31 August 2018

Tracy Crane
Wastewater/Recycled Water Manager
El Dorado Irrigation District
2890 Mosquito Road
Placerville, CA 95667

CERTIFIED MAIL
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NOTICE OF APPLICABILITY (NOA); MUNICIPAL GENERAL WASTE DISCHARGE REQUIREMENTS ORDER R5-2017-0085 (NPDES CAG585001); EL DORADO IRRIGATION DISTRICT, EL DORADO HILLS WASTEWATER TREATMENT PLANT, EL DORADO COUNTY

Our office received a Report of Waste Discharge (ROWD) dated 25 August 2017 from the El Dorado Irrigation District (hereinafter Discharger), for discharge of tertiary treated domestic wastewater to surface water from the El Dorado Hills Wastewater Treatment Plant (hereafter Facility) to Carson Creek. The General Order for Municipal Wastewater Dischargers That Meet Objectives/Criteria at the Point of Discharge to Surface Water Order R5-2017-0085 (Municipal General Order) requires the submittal of a Notice of Intent (NOI) to apply for regulatory coverage of a surface water discharge. The Discharger did not submit a NOI for coverage under the Municipal General Order. However, the Discharger did submit a ROWD in accordance with its existing individual National Pollutant Discharge Elimination System (NPDES) permit. Based on the ROWD and subsequent information submitted by the Discharger, staff has 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 **R5-2017-0085-002** and NPDES Permit No. CAG585001. Please reference your Municipal General Order enrollee number, **R5-2017-0085-002,** in your correspondence and submitted documents.

Discharges to surface water from the Facility are currently regulated by an individual NPDES permit, Order R5-2013-0003 (NPDES No. CA0078671) issued by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) on 31 January 2013 and administratively extended on 1 March 2018 in accordance with California Code of Regulations, Title 23, Section 2235.4 after the timely and complete submission of the ROWD. This NOA, authorizing coverage under the Municipal General Order, shall become effective on **1 October 2018,** at which time the terms and conditions in Order R5-2013-0003 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 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. This action in no way prevents the Central Valley Water Board from taking enforcement action for past violations of Order R5-2013-0003.

The enclosed Municipal General Order may also be viewed at the following web address: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2017-0085.pdf. 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 with this NOA as Appendix D. Only the monitoring and reporting requirements specifically listed in Appendix D of this NOA 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.

Table 1. Facility Information

WDID	5B090102005
CIWQS Facility Place ID	222434
Discharger	El Dorado Irrigation District
Name of Facility	El Dorado Hills Wastewater Treatment Plant
Facility Address	4625 Latrobe Road
	El Dorado Hills, CA 95762
	El Dorado County
Facility Contact, Title and Phone	Tracy Crane, Wastewater / Recycled Water Manager (530) 642-4059
Authorized Person to Sign and Submit Reports	Tracy Crane, Wastewater / Recycled Water Manager (530) 642-4059
Mailing Address	2890 Mosquito Road, Placerville, CA 95667
Billing Address	Same as mailing address
Type of Facility	Publicly Owned Treatment Works (POTW)
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Yes
Recycling Requirements	Producer (Master Reclamation Permit, Order 5-01-146)
Facility Permitted Flow	4.0 million gallons per day (MGD), average dry weather flow
Facility Design Flow	4.0 MGD, average dry weather flow
Watershed	San Joaquin River
Receiving Water	Carson Creek (ephemeral)
Receiving Water Type	Inland surface water
Discharge Point 001	Latitude 38º 38’ 18” N, Longitude 121º 3’ 38” W

I. FACILITY DESCRIPTION

The Discharger provides sewerage service for the community of El Dorado Hills and serves a population of approximately 40,000, in El Dorado County. A Location Map is included in Appendix A. The current design average dry weather flow capacity of the Facility is 4.0 MGD.

The Facility provides full nitrification and denitrification for nitrogen removal and uses tertiary filtration followed by ultraviolet light (UV) for disinfection. A Flow Schematic is included in Appendix B. The components of the treatment system at the Facility include:

- headworks with fine screening, grit removal, and odor control;
- two raw wastewater equalization tanks;
- two primary clarifiers;
- two activated sludge aeration basins with nitrification;
- two biological nutrient removal basins;
- two secondary clarifiers;
- two dissolved air flotation (DAF) units for algae removal;
- six mixed-media (sand and anthracite) tertiary filters;
- UV disinfection system;
- two lined drain ponds; and
- 61.9 million gallon storage reservoir.

Wastewater, when stored in the drain ponds, is returned to the headworks. Wastewater from the storage reservoir is treated in the DAFs to remove algae, and polymer and coagulant are added prior to filtration and disinfection. Tertiary treated wastewater may be recycled in the Discharger's reclaimed water distribution system or discharged from Discharge Point 001 to Carson Creek, as defined in Table 1 above. Use of the Facility's ponds and storage reservoir are part of the treatment process as described above, and thus are covered by the provisions in the Municipal General Order, as specified in this NOA. The specifications and use of reclaimed water is covered under a separate Master Reclamation Permit (Order 5-01-146) issued to the Discharger in accordance with California Code of Regulations, Title 22 and the California Water Code.

Solids handling facilities include:

- waste activated sludge DAF;
- two anaerobic sludge digesters;
- sludge holding tank; and
- belt filter press.

The solids handling facilities result in the production of Class B biosolids. The biosolids are hauled offsite and land applied by a separate commercial entity.

II. RECEIVING WATER BENEFICIAL USES

The Facility discharges from Discharge Point 001 to Carson Creek, which flows to Deer Creek, a tributary to the Cosumnes River within the San Joaquin River watershed. According to the *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (Basin Plan) and the Tributary Rule, Carson Creek is an ephemeral stream designated with the following beneficial uses:

- municipal and domestic supply (MUN);
- agricultural supply, including irrigation and stock watering (AGR);
- water contact recreation, including canoeing and rafting (REC-1);

- non-contact water recreation (REC-2);
- warm freshwater habitat (WARM);
- cold freshwater habitat (COLD);
- warm and cold migration of aquatic organisms (MIGR);
- warm and cold spawning, reproduction, and/or early development (SPWN); and
- wildlife habitat (WILD).

The Facility uses the unlined storage reservoir as part of the treatment process. According to the Basin Plan, the groundwater is designated with the following beneficial uses:

- municipal and domestic supply (MUN);
- industrial service supply (IND);
- industrial process supply (PROC); and
- agricultural supply, including irrigation and stock watering (AGR).

III. PROVISIONS AND REQUIREMENTS IMPLEMENTING STATE LAW

The provisions/requirements in section VII.2 (Groundwater Limitations) and section IX, Table 3 (Pond Operating Specifications) of this NOA are included to implement State law only. These provisions/requirements and their inclusion in this NOA are not required or authorized under the federal Clean Water Act; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

IV. RECEIVING WATER TOTAL MAXIMUM DAILY LOADS (TMDLs)

In accordance with section 303(d) of the Clean Water Act, the Central Valley Water Board is required to develop TMDLs for each 303(d) listed pollutant and water body combination.

Carson Creek is not listed as an impaired waterbody on the Clean Water Act 303(d) 2014-2016 California List of impaired water bodies. Therefore, there are no TMDLs applicable to this discharge.

V. DISCHARGE PROHIBITIONS

Discharge prohibitions applicable to the discharge are specified in section IV of the Municipal General Order. There are no additional site-specific discharge prohibitions for this discharge.

VI. EFFLUENT LIMITATIONS

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001. Effluent limitations are provided in the Municipal General Order. Only the effluent limitations listed below (items 1-7) are applicable to this Facility. Unless otherwise specified in this NOA, compliance shall be measured at Monitoring Location EFF-001, as described in the Monitoring and Reporting Program, Appendix D of this NOA.

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

Table 2. Effluent Limitations

Parameter	Units	Effluent Limitations			Municipal General Order Section Reference
		Average Monthly	Average Weekly	Maximum Daily	
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	10	15	--	**V.A.1.a.ii.(a) (page 12)**
Total Suspended Solids	mg/L	10	15	--	**V.A.1.a.ii.(a) (page 12)**
Ammonia Nitrogen, Total (as N)	mg/L	1.4	2.6	--	**V.A.1.c.v.(b) (page 50)**
	lbs/day	63	167	--	
Nitrate + Nitrite, Total (as N)	mg/L	10	14	--	**V.A.1.c.vi (page 70)**

2. **Flow (Municipal General Order section V.A.1.a.iii).** The average dry weather discharge flow shall not exceed 4.0 MGD.

3. **pH (Municipal General Order section V.A.1.c.iv.(a)).** The pH shall at all times be within the range of 6.5 and 8.3.

4. **Percent Removal (Municipal General Order section V.A.1.a.ii.(b)).** The average monthly percent removal of BOD_5 and TSS shall not be less than 85 percent.

5. **Total Coliform Organisms (Municipal General Order section V.A.1.a.ii.(c)).** Effluent total coliform organisms shall not exceed:

   i. 2.2 most probable number (MPN) per 100 mL, as a 7-day median;
   ii. 23 MPN/100 mL, more than once in any 30-day period; and
   iii. 240 MPN/100 mL, at any time.

6. **Whole Effluent Toxicity, Acute (Municipal General Order section V.A.1.c.i).** Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

   i. 70%, minimum for any one bioassay; and
   ii. 90%, median for any three consecutive bioassays.

7. **Mercury, Total Recoverable (Municipal General Order section V.A.1.c.xi).** The total annual mass discharge of total mercury shall not exceed 0.047 lbs.

VII. RECEIVING WATER LIMITATIONS

1. **Surface Water Limitations (Municipal General Order section VI.A).** The Municipal General Order includes receiving surface water limitations in Section VI.A. Based on the information provided in the Report of Waste Discharge, only the following receiving surface water limitations listed in Municipal General Order Section VI.A are applicable to the Facility.

