting of the items listed in section 3.2 of the [Recycled Water Policy](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/121118_7_final_amendment_oal.pdf) (https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/121118_7_final_amendment_oal.pdf). A PDF of the upload confirmation from GeoTracker for the Recycled Water Policy Annual Report shall be uploaded into CIWQS to demonstrate compliance with this reporting requirement.
7. **Technical Report Submittals.** The Municipal General Order, as specified in this NOA R5-2023-0025-009, includes requirements to submit various reports and documents that may include a Notice of Intent, special study technical reports, progress reports, and other reports identified in the MRP (hereafter referred to collectively as “technical reports”). Table D-11 below summarizes the technical reports that are applicable to this discharge and required by this NOA R5-2023-0025-009, and the due dates for each submittal. All technical reports shall be submitted electronically via CIWQS submittal. Technical reports should be uploaded as a PDF, Microsoft Word, or Microsoft Excel file attachment.

Table D-11. Technical Reports

Report #	Technical Report	Due Date	CIWQS Report Name
1	Notice of Intent	30 September 2030	NOI
2	Salinity Evaluation and Minimization Plan Summary (if necessary)	30 September 2030 (submit with Notice of Intent)	MGO VII.C.3.b
3	TRE Work Plan	1 December 2026	MRP V.G.3
4	Analytical Methods Report	1 January 2027	MRP X.D.3
5	Analytical Methods Report Certification	1 July 2027	MRP IX.G.3
6	Annual Operations Report #1	1 February 2027	MRP X.D.4
7	Annual Operations Report #2	1 February 2028	MRP X.D.4
8	Annual Operations Report #3	1 February 2029	MRP X.D.4
9	Annual Operations Report #4	1 February 2030	MRP X.D.4
10	Annual Operations Report #5	1 February 2031	MRP X.D.4
11	Recycled Water Policy Annual Report Upload Confirmation Form #1	30 April 2027	MRP X.D.6
12	Recycled Water Policy Annual Report Upload Confirmation Form #2	30 April 2028	MRP X.D.6
13	Recycled Water Policy Annual Report Upload Confirmation Form #3	30 April 2029	MRP X.D.6
14	Recycled Water Policy Annual Report Upload Confirmation Form #4	30 April 2030	MRP X.D.6
15	Recycled Water Policy Annual Report Upload Confirmation Form #5	30 April 2031	MRP X.D.6

APPENDIX E – DETERMINATION OF WATER QUALITY-BASED EFFLUENT LIMITATIONS (WQBELS)

The Central Valley Water Board determined water quality-based effluent limitations (WQBELS) using the effluent limits tables included in section V of the Municipal General Order and as described in the Fact Sheet, Attachment F of the Municipal General Order. For parameters with both human health and aquatic life objectives/criteria, the final effluent limitations in this NOA R5-2023-0025-009 are based on the lower of the effluent limitations based on the aquatic life objectives/criteria and human health objectives/criteria.

Abbreviations and Notes:

1. CV = Coefficient of Variation (established in accordance with section 1.4 of the SIP)
2. AMEL = Average Monthly Effluent Limitation
3. AWEL = Average Weekly Effluent Limitation
4. MDEL = Maximum Daily Effluent Limitation
5. CMC = Criterion Maximum Concentration
6. CCC = Criterion Continuous Concentration
7. Coefficient of Variation (CV) calculated using effluent sample data for the parameter listed.
8. The Effluent Limit Table was used as indicated below and contained in section V, Effluent Limitations and Discharge Specifications, of the Municipal General Order. The specific tables from the Municipal General Order used to determine the appropriate AMEL, AWEL, or MDEL are indicated in the tables below:

Table E-1. Human Health WQBELS Calculations

Parameter	Units	Criteria	CV	Effluent Limit Table in Municipal General Order	AMEL	AWEL
Nitrate Plus Nitrite (as N)	mg/L	10	0.6	20B	10	17

Table E-2. Aquatic Life WQBELS Calculations

Parameter	Units	CMC	CCC	CV	Hardness	Effluent Limit Table in Municipal General Order	AMEL	AWEL	MDEL
Ammonia, Total (as N)	mg/L	2.60	0.84	0.6	--	18B	0.74	1.7	--
Zinc, Total Recoverable	µg/L	--	--	0.6	268	12F	140	--	280