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## Central Valley Regional Water Quality Control Board

1 March 2022

John Wanger  
Community Services Director  
City of Willows  
201 North Lassen Street  
Willows, CA 95988

**CERTIFIED MAIL:  
7017 3040 0001 0265 2259**

**NOTICE OF APPLICABILITY (NOA); MUNICIPAL GENERAL WASTE DISCHARGE REQUIREMENTS ORDER R5-2017-0085-01, NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CAG585001; CITY OF WILLOWS, CITY OF WILLOWS WASTEWATER TREATMENT PLANT, GLENN COUNTY**

Our office received a Notice of Intent (NOI) dated 2 December 2020 from City of Willows (Discharger), for discharge of tertiary treated domestic wastewater to surface water from the Willows Wastewater Treatment Plant (Facility) to Agriculture Drain C, a tributary to Logan Creek, a water of the United States and tributary to the Colusa Basin Drain. The General Order for Municipal Wastewater Dischargers That Meet Objectives/Criteria at the Point of Discharge to Surface Water Order R5-2017-0085-01 (Municipal General Order) requires the submittal of an NOI to apply for regulatory coverage of a surface water discharge. Based on the NOI 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-XXXX and National Pollutant Discharge Elimination System (NPDES) Permit CAG585001. Please reference your Municipal General Order enrollee number, **R5-2017-0085-XXXX**, in your correspondence and submitted documents.

Discharges to surface water from the Facility are currently regulated by an individual NPDES permit, Order R5-2016-0090 (NPDES CA0078034) issued by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) on 6 December 2016. The current individual NPDES permit expired on 5 December 2021 and was administratively extended by the Executive Officer on 5 December 2021. This NOA, authorizing coverage under the Municipal General Order, shall become effective on **<Day Month Year>**, at which time the terms and conditions in Order R5-2016-0090 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

MARK BRADFORD, CHAIR | PATRICK PULUPA, EXECUTIVE CHAIR

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 R5-2016-0090.

The enclosed Municipal General Order is not currently available online but can be requested by email or phone from the [NPDES Permitting Contacts webpage](https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/contacts/) ([https://www.waterboards.ca.gov/centralvalley/water\\_issues/waste\\_to\\_surface\\_water/contacts/](https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/contacts/)). You are urged to familiarize yourself with the entire contents of the enclosed document.

The Monitoring and Reporting Program, Attachment E to the Municipal General Order, contains the general monitoring and reporting requirements. The Discharger specific monitoring and reporting requirements are included within this NOA as Appendix D. Only the monitoring and reporting requirements specifically listed in Appendix D of this NOA are applicable to this Facility. Additionally, please note the new requirement in Appendix D, Section X.B.6.c of this NOA to attach all final laboratory reports from all contracted commercial laboratories with your Self-Monitoring Reports (SMRs).

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**

<b>WDID</b>	5A110101001
<b>CIWQS Facility Place ID</b>	272704
<b>Discharger</b>	City of Willows
<b>Name of Facility</b>	Willows Wastewater Treatment Plant
<b>Facility Street Address</b>	1600 South Tehama Street
<b>Facility City, State, Zip Code</b>	Willows, CA 95988
<b>Facility County</b>	Glenn County
<b>Facility Contact, Title and Phone</b>	Travis Barber, Inframark, Project Manager, 530.934.2052
<b>Authorized Person to Sign and Submit Reports</b>	Travis Barber, Inframark, Project Manager, 530.934.2052
<b>Mailing Address</b>	201 North Lassen Street, Willows, CA 95988

<b>Billing Address</b>	201 North Lassen Street, Willows, CA 95988
<b>Type of Facility</b>	Publicly Owned Treatment Works
<b>Major or Minor Facility</b>	Major
<b>Threat to Water Quality</b>	2
<b>Complexity</b>	A
<b>Pretreatment Program</b>	No
<b>Recycling Requirements</b>	No
<b>Facility Design Average Dry Weather Flow (ADWF)</b>	1.2 Million Gallons Per Day (MGD)
<b>Permitted ADWF</b>	1.2 MGD
<b>Watershed</b>	Colusa Basin Drain
<b>Receiving Water</b>	Ag Drain C
<b>Receiving Water Type</b>	Agricultural Drain
<b>Discharge Point 001</b>	Latitude: 39° 29' 32" N, Longitude: 122° 11' 20" W

**I. FACILITY INFORMATION**

The Discharger provides sewerage service for the City of Willows and serves a population of approximately 6100. The design average dry weather flow capacity of the Facility is 1.2 MGD.

**The tertiary treatment system at the Facility consists of the following:**

The treatment system at the Facility consists of influent screening; biological treatment including extended aeration basins and secondary clarifiers; continuous backwash sand filters; chlorine disinfection using sodium hypochlorite; dechlorination with sodium bisulfite; and flow equalization storage basins. Sludge from the secondary treatment system is temporarily stored and dried within two 3.75-million-gallon sludge lagoons. The current design capacity of the Facility is 1.2 MGD (average dry weather flow).

**II. RECEIVING WATER BENEFICIAL USES**

The Facility discharges from Discharge Point No. 001 to Ag Drain C, which flows to Logan Creek, within the Colusa Basin Drain watershed. According to the Water

Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) and the Tributary Rule, the following beneficial uses apply to Ag Drain C:

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

Ag Drain C also has the following potential beneficial use:

- Cold Freshwater Habitat (COLD)

Ag Drain C also has been de-designated for the following beneficial use:

- Municipal and domestic water supply (MUN)

### **III. RECEIVING WATER TOTAL MAXIMUM DAILY LOADS (TMDLS)**

Ag Drain C is not listed for constituent(s) on the Clean Water Act 303(d) List of impaired water bodies. Therefore, no additional 303(d) based effluent limitations or monitoring requirements are included in this NOA.

### **IV. DISCHARGE PROHIBITIONS**

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

- A. The discharge of wastes, other than those described in section I.A and meeting the eligibility criteria in section I.B of the Municipal General Order, is prohibited unless the Discharger obtains coverage under another general or individual Order that regulates the discharge of such wastes. (see Municipal General Order section IV.A)
- B. The by-pass or overflow of wastes to surface waters is prohibited, except as allowed by Federal Standard Provisions sections I.G. and I.H in Attachment D, Standard Provisions, of the Municipal General Order. (see Municipal General Order section IV.B)
- C. Neither the discharge nor its treatment shall create a nuisance as defined in section 13050 of the Water Code. (see Municipal General Order section IV. C)
- D. **Average Dry Weather Flow.** Discharges exceeding an average dry weather flow of 1.2 MGD are prohibited. (see Municipal General Order section IV.D)

**V. EFFLUENT LIMITATIONS**

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point D-001. Effluent limitations are provided in the Municipal General Order. Only the effluent limitations listed below in Table 2 and items 1-5 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.

The Discharger shall maintain compliance with the effluent limitations specified in Table 2 and items 1-5 below.

**Table 2. Effluent Limitations**

Parameter	Units	Average Monthly	Average Weekly	Municipal General Order Section Reference
Biochemical Oxygen Demand (5-day @ 20°Celsius) (BOD <sub>5</sub> )	milligrams per liter (mg/L)	15	20	V.A.1.a.ii.(a) Table 4
Total Suspended Solids (TSS)	mg/L	15	20	V.A.1.a.ii.(a) Table 4
Ammonia Nitrogen, Total (as N)	mg/L	1.2	2.3	V.A.1.c.v Table 17C

1. **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 8.5.
2. **Percent Removal (Municipal General Order section V.A.1.a.ii.(b).(1)).** The average monthly percent removal of BOD<sub>5</sub> and TSS shall not be less than 85 percent.
3. **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 per 100 milliliters (MPN/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.
4. **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.

**5. Chlorine, Total Residual (Municipal General Order section V.A.1.c.iii).** For Dischargers that utilize chlorine for disinfection, effluent total residual chlorine shall not exceed:

- (a) 0.011 mg/L, as a 4-day average; and
- (b) 0.019 mg/L, as a 1-hour average.

**6. Electrical Conductivity (Municipal General Order section V.A.1.c.viii.(a). Table 21).**

The effluent electrical conductivity shall not exceed the calendar annual average effluent limitation of 1,250 micromhos per centimeter ( $\mu\text{mhos/cm}$ ).

**7. Diazinon and Chlorpyrifos (Municipal General Order section V.A.1.c.ix).**

**(a) Average Monthly Effluent Limitation**

$$S(\text{AMEL}) = C_D (\text{M-avg})/0.079 + C_C (\text{M-avg})/0.012 \leq 1.0$$

$C_{D \text{ M-avg}}$  = average monthly diazinon effluent concentration in  $\mu\text{g/L}$ .

