

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION**

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**ORDER R5-2014-0070-02  
NPDES NO. CA0079138**

**WASTE DISCHARGE REQUIREMENTS FOR THE  
CITY OF STOCKTON  
REGIONAL WASTEWATER CONTROL FACILITY  
SAN JOAQUIN COUNTY**

The following Discharger is subject to waste discharge requirements (WDR's) set forth in this Order:

**Table 1. Discharger Information**

Discharger	City of Stockton
Name of Facility	Regional Wastewater Control Facility
Facility Address	2500 Navy Drive
	Stockton, CA 95206
	San Joaquin County

**Table 2. Discharge Location**

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Tertiary treated municipal wastewater	37° 56' 15" N	121° 20' 5" W	San Joaquin River

**Table 3. Administrative Information**

This Order was adopted on:	<b>6 June 2014</b>
This Order shall become effective on:	<b>1 August 2014</b>
This Order shall expire on:	<b>31 July 2019</b>
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDR's in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	<b>1 February 2019</b>
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Central Valley Region have classified this discharge as follows:	<b>Major</b>

I, **PAMELA C. CREEDON**, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on **6 June 2014**, and amended by Order R5-2014-0122 on **9 October 2014** and Order R5-2015-0142 on **11 December 2015**.

*Original Signed By*

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**PAMELA C. CREEDON**, Executive Officer

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## I. FACILITY INFORMATION

Information describing the Regional Wastewater Control Facility (Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

## II. FINDINGS

The California Regional Water Quality Control Board, Central Valley Region (hereinafter Central Valley Water Board), finds:

- A. Legal Authorities.** This Order serves as WDR's pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters.
- B. Background and Rationale for Requirements.** The Central Valley Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E and G through I are also incorporated into this Order.
- C. Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections **IV.B, IV.C, V.B, VI.C.4.c, VI.C.5.b-c, and VI.C.7.b** are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.
- D. Monitoring and Reporting.** 40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Central Valley Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. The Monitoring and Reporting Program is provided in Attachment E.

The technical and monitoring reports in this Order are required in accordance with Water Code section 13267, which states the following in subsection (b)(1), *"In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."*

The Discharger owns and operates the Facility subject to this Order. The monitoring reports required by this Order are necessary to determine compliance with this Order. The need for the monitoring reports is discussed in the Fact Sheet.

- E. Monitoring Notification of Interested Parties.** The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDR's for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.
- F. Consideration of Public Comment.** The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED that Order R5-2008-0154 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Central Valley Water Board from taking enforcement action for past violations of the previous Order.

**III. DISCHARGE PROHIBITIONS**

- A.** Discharge of wastewater from the Facility, as the Facility is specifically described in the Fact Sheet in section II.B, in a manner different from that described in this Order is prohibited.
- B.** The by-pass or overflow of wastes to surface waters is prohibited, except as allowed by Federal Standard Provisions I.G. and I.H. (Attachment D).
- C.** Neither the discharge nor its treatment shall create a nuisance as defined in section 13050 of the Water Code.
- D.** The Discharger shall not allow pollutant-free wastewater to be discharged into the treatment or disposal, system in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.

**IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS**

**A. Effluent Limitations – Discharge Point No. 001**

**1. Final Effluent Limitations – Discharge Point No. 001**

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program, Attachment E.

- a. The Discharger shall maintain compliance with the effluent limitations specified in Table 4:

**Table 4. Effluent Limitations**

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Carbonaceous Biochemical Oxygen Demand (5-day @ 20 Deg. C) (CBOD <sub>5</sub> )	mg/L	10	15	20	-	-
	lbs/day <sup>1</sup>	4600	6900	9200	-	-