   - Bacteria (VI.A.2);
   - Biostimulatory Substances (VI.A.3);
   - Chemical Constituents (VI.A.4);
   - Color (VI.A.5);
   - Dissolved Oxygen (VI.A.6.a.i, ii, iv);

- Floating Material (VI.A.7);
- Oil and Grease (VI.A.8);
- pH (VI.A.9.a);
- Pesticides ((VI.A.10);
- Radioactivity (VI.A.11);
- Suspended Sediments (VI.A.12);
- Settleable Substances (VI.A.13);
- Suspended Material (VI.A.14);
- Taste and Odors (VI.A.15);
- Temperature (VI.A.16.a);
- Toxicity (VI.A.17); and
- Turbidity (VI.A.18.a).

2. **Groundwater Limitations (Municipal General Order section VI.B).** 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 water quality objectives, whichever is greater.

VIII. MONITORING AND REPORTING

Monitoring and reporting program requirements are contained in Appendix D of this NOA.

IX. PROVISIONS

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

Table 3. Provisions

Provisions	Municipal General Order Section Applicability to this Facility.
A. Standard Provisions	**VII.A – Applicable to all dischargers.**
B. Monitoring and Reporting Program (MRP) Requirements	**VII.B – The MRP applicable to this Facility is contained in Appendix D of this NOA.**
C. Special Provisions	
1. Reopener Provisions	**VII.C.1.a through f – Applicable.** VII.C.1.g and h – Not Applicable.
2. Special Studies, Technical Reports and Additional Monitoring Requirements	
Toxicity Reduction Evaluation Requirements	**VII.C.2.a – Applicable.**
Phase 1 Methylmercury Control Study	VII.C.2.b – Not Applicable.
3. Best Management Practices and Pollution Prevention	
Pollution Prevention Plan for Mercury	VII.C.3.a – Not Applicable.
Mercury Exposure Reduction Program	VII.C.3.b – Not Applicable.
Salinity Evaluation and Minimization Plan	**VII.C.3.c – Applicable.**
4. Construction, Operation and Maintenance Specifications	
Filtration System Operating Specifications	**VII.C.4.a.i[1] – Applicable.** VII.C.4.a.ii and iii – Not Applicable.
UV Disinfection System Operating Specifications	**VII.C.4.b.i.(a), ii.(a), and iii through vi – Applicable.** VII.C.4.b.i.(b) and ii.(b) – Not Applicable.

Pond Operating Specifications	**VII.C.4.c[2] – Applicable, except the following: VII.C.4.c.i.(a) and VII.C.4.c.x are not applicable.**
5. Special Provisions for Municipal Facilities	
Pretreatment Requirements	**VII.C.5.a[3] – Applicable.**
Sludge/Biosolids Treatment or Discharge Specifications	**VII.C.5.b – Applicable.**
Collection System	**VII.C.5.c – Applicable.**
Anaerobically Digestible Material	VII.C.5.d – Not Applicable.
6. Other Special Provisions	**VII.C.6 – Applicable.**
7. Compliance Schedules	VII.C.7 – Not Applicable.

[1] For compliance with Filtration System Operating Specifications, turbidity measurements at UVS-001 shall be used to determine compliance, rather than turbidity measurements at FIL-002. Station FIL-002 described in the Municipal General Order is functionally equivalent to UVS-001 specified in this NOA.

[2] For compliance with Pond Operating Specification, section VII.C.4.c.vi of the Municipal General Order, the Discharger shall maintain a minimum of 6 inches measured vertically between the water surface of the storage reservoir and the top of the overflow spillway pipe located in the control structure. The top of the spillway pipe is 2 feet below the lowest point of overflow of the reservoir levee.

[3] On 24 February 2017, the Central Valley Water Board adopted Resolution No. R5-2017-0013 approving the Discharger's Industrial Pretreatment Program. The Industrial Pretreatment Program requires issuance of waste discharge permits to Significant Industrial Users/Categorical Industrial Users and permits to fats, oils, and grease discharges, dental facilities, Non-significant Industrial Users, Significant Commercial Users, and implements best management practices.

X. COMPLIANCE DETERMINATION

The following compliance determinations, as contained and more fully described in the Municipal General Order, are applicable to this discharge (Municipal General Order section given in brackets, if applicable):

- BOD_5 and TSS Effluent Limitations (VIII.A);
- Total Mercury Mass Loading Effluent Limitations (VIII.C);
- Average Dry Weather Flow Effluent Limitation (VIII.D);
- Total Coliform Organisms Effluent Limitations (VIII.E);
- Mass Effluent Limitations (VIII.G);
- Priority Pollutant Effluent Limitations (VIII.H);
- Dissolved Oxygen Receiving Water Limitation (VIII.I);
- Period Average, Calendar Month Average, and Annual Average (VIII.N);
- Turbidity Receiving Water Limitation (VIII.O);
- Reporting Requirements (**NOA Appendix D, section X**); and
- Temperature Receiving Water Limitation. Compliance shall be determined based on the difference in temperature between Monitoring Locations RSW-001 and RSW-002 (**NOA Appendix D, section X.B.7.j**).

XI. ANTI-BACKSLIDING REQUIREMENTS

Anti-backsliding requirements are specified in the Municipal General Order, section V.D.3, of Attachment F (Fact Sheet). According to the Clean Water Act section 402(o)(2)(B)(i), the removal or relaxation of effluent limitations for the following pollutants is allowed because the updated effluent and receiving water monitoring data collected indicates the discharge no longer

exhibits reasonable potential to cause or contribute to an exceedance of water quality objectives/criteria.

- Aluminum;
- Bis(2-ethylhexly) phthalate;
- Chronic Toxicity;
- Endrin Aldehyde;
- Heptachlor;
- Heptachlor Epoxide; and
- Alpha-BHC.

A more detailed anti-backsliding analysis is provided in Appendix C to this NOA in section I.A Satisfaction of Anti-Backsliding Requirements.

XII. ANTIDEGRADATION REQUIREMENTS

Antidegradation requirements are specified in the Municipal General Order, section V.D.4, of Attachment F (Fact Sheet). This NOA does not allow an increase in flow or mass of pollutants to the receiving water. Thus, the relaxation of effluent limitations is consistent with the antidegradation provisions of 40 C.F.R. 131.12 and State Water Board Resolution No. 68-16, and no further antidegradation analysis is required.

XIII. RATIONALE FOR EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Additional rationale for effluent limitations and monitoring requirements is included in Appendix C of this NOA.

XIV. ENFORCEMENT

Failure to comply with the applicable requirements of the Municipal General Order, as specified in this NOA, 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.

XV. COMMUNICATION

Until this NOA becomes effective on 1 October 2018, you will need to comply with the effluent limitations and requirements contained in your existing permit, Order R5-2013-0003. For your August and September 2018 self-monitoring reports, you will need to demonstrate compliance with existing Order R5-2013-0003 through 30 September 2018, and compliance with this NOA beginning 1 October 2018.

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 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: El Dorado Irrigation District; Facility: El Dorado Hills Wastewater Treatment Plant; County: El Dorado County; and the CIWQS place ID 222434 in the body of the email. 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 is issued, except that if the thirtieth day following the date this NOA 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. Copies of the law and regulations applicable to filing petitions may be found on the internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

If you have any questions now that your NOA has been issued, the Central Valley Water Board’s Compliance and Enforcement Section will take over management of your case. Ayda Soltani of the Compliance and Enforcement section is your point of contact for any questions regarding this NOA. 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 Ayda Soltani at (916) 464-4634 or at Ayda.Soltani@waterboards.ca.gov.