$C_{C \text{ M-avg}}$  = average monthly chlorpyrifos effluent concentration in  $\mu\text{g/L}$ .

**(b) Average Weekly Effluent Limitation**

$$S(\text{AWEL}) = C_D (\text{W-avg})/0.14 + C_C (\text{W-avg})/0.021 \leq 1.0$$

$C_{D \text{ W-avg}}$  = average weekly diazinon effluent concentration in  $\mu\text{g/L}$ .

$C_{C \text{ W-avg}}$  = average weekly chlorpyrifos effluent concentration in  $\mu\text{g/L}$ .

## **VI. 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 NOI, only the following receiving surface water limitations listed in Municipal General Order Section VI.A are applicable to the Facility.

- 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.

**VII. MONITORING AND REPORTING**

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

**VIII. PROVISIONS**

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

**A. Standard Provisions. (section VII.A of the Municipal General Order)**

Applicable to all Dischargers.

**B. Monitoring and Reporting Program (MRP) Requirements. (section VII.B of the Municipal General Order)**

The MRP applicable to this Facility is contained in Appendix D of this NOA.

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

**Table 3: Summary of Applicable Special Provisions**

Special Provision	Section Reference
1. Reopener Provisions	a. Major Modification of Treatment Works c. Whole Effluent Toxicity d. Water Effect Ratios (WERs) and Metal Translators
2. Special Studies, Technical Reports and Additional Monitoring Requirements	a.iii-iv. Toxicity Reduction Evaluation Requirements
3. Best Management Practices and Pollution Prevention	c. Salinity Evaluation and Minimization Plan
4. Construction, Operation and Maintenance Specifications	a.i.(a)-(c). Filtration System Operating Specifications
5. Special Provisions for Municipal Facilities	b. Sludge/Biosolids Treatment or Discharge Specifications
6. Other Special Provisions	a. Title 22, or Equivalent, Disinfection Requirements

**IX. 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<sub>5</sub> and TSS Effluent Limitations (VIII.A);
- Average Dry Weather Flow Effluent Prohibition (VIII.D);
- Total Coliform Organisms Effluent Limitations (VIII.E);
- Total Residual Chlorine Effluent Limitations (VIII.F);
- Dissolved Oxygen Receiving Water Limitation (VIII.I);
- Chronic Whole Effluent Toxicity Effluent Trigger (VIII.J);



- Chlorpyrifos and Diazinon Effluent Limitations (VIII.K);
- Period Average, Calendar Month Average, and Annual Average (VIII.N);
- Turbidity Receiving Water Limitation (VIII.O); and
- Reporting Requirements (**NOA, Appendix D, section X**).

## **X. ANTI-BACKSLIDING REQUIREMENTS**

Anti-backsliding requirements are specified in the Municipal General Order, section V.D.3, Attachment F (Fact Sheet). Sections 402(o) and 303(d)(4) of the Clean Water Act (CWA) and federal regulations at 40 Code of Federal Regulations (C.F.R.) section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

Effluent limitations for ammonia, BOD<sub>5</sub>, TSS, and electrical conductivity are less stringent than prescribed in previous Order R5-2016-0090. A more detailed anti-backsliding analysis is provided in Appendix C to this NOA in section I.A Satisfaction of Anti-Backsliding Requirements, the relaxation of effluent limitations meets the exceptions proved in the federal anti-backsliding regulations.

## **XI. ANTIDegradation REQUIREMENTS**

Antidegradation requirements are specified in the Municipal General Order, section V.D.4, Attachment F (Fact Sheet). This NOA does not allow an increase in flow or mass of pollutants to the receiving water and the relaxation of effluent limitations for ammonia, BOD<sub>5</sub>, TSS, and electrical conductivity are consistent with the antidegradation provisions of 40 C.F.R. 131.12 and State Water Board Resolution 68-16.

A more detailed discussion of antidegradation is provided in Appendix C to this NOA, section I.B Antidegradation Policies.

## **XII. RATIONALE FOR LIMITATIONS AND MONITORING REQUIREMENTS**

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

## **XIII. 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.

#### **XIV. COMMUNICATION**

Until this NOA becomes effective on <Day Month Year>, you will need to comply with the effluent limitations and requirements contained in your existing permit, Order R5-2016-0090. For your <MONTH YEAR> monthly self-monitoring reports, you will need to demonstrate compliance with existing Order R5-2016-0090 through <Day Month Year>. For your <MONTH DATE> self-monitoring report, you will need to demonstrate compliance with this NOA beginning <Day Month Year>.

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](mailto:centralvalleysacramento@waterboards.ca.gov). Please include the following information in the body of the email:

- Attention: NPDES Compliance and Enforcement Section
- Discharger: City of Willows
- Facility: City of Willows Wastewater Treatment Plant
- County: Glenn County
- CIWQS Place ID: 272704

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.

[Links to the laws and regulations applicable to filing petitions](#)

([http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)) may be found on the Internet or will be provided upon request.

Any Questions regarding the Municipal General Order shall be directed to the NPDES Permitting/Compliance and Enforcement Unit, attention Michael Collins at [michael.collins@waterboards.ca.gov](mailto:michael.collins@waterboards.ca.gov). Mr. Collins can also be reached at (530) 224-4785.

Patrick Pulupa  
Executive Officer

Appendices:      Appendix A – Location Map  
                         Appendix B – Flow Schematic  
                         Appendix C – Supplemental Fact Sheet  
                         Appendix D – Monitoring and Reporting Program  
                         Appendix E – Determination of WQBEL's

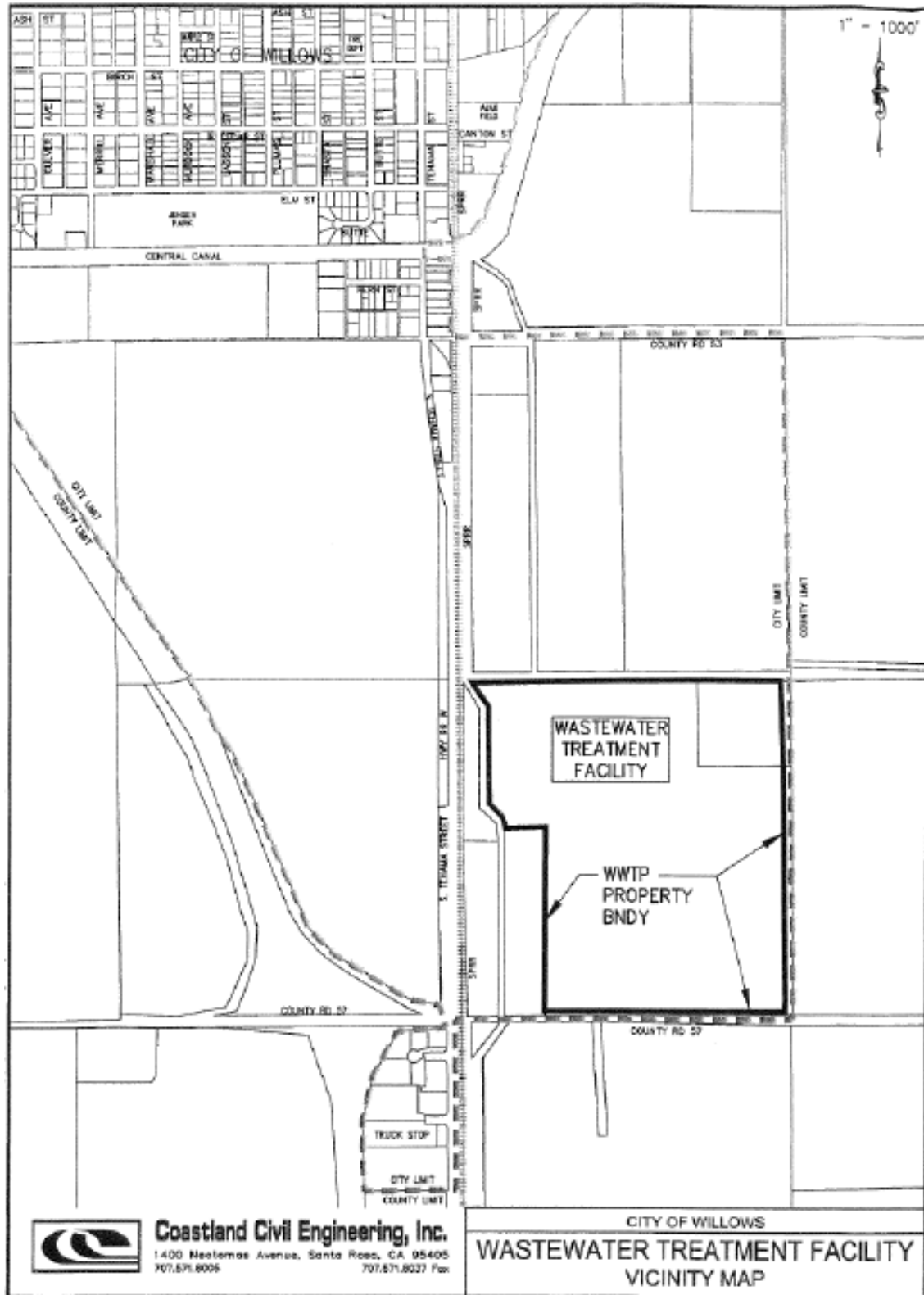
Enclosures:      Municipal General Order R5-2017-0085-01 (Discharger Only)

cc w/o encl.:      Kevin Backus, Glenn County Environmental Health Department,  
                         Willows