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Total Suspended Solids	mg/L	10	15	20	-	-
	lbs/day <sup>1</sup>	4600	6900	9200	-	-
Ammonia Nitrogen, Total (as N) (April 1 – October 31)	mg/L	1.2	-	4.0	-	-
	lbs/day <sup>1</sup>	560	-	1900	-	-
Ammonia Nitrogen, Total (as N) (November 1 – November 30)	mg/L	2.3	-	9.9	-	-
	lbs/day <sup>1</sup>	1100	-	4600	-	-
Ammonia Nitrogen, Total (as N) (December 1 – March 31)	mg/L	2.4	-	9.6	-	-
	lbs/day <sup>1</sup>	1200	-	4500	-	-
Bromoform	µg/L	38	-	115	-	-
Chlorodibromomethane	µg/L	31	-	86	-	-
Dichlorobromomethane	µg/L	19	-	38	-	-
Nitrate + Nitrite, as N	mg/L	10	-	-	-	-
pH	standard units	-	-	-	6.5	8.5

<sup>1</sup> Based on the existing permitted average dry weather flow of 55 mgd.

- b. **Percent Removal:** The average monthly percent removal of CBOD 5-day 20°C (CBOD<sub>5</sub>) and total suspended solids (TSS) shall not be less than 85 percent.
- c. **Acute Whole Effluent Toxicity.** 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.
- d. **Dissolved Oxygen.** The daily average effluent dissolved oxygen concentration shall not be less than 6.0 mg/L from 1 September through 30 November and 5.0 mg/L throughout the remainder of the year.
- e. **Electrical Conductivity.** The effluent calendar year annual average electrical conductivity shall not exceed 1,300 µmhos/cm.
- f. **Methylmercury.** The effluent calendar year annual methylmercury load shall not exceed 13 grams, in accordance with the Delta Mercury Control Program.
- g. **Temperature.** The maximum temperature of the effluent shall not exceed the natural receiving water temperature by more than 20°F.
- h. **Total Residual Chlorine.** Effluent total residual chlorine shall not exceed:
  - i. 0.011 mg/L, as a 4-day average; and
  - ii. 0.019 mg/L, as a 1-hour average.
- i. **Chronic Whole Effluent Toxicity.** There shall be no chronic toxicity in the effluent discharge.
- j. **Total Coliform Organisms.** Effluent total coliform organisms shall not exceed:
  - i. 2.2 most probable number (MPN) per 100 mL, as a 7-day median;

- ii. 23 MPN/100 mL, more than once in any 30-day period; and
- iii. 240 MPN/10 mL, at any time.

- k. **Average Dry Weather Flow.** The average dry weather discharge flow shall not exceed 55 mgd.
- l. **Chlorpyrifos and Diazinon.** Effluent chlorpyrifos and diazinon concentrations shall not exceed the sum of one as defined below:

v. Average Monthly Effluent Limit

$$S_{AMEL} = \frac{C_{D-avg}}{0.08} + \frac{C_{C-avg}}{0.012} \leq 1.0$$

$C_{D-avg}$  = average monthly diazinon effluent concentration in µg/L  
 $C_{C-avg}$  = average monthly chlorpyrifos effluent concentration in µg/L

vi. Maximum Daily Effluent Limit

$$S_{MDEL} = \frac{C_{D-max}}{0.16} + \frac{C_{C-max}}{0.025} \leq 1.0$$

$C_{D-max}$  = maximum daily diazinon effluent concentration in µg/L  
 $C_{C-max}$  = maximum daily chlorpyrifos effluent concentration in µg/L

**2. Interim Effluent Limitations**

The Discharger shall maintain compliance with the following limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP. These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated in this provision.

- a. **Mercury, total. Effective immediately, and until 31 December 2030,** the effluent calendar annual total mercury load shall not exceed 217 grams. These interim effluent limitations shall apply in lieu of the final effluent limits for methylmercury (Section IV.A.1.e).
- b. **Nitrate plus Nitrite, as N. Effective immediately and ending on 1 June 2024,** the Discharger shall maintain compliance with the interim effluent limitation specified in Table 5. This interim effluent limitation shall apply in lieu of the corresponding final effluent limitations specified in Section IV.A.1.a.