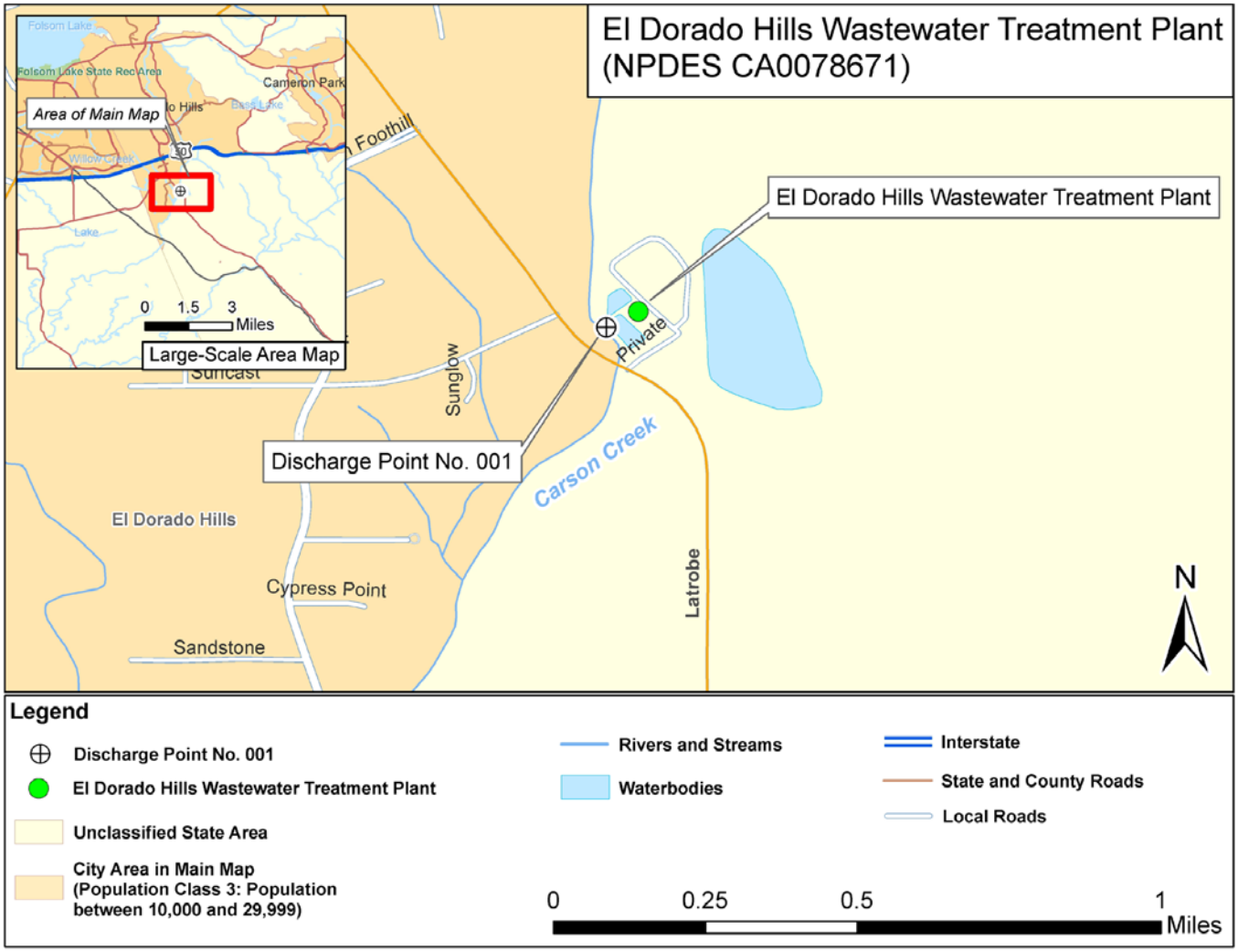
Original Signed By

Patrick Pulupa
Executive Officer

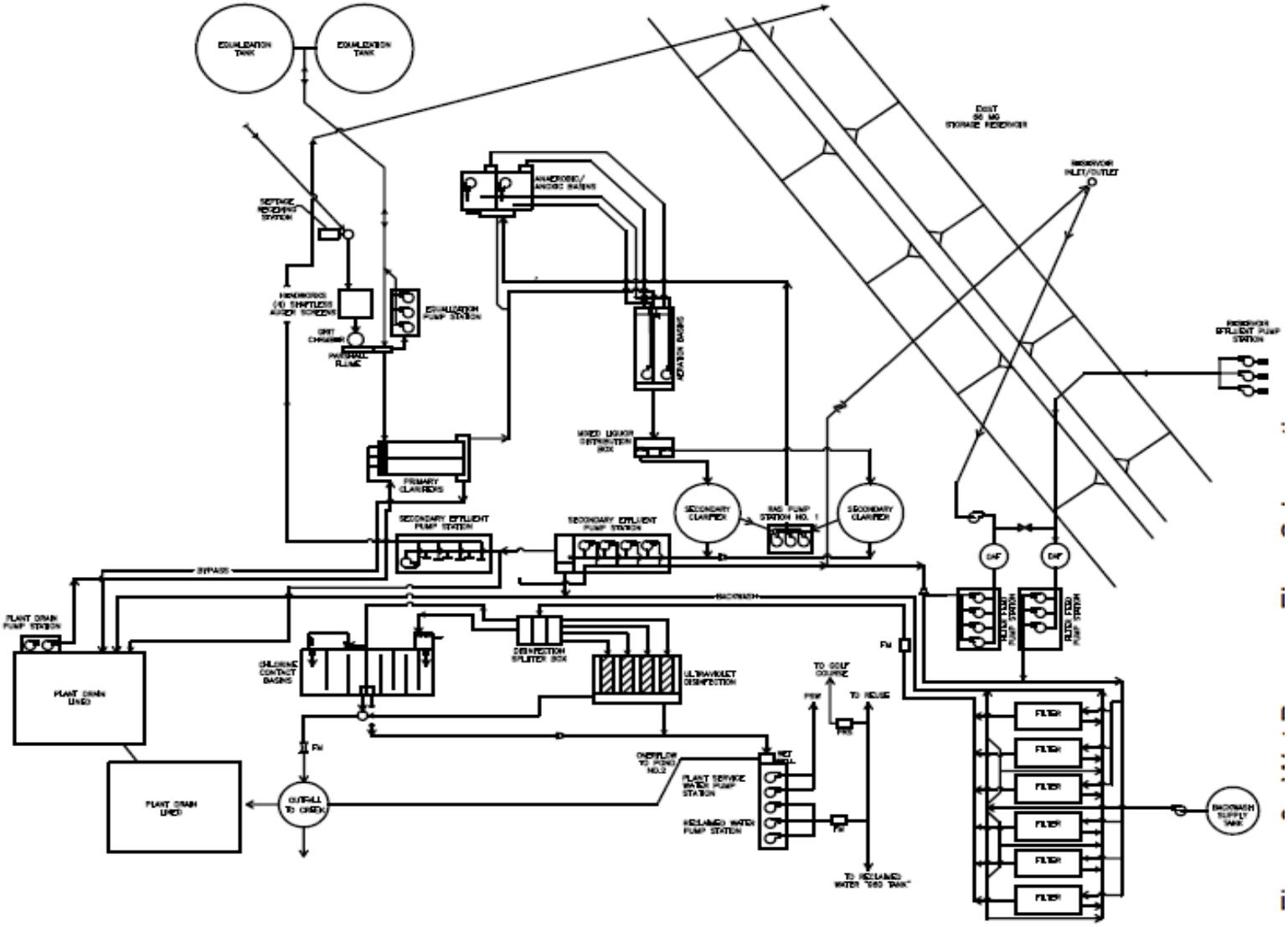
Enclosures: Appendix A – Location Map
Appendix B – Flow Schematic
Appendix C – Rationale for Effluent Limitations and Monitoring Requirements
Appendix D – Monitoring and Reporting Program
Municipal General Order R5-2017-0085

cc: David Smith, U.S. EPA, Region IX, San Francisco (email only)
Afrooz Farsimadan, Division of Water Quality, State Water Board, Sacramento (email only)

APPENDIX A – LOCATION MAP



APPENDIX B – FLOW SCHEMATIC



APPENDIX C – RATIONALE FOR EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

I. RATIONALE FOR EFFLUENT LIMITATIONS

A. Satisfaction of Anti-Backsliding Requirements

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

The effluent limitations in this NOA are at least as stringent as the effluent limitations in the Facility's previous Order R5-2013-0003, with the exception of effluent limitations for alpha-BHC, bis (2-ethylhexyl) phthalate, endrin aldehyde, heptachlor, heptachlor epoxide, chronic toxicity, and aluminum. The effluent limitations for these pollutants are less stringent than those in Order R5-2013-0003. This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

1. **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 "*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.

   a. For waters where standards are not attained, CWA section 304(d)(4)(A) specifies that any effluent limit based on a TMDL or other WLA may be revised only if the cumulative effect of all such revised effluent limits based on such TMDL's or WLAs will assure the attainment of such water quality standards.

   b. 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.

Carson Creek is considered an attainment water for alpha-BHC, bis(2-ethylhexyl) phthalate, endrin aldehyde, heptachlor, heptachlor epoxide, and chronic toxicity because the receiving water is not listed as impaired on the 303(d) list for these constituents.[1] As discussed below, removal of the effluent limits complies with federal and state antidegradation requirements. Thus, removal of the effluent limitations for alpha-BHC, bis(2-ethylhexyl) phthalate, endrin aldehyde, heptachlor, heptachlor epoxide, and chronic toxicity from this NOA meets the exception in CWA section 303(d)(4)(B).

2. **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

[1] "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 Board Order WQ 2008-0006, Berry Petroleum Company, Poso Creek/McVan Facility.

(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 Order R5-2013-0003 was issued indicates that alpha-BHC, bis(2-ethylhexyl) phthalate, endrin aldehyde, heptachlor, heptachlor epoxide, chronic toxicity, and aluminum do not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives in the receiving water. Additionally, updated information that was not available at the time Order R5-2013-0003 was issued indicates that less stringent effluent limitations for alpha-BHC, bis(2-ethylhexyl) phthalate, endrin aldehyde, heptachlor, heptachlor epoxide, chronic toxicity, and aluminum based on available data satisfy requirements in CWA section 402(o)(2). The updated information that supports the relaxation of effluent limitations for these constituents includes the following:

a. **Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, Chronic Toxicity, and Aluminum.** Monitoring data collected over the permit term for Order R5-2013-0003 indicates that endrin aldehyde, heptachlor, heptachlor epoxide, chronic toxicity, and aluminum in the discharge do not exhibit reasonable potential to cause or contribute to an exceedance of their respective water quality objectives/criteria.

b. **Alpha-BHC.** Monitoring data collected over the permit term for Order R5-2013-0003 indicates that alpha-BHC was detected in one of 34 effluent samples. The detected concentration was 0.017 µg/L with a method detection limit of 0.0016 µg/L and a reporting level of 0.01 µg/L. The Discharger investigated the single detection and found that the chromatograms from the laboratory analysis showed a significant difference in peak retention times between the standard and the effluent sample. As a result, the Discharger determined that the detection was a false-positive. Section 1.2 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP) allows that, "The RWQCB shall have discretion to consider if any data are inappropriate or insufficient for use in implementing this Policy. Instances where such consideration is warranted include, but are not limited to, the following: evidence that a sample has been erroneously reported or is not representative of effluent or ambient receiving water quality; questionable quality control/quality assurance practices; and varying seasonal conditions." Central Valley Water Board staff concurs with the Discharger's determination that the single detection is a false-positive and therefore, is not representative of the discharge. Based on the monitoring data over the permit term, the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of the water quality objectives/criteria for alpha-BHC.

c. **Bis(2-ethylhexyl) Phthalate.** Monitoring data collected over the permit term for Order R5-2013-0003 indicates that bis(2-ethylhexyl) phthalate was not detected in 19 of 23 effluent samples. Two samples were detected but not quantified, one sample was 1.5 µg/L (below the screening level of 1.8 µg/L), and one sample was 28 µg/L, which is not consistent with the remaining 22 samples. Therefore, the Discharger investigated the 28 µg/L sample, which

was taken on 4 April 2016, and identified issues with the lab analysis. First, of the 51 semi-volatile constituents tested in the 4 April 2016 effluent sample batch, 50 constituents (all but bis(2-ethylhexyl) phthalate), including all quality control samples and the matrix spike, were tested on 13 April 2016. Only bis(2-ethylhexyl) phthalate was tested on 14 April 2016. Typically, all analytical testing for a single sample batch, including the quality control samples, will be done on the same day. Second, the lab ran a matrix spike analysis of the effluent sample for quality control. The effluent was spiked with 4.9 ppb of bis(2-ethylhexyl) phthalate. If the sample detection of 28 µg/L was accurate, the matrix spike sample should have measured greater than 32 µg/L. However, the matrix spike sample was measured as non-detect (less than 0.29 µg/L) for bis(2-ethylhexyl) phthalate. Therefore, the effluent detection of 28 µg/L is considered to not be representative of the discharge and has not been used to determine reasonable potential under section 1.2 of the SIP.