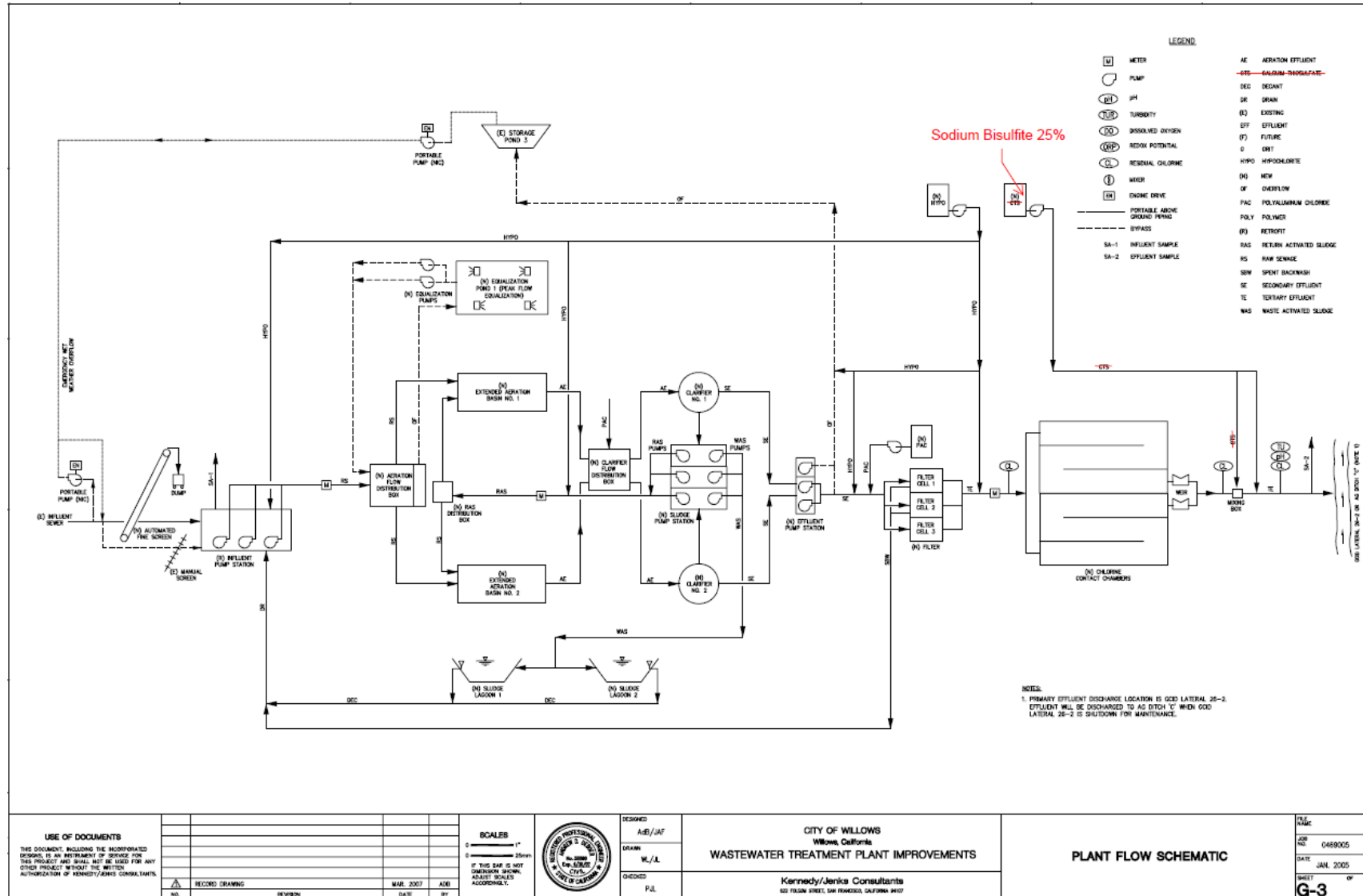
cc w/o encl.  
via email:

Elizabeth Sablad, U.S. EPA, Region IX, San Francisco  
Prasad Gullapalli, U.S. EPA, Region IX, San Francisco  
Afrooz Farsimadan, California State Water Resources Control Board, Sacramento  
Renan Jauregui, California State Water Resources Control Board, Sacramento  
Jarma Bennett, California State Water Resources Control Board, Sacramento  
ICIS NPDES (Sarah Torres), PG Environmental, Herndon

**APPENDIX A – LOCATION MAP**



APPENDIX B – FLOW SCHEMATIC



**USE OF DOCUMENTS**

THIS DOCUMENT, INCLUDING THE INCORPORATED DESIGNS, IS AN INSTRUMENT OF SERVICE FOR THIS PROJECT AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF KENNEDY/JENKS CONSULTANTS.

NO.	REVISION	DATE	BY

**SCALES**

0" = 1"

0" = 25mm

IF THIS SHEET IS NOT DIMENSIONED, ADJUST SCALES ACCORDINGLY.



DESIGNED: AIB/JAF  
DRAWN: M./J.L.  
CHECKED: P.J.L.

CITY OF WILLOWS  
Willows, California  
WASTEWATER TREATMENT PLANT IMPROVEMENTS

Kennedy/Jenks Consultants  
822 FOLSON STREET, SAN FRANCISCO, CALIFORNIA 94107

**PLANT FLOW SCHEMATIC**

DATE: 04/8/2005  
DATE: JAN. 2005  
SHEET 3 OF 3  
**G-3**

## APPENDIX C – SUPPLEMENTAL FACT SHEET

### I. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this NOA are based on the requirements and authorities described in Attachment F, Section III of the Municipal General Order. In addition to the Fact Sheet contained in the Municipal General Order, the Central Valley Water Board incorporates this Supplemental Fact Sheet as findings of the Central Valley Water Board supporting the issuance of this NOA.

### II. FINAL EFFLUENT LIMITATION CONSIDERATIONS

#### 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 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 R5-2016-0090, with the exception of effluent limitations for ammonia and electrical conductivity, mass-based effluent limitations for ammonia, BOD<sub>5</sub>, and TSS, and maximum daily effluent limitations for BOD<sub>5</sub> and TSS. This relaxation and/or removal 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 (WQBEL's) "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 303(d)(4)(A) specifies that any effluent limit based on a TMDL or other waste load allocation (WLA) may be revised only if the cumulative effect of all such revised effluent limits based on such TMDL's or WLA's 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.

Ag Drain C is considered an attainment water for ammonia, BOD<sub>5</sub>, TSS, and electrical conductivity because the receiving water is not listed as impaired on the 303(d) list for these constituents. The exceptions in Section 303(d)(4) address both waters in attainment with water quality standards and those not in attainment, i.e. waters on the section 303(d) impaired waters list (State Water Resources Control Board Order WQ-2008-0006, Berry Petroleum Company, Poso Creek/McVan

Facility). As discussed below, relaxation of the ammonia and electrical conductivity effluent limitations and removal of the maximum daily and mass-based effluent limitations for ammonia, BOD<sub>5</sub>, and TSS complies with federal and state antidegradation requirements. Thus, removal and/or relaxation of these effluent limitations 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 (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 R5-2016-0090 was issued indicates that less stringent effluent limitations for ammonia and electrical conductivity satisfy requirements in CWA section 402(o)(2). The updated information that supports the relaxation of effluent limitations for ammonia and electrical conductivity and includes the following:

- a. **Ammonia.** The ammonia effluent limitations have been revised on updated pH and temperature data used for the calculation of the ammonia water quality criteria.
- b. **Electrical Conductivity.** The electrical conductivity effluent limitations have been revised on updated monitoring data used for the calculation of the performance-based effluent limitations.