**Table 5. Interim Effluent Limitation**

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Nitrate + Nitrite (as N)	mg/L	-	-	31	-	-

**B. Land Discharge Specifications**

Not Applicable

**C. Recycling Specifications**

Not Applicable

## V. RECEIVING WATER LIMITATIONS

### A. Surface Water Limitations

The discharge shall not cause the following in the San Joaquin River.

1. **Bacteria.** The fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, to exceed a geometric mean of 200 MPN/100 mL, nor more than 10 percent of the total number of fecal coliform samples taken during any 30-day period to exceed 400 MPN/100 mL.
2. **Biostimulatory Substances.** Water to contain biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.
3. **Chemical Constituents.** Chemical constituents to be present in concentrations that adversely affect beneficial uses.
4. **Color.** Discoloration that causes nuisance or adversely affects beneficial uses.
5. **Dissolved Oxygen:**
  - a. The dissolved oxygen concentration to be reduced below 6.0 mg/L any time from 1 September through 30 November.
  - b. The dissolved oxygen concentration to be reduced below 5.0 mg/L at any time from 1 December through 31 August.
6. **Floating Material.** Floating material to be present in amounts that cause nuisance or adversely affect beneficial uses.
7. **Oil and Grease.** Oils, greases, waxes, or other materials to be present in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.
8. **pH.** The pH to be depressed below 6.5 nor raised above 8.5.
9. **Pesticides:**
  - a. Pesticides to be present, individually or in combination, in concentrations that adversely affect beneficial uses;
  - b. Pesticides to be present in bottom sediments or aquatic life in concentrations that adversely affect beneficial uses;
  - c. Total identifiable persistent chlorinated hydrocarbon pesticides to be present in the water column at concentrations detectable within the accuracy of analytical methods approved by USEPA or the Executive Officer;
  - d. Pesticide concentrations to exceed those allowable by applicable antidegradation policies (see State Water Board Resolution No. 68-16 and 40 CFR 131.12.);
  - e. Pesticide concentrations to exceed the lowest levels technically and economically achievable;
  - f. Pesticides to be present in concentration in excess of the maximum contaminant levels set forth in CCR, Title 22, division 4, chapter 15; and
  - g. Thiobencarb to be present in excess of 1.0 µg/L.

**10. Radioactivity:**

- a. Radionuclides to be present in concentrations that are harmful to human, plant, animal, or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.
- b. Radionuclides to be present in excess of the maximum contaminant levels (MCLs) specified in Table 64442 of section 64442 and Table 64443 of section 64443 of Title 22 of the California Code of Regulations.

**11. Suspended Sediments.** The suspended sediment load and suspended sediment discharge rate of surface waters to be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

**12. Settleable Substances.** Substances to be present in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.

**13. Suspended Material.** Suspended material to be present in concentrations that cause nuisance or adversely affect beneficial uses.

**14. Taste and Odors.** Taste- or odor-producing substances to be present in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or that cause nuisance, or otherwise adversely affect beneficial uses.

**15. Temperature.** The Thermal Plan is applicable to this discharge. The Thermal Plan requires that the discharge shall not cause the following in the San Joaquin River:

- a. The creation of a zone, defined by water temperatures of more than 1°F above natural receiving water temperature, which exceeds 25 percent of the cross-sectional area of the river channel at any point; and
- b. A surface water temperature rise greater than 4°F above the natural temperature of the receiving water at any time or place.

**16. Toxicity.** Toxic substances to be present, individually or in combination, in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.

**17. Turbidity.**

- a. Shall not exceed 2 Nephelometric Turbidity Units (NTU) where natural turbidity is less than 1 NTU;
- b. Shall not increase more than 1 NTU where natural turbidity is between 1 and 5 NTUs;
- c. Shall not increase more than 20 percent where natural turbidity is between 5 and 50 NTUs;
- d. Shall not increase more than 10 NTU where natural turbidity is between 50 and 100 NTUs; nor
- e. Shall not increase more than 10 percent where natural turbidity is greater than 100 NTUs.