Thus, removal of the effluent limitations for alpha-BHC, bis(2-ethylhexyl) phthalate, endrin aldehyde, heptachlor, heptachlor epoxide, chronic toxicity, and aluminum from this NOA is in accordance with CWA section 402(o)(2)(B)(i), which allows for the removal or relaxation of effluent limitations based on information that was not available at the time previous Order R5-2013-0003 was issued.

B. Antidegradation Policies

This NOA does not allow for an increase in flow or mass of pollutants to the receiving water. Therefore, a complete antidegradation analysis is not necessary. The NOA requires compliance with applicable federal technology-based standards and with WQBEL's where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. The permitted surface water discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16. 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 removes effluent limitations for alpha-BHC, bis (2-ethylhexyl) phthalate, endrin aldehyde, heptachlor, heptachlor epoxide, chronic toxicity, and aluminum based on updated monitoring data demonstrating that the effluent does not cause or contribute to an exceedance of the applicable water quality criteria or objectives in the receiving water. The removal of WQBEL's for these parameters will not result in an increase in pollutant concentration or loading, a decrease in the level of treatment or control, or a reduction of water quality. Therefore, the Central Valley Water Board finds that the removal of effluent limitations does not result in an increase in pollutants or any additional degradation of the receiving water. Thus, the removal of effluent limitations is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

II. RATIONALE FOR MONITORING REQUIREMENTS

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., BOD_5 and TSS reduction requirements). The monitoring frequency for flow (continuous) has

been retained from existing Order R5-2013-0003. This NOA reduces the monitoring frequency for BOD_5 and TSS from three times per week to two times per week. The Central Valley Water Board finds that this frequency will provide sufficient information to determine compliance with percent removal requirements and monitor the performance of the Facility.

B. Effluent Monitoring

1. 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 Municipal General Order, Attachment E and the Monitoring and Reporting Program, Appendix D of this NOA, establish monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the Monitoring and Reporting Program, Appendix D of this NOA for discharges of treated municipal wastewater to Carson Creek.

   a. Effluent monitoring frequency for flow (continuous), biological oxygen demand (twice per week), pH (once per day), total suspended solids (twice per week), ammonia nitrogen (once per week), hardness (once per month), nitrate nitrogen (once per week), nitrite nitrogen (once per week), temperature (once per day), and total coliform organisms (twice per week) have been retained from existing Order R5-2013-0003 to determine compliance with effluent limitations for these parameters.

   b. Monitoring data collected over the permit term for Order R5-2013-0003 for alpha-BHC, bis (2-chloroethyl) ether, bis (2-ethylhexyl) phthalate, endrin aldehyde, heptachlor, heptachlor epoxide, and aluminum did not demonstrate reasonable potential to exceed water quality objectives/criteria. Therefore, specific monitoring requirements for these parameters have not been retained from Order R5-2013-0003.

   c. Regular effluent monitoring for mercury was not included in Order R5-2013-0003. Monitoring data collected over the permit term for Order R5-2013-0003 for mercury did not demonstrate reasonable potential to exceed water quality objectives/criteria. However, to assess compliance with the performance-based effluent limitation for total recoverable mercury, this NOA establishes annual effluent monitoring for total recoverable mercury.

   d. Regular effluent monitoring for electrical conductivity was not included in Order R5-2013-0003. Monitoring data collected over the permit term for Order R5-2013-0003 for electrical conductivity did not demonstrate reasonable potential to exceed water quality objectives/criteria. However, to assess the Facility's performance regarding the Salinity Evaluation and Minimization Plan Provision requirement included in this NOA, this NOA establishes quarterly effluent monitoring for electrical conductivity.

C. Whole Effluent Toxicity Testing Requirements

1. Acute Toxicity. This NOA reduces the acute toxicity 96-hour bioassay testing frequency required in existing Order No. R5-2013-0003 from once every two months to annually when discharging to Carson Creek to demonstrate compliance

with the effluent limitation for acute toxicity. The Central Valley Water Board finds that this frequency will provide sufficient information to determine if the Facility is contributing acute toxicity to Carson Creek.

2. **Chronic Toxicity.** Consistent with existing Order No. R5-2013-0003, quarterly chronic whole effluent toxicity testing is required when discharging to Carson Creek in order to demonstrate compliance with the Basin Plan's narrative toxicity objective.

D. Receiving Water Monitoring

1. Carson Creek

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

b. Monitoring data collected during the term of Order R5-2013-0003 indicates that the discharge has not caused significant impacts to Carson Creek. Therefore, this NOA reduces the monitoring frequency for dissolved oxygen (once per month) and turbidity (once per month), and retains the monitoring frequency for pH (once per week), temperature (once per week), and hardness (once per month). The Central Valley Water Board finds that these frequencies are sufficient to assess compliance with receiving water limitations and to assess the impacts of the discharge to Carson Creek.

c. Order R5-2013-0003 required upstream receiving water monitoring for priority pollutants and other pollutants of concern concurrently with effluent monitoring for one year with samples taken in alternate months. This NOA requires upstream receiving water characterization monitoring (see MRP, Appendix D, Table D-9) once per permit term concurrent with one of the two effluent characterization monitoring events. The Central Valley Water Board finds that this frequency is sufficient to characterize the discharge.

2. Groundwater

a. Order R5-2013-0003 required annual groundwater monitoring of the three monitoring wells. Groundwater monitoring data showed that groundwater quality has improved to a stable level since the wastewater drain ponds were lined. Therefore, groundwater monitoring requirements have not been retained from Order R5-2013-0003.

E. Biosolids Monitoring

1. Biosolids monitoring for compliance with 40 C.F.R. part 503 regulations is not included in the Municipal General Order; therefore, not included in this NOA since it is a program administered by U.S. EPA. Annual sludge monitoring is required for compliance with the pretreatment requirements as specified in section X.D.5 of the MRP, Appendix D.

F. Pond Monitoring

1. Pond monitoring is required of the storage reservoir to ensure proper operation. Monthly monitoring of the storage reservoir for dissolved oxygen, pH, odors, and freeboard have been retained from existing Order R5-2013-0003. The Central Valley Water Board finds that monitoring for total dissolved solids, standard minerals, metals, color, and levee condition are not necessary to ensure proper

operation of the storage reservoir and therefore, these monitoring requirements have not been retained in this NOA.

G. Filtration System Monitoring

1. Continuous monitoring for turbidity is included under the UV Disinfection System monitoring requirements in existing Order R5-2013-0003. Continuous monitoring for turbidity is retained in this NOA as specified in section IX.D of the MRP, Appendix D.

H. UV Disinfection System Monitoring

1. Continuous monitoring for flow, number of UV banks in operation, UV transmittance, and UV dose has been retained from existing Order R5-2013-0003. The Central Valley Water Board finds that continuous monitoring for UV power setting is not necessary to ensure compliance with the UV disinfection system operating specifications contained in section VII.C.4.b of the Municipal General Order and therefore, has not been retained in this NOA.

I. Effluent and Receiving Water Characterization Monitoring

1. Order R5-2013-0003 included bimonthly monitoring for one year when discharging to Carson Creek of the effluent and upstream receiving water. This NOA requires characterization monitoring of the effluent twice per permit term and monitoring of the upstream receiving water once per permit term. The Central Valley Water Board finds that the reduced frequency of characterization monitoring will be sufficient to characterize the discharge from the Facility.