Thus, relaxation of effluent limitations for ammonia and electrical conductivity for 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 R5-2016-0090 was issued.

3. **Flow.** Order R5-2016-0090 included flow as an effluent limit at Discharge Point D-001 based on the Facility design flow. Compliance with the flow limit was calculated using the average daily flow over three consecutive dry weather months. Flow is not a pollutant and therefore has been changed from an effluent limit to a discharge prohibition in this NOA, which is an equivalent level of regulation. This NOA is not less stringent because compliance with flow as a discharge prohibition will be calculated the same way as the previous Order. Flow as a discharge prohibition adequately regulates the Facility, does not allow for an increase in the discharge of pollutants, and does not constitute backsliding.

## **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. This 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 discharge is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and the State Anti-Degradation Policy. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.

This NOA relaxes effluent limitations for ammonia and electrical conductivity. Based on Facility performance the relaxation or removal of these effluent limitations is not expected to result in an increase in pollutants concentration or loading, a decrease in the level of treatment or control, or a reduction of water quality. Implementation of this NOA will result in the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the State will be maintained. Thus, the relaxation of effluent limitations for these constituents is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Resources Control Board (State Water Board) Resolution No. 68-16.

This NOA also removes maximum daily and mass-based effluent limitations for BOD<sub>5</sub>, TSS, and mass-based effluent limits for ammonia based on 40 C.F.R. Part 122.45 (d) and (f). These changes in effluent limitations will not result in a decrease in the level of treatment or control, or a reduction in water quality.

Furthermore, concentration-based average monthly effluent limitations (AMELs) and average weekly effluent limitations (AWELs) are included for BOD<sub>5</sub> and TSS, as well as a prohibition (section V.D of this NOA) on discharging flows greater than the average dry weather flow that limits the amount of flow that can be discharged to the receiving water during dry weather months. The combination of flow and concentration-based effluent limits in this NOA are equivalent to mass-based effluent limitations, which were redundant limits contained in previous individual Orders by multiplying the concentration based effluent limits and permitted average dry weather flow by a conversion factor to determine the mass-based effluent limitations. These effluent limitation changes do not result in an allowed increase in pollutants or any additional degradation of the receiving water and are therefore consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and the State Antidegradation Policy.

### **C. Salinity (Electrical Conductivity or EC)**

Based on effluent EC data collected from 1 January 2018 through 1 January 2021, the maximum calendar annual average EC of the effluent was 842 µmhos/cm. The Municipal General Order includes a screening level for EC of 1600 µmhos/cm based on the Secondary Maximum Contaminant Level (MCL) to protect the municipal and domestic supply beneficial use.

When only considering the numeric water quality standards for salinity, the discharge does not have reasonable potential to cause or contribute to an in-stream excursion of water quality objectives for salinity. However, due to the Region-wide concerns regarding salinity and to ensure implementation of the Basin Plan's Salinity Control



Program the Municipal General Order includes performance-based effluent limitations for EC that are applicable to this Facility. The EC concentration of the effluent is greater than the background concentration observed in Ag Drain C, therefore limited degradation is occurring in a high-quality water. Under the State Antidegradation Policy, the waste discharge requirements must result in the best practicable treatment or control (BPTC) of the discharge necessary to assure that (a) a pollution or nuisance will not occur; and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained. In this case, the Discharger is currently utilizing BPTC, and a performance-based calendar annual average effluent limitation of 1,125 µmhos/cm for EC is applied limiting the discharge to current levels (thus ensuring that BPTC will continue to be met). The Discharger submitted a Notice of Intent for the CV-SALTS Salt Control Program indicating the Facility will comply with the alternative permitting approach. The Discharger's salinity evaluation and minimization plan shall include salinity reduction measures to minimize the discharge of salinity to the receiving water.

### **III. RATIONALE FOR RECEIVING WATER LIMITATIONS**

#### **A. Surface Water**

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

### **IV. RATIONALE FOR MONITORING REQUIREMENTS**

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

### **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<sub>5</sub> and TSS reduction requirements). The monitoring frequency for flow (continuous) has been retained from Order R5-2016-0090. Monitoring frequencies for BOD<sub>5</sub> and TSS (Weekly) have been increased from Order R5-2016-0090. This NOA removes monitoring for pH and hardness because past data shows the influent measurements do not cause violations of effluent limitations or other provisions.

### **B. Effluent Monitoring**

1. Pursuant to the requirements of 40 C.F.R. section 122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. Effluent monitoring is necessary to assess compliance with effluent limitations, assess the effectiveness of the treatment process, and to assess the impacts of the discharge on the receiving stream and groundwater.
2. This NOA includes effluent monitoring for dissolved organic carbon (quarterly) to calculate site-specific freshwater aluminum criteria in accordance with the 2018 United States Environmental Protection Agency (U.S. EPA) National Ambient Water Quality Criteria (NAWQC) for aluminum in freshwater for the next permit renewal.
3. As discussed in Section I.B of this Appendix, the mass-based effluent limitations for ammonia, BOD<sub>5</sub>, and TSS and maximum daily effluent limitations for BOD<sub>5</sub> and TSS have not been retained from Order R5-2016-0090.
4. Effluent monitoring frequencies for flow (continuous), BOD<sub>5</sub> (once per week), TSS (once per week), ammonia (total, as nitrogen) (once per month), electrical conductivity @ 25°C (once per week), pH (once per week), temperature (once per week), total chlorine residual and total coliform organisms have been retained from Order R5-2016-0090.
5. Calculations for the percent reduction between the influent and effluent for BOD<sub>5</sub> and TSS shall be calculated once per week.
6. As discussed in Section I.B of this Appendix, the mass-based effluent limitations for ammonia, BOD<sub>5</sub>, and TSS and maximum daily effluent limitations for BOD<sub>5</sub> and TSS have not been retained from Order R5-2016-0090.
7. Monitoring data collected over the previous permit term for acute toxicity indicated consistent compliance with effluent limitations. Thus, monitoring has been reduced from 1/quarter to 1/year monitoring.

### **C. Whole Effluent Toxicity Testing Requirements**

1. **Acute Toxicity.** Order R5-2016-0090 required (once per quarter) acute toxicity 96-hour bioassay testing. Monitoring data collected over the previous permit term for

acute toxicity did not demonstrate reasonable potential to exceed water quality objectives. Therefore, this NOA has decreased the acute toxicity 96-hour bioassay testing (once per year). Acute whole effluent toxicity testing is required when discharging to Ag Drain C in order to demonstrate compliance with the effluent limitation for acute toxicity.

2. **Chronic Toxicity.** Order R5-2016-0090 required (twice per permit term) chronic bioassay testing. The Municipal General Order requires (once per quarter) chronic bioassay testing for Major Dischargers. Therefore, this NOA has increased the chronic bioassay testing (once per quarter). Chronic whole effluent toxicity testing is required when discharging to Ag Drain C in order to demonstrate compliance with the Basin Plan's narrative toxicity objective.

#### **D. Receiving Water Monitoring**

##### **1. Ag Drain C**

- a. Receiving water monitoring is necessary to assess compliance with receiving water limitations and to assess the impacts of the discharge to Ag Drain C.
- b. This NOA includes receiving water monitoring for dissolved organic carbon (once per quarter) to calculate site-specific freshwater aluminum criteria in accordance with the 2018 U.S. EPA NAWQC for aluminum in freshwater for the next permit renewal.
- c. The receiving water monitoring frequencies and sample types for dissolved oxygen, electrical conductivity, pH, and temperature have been retained from Order R5-2016-0090 to determine compliance with receiving water limitations for these parameters. The frequencies for these parameters are shown on Table D-4 (Receiving Water Monitoring).
- d. This NOA also reduces the monitoring frequency for hardness from once per month to once per quarter consistent with monitoring frequencies in other similar facilities.

2. **Groundwater** – Order R5-2016-0090 required quarterly groundwater monitoring of the three monitoring wells. The groundwater monitoring reports are necessary to evaluate impacts to waters of the State to assure protection of beneficial uses and compliance with Central Valley Water Board plans and policies, including Resolution No. 68-16. Evidence in the record includes effluent monitoring data that indicates the presence of constituents that may degrade groundwater and surface water.