**B. Groundwater Limitations**

Release of waste constituents from any portion of the Facility shall not cause groundwater to:

1. Contain any of the following constituents in concentrations greater than listed or greater than natural background quality, whichever is greater.

**Table 6. Groundwater Limitations**

Constituent	Units	Limitation
Total Coliform Organisms	MPN/100 mL	<2.2
Electrical Conductivity @ 25°C <sup>1</sup>	µmhos/cm	2000 <sup>2</sup>
Total Dissolved Solids <sup>1</sup>	mg/L	450 <sup>3</sup>
Nitrate Nitrogen, Total (as N)	mg/L	10

<sup>1</sup> A cumulative impact limit that accounts for several dissolved constituents in addition to those listed here separately [e.g., alkalinity (carbonate and bicarbonate), calcium, hardness, phosphate, and potassium].  
<sup>2</sup> Natural background quality is known to have exceeded this TDS limitation at all 21 monitoring points.  
<sup>3</sup> Natural background quality is known to have exceeded this EC limitation at 11 of 21 compliance monitoring points.

2. Exhibit a pH of less than 6.5 or greater than 8.4 pH units.
3. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

**VI. PROVISIONS**

**A. Standard Provisions**

1. The Discharger shall comply with all Standard Provisions included in Attachment D.
2. The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:
  - a. If the Discharger's wastewater treatment plant is publicly owned or subject to regulation by California Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to Title 23, CCR, division 3, chapter 26.
  - b. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
    - i. violation of any term or condition contained in this Order;
    - ii. obtaining this Order by misrepresentation or by failing to disclose fully all relevant facts;
    - iii. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
    - iv. a material change in the character, location, or volume of discharge.

The causes for modification include:

- *New regulations.* New regulations have been promulgated under section 405(d) of the CWA, or the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.
- *Land application plans.* When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.
- *Change in sludge use or disposal practice.* Under 40 CFR 122.62(a)(1), a change in the Discharger's sludge use or disposal practice is a cause for modification of the permit. It is cause for revocation and reissuance if the Discharger requests or agrees.

The Central Valley Water Board may review and revise this Order at any time upon application of any affected person or the Central Valley Water Board's own motion in accordance with the provisions of 40 CFR sections 122.62.

- c. If a toxic effluent standard or prohibition (including any scheduled compliance specified in such effluent standard or prohibition) is established under section 307(a) of the CWA, or amendments thereto, for a toxic pollutant that is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Central Valley Water Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition.

The Discharger shall comply with effluent standards and prohibitions within the time provided in the regulations that establish those standards or prohibitions, even if this Order has not yet been modified.

- d. This Order shall be modified, or alternately revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the CWA, if the effluent standard or limitation so issued or approved:
  - i. Contains different conditions or is otherwise more stringent than any effluent limitation in the Order; or
  - ii. Controls any pollutant limited in the Order.

The Order, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

- e. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.
- f. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine

the nature and impact of the non-complying discharge or sludge use or disposal, and adequate public notification to downstream water agencies or others who might contact the non-complying discharge.

- g. The Discharger shall ensure compliance with any existing or future pretreatment standard promulgated by USEPA under section 307 of the CWA, or amendment thereto, for any discharge to the municipal system.
- h. A copy of this Order shall be maintained at the discharge facility and be available at all times to operating personnel. Key operating personnel shall be familiar with its content.
- i. Safeguard to electric power failure:
  - i. The Discharger shall provide safeguards to assure that, should there be reduction, loss, or failure of electric power, the discharge shall comply with the terms and conditions of this Order.
  - ii. Upon written request by the Central Valley Water Board, the Discharger shall submit a written description of safeguards. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. A description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past 5 years on effluent quality and on the capability of the Discharger to comply with the terms and conditions of the Order. The adequacy of the safeguards is subject to the approval of the Central Valley Water Board.
  - iii. Should the treatment works not include safeguards against reduction, loss, or failure of electric power, or should the Central Valley Water Board not approve the existing safeguards, the Discharger shall, within 90 days of having been advised in writing by the Central Valley Water Board that the existing safeguards are inadequate, provide to the Central Valley Water Board and USEPA a schedule of compliance for providing safeguards such that in the event of reduction, loss, or failure of electric power, the Discharger shall comply with the terms and conditions of this Order. The schedule of compliance shall, upon approval of the Central Valley Water Board, become a condition of this Order.
- j. The Discharger, upon written request of the Central Valley Water Board, shall file with the Board a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. This report may be combined with that required under the Central Valley Water Board Standard Provision contained in section VI.A.2.i of this Order.