III. SUMMARY OF REASONABLE POTENTIAL ANALYSIS

Constituent	Units	MEC	B	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	MCL	RP
Aluminum, Total Recoverable	µg/L	110[4]	81[5]	200	750	NA[5]	--	--	--	200	No
Ammonia Nitrogen, Total (as N)	mg/L	1.7	0.6	1.5	3.15[1]	2.04[2]	--	--	--	--	Yes[3]
Bis (2-Ethylhexyl) Phthalate	µg/L	1.5	ND	1.8	--	--	1.8	5.9	--	4	No
Alpha-BHC	µg/L	ND	ND	ND	--	--	0.0039	0.013	ND	--	No
Endrin Aldehyde	µg/L	ND	ND	ND	--	--	0.76	0.81	ND	--	No
Heptachlor	µg/L	ND	ND	ND	0.52	0.0038	0.00021	0.00021	ND	0.01	No
Heptachlor Epoxide	µg/L	ND	ND	ND	0.52	0.0038	0.00010	0.00011	ND	0.01	No
Mercury, Total Recoverable	µg/L	0.004	0.006	0.050	--	--	0.050	0.051	--	2	No
Nitrate Plus Nitrite (as N)	mg/L	9.5	0.7	10	--	--	--	--	--	10	Yes[3]

General Note: All inorganic concentrations are given as a total recoverable.
MEC = Maximum Effluent Concentration
B = Maximum Receiving Water Concentration or lowest detection level, if non-detect
C = Criterion used for RP Analysis
CMC = Criterion Maximum Concentration (CTR or NTR)
CCC = Criterion Continuous Concentration (CTR or NTR)
Water & Org = Human Health Criterion for Consumption of Water & Organisms (CTR or NTR)
Org. Only = Human Health Criterion for Consumption of Organisms Only (CTR or NTR)
Basin Plan = Numeric Site-specific Basin Plan Water Quality Objective
MCL = Drinking Water Standards Maximum Contaminant Level
NA = Not Applicable
ND = Non-detect
RP = Reasonable Potential

Footnotes:
1 U.S. EPA National Recommended Ambient Water Quality Criteria Freshwater Aquatic Life Protection, 1-hour average.
2 U.S. EPA National Recommended Ambient Water Quality Criteria Freshwater Aquatic Life Protection, 30-day average.
3 RP exists due to the biological processes inherent to the treatment of domestic wastewater (see sections V.C.3.b.ii and V.C.3.b.ix in Attachment F, Fact Sheet, of the Municipal General Order).
4 Represents the maximum observed calendar year annual average for comparison with the Secondary MCL.
5 Consistent with Order R5-2013-0003, the Central Valley Water Board has determined that the 87 µg/L CCC is not applicable to Carson Creek because the hardness and pH are greater than that of the Auburn Ravine aluminum toxicity study, which resulted in a site-specific aluminum objective of 1,079 µg/L (see section V.C.3.b.i in Attachment F, Fact Sheet, of the Municipal General Order).

APPENDIX D – MONITORING AND REPORTING PROGRAM

Contents

Tables

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 Discharger. The monitoring and reporting requirements applicable to the Discharger are contained in this Appendix, and are listed 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 Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement federal and California 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. 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 the Notice of Applicability (NOA) and this MRP shall be conducted by a laboratory certified for such analyses by the State Water Resources Control Board (State Water Board), Division of Drinking Water (DDW; formerly the Department of Public Health). Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Central Valley Water Board. In the event a certified laboratory is not available to the Discharger for any onsite field measurements such as pH, dissolved oxygen, turbidity, temperature, and residual chlorine, such analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program for any onsite field measurements such as pH, dissolved oxygen, turbidity, temperature, and residual chlorine 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. Laboratories analyzing monitoring samples shall be accredited by DDW, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

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 to the State Water Resources Control Board at the following address:

State Water Resources Control Board Quality Assurance Program Officer
Office of Information Management and Analysis
State Water Resources Control Board
1001 I Street, Sacramento, CA 95814

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. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.

J. Not Applicable

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 the NOA.

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 Facility influent can be obtained prior to entering the treatment process. 38° 38’ 19” N, 121° 3’ 36” W
001	EFF-001	A location where a representative sample of the effluent can be collected following tertiary treatment and disinfection. 38° 38’ 18” N, 121° 3’ 38” W
--	RES-001	61.9 million gallon storage reservoir. 38º 38’ 14” N, 121º 3’ 32” W
--	RSW-001	In Carson Creek, upstream of Discharge Point 001. 38º 38’ 16” N, 121º 3’ 41” W
--	RSW-002	In Carson Creek, downstream of Discharge Point 001. 38º 38’ 9” N, 121º 3’ 39” W
--	UVS-001	A location where a representative sample of wastewater can be collected after the filtration system and prior to entering the ultraviolet light (UV) disinfection system.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

1. The Discharger shall monitor influent to the Facility at Monitoring Location INF-001 as specified in Table D-2 below.

Table D-2. Influent Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Flow	MGD	Meter	Continuous	--
Conventional Pollutants				
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hr Composite[1]	2/Week	[2]
Total Suspended Solids	mg/L	24-hr Composite[1]	2/Week	[2]

[1] 24-hour flow proportional composite.
[2] 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.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor treated domestic wastewater at Monitoring Location EFF-001 as specified in Table D-3. 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). If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

Table D-3. Effluent Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Flow	MGD	Meter	Continuous	--
Conventional Pollutants				
Biochemical Oxygen Demand (5-day @ 20° C)	mg/L	24-hr Composite[1]	2/Week	[2]
pH	standard units	Grab[3,5]	1/Day[4]	[2]
Total Suspended Solids	mg/L	24-hr Composite[1]	2/Week	[2]
Priority Pollutants				
Mercury, Total Recoverable	ng/L	Grab[3]	1/Year	[2,6,7]
Non-Conventional Pollutants				
Ammonia Nitrogen, Total (as N)	mg/L	Grab[3]	1/Week[4,8]	[2]
	lbs/day	Calculate	1/Week	--
Electrical Conductivity @ 25°C	µmhos/ cm	Grab[3]	1/Quarter	[2]

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Hardness, Total (as $CaCO_3$)	mg/L	Grab[3]	1/Month	[2]
Nitrate Plus Nitrite (as N)	mg/L	Calculate	1/Week	[2]
Nitrate Nitrogen, Total (as N)	mg/L	Grab[3]	1/Week[9]	[2]
Nitrite Nitrogen, Total (as N)	mg/L	Grab[3]	1/Week[9]	[2]
Temperature	°C	Grab[3,5]	1/Day[4]	[2]
Total Coliform Organisms	MPN/100 mL	Grab[3]	2/Week[10]	[2]

1 24-hour flow proportional composite.

2 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.

3 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.

4 pH and temperature shall be recorded at the time of ammonia sample collection.

5 A hand-held field meter may be used, 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 Monitoring and Reporting Program shall be maintained at the Facility.

6 For priority pollutant constituents the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (See section IX.F below).

7 Unfiltered methylmercury and total mercury samples 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 reporting limit of 0.05 ng/L for methylmercury and 0.5 ng/L for total mercury.

8 Concurrent with whole effluent toxicity monitoring.

9 Monitoring for nitrate and nitrite shall be conducted concurrently.

10 Samples for total coliform organisms may be collected at any point following disinfection.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Toxicity Testing. The Discharger shall conduct acute toxicity testing to determine whether the effluent is contributing acute toxicity to the receiving water. The Discharger shall meet the following acute toxicity testing requirements:

1. *Monitoring Frequency* – The Discharger shall perform annual acute toxicity testing, while the Facility is discharging to Carson Creek and concurrent with effluent ammonia sampling.

2. *Sample Types* – The Discharger may use flow-through or static renewal testing. For static renewal testing, the samples shall be grab samples, and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location EFF-001.

3. *Test Species* – The test species shall be rainbow trout (*Oncorhynchus mykiss*).

4. *Test Duration* – Test duration shall be 96 hours.

5. *Methods* – The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition. Temperature, total residual chlorine, and pH shall be recorded at the time of sample collection. No pH adjustment may be made unless approved by the Executive Officer.
6. *Test Failure* – If an acute toxicity test does not meet all test acceptability criteria, as specified in the test method, the Discharger must re-sample and re-test as soon as possible, not to exceed 7 days following notification of test failure.

B. Chronic Toxicity Testing. The Discharger shall conduct chronic toxicity testing to determine whether the effluent is contributing chronic toxicity to the receiving water. The Discharger shall meet the following chronic toxicity testing requirements:

1. *Monitoring Frequency* – The Discharger shall perform chronic toxicity testing during quarters in which there is a discharge to receiving water. If the result of the routine chronic toxicity testing event exhibits toxicity, demonstrated by the result greater than 1.3 TUc (as 100/EC25) AND a percent effect greater than 25 percent at 100 percent effluent, the Discharger has the option of conducting two additional compliance monitoring chronic toxicity testing events in order to calculate a median. The optional compliance monitoring events shall occur at least one week apart, and the final monitoring event shall be initiated no later than 6 weeks from the routine monitoring event that exhibited toxicity.
2. *Sample Types* – Effluent samples shall be flow proportional 24-hour composite samples and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at Monitoring Location EFF-001. The receiving water control shall be a grab sample obtained from Monitoring Location RSW-001.
3. *Sample Volumes* – Adequate sample volumes shall be collected to provide renewal water to complete the test in the event that the discharge is intermittent.
4. *Test Species* – Chronic toxicity testing measures sublethal (e.g., reduced growth, reproduction) and/or lethal effects to test organisms exposed to an effluent compared to that of the control organisms. The Discharger shall conduct chronic toxicity tests with one of the following species that is the most sensitive:
   a. The cladoceran, water flea, *Ceriodaphnia dubia* (survival and reproduction test);
   b. The fathead minnow, *Pimephales promelas* (larval survival and growth test); and
   c. The green alga, *Selenastrum capricornutum* (growth test).
5. *Most Sensitive Species Determination* – The Discharger shall determine the most sensitive species of the three test species specified above. The species demonstrating the highest percent effect at the instream waste concentration from the first four quarterly monitoring events will be considered the most sensitive species and shall be used for chronic toxicity testing for the reminder of the permit term, except where documented issues with the sample analysis or related to the sample analysis prevent a clear selection of the most sensitive species. The Discharger may use the four most recent tests conducted prior to receiving the NOA for use in determining the most sensitive species, if the tests were conducted in a manner consistent sufficient to make such determination. The Discharger shall request Executive Officer approval of the most sensitive species determination after conducting the four sets of quarterly chronic toxicity monitoring events. If the Executive Officer approval has not been received, all three species must be tested

as described in section V.B.1 Monitoring Frequency above until Executive Officer approval is granted.

6. *Methods* – The presence of chronic toxicity shall be estimated as specified in *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.

7. *Reference Toxicant* – As required by the SIP, all chronic toxicity tests shall be conducted with concurrent testing with a reference toxicant and shall be reported with the chronic toxicity test results.