#### **E. Biosolids Monitoring**

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

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

#### **F. Water Supply Monitoring – Not Applicable**

#### **G. Filtration System Monitoring**

1. Filtration system monitoring for turbidity is required for Dischargers of tertiary treated wastewater that meet the eligibility criteria in section I.B.4 of the Municipal General Order to determine compliance with the filtration system operating specifications in section VII.C.4.a of the Municipal General Order.
2. The monitoring frequency for turbidity (continuous) is retained from previous Order R5-2016-0090 to evaluate compliance the turbidity operating specifications.

#### **H. UV Disinfection System Monitoring – Not Applicable**

#### **I. Pond Monitoring – Not Applicable**

#### **J. Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program**

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

#### **K. Effluent and Receiving Water Characterization Monitoring**

1. Order R5-2016-0090 included once per quarter, in 2019, effluent characterization monitoring when discharging to Ag Drain C. This NOA increases the effluent characterization monitoring to once per quarter for one year.

2. Order R5-2016-0090 included once per quarter, in 2019, upstream receiving water characterization monitoring when discharging to Ag Drain C. This NOA increases the upstream receiving water characterization monitoring to once per quarter for one year.

**V. PRETREATMENT PROVISION – NOT APPLICABLE**

**VI. SUMMARY OF REASONABLE POTENTIAL ANALYSIS**

**Abbreviations used in Table C-1:**

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

**Table C-1: SUMMARY OF REASONABLE POTENTIAL ANALYSIS**

Parameter	Units	MEC	B	C	CMC	CCC	Water and Org	Org. Only	Basin Plan	MCL	RP
Ammonia (as Nitrogen)	mg/L	0.03	0.30	1.27	5.83	1.27	--	--	--	--	Yes
Electrical Conductivity @ 25° Celsius (°C)	µmhos/cm	842	645	1600	--	--	--	--	--	1600	No
Nitrate Plus Nitrite	mg/L	27	0.9	NA	--	--	--	--	--	10	No

1. Table C-1 Notes:

- i. **CMC.** For ammonia, the CMC or criterion maximum concentration is based on the U.S. EPA National Recommended Ambient Water Quality Criteria Freshwater Aquatic Life Protection, 1-hour average. For copper and zinc, the CMC is based on the CTR, 1-hour average criterion.
- ii. **CCC.** For ammonia, the CCC or criterion continuous concentration is based on the U.S. EPA National Recommended Ambient Water Quality Criteria Freshwater Aquatic Life Protection, 30-day average. For copper and zinc, the CCC is based on the CTR, 4-day average criterion.
- iii. **Ammonia and Nitrate plus Nitrite.** Reasonable potential for ammonia 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). Reasonable potential for Nitrate Plus Nitrite does not exist because the receiving water does not include the MUN beneficial use.

## **APPENDIX D – MONITORING AND REPORTING PROGRAM**

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## **APPENDIX D – MONITORING AND REPORTING PROGRAM (MRP)**

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

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

### **I. GENERAL MONITORING PROVISIONS**

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

scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

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

**J. Multiple Discharge Points – 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**

<b>Discharge Point Name</b>	<b>Monitoring Location Name</b>	<b>Monitoring Location Description</b>
--	INF-001	Point at which raw sewage enters the Facility Latitude: 39.50180° Longitude: -122.19178°
D-001	EFF-001	Effluent sample located downstream of the last connection through which wastes can be discharged to the outfall Latitude: 39.50187° Longitude: -122.19131°
--	RSW-001	Upstream receiving water – 1,500 feet upstream from D-001 when discharging to Ag Drain C Latitude: 39.49469° Longitude: -122.19411°
--	RSW-002	Downstream receiving water – 100 feet downstream from D-001 when discharging to Ag Drain C Latitude: 39.49236° Longitude: -122.18903°
--	SPL-001	Location where a representative sample of the municipal supply water can be obtained. If this is impractical, water quality data provided by the water supplier(s) may be used.
--	BIO-001	Location where a representative sample(s) of biosolids/sludge can be obtained
--	MW-1	Upgradient monitoring well located in the northwest corner of the Facility
--	MW-2	Downgradient monitoring well located in the east side of the Facility
--	MW-3	Downgradient monitoring well located in the southeast corner of the Facility
--	FIL-001	Location where a representative sample of wastewater can be collected immediately downstream of the filtration system.

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

### III. INFLUENT MONITORING REQUIREMENTS

#### A. Monitoring Location INF-001

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

**Table D-2. Influent Monitoring**

Parameter	Units	Sample Type	Sampling Frequency
Flow	MGD	Meter	Continuous
Biochemical Oxygen Demand (5-day @ 20°Celsius)	mg/L	24-hour Composite	1/Week
Total Suspended Solids	mg/L	24-hour Composite	1/Week

2. Table D-2 Testing Requirements. The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-2:
  - a. **Applicable to all parameters.** Parameters shall be analyzed using the analytical methods described in 40 C.F.R. part 136; or by methods approved by the Central Valley Water Board or the State Water Board. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 C.F.R. part 136 allowed sample type.
  - b. **Composite Sample.** All composite samples shall be collected from a 24-hour time proportional composite.

### 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 and the testing requirements in section IV.A.2. If there was no discharge to receiving water during the designated monitoring period, monitoring is not required for that period. If there was no discharge, the Discharger shall so state in the monthly self-monitoring report (SMR).

**Table D-3. Effluent Monitoring**

<b>Parameter</b>	<b>Units</b>	<b>Sample Type</b>	<b>Minimum Sampling Frequency</b>
Flow	MGD	Meter	Continuous
Biochemical Oxygen Demand (5-day @ 20° C)	mg/L	24-hr Composite	1/Week
Biochemical Oxygen Demand (5-day @ 20° C)	percent removal	Calculate	1/Month
pH	standard units	Grab	1/Week
Total Suspended Solids	mg/L	24-hr Composite	1/Week
Total Suspended Solids	percent removal	Calculate	1/Month
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/Month
Chlorine, Total Residual	mg/L	Meter	Continuous
Chlorpyrifos	µg/L	Grab	1/Year
Diazinon	µg/L	Grab	1/Year
Dissolved Organic Carbon	mg/L	Grab	1/Quarter
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Week
Hardness, Total (as CaCO <sub>3</sub> )	mg/L	Grab	1/Quarter
Standard Minerals	mg/L	Grab	1/Year
Temperature	°C	Grab	1/Week
Total Dissolved Solids	mg/L	Grab	1/Quarter
Total Coliform Organisms	MPN/100 mL	Grab	1/Week
Turbidity	NTU	Grab	1/Day

2. Table D-3 Testing Requirements. The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-3:
  - a. **Composite Sample.** All composite samples shall be collected from a 24-hour time proportional composite.
  - b. **Applicable to all parameters.** Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
  - c. **Grab Sample.** A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
  - d. **Ammonia.** Samples for pH and temperature shall be recorded at the time of ammonia sample collection.
  - e. **Field Meter.** A hand-held field meter may be used for pH and temperature provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
  - f. **Dissolved Organic Carbon.** Hardness, total (as CaCO<sub>3</sub>) and pH samples shall be taken concurrent with dissolved organic carbon samples.
  - g. **Total Residual Chlorine.** Total residual chlorine shall be monitored using an analytical method that is sufficiently sensitive to measure at the permitted level of 0.01 mg/L.
  - h. **Chlorpyrifos and Diazinon.** Chlorpyrifos and diazinon shall be sampled using U.S. EPA Method 625M, Method 8141, or equivalent GC/MS method with a lower Reporting Limit than the Basin Plan Water Quality Objectives of 0.015 µg/L and 0.1 µg/L for chlorpyrifos and diazinon, respectively.
  - i. **Total Coliform Organisms.** Total coliform organisms samples may be collected at any point following disinfection.
  - j. **Temperature, pH, Hardness, Dissolved Oxygen, and Dissolved Organic Carbon.** The effluent samples for temperature, pH, hardness, dissolved oxygen, and dissolved organic carbon shall be taken approximately the same time and on the same date with the receiving water samples for these parameters.

- k. **Standard Minerals.** Standard minerals shall include the following: boron, calcium, iron, magnesium, potassium, sodium, chloride, manganese, phosphorus, total alkalinity (including alkalinity series), and hardness, and include verification that the analysis is complete (i.e., cation/anion balance).