The technical report shall:

- i. Identify the possible sources of spills, leaks, untreated waste by-pass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.

- ii. Evaluate the effectiveness of present facilities and procedures and state when they became operational.
- iii. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

The Central Valley Water Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions shall be incorporated as part of this Order, upon notice to the Discharger.

- k. A publicly owned treatment works whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment and disposal facilities. The projections shall be made in January, based on the last 3 years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in 4 years, the Discharger shall notify the Central Valley Water Board by 31 January. A copy of the notification shall be sent to appropriate local elected officials, local permitting agencies and the press. Within 120 days of the notification, the Discharger shall submit a technical report showing how it will prevent flow volumes from exceeding capacity or how it will increase capacity to handle the larger flows. The Central Valley Water Board may extend the time for submitting the report.
- l. The Discharger shall submit technical reports as directed by the Executive Officer. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code, sections 6735, 7835, and 7835.1. To demonstrate compliance with Title 16, CCR, sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.
- m. The Central Valley Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.
- n. For publicly owned treatment works, prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a permanent decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. (Water Code section 1211).

- o. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, maximum daily effluent limitation, 1-hour average effluent limitation, or receiving water limitation contained in this Order, the Discharger shall notify the Central Valley Water Board by telephone (916) 464-3291 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within 5 days, unless the Central Valley Water Board waives confirmation. The written notification shall include the information required by the Standard Provision contained in Attachment D section V.E.1. [40 CFR 122.41(l)(6)(i)].
- p. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.
- q. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Central Valley Water Board and a statement. The statement shall comply with the signatory and certification requirements in the federal Standard Provisions (Attachment D, section V.B) and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

**B. Monitoring and Reporting Program (MRP) Requirements**

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E.

**C. Special Provisions**

**1. Reopener Provisions**

- a. Conditions that necessitate a major modification of a permit are described in 40 CFR 122.62, including, but not limited to:
  - i. If new or amended applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, this permit may be reopened and modified in accordance with the new or amended standards.
  - ii. When new information, that was not available at the time of permit issuance, would have justified different permit conditions at the time of issuance.