8. *Dilutions* –The chronic toxicity testing shall be performed using the dilution series identified in Table D-4, below, unless an alternative dilution series is detailed in the submitted Toxicity Reduction Evaluation (TRE) Action Plan. A receiving water control or laboratory water control may be used as the diluent.

Table D-4. Chronic Toxicity Testing Dilution Series

Sample	Dilutions[a] (%)					Control
	100	75	50	25	12.5	
% Effluent	100	75	50	25	12.5	0
% Control Water	0	25	50	75	87.5	100

[a] Receiving water control or laboratory water control may be used as the diluent.

9. *Test Failure* – The Discharger must re-sample and re-test as soon as possible, but no later than fourteen (14) days after receiving notification of a test failure. A test failure is defined as follows:

   a. The reference toxicant test or the effluent test does not meet all test acceptability criteria as specified in the *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 (Method Manual), and its subsequent amendments or revisions; or

   b. The percent minimum significant difference (PMSD) measured for the test exceeds the upper PMSD bound variability criterion in Table 6 on page 52 of the Method Manual. (A retest is only required in this case if the test results do not exceed the monitoring trigger specified in the Special Provision at section VII.C.2.a.iii of the Municipal General Order.)

C. WET Testing Notification Requirements. The Discharger shall notify the Central Valley Water Board within 24-hours after the receipt of test results exceeding the monitoring trigger during regular monitoring, or an exceedance of the acute toxicity effluent limitation.

D. WET Testing Reporting Requirements. All toxicity test reports shall include the contracting laboratory's complete report provided to the Discharger and shall be in accordance with the appropriate "Report Preparation and Test Review" sections of the method manuals. At a minimum, whole effluent toxicity monitoring shall be reported as follows:

1. Chronic WET Reporting. Chronic toxicity monitoring results shall be reported to the Central Valley Water Board with the quarterly self-monitoring report, and shall contain, at minimum:

a. The results expressed in TUc, measured as 100/NOEC, and also measured as 100/LC50, 100/EC25, 100/IC25, and 100/IC50, as appropriate.

b. The percent effect at the instream waste concentration;

c. The statistical methods used to calculate endpoints;

d. The statistical output page, which includes the calculation of the percent minimum significant difference (PMSD);

e. The dates of sample collection and initiation of each toxicity test; and

f. The results compared to the numeric toxicity monitoring trigger.

Additionally, the quarterly SMR shall contain an updated chronology of chronic toxicity test results expressed in TUc and percent effect at the instream waste concentration, and organized by test species, type of test (survival, growth or reproduction), and monitoring frequency, i.e., either quarterly, monthly, monthly median, or TRE.

2. **Acute WET Reporting.** Acute toxicity test results shall be submitted with the quarterly SMR and reported as percent survival.

3. **TRE or Toxicity Evaluation Study Reporting.** Reports for TREs or a Toxicity Evaluation Study shall be submitted in accordance with the schedule contained in the Discharger's approved TRE Workplan, or as amended by the Discharger's TRE Action Plan.

4. **Quality Assurance (QA).** The Discharger must provide the following information for QA purposes:

a. Results of the applicable reference toxicant data with the statistical output page giving the species, NOEC, LOEC, type of toxicant, dilution water used, concentrations used, PMSD, and dates tested.

b. The reference toxicant control charts for each endpoint, which include summaries of reference toxicant tests performed by the contracting laboratory.

c. Any information on deviations or problems encountered and how they were dealt with.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Locations RSW-001 and RSW-002

1. The Discharger shall monitor Carson Creek at Monitoring Locations RSW-001 and RSW-002 as specified in Table D-5. If there was no discharge to 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-5. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Conventional Pollutants				
pH	standard units	Grab[1,2]	1/Week	[3]
Non-Conventional Pollutants				
Dissolved Oxygen	mg/L	Grab[1,2]	1/Month	[3]
Hardness, Total (as $CaCO_3$)	mg/L	Grab[2]	1/Month	[3]
Temperature	°C	Grab[1,2]	1/Week	[3]
Turbidity	NTU	Grab[2]	1/Month	[3]

[1] A hand-held field meter may be used, 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 Monitoring and Reporting Program shall be maintained at the Facility.

[2] 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.

[3] 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.

2. 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.

IX. OTHER MONITORING REQUIREMENTS

A. Biosolids – Not Applicable

B. Ponds

1. Monitoring Location RES-001

a. The Discharger shall monitor the storage reservoir at Monitoring Location RES-001 as specified in Table D-6. When the storage reservoir holds 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-6. Pond Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab[1,2]	1/Month	[3]

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Freeboard	feet	Measurement[4]	1/Month	
Odors	--	Observation	1/Month	--
pH	standard units	Grab[1,2]	1/Month	[3]

[1] A hand-held field meter may be used, 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 Monitoring and Reporting Program shall be maintained at the Facility.
[2] 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.
[3] 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.
[4] Measurement shall be vertically from the water surface to the top of the overflow spillway pipe located in the overflow control structure.

C. Municipal Water Supply – Not Applicable

D. Filtration System

1. Monitoring Location UVS-001

a. The Discharger shall monitor the filtration system at Monitoring Location UVS-001 as specified in Table D-7.

Table D-7. Filtration System Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Turbidity	NTU	Meter	Continuous	[1,2]

[1] For continuous analyzers, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, for instances in which a continuous measurement is not available due to the analyzer(s) not being in operation due to maintenance activities. 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. For Dischargers that utilize UV disinfection, 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.
[2] Report daily average and maximum turbidity.

E. Ultraviolet Light (UV) Disinfection System

1. Monitoring Location UVS-001

a. The Discharger shall monitor the UV disinfection system at Monitoring Location UVS-001 as specified in Table D-8:

Table D-8. UV Disinfection System Monitoring Requirements

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
Flow	MGD	Meter	Continuous	[1]
Number of UV banks in operation[2]	Number	Observation	Continuous	[1]
UV Transmittance[3]	Percent (%)	Meter	Continuous	[1]

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method
UV Dose[4]	mW-sec/cm^2	Calculated	Continuous	[1]

[1] For continuous analyzers, the Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, for instances in which a continuous measurement is not available due to the analyzer(s) not being in operation due to maintenance activities. 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. For Dischargers that utilize UV disinfection, 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.

[2] Report number of UV banks on at the minimum UV dose.

[3] Report daily minimum hourly average UV transmittance and daily average 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.

[4] Report daily minimum hourly average UV dose and daily 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.

F. Effluent and Receiving Water Characterization

The Discharger shall monitor the effluent and receiving water at Monitoring Locations EFF-001 and RSW-001, respectively, for the constituents listed in Table D-9, as described in this section.

1. **Monitoring Frequency.** Samples shall be collected from the effluent (Monitoring Location EFF-001) twice during the permit term, with all the sampling commencing not earlier than 30 November 2019 and concluding by 29 November 2020. The two effluent sampling events shall be conducted a minimum of 90 days apart. Samples shall be collected from the upstream receiving water (Monitoring Location RSW-001) once during the permit term, concurrent with one of the effluent sampling events required in this section. The effluent sampling event that is not conducted concurrent with the upstream receiving water sampling event is not required to be collected during discharge to Carson Creek. The results of such monitoring shall be submitted to the Central Valley Water Board with the monthly SMRs. Each individual monitoring event shall provide representative sample results for the effluent and upstream receiving water.

2. **Concurrent Sampling.** Receiving water sampling shall be performed at approximately the same time and on the same date as one of the effluent sampling events.

3. **Sample Type.** All receiving water samples shall be taken as grab samples. Effluent samples shall be taken as described in Table D-9, below.

Table D-9. Effluent and Receiving Water Characterization Monitoring

Parameter	Units	Effluent Sample Type	Maximum Reporting Level[1]
2- Chloroethyl vinyl ether	µg/L	Grab[2]	1
Acrolein	µg/L	Grab[2]	2
Acrylonitrile	µg/L	Grab[2]	2
Benzene	µg/L	Grab[2]	0.5
Bromoform	µg/L	Grab[2]	0.5
Carbon Tetrachloride	µg/L	Grab[2]	0.5
Chlorobenzene	µg/L	Grab[2]	0.5
Chloroethane	µg/L	Grab[2]	0.5
Chloroform	µg/L	Grab[2]	2
Chloromethane	µg/L	Grab[2]	2
Dibromochloromethane	µg/L	Grab[2]	0.5
Dichlorobromomethane	µg/L	Grab[2]	0.5
Dichloromethane	µg/L	Grab[2]	2
Ethylbenzene	µg/L	Grab[2]	2
Hexachlorobenzene	µg/L	Grab[2]	1
Hexachlorobutadiene	µg/L	Grab[2]	1
Hexachloroethane	µg/L	Grab[2]	1
Methyl bromide (Bromomethane)	µg/L	Grab[2]	1
Naphthalene	µg/L	Grab[2]	10
3-Methyl-4-Chlorophenol	µg/L	Grab[2]	--
Tetrachloroethylene	µg/L	Grab[2]	0.5
Toluene	µg/L	Grab[2]	2
trans-1,2-Dichloroethylene	µg/L	Grab[2]	1
Trichloroethene	µg/L	Grab[2]	2
Vinyl chloride	µg/L	Grab[2]	0.5
Methyl-tert-butyl ether (MTBE)	µg/L	Grab[2]	--
1,1,1-Trichloroethane	µg/L	Grab[2]	0.5
1,1,2- Trichloroethane	µg/L	Grab[2]	0.5
1,1-dichloroethane	µg/L	Grab[2]	0.5
1,1-dichloroethylene	µg/L	Grab[2]	0.5
1,2-dichloropropane	µg/L	Grab[2]	0.5
1,3-dichloropropylene	µg/L	Grab[2]	0.5
1,1,2,2-tetrachloroethane	µg/L	Grab[2]	0.5
1,2,4-trichlorobenzene	µg/L	Grab[2]	1
1,2-dichloroethane	µg/L	Grab[2]	0.5
1,2-dichlorobenzene	µg/L	Grab[2]	0.5
1,3-dichlorobenzene	µg/L	Grab[2]	0.5
1,4-dichlorobenzene	µg/L	Grab[2]	0.5
1,2-Benzanthracene	µg/L	Grab[2]	5
1,2-Diphenylhydrazine	µg/L	Grab[2]	1
2-Chlorophenol	µg/L	Grab[2]	5
2,4-Dichlorophenol	µg/L	Grab[2]	5
2,4-Dimethylphenol	µg/L	Grab[2]	2
2,4-Dinitrophenol	µg/L	Grab[2]	5
2,4-Dinitrotoluene	µg/L	Grab[2]	5