## V. WHOLE EFFLUENT TOXICITY (WET) 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 Ag Drain C 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 fathead minnows (*Pimephales promelas*).
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 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:

The Executive Officer may specify more frequent monitoring in the Notice of Applicability. (You have discretion)



1. **Monitoring Frequency** – The Discharger shall perform quarterly chronic toxicity testing when discharging to Ag Drain C. If the result of the routine chronic toxicity testing event exhibits toxicity, demonstrated by a result greater than 1.0 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. See Compliance Determination Section VIII.J of the Municipal General Order for procedures for calculating the 6-week median.
2. **Sample Types** – Effluent 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. 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 the green alga, *Selenastrum capricornutum* (Growth) unless otherwise specified in writing by the Executive Officer.
5. **Most Sensitive Species Determination** – The Discharger submitted a letter to the Central Valley Water Board on 2 December 2020 for Executive Officer approval of *Selenastrum capricornutum* as the most sensitive species. Central Valley Water Board staff have determined that the chronic toxicity test results from the Discharger are conclusive to determine the most sensitive species. The Discharger submitted chronic toxicity test results showing *Selenastrum capricornutum* having the highest percent effect at the instream waste concentration.

#### **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 or effluent limitation.

Additionally, the annual SMR shall contain an updated chronology of chronic toxicity test results expressed in TUC (as 100/EC25) and percent effect at the instream waste concentration, and organized by 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 annual SMR, for the year acute toxicity tests are conducted, 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 Ag Drain C at Monitoring Locations RSW-001 and RSW-002 as specified in Table D-4 and the testing requirements in section VIII.A.2. If there was no discharge to receiving water during the designated monitoring period, monitoring is not required during that period. If there is no upstream flow in the receiving water during the designated monitoring period, monitoring is not required at RSW-001 during that period. Whenever monitoring is not required, the Discharger shall state so in the monthly SMR.

**Table D-4. Receiving Water Monitoring Requirements**

<b>Parameter</b>	<b>Units</b>	<b>Sample Type</b>	<b>Minimum Sampling Frequency</b>
pH	standard units	Grab	2/Month
Dissolved Oxygen	mg/L	Grab	2/Month
Electrical Conductivity @ 25°C	µmhos/cm	Grab	2/Month
Dissolved Organic Carbon (DOC)	mg/L	Grab	1/Quarter
Hardness, Total (as CaCO <sub>3</sub> )	mg/L	Grab	1/Quarter
Temperature	°C	Grab	2/Month
Turbidity	NTU	Grab	2/Month

2. Table D-4 Testing Requirements. The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-4:
  - a. **Applicable to all parameters.** Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
  - b. **Grab Sample.** A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
  - c. **Field Meter.** A hand-held field meter may be used for pH, dissolved oxygen, electrical conductivity, temperature, and turbidity provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
  - d. **Dissolved Organic Carbon.** Hardness, total (as CaCO<sub>3</sub>) and pH samples shall be taken concurrent with dissolved organic carbon samples.
  - e. **Chlorpyrifos and Diazinon.** Chlorpyrifos and diazinon shall be sampled using U.S. EPA Method 625M, Method 8141, or equivalent GC/MS method with a lower Reporting Limit than the Basin Plan Water Quality Objectives of 0.015 µg/L and 0.1 µg/L for chlorpyrifos and diazinon, respectively.
  - f. **Dissolved Organic Carbon.** Hardness, total (as CaCO<sub>3</sub>) and pH samples shall be taken concurrent with dissolved organic carbon samples.
  - g. **Temperature, pH, Hardness, Dissolved Oxygen, and Dissolved Organic Carbon.** The effluent samples for temperature, pH, hardness, dissolved oxygen, and dissolved organic carbon shall be taken approximately the same time and on the same date with the receiving water samples for these parameters.
3. In conducting the receiving water sampling required by section VIII.A.1 above, a log shall be kept of the receiving water conditions throughout the reach bounded by Monitoring Locations RSW-001 and RSW-002. Attention shall be given to the presence or absence of:
  - a. Floating or suspended matter;
  - b. Discoloration;
  - c. Bottom deposits;

- d. Aquatic life;
- e. Visible films, sheens, or coatings;
- f. Fungi, slimes, or objectionable growths; and
- g. Potential nuisance conditions.

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

**B. Monitoring Locations MW-1, MW-2, MW-3**

1. The Discharger shall conduct groundwater monitoring at MW-1, MW-2, MW-3, and any new groundwater monitoring wells in accordance with Table D-5 and the testing requirements described in section D-5 below:

**Table D-5. Groundwater Monitoring Requirements**

<b>Parameter</b>	<b>Units</b>	<b>Sample Type</b>	<b>Minimum Sampling Frequency</b>
Depth to Groundwater	±0.01 feet	Measurement	1/Quarter
Groundwater Elevation	±0.01 feet	Calculated	1/Quarter
Gradient	feet/feet	Calculated	1/Quarter
Gradient Direction	degrees	Calculated	1/Quarter
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Quarter
Total Dissolved Solids	mg/L	Grab	1/Quarter
Fixed Dissolved Solids	mg/L	Grab	1/Quarter

Parameter	Units	Sample Type	Minimum Sampling Frequency
pH	standard units	Grab	1/Quarter
Total Coliform Organisms	MPN/100 mL	Grab	1/Quarter
Total Nitrogen	mg/L	Grab	1/Quarter
Nitrate Nitrogen, Total (as N)	mg/L	Grab	1/Quarter
Ammonia (as NH <sub>4</sub> )	mg/L	Grab	1/Quarter
Total Kjeldahl Nitrogen	mg/L	Grab	1/Quarter

2. Table D-5 Testing Requirements. The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-5:
  - a. **Prior to construction and/or beginning a sampling program** of any new groundwater monitoring wells, the Discharger shall submit plans and specifications to the Central Valley Water Board for approval. Once installed, all new wells shall be added to the monitoring network (which currently consists of Monitoring Wells MW-1, MW-2, and MW-3) and shall be sampled and analyzed according to the schedule below. All samples shall be collected using approved EPA methods.
  - b. **Prior to sampling**, the groundwater elevations shall be measured, and the wells shall be purged of at least three well volumes until temperature, pH, and electrical conductivity have stabilized. Depth to groundwater shall be measured to the nearest 0.01 feet.
  - c. **Groundwater elevation** shall be determined based on depth-to-water measurements from a surveyed measuring point elevation on the well.

The groundwater elevation shall be used to calculate the direction and gradient of groundwater flow, which must be reported.

- d. **Applicable to all parameters.** Parameters shall be analyzed using the analytical methods described in 40 CFR part 136 or by methods approved by the Central Valley Water Board or the State Water Board. In addition, if requested by the Discharger, the sample type may be modified by the Executive Officer to another 40 CFR part 136 allowed sample type.
- e. **Standard minerals** shall include the following: boron, calcium, iron, magnesium, potassium, sodium, chloride, manganese, phosphorus, total alkalinity (including alkalinity series), and hardness, and include verification that the analysis is complete (i.e., cation/anion balance).

## **IX. OTHER MONITORING REQUIREMENTS**

### **A. Biosolids – Not Applicable**

### **B. Ponds – Not Applicable**

### **C. Municipal Water Supply – Not Applicable**

### **D. Effluent Characterization and Receiving Water Characterization**

The Discharger shall monitor the effluent at Monitoring Locations EFF-001 for the constituents listed in Table D-6, as described in this section.

#### **1. Monitoring Frequency**

- a. **Effluent Sampling.** Twice per year samples shall be collected from the effluent (Monitoring Location EFF-001) 1/Quarter between **1 April 2023 and 31 March 2024.**
- b. **Receiving Water Sampling.** Twice per year shall be collected from the upstream receiving water (Monitoring Location RSW-001) 1/Quarter between **1 April 2023 and 31 March 2024.**

All sampling shall be analyzed for the constituents listed in Table D-6, below. The results of such monitoring shall be submitted to the Central Valley Water Board with the quarterly SMRs. Each individual monitoring event shall provide representative sample results for the effluent.

- 2. **Sample Type.** Effluent samples shall be taken as described in Table D-6, below and the testing requirements in section IX.E.5.
- 3. **Analytical Methods Report Certification.** Prior to beginning the Effluent Characterization monitoring, the Discharger shall provide a certification acknowledging the scheduled start date of the Effluent Characterization

monitoring and confirming that samples will be collected and analyzed as described in the previously submitted Analytical Methods Report. If there are changes to the previously submitted Analytical Methods Report, the Discharger shall outline those changes. A one-page certification form will be provided by the Central Valley Water Board staff with this NOA that the Discharger can use to satisfy this requirement. The certification form shall be submitted electronically via CIWQS in accordance with the reporting requirements in Table D-8, Technical Reports.

**Table D-6. Effluent Characterization Monitoring**

<b>Parameter</b>	<b>Units</b>	<b>Effluent Sample Type</b>
2- Chloroethyl vinyl ether	µg/L	Grab
Acrolein	µg/L	Grab
Acrylonitrile	µg/L	Grab
Benzene	µg/L	Grab
Bromoform	µg/L	Grab
Carbon Tetrachloride	µg/L	Grab
Chlorobenzene	µg/L	Grab
Chloroethane	µg/L	Grab
Chloroform	µg/L	Grab
Chloromethane	µg/L	Grab
Dibromochloromethane	µg/L	Grab
Dichlorobromomethane	µg/L	Grab
Dichloromethane	µg/L	Grab
Ethylbenzene	µg/L	Grab
Hexachlorobenzene	µg/L	Grab
Hexachlorobutadiene	µg/L	Grab
Hexachloroethane	µg/L	Grab



<b>Parameter</b>	<b>Units</b>	<b>Effluent Sample Type</b>
Methyl bromide (Bromomethane)	µg/L	Grab
Naphthalene	µg/L	Grab
3-Methyl-4-Chlorophenol	µg/L	Grab
Tetrachloroethylene	µg/L	Grab
Toluene	µg/L	Grab
trans-1,2-Dichloroethylene	µg/L	Grab
Trichloroethene	µg/L	Grab
Vinyl chloride	µg/L	Grab
Methyl-tert-butyl ether (MTBE)	µg/L	Grab
1,1,1-Trichloroethane	µg/L	Grab
1,1,2- Trichloroethane	µg/L	Grab
1,1-dichloroethane	µg/L	Grab
1,1-dichloroethylene	µg/L	Grab
1,2-dichloropropane	µg/L	Grab
1,3-dichloropropylene	µg/L	Grab
1,1,2,2-tetrachloroethane	µg/L	Grab
1,2,4-trichlorobenzene	µg/L	Grab
1,2-dichloroethane	µg/L	Grab
1,2-dichlorobenzene	µg/L	Grab
1,3-dichlorobenzene	µg/L	Grab
1,4-dichlorobenzene	µg/L	Grab
1,2-Benzanthracene	µg/L	Grab
1,2-Diphenylhydrazine	µg/L	Grab

<b>Parameter</b>	<b>Units</b>	<b>Effluent Sample Type</b>
2-Chlorophenol	µg/L	Grab
2,4-Dichlorophenol	µg/L	Grab
2,4-Dimethylphenol	µg/L	Grab
2,4-Dinitrophenol	µg/L	Grab
2,4-Dinitrotoluene	µg/L	Grab
2,4,6-Trichlorophenol	µg/L	Grab
2,6-Dinitrotoluene	µg/L	Grab
2-Nitrophenol	µg/L	Grab
2-Chloronaphthalene	µg/L	Grab
3,3'-Dichlorobenzidine	µg/L	Grab
3,4-Benzofluoranthene	µg/L	Grab
4-Chloro-3-methylphenol	µg/L	Grab
4,6-Dinitro-2-methylphenol	µg/L	Grab
4-Nitrophenol	µg/L	Grab
4-Bromophenyl phenyl ether	µg/L	Grab
4-Chlorophenyl phenyl ether	µg/L	Grab
Acenaphthene	µg/L	Grab
Acenaphthylene	µg/L	Grab
Anthracene	µg/L	Grab
Benzidine	µg/L	Grab
Benzo(a)pyrene (3,4-Benzopyrene)	µg/L	Grab
Benzo(g,h,i)perylene	µg/L	Grab
Benzo(k)fluoranthene	µg/L	Grab

<b>Parameter</b>	<b>Units</b>	<b>Effluent Sample Type</b>
Bis(2-chloroethoxy) methane	µg/L	Grab
Bis(2-chloroethyl) ether	µg/L	Grab
Bis(2-chloroisopropyl) ether	µg/L	Grab
Bis(2-ethylhexyl) phthalate	µg/L	Grab
Butyl benzyl phthalate	µg/L	Grab
Chrysene	µg/L	Grab
Di-n-butylphthalate	µg/L	Grab
Di-n-octylphthalate	µg/L	Grab
Dibenzo(a,h)-anthracene	µg/L	Grab
Diethyl phthalate	µg/L	Grab
Dimethyl phthalate	µg/L	Grab
Fluoranthene	µg/L	Grab
Fluorene	µg/L	Grab
Hexachlorocyclopentadiene	µg/L	Grab
Indeno(1,2,3-c,d)pyrene	µg/L	Grab
Isophorone	µg/L	Grab
N-Nitrosodiphenylamine	µg/L	Grab
N-Nitrosodimethylamine	µg/L	Grab
N-Nitrosodi-n-propylamine	µg/L	Grab
Nitrobenzene	µg/L	Grab
Pentachlorophenol	µg/L	Grab
Phenanthrene	µg/L	Grab
Phenol	µg/L	Grab

<b>Parameter</b>	<b>Units</b>	<b>Effluent Sample Type</b>
Pyrene	µg/L	Grab
Aluminum	µg/L	24-hr Composite
Antimony	µg/L	24-hr Composite
Arsenic	µg/L	24-hr Composite
Asbestos	MFL	24-hr Composite
Beryllium	µg/L	24-hr Composite
Cadmium	µg/L	24-hr Composite
Chromium (Total)	µg/L	24-hr Composite
Chromium (VI)	µg/L	24-hr Composite
Copper	µg/L	24-hr Composite
Cyanide	µg/L	24-hr Composite
Iron	µg/L	24-hr Composite
Lead	µg/L	24-hr Composite
Mercury	µg/L	24-hr Composite
Manganese	µg/L	24-hr Composite
Nickel	µg/L	24-hr Composite
Selenium	µg/L	24-hr Composite
Silver	µg/L	24-hr Composite
Thallium	µg/L	24-hr Composite
Zinc	µg/L	24-hr Composite
4,4'-DDD	µg/L	24-hr Composite
4,4'-DDE	µg/L	24-hr Composite
4,4'-DDT	µg/L	24-hr Composite

<b>Parameter</b>	<b>Units</b>	<b>Effluent Sample Type</b>
alpha-Endosulfan	µg/L	24-hr Composite
alpha-Hexachlorocyclohexane (BHC)	µg/L	24-hr Composite
Aldrin	µg/L	24-hr Composite
beta-Endosulfan	µg/L	24-hr Composite
beta-Hexachlorocyclohexane	µg/L	24-hr Composite
Chlordane	µg/L	24-hr Composite
delta-Hexachlorocyclohexane	µg/L	24-hr Composite
Dieldrin	µg/L	24-hr Composite
Endosulfan sulfate	µg/L	24-hr Composite
Endrin	µg/L	24-hr Composite
Endrin Aldehyde	µg/L	24-hr Composite
Heptachlor	µg/L	24-hr Composite
Heptachlor Epoxide	µg/L	24-hr Composite
Lindane (gamma-Hexachlorocyclohexane)	µg/L	24-hr Composite
PCB-1016	µg/L	24-hr Composite
PCB-1221	µg/L	24-hr Composite
PCB-1232	µg/L	24-hr Composite
PCB-1242	µg/L	24-hr Composite
PCB-1248	µg/L	24-hr Composite
PCB-1254	µg/L	24-hr Composite
PCB-1260	µg/L	24-hr Composite
Toxaphene	µg/L	24-hr Composite
2,3,7,8-TCDD (Dioxin)	µg/L	24-hr Composite

Parameter	Units	Effluent Sample Type
Ammonia (as N)	mg/L	24-hr Composite
Boron	µg/L	24-hr Composite
Chloride	mg/L	24-hr Composite
Flow	MGD	Meter
Hardness (as CaCO <sub>3</sub> )	mg/L	Grab
Foaming Agents (MBAS)	µg/L	24-hr Composite
Mercury, Methyl	ng/L	Grab
Nitrate (as N)	mg/L	24-hr Composite
Nitrite (as N)	mg/L	24-hr Composite
pH	Std Units	Grab
Phosphorus, Total (as P)	mg/L	24-hr Composite
Specific conductance (Electrical Conductivity)	µmhos/cm	24-hr Composite
Sulfate	mg/L	24-hr Composite
Sulfide (as S)	mg/L	24-hr Composite
Sulfite (as SO <sub>3</sub> )	mg/L	24-hr Composite
Temperature	°C	Grab
Total Dissolved Solids (TDS)	mg/L	24-hr Composite
Dissolved Organic Carbon (DOC)	mg/L	24-hr Composite

5. Table D-6 Testing Requirements. The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table D-6:
  - a **Bis (2-ethylhexyl) phthalate.** In order to verify if bis (2-ethylhexyl) phthalate is truly present in the effluent discharge, the Discharger shall

take steps to assure that sample containers, sampling apparatus, and analytical equipment are not sources of the detected contaminant.