Parameter	Units	Effluent Sample Type	Maximum Reporting Level[1]
2,4,6-Trichlorophenol	µg/L	Grab[2]	10
2,6-Dinitrotoluene	µg/L	Grab[2]	5
2-Nitrophenol	µg/L	Grab[2]	10
2-Chloronaphthalene	µg/L	Grab[2]	10
3,3'-Dichlorobenzidine	µg/L	Grab[2]	5
3,4-Benzofluoranthene	µg/L	Grab[2]	10
4-Chloro-3-methylphenol	µg/L	Grab[2]	5
4,6-Dinitro-2-methylphenol	µg/L	Grab[2]	10
4-Nitrophenol	µg/L	Grab[2]	10
4-Bromophenyl phenyl ether	µg/L	Grab[2]	10
4-Chlorophenyl phenyl ether	µg/L	Grab[2]	5
Acenaphthene	µg/L	Grab[2]	1
Acenaphthylene	µg/L	Grab[2]	10
Anthracene	µg/L	Grab[2]	10
Benzidine	µg/L	Grab[2]	5
Benzo(a)pyrene (3,4-Benzopyrene)	µg/L	Grab[2]	2
Benzo(g,h,i)perylene	µg/L	Grab[2]	5
Benzo(k)fluoranthene	µg/L	Grab[2]	2
Bis(2-chloroethoxy) methane	µg/L	Grab[2]	5
Bis(2-chloroethyl) ether	µg/L	Grab[2]	1
Bis(2-chloroisopropyl) ether	µg/L	Grab[2]	10
Bis(2-ethylhexyl) phthalate[3]	µg/L	Grab[2]	5
Butyl benzyl phthalate	µg/L	Grab[2]	10
Chrysene	µg/L	Grab[2]	5
Di-n-butylphthalate	µg/L	Grab[2]	10
Di-n-octylphthalate	µg/L	Grab[2]	10
Dibenzo(a,h)-anthracene	µg/L	Grab[2]	0.1
Diethyl phthalate	µg/L	Grab[2]	10
Dimethyl phthalate	µg/L	Grab[2]	10
Fluoranthene	µg/L	Grab[2]	10
Fluorene	µg/L	Grab[2]	10
Hexachlorocyclopentadiene	µg/L	Grab[2]	5
Indeno(1,2,3-c,d)pyrene	µg/L	Grab[2]	0.05
Isophorone	µg/L	Grab[2]	1
N-Nitrosodiphenylamine	µg/L	Grab[2]	1
N-Nitrosodimethylamine	µg/L	Grab[2]	5
N-Nitrosodi-n-propylamine	µg/L	Grab[2]	5
Nitrobenzene	µg/L	Grab[2]	10
Pentachlorophenol	µg/L	Grab[2]	1
Phenanthrene	µg/L	Grab[2]	5
Phenol	µg/L	Grab[2]	1
Pyrene	µg/L	Grab[2]	10
Aluminum	µg/L	24-hr Composite[4]	--
Antimony	µg/L	24-hr Composite[4]	5
Arsenic	µg/L	24-hr Composite[4]	10
Asbestos	MFL	24-hr Composite[4]	--
Beryllium	µg/L	24-hr Composite[4]	2

Parameter	Units	Effluent Sample Type	Maximum Reporting Level[1]
Cadmium	µg/L	24-hr Composite[4]	0.5
Chromium (Total)	µg/L	24-hr Composite[4]	10
Chromium (VI)	µg/L	24-hr Composite[4]	10
Copper	µg/L	24-hr Composite[4]	0.5
Cyanide	µg/L	24-hr Composite[4]	5
Iron	µg/L	24-hr Composite[4]	--
Lead	µg/L	24-hr Composite[4]	0.5
Mercury[5]	µg/L	24-hr Composite[4]	0.5
Manganese	µg/L	24-hr Composite[4]	--
Nickel	µg/L	24-hr Composite[4]	20
Selenium	µg/L	24-hr Composite[4]	5
Silver	µg/L	24-hr Composite[4]	0.25
Thallium	µg/L	24-hr Composite[4]	1
Zinc	µg/L	24-hr Composite[4]	20
4,4'-DDD	µg/L	24-hr Composite[4]	0.05
4,4'-DDE	µg/L	24-hr Composite[4]	0.05
4,4'-DDT	µg/L	24-hr Composite[4]	0.01
alpha-Endosulfan	µg/L	24-hr Composite[4]	0.02
alpha-Hexachlorocyclohexane (BHC)	µg/L	24-hr Composite[4]	0.01
Aldrin	µg/L	24-hr Composite[4]	0.005
beta-Endosulfan	µg/L	24-hr Composite[4]	0.01
beta-Hexachlorocyclohexane	µg/L	24-hr Composite[4]	0.005
Chlordane	µg/L	24-hr Composite[4]	0.1
delta-Hexachlorocyclohexane	µg/L	24-hr Composite[4]	0.005
Dieldrin	µg/L	24-hr Composite[4]	0.01
Endosulfan sulfate	µg/L	24-hr Composite[4]	0.01
Endrin	µg/L	24-hr Composite[4]	0.01
Endrin Aldehyde	µg/L	24-hr Composite[4]	0.01
Heptachlor	µg/L	24-hr Composite[4]	0.01
Heptachlor Epoxide	µg/L	24-hr Composite[4]	0.02
Lindane (gamma-Hexachlorocyclohexane)	µg/L	24-hr Composite[4]	0.5
PCB-1016	µg/L	24-hr Composite[4]	0.5
PCB-1221	µg/L	24-hr Composite[4]	0.5
PCB-1232	µg/L	24-hr Composite[4]	0.5
PCB-1242	µg/L	24-hr Composite[4]	0.5
PCB-1248	µg/L	24-hr Composite[4]	0.5
PCB-1254	µg/L	24-hr Composite[4]	0.5
PCB-1260	µg/L	24-hr Composite[4]	0.5
Toxaphene	µg/L	24-hr Composite[4]	--
2,3,7,8-TCDD (Dioxin)	µg/L	24-hr Composite[4]	--
Ammonia (as N)[5]	mg/L	24-hr Composite[4]	--
Boron	µg/L	24-hr Composite[4]	--
Chloride	mg/L	24-hr Composite[4]	--
Flow	MGD	Meter	--

Parameter	Units	Effluent Sample Type	Maximum Reporting Level[1]
Hardness (as CaCO3)[5]	mg/L	Grab[2]	--
Foaming Agents (MBAS)	µg/L	24-hr Composite[4]	--
Mercury, Methyl	ng/L	Grab[2]	--
Nitrate (as N)[5]	mg/L	24-hr Composite[4]	--
Nitrite (as N)[5]	mg/L	24-hr Composite[4]	--
pH[5]	Std Units	Grab[2]	--
Phosphorus, Total (as P)	mg/L	24-hr Composite[4]	--
Specific conductance[5,6]	µmhos/cm	24-hr Composite[4]	--
Sulfate	mg/L	24-hr Composite[4]	--
Sulfide (as S)	mg/L	24-hr Composite[4]	--
Sulfite (as SO3)	mg/L	24-hr Composite[4]	--
Temperature[5]	°C	Grab[2]	--
Total Dissolved Solids (TDS)	mg/L	24-hr Composite[4]	--

[1] The reporting levels required in this table for priority pollutant constituents are established based on section 2.4.2 and Appendix 4 of the SIP.

[2] 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.

[3] In order to verify if bis (2-ethylhexyl) phthalate is truly present, the Discharger shall take steps to assure that sample containers, sampling apparatus, and analytical equipment are not sources of the detected contaminant.

[4] 24-hour flow proportional composite.

[5] The Discharger is not required to conduct effluent monitoring per this section for ammonia, mercury, nitrate, nitrite, pH, and specific conductance (electrical conductivity), constituents that have already been sampled in a given month, as required in Table D-3. Hardness monitoring is required by this section even though regular effluent monitoring is required in Table D-3 because hardness samples are needed concurrently with metals sampling. Receiving water monitoring is required for these constituents during the receiving water monitoring event per this section.

[6] Electrical conductivity.

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.

2. 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).

3. **Compliance Time Schedules. – Not Applicable**

4. 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.

B. Self-Monitoring Reports

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (http://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 obtained since the last SMR was submitted. 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 be completed according to the following schedule:

Table D-10. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	1 October 2018	All	Submit with monthly SMR
1/Day	1 October 2018	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
1/Week	1 October 2018	Sunday through Saturday	Submit with monthly SMR
2/Week	1 October 2018	Sunday through Saturday	Submit with monthly SMR
3/Week	1 October 2018	Sunday through Saturday	Submit with monthly SMR
1/Month	1 October 2018	1st day of calendar month through last day of calendar month	First day of **second** calendar month following month of sampling
1/Quarter	1 October 2018	1 January through 31 March	1 May
		1 April through 30 June	1 August
		1 July through 30 September	1 November
		1 October through 31 December	1 February of following year
1/Year	1 October 2018	1 January through 31 December	1 February of following year
1/Permit Term	30 November 2019	30 November 2019 through 29 November 2020	1 January 2021
2/Permit Term	30 November 2019	30 November 2019 through 29 November 2020	1 January 2021

4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable Reporting Level (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 (± 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, AWEL, or MDEL for priority pollutants 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 "Not Detected" (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 are 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; and 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 submit all laboratory analysis sheets, including quality assurance/quality control information, with all its SMRs for which sample analyses were performed. This requirement applies to samples analyzed pursuant to this MRP, section I.F. Providing final laboratory reports, or equivalent, for chemical, bacteriological, and bioassay analyses, conducted by a laboratory accredited by DDW, that reports the Discharger's sample result(s) and results of quality assurance/quality control analyses applicable to the samples tested, can be used to fully satisfy this requirement.