- b. **Composite Sample.** All composite samples shall be collected from a 24-hour time proportional composite.
- c. **Grab Sample.** A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
- d. **Concurrent Sampling.** The Discharger is not required to conduct effluent monitoring for constituents that have already been sampled in a given month, as required in Table D-6, except for hardness, pH, and temperature, which shall be conducted concurrently with the effluent sampling.
- e. **Total Mercury and methylmercury.** Samples for total mercury and methylmercury shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, for collection of equipment blanks (section 9.4.4.2), and shall be analyzed by U.S. EPA method 1630/1631 (Revision E) with a reporting limit of 0.05 ng/L for methylmercury and 0.5 nanograms per liter (ng/L) for total mercury.

## **X. REPORTING REQUIREMENTS**

### **A. General Monitoring and Reporting Requirements**

1. The Discharger shall comply with all Standard Provisions (Attachment D of the Municipal General Order) related to monitoring, reporting, and recordkeeping. Upon written request of the Central Valley Water Board, the Discharger shall submit a summary monitoring report. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s)
2. **Compliance Time Schedules - Not Applicable**
3. 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.
4. Monitoring frequencies may be adjusted by the Executive Officer to a less frequent basis if a Discharger makes a request and the request is backed by statistical trends of monitoring data submitted.

**B. Self-Monitoring Reports**

1. The Discharger shall electronically submit SMR's using the State Water Board's [California Integrated Water Quality System](http://www.waterboards.ca.gov/ciwqs/index.html) (CIWQS) Program website (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 SMR's including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this MRP. SMR's 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 begin on <Day Month Year> and be completed according to the following:

**Table D-7. Monitoring Periods and Reporting Schedule**

<b>Sampling Frequency</b>	<b>Monitoring Period</b>	<b>SMR Due Date</b>
Continuous	All	Submit with monthly SMR
1/Day	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
1/Week	Sunday through Saturday	Submit with monthly SMR
2/Week	Sunday through Saturday	Submit with monthly SMR
1/Month	1st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
2/Month	1st day of calendar month through last day of calendar month	First day of second calendar month following month of sampling



<b>Sampling Frequency</b>	<b>Monitoring Period</b>	<b>SMR Due Date</b>
1/Quarter	1 January through 31 March; 1 April through 30 June; 1 July through 30 September; 1 October through 31 December	1 May; 1 August; 1 November; 1 February of following year (respectively)
1/Year	1 January through 31 December	1 February of following year

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

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

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

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy ( $\pm$  a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
- d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

5. **Multiple Sample Data.** When determining compliance with an AMEL, AWEL, or maximum daily effluent limitation (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 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 SMR’s 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 attach final laboratory reports for all contracted, commercial laboratories, including quality assurance/quality control information, with all its SMR’s for which sample analyses were performed.

Bench sheets are not required but should be available upon request by Regional Board staff.

7. The Discharger shall submit in the SMR's calculations and reports in accordance with the following requirements.
  - a. **Calendar Annual Average Limitations** For Dischargers subject to effluent limitations specified as "calendar annual average" (e.g., electrical conductivity), the Discharger shall report the calendar annual average in the December SMR. The annual average shall be calculated as the average of the samples gathered for the calendar year.
  - b. **Mass Loading Limitations – Not Applicable.**
  - c. **Removal Efficiency (BOD<sub>5</sub> and TSS).** The Discharger shall calculate and report the percent removal of BOD<sub>5</sub> and TSS in the SMR's. 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 – Not Applicable.**
  - f. **Temperature Effluent Limitation – Not Applicable.**
  - g. **Chlorpyrifos and Diazinon Effluent Limitations.** Each Discharger subject to effluent limitations for diazinon and chlorpyrifos in section V.A.1.c.ix of this General Order shall calculate and report the value of SAMEL and SAWEL for the effluent, using the equation in section V.A.1.c.ix and consistent with the Compliance Determination Language in section VIII.K of the Limitations and Discharge Requirements.
  - 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 natural temperature to be increased by more than 5°C. Compliance to be determined based on the difference in temperature at Monitoring Locations RSW001 and RSW-002.

### C. Discharge Monitoring Reports (DMR's)

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

### D. Other Reports

1. **Special Study Reports.** Special study reports required by section VIII.C, Provisions, in this NOA shall be submitted in accordance with the reporting requirements in Table D-8, Technical Reports.
2. **Analytical Methods Report.** The Discharger shall complete and submit an Analytical Methods Report, electronically via CIWQS submittal, by the due date specified in Table D-8 below. The Analytical Methods Report shall include the following for each constituent listed in tables D-2, D-3, D-6, and D-8 of this NOA: 1) applicable water quality objective, 2) reporting level (RL), 3) method detection limit (MDL), and 4) analytical method. The analytical methods shall be sufficiently sensitive with RL's consistent with the SSM Rule (see also General Monitoring Provision F in the Municipal General Order), and with the Minimum Levels (ML's) in the SIP, Appendix 4. The "Reporting Level or RL" is synonymous with the "Method Minimum Level" described in the SSM Rule. If an RL is greater than the applicable water quality objective for a constituent, the Discharger shall explain how the proposed analytical method complies with the SSM Rule. Central Valley Water Board staff will provide a tool with this NOA to assist the Discharger in completing this requirement. The tool will include the constituents and associated applicable water quality objectives to be included in the Analytical Methods Report.
3. **Annual Operations Report.** The Discharger shall submit in accordance with the reporting requirements in Table D-8, Technical Reports, 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.
4. **Annual Pretreatment Reporting Requirements. – Not Applicable**
5. **Recycled Water Policy Annual Reports. – Not Applicable**
6. **Technical Report Submittals.** The Municipal General Order, as specified in this NOA, includes requirements to submit various reports and documents that may include, a Notice of Intent, special study technical reports, progress reports, and other reports identified in the MRP (hereafter referred to collectively as “technical reports”). The Technical Reports Table D-8 below summarizes the technical reports that are applicable to this discharge and required by this NOA, and the due dates for each submittal. All technical reports shall be submitted electronically via CIWQS submittal. Technical reports should be uploaded as a PDF, Microsoft Word, or Microsoft Excel file attachment.

**Table D-8. Technical Reports**

<b>Report #</b>	<b>Technical Report</b>	<b>Due Date</b>	<b>CIWQS Report Name</b>
<#>	Notice of Intent	<Day Month Year>	NOI
<#>	Analytical Methods Report	<Day Month Year>	MRP X.D.2
<#>	Analytical Methods Report Certification	<Day Month Year>	MRP IX.E.4
<#>	Annual Operations Report #1	<Day Month Year>	MRP X.D.3

<b>Report #</b>	<b>Technical Report</b>	<b>Due Date</b>	<b>CIWQS Report Name</b>
<#>	Annual Operations Report #2	<Day Month Year>	MRP X.D.3
<#>	Annual Operations Report #3	<Day Month Year>	MRP X.D.3
<#>	Annual Operations Report #4	<Day Month Year>	MRP X.D.3
<#>	Updated Salinity Evaluation and Minimization Plan	1 April of year following exceedance	MGO VII.C.3.c

**APPENDIX E – DETERMINATION OF WATER QUALITY-BASED EFFLUENT LIMITATIONS (WQBEL’S)**

The Central Valley Water Board determined water quality-based effluent limitations (WQBEL’s) as described in the Municipal General Order, section V.C.4 of the Fact Sheet (Attachment F), using the effluent limits tables included in the Municipal General Order, section V.A.1 of the Limitations and Discharge Requirements. For parameters with both human health and aquatic life objectives/criteria, the final effluent limitations in this NOA are based on the lower of the effluent limitations based on the aquatic life objectives/criteria and human health objectives/criteria.

**Abbreviations and Notes:**

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

**Table E-1. Aquatic Life WQBEL’s Calculations**

Parameter	Units	CMC	CCC	CV	Effluent Limit Table in Municipal General Order	AMEL	AWEL
Ammonia, Total (as N)	mg/L	5.83	1.27	0.4	17C	1.2	2.3