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.** For ammonia, the Discharger shall calculate and report the mass loading (lbs/day) in the SMRs. The mass loading shall be calculated as follows:

      Mass Loading (lbs/day) = Flow (MGD) x Concentration (mg/L) x 8.34

      When calculating daily mass loading, the daily average flow and constituent concentration shall be used. For weekly average mass loading, the weekly average flow and constituent concentration shall be used. For monthly average mass loading, the monthly average flow and constituent concentration shall be used.

   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 Limitations and 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.E of the Limitations and Discharge Requirements in the Municipal General Order.

   e. **Total Calendar Annual Mass Loading Mercury Effluent Limitations.** The Discharger shall calculate and report the total calendar annual mercury mass loading for the effluent in the December SMR. The total calendar year annual mass loading shall be calculated as specified in section VIII.C of the Limitations and Discharge Requirements in the Municipal General Order.

   f. **Temperature Effluent Limitation. – Not Applicable**

   g **Chlorpyrifos and Diazinon Effluent Limitations. – Not Applicable**

h. **Dissolved Oxygen Receiving Water Limitations.** The Discharger shall report monthly in the SMR the dissolved oxygen concentrations in the receiving water (Monitoring Locations RSW-001 and RSW-002).

i. **Turbidity Receiving Water Limitations.** The Discharger shall calculate and report the turbidity increase in the receiving water applicable to the natural turbidity condition specified in section VI.A.18.a of the Limitations and Discharge Requirements in the Municipal General Order.

j. **Temperature Receiving Water Limitations.** The Discharger shall calculate and report the temperature increase in the receiving water based on the difference in temperature at Monitoring Locations RSW-001 and RSW-002.

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 as follows: (http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring/).

2. Not Applicable

D. Other Reports

1. **Special Study Reports and Progress Reports.** As specified in the Special Provisions contained in section VII of the Municipal General Order, special study and progress reports shall be submitted in accordance with the following reporting requirements. At minimum, the progress reports shall include a discussion of the status of final compliance, whether the Discharger is on schedule to meet the final compliance date, and the remaining tasks to meet the final compliance date. Special Study Reports and Progress Reports reporting requirements will be specified by the Executive Officer in the NOA.

2. The Discharger shall report the results of any special studies, acute and chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – VII.C. The Discharger shall report the progress in satisfaction of compliance schedule dates specified in Special Provisions – VII.C.7 (Not Applicable). The Discharger shall submit reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date.

3. **Within 60 days** of the effective date of the NOA, the Discharger shall submit a report outlining RLs, MDLs, and analytical methods for the constituents listed in tables D-2, D-3, D-5, D-6, D-7, D-8, and D-9 that are required to be monitored by the discharge, as specified in the NOA and MRP. The Discharger shall comply with the monitoring and reporting requirements for CTR constituents as outlined in section 2.3 and 2.4 of the SIP. The maximum required reporting levels for priority pollutant constituents shall be based on the MLs contained in Appendix 4 of the SIP, determined in accordance with section 2.4.2 and section 2.4.3 of the SIP. In accordance with section 2.4.2 of the SIP, when there is more than one ML value for a given substance, the Central Valley Water Board shall include as RL's, in the permit, all ML values, and their associated analytical methods, listed in Appendix 4 that are below the calculated effluent limitation. The Discharger may select any one

of those cited analytical methods for compliance determination. If no ML value is below the effluent limitation, then the Central Valley Water Board shall select as the RL, the lowest ML value, and its associated analytical method, listed in Appendix 4 for inclusion in the permit. Table D-9 provides required maximum reporting levels in accordance with the SIP.

4. **Annual Operations Report.** By **1 February** of each year, the Discharger shall submit a written 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. 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.** The Discharger shall submit annually a report to the Central Valley Water Board, with copies to U.S. EPA Region 9 and the State Water Board (submittal requirements follow this section), describing the Discharger's pretreatment activities over the previous 12 months (1 January through 31 December). In the event that the Discharger is not in compliance with any conditions or requirements of this NOA, including noncompliance with pretreatment audit/compliance inspection requirements, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements.

   The Discharger may combine annual pretreatment reporting requirements for both the Facility and their Deer Creek Wastewater Treatment Plant. If the reports are combined for both plants, then the Discharger shall note so in its transmittal letter accompanying the submission of the annual report.

   An annual report shall be submitted by **28 February** and include the following items:

   a. A summary of analytical results from representative sampling of the POTW's influent and effluent for those pollutants U.S. EPA has identified under section 307(a) of the CWA which are known or suspected to be discharged by nondomestic users. This will consist of annual full priority pollutant scans. The Discharger is not required to sample and analyze for asbestos. The Discharger

shall submit the results of the priority pollutant scan electronically to the Central Valley Water Board using the State Water Board's CIWQS Program Website.

Sludge shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples taken at equal time intervals during operational hours. The Discharger shall also provide any influent, effluent or sludge monitoring data for other constituents of concern which may be causing or contributing to Interference, Pass-Through or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 C.F.R. part 136 and amendments thereto.

b. A discussion of Upset, Interference, or Pass-Through incidents, if any, at the treatment plant, which the Discharger knows or suspects were caused by nondomestic users of the POTW. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of, the nondomestic user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent Pass-Through, Interference, or noncompliance with sludge disposal requirements.

c. The cumulative number of nondomestic users that the Discharger has notified regarding Baseline Monitoring Reports and the cumulative number of nondomestic user responses.

d. An updated list of the Discharger's significant industrial users (SIU's) including their names and addresses, or a list of deletions, additions and SIU name changes keyed to a previously submitted list. The Discharger shall provide a brief explanation for each change. The list shall identify the SIU's subject to federal categorical standards by specifying which set(s) of standards are applicable to each SIU. The list shall indicate which SIU's, or specific pollutants from each industry, are subject to local limitations. Local limitations that are more stringent than the federal categorical standards shall also be identified.

e. The Discharger shall characterize the compliance status through the year of record of each SIU by employing the following descriptions:

   i. complied with baseline monitoring report requirements (where applicable);

   ii. consistently achieved compliance;

   iii. inconsistently achieved compliance;

   iv. significantly violated applicable pretreatment requirements as defined by 40 C.F.R. section 403.8(f)(2)(vii);

   v. complied with schedule to achieve compliance (include the date final compliance is required);

   vi. did not achieve compliance and not on a compliance schedule; and

   vii. compliance status unknown.

f. A report describing the compliance status of each SIU characterized by the descriptions in items iii through vii above shall be submitted for each calendar quarter by the first day of the second month following the end of the quarter. The report shall identify the specific compliance status of each such SIU and shall also identify the compliance status of the POTW with regards to audit/pretreatment compliance inspection requirements. If none of the aforementioned conditions exist, at a minimum, a letter indicating that all industries are in compliance and no violations or changes to the pretreatment program have occurred during the quarter must be submitted. The information required in the fourth quarter report shall be included as part of the annual report due every **28 February**. This quarterly reporting requirement shall commence upon issuance of the NOA.

g. A summary of the inspection and sampling activities conducted by the Discharger during the past year to gather information and data regarding the SIU's. The summary shall include:

   i. The names and addresses of the SIU's subjected to surveillance and an explanation of whether they were inspected, sampled, or both and the frequency of these activities at each user; and

   ii. The conclusions or results from the inspection or sampling of each industrial user.

h. The Discharger shall characterize the compliance status of each SIU by providing a list or table which includes the following information:

   i. Name of SIU;

   ii. Category, if subject to federal categorical standards;

   iii. The type of wastewater treatment or control processes in place;

   iv. The number of samples taken by the POTW during the year;

   v. The number of samples taken by the SIU during the year;

   vi. For an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided;

   vii. A list of the standards violated during the year. Identify whether the violations were for categorical standards or local limits.

   viii. Whether the facility is in significant noncompliance (SNC) as defined at 40 C.F.R. section 403.8(f)(2)(viii) at any time during the year; and

   ix. A summary of enforcement or other actions taken during the year to return the SIU to compliance. Describe the type of action (e.g., warning letters or notices of violation, administrative orders, civil actions, and criminal actions), final compliance date, and the amount of fines and penalties collected, if any. Describe any proposed actions for bringing the SIU into compliance;

   x. Restriction of flow to the POTW.

   xi. Disconnection from discharge to the POTW.

i. A brief description of any programs the POTW implements to reduce pollutants from nondomestic users that are not classified as SIU's;

j. A brief description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to, changes concerning: the program's administrative structure, local limits, monitoring program or monitoring frequencies, legal authority, enforcement policy, funding levels, or staffing levels;

k. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases; and

l. A summary of activities to involve and inform the public of the program including a copy of the newspaper notice, if any, required under 40 C.F.R. section 403.8(f)(2)(viii).

m. Pretreatment Program reports shall be submitted as follows:

   i. Electronically to the Central Valley Water Board using the CIWQS system or emailed as a PDF file to: RB5S-NPDES-Comments@waterboards.ca.gov; and

   ii. Emailed to the State Water Board as a PDF file to: NPDES_Wastewater@waterboards.ca.gov; and

   iii. Emailed to the U.S. EPA to: R9Pretreatment@epa.gov.