- b. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.
- c. **Mercury.** The Basin Plan's Delta Mercury Control Program was designed to proceed in two phases. After Phase 1, the Central Valley Water Board will conduct a Phase 1 Delta Mercury Control Program Review that considers: modification to the Delta Mercury Control Program. This Order may be reopened to address changes to the Delta Mercury Control Program.
- d. **Pollution Prevention.** This Order requires the Discharger implement pollution prevention plans following Water Code section 13263.3(d)(3) for mercury, nitrate plus nitrite and salinity. Based on a review of the pollution prevention plans, this Order may be reopened for addition and/or modification of effluent limitations and requirements for this constituent.
- e. **Whole Effluent Toxicity.** As a result of a Toxicity Reduction Evaluation (TRE), this Order may be reopened to include a numeric chronic toxicity limitation, a new acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE. Additionally, if the State Water Board revises the SIP's toxicity control provisions that would require the establishment of numeric chronic toxicity effluent limitations, this Order may be reopened to include a numeric chronic toxicity effluent limitation based on the new provisions.
- f. **Water Effects Ratios (WER) and Metal Translators.** A default WER of 1.0 has been used in this Order for calculating CTR criteria for applicable priority pollutant inorganic constituents. If the Discharger performs studies to determine site-specific WERs and/or site-specific dissolved-to-total metal translators, this Order may be reopened to modify the effluent limitations for the applicable inorganic constituents.
- g. **CV-SALTS.** The Central Valley Water Board is currently implementing the CV SALTS initiative to develop a Basin Plan Amendment that will establish a salt and nitrate Management Plan for the Central Valley. This Order may be reopened to implement the CV-SALTS initiative.
- h. **Drinking Water Policy.** On 26 July 2013 the Central Valley Water Board adopted Resolution No. R5-2013-0098 amending the Basin Plan and establishing a Drinking Water Policy. The State Water Board approved the Drinking Water Policy on 3 December 2013. This Order may be reopened to incorporate monitoring of drinking water constituents to implement the Drinking Water Policy.
- i. **Diazinon and Chlorpyrifos Basin Plan Amendment.** Central Valley Water Board staff is developing a Basin Plan Amendment to provide an implementation plan for NPDES-permitted domestic wastewater dischargers. This Order may be reopened to modify diazinon and chlorpyrifos effluent limitations, as appropriate, in accordance with an amendment to the Basin Plan.
- j. **Bay-Delta Plan South Delta Salinity Objectives Update.** The State Water Board is currently in the process of updating the South Delta Salinity Objectives contained in the Bay-Delta Plan. The updated salinity objectives may result in needed changes to

the salinity requirements in this Order. Therefore, this Order may be reopened to modify salinity requirements, as appropriate, in accordance with changes to the Bay-Delta Plan.

- k. **2013 Ammonia Criteria.** Ammonia criteria for waters where mussels are present were used because freshwater mussels have been surveyed near the discharge. However, if the Discharger can submit sufficient information indicating mussels are not present in the receiving water through a “mussel study to evaluate presence/absence of mussels”, and it is determined that it is not necessary to protect mussels in the receiving water this Order may be reopened to allow for the recalculation procedures to determine the appropriate ammonia criteria.

## 2. Special Studies, Technical Reports and Additional Monitoring Requirements

### a. Toxicity Reduction Requirements

**Chronic Whole Effluent Toxicity.** For compliance with the Basin Plan's narrative toxicity objective, this Order requires the Discharger to conduct chronic whole effluent toxicity (WET) testing, as specified in MRP section V. Furthermore, this Provision requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity. If the discharge exceeds the numeric toxicity monitoring trigger during accelerated monitoring established in this Provision, the Discharger is required to initiate a Toxicity Reduction Evaluation (TRE) in accordance with an approved TRE Work Plan, and take actions to mitigate the impact of the discharge and prevent recurrence of toxicity. A TRE is a site-specific study conducted in a stepwise process to identify the source(s) of toxicity and the effective control measures for effluent toxicity. TREs are designed to identify the causative agents and sources of whole effluent toxicity, evaluate the effectiveness of the toxicity control options, and confirm the reduction in effluent toxicity. This Provision includes procedures for accelerated chronic toxicity monitoring and TRE initiation.

- i. **Accelerated Monitoring and TRE Initiation.** When the numeric toxicity monitoring trigger is exceeded during regular chronic toxicity monitoring, and the testing meets all test acceptability criteria, the Discharger shall initiate accelerated monitoring as required in the Accelerated Monitoring Specifications. The Discharger shall initiate a TRE to address effluent toxicity if any WET testing results exceed the numeric toxicity monitoring trigger during accelerated monitoring.
- ii. **Numeric Toxicity Monitoring Trigger.** The numeric toxicity monitoring trigger to initiate a TRE is  $> 1 \text{ TUc}$  (where  $\text{TUc} = 100/\text{NOEC}$ ). The monitoring trigger is not an effluent limitation; it is the toxicity threshold at which the Discharger is required to begin accelerated monitoring and initiate a TRE.
- iii. **Accelerated Monitoring Specifications.** If the numeric toxicity monitoring trigger is exceeded during regular chronic toxicity testing, the Discharger shall initiate accelerated monitoring within 14-days of notification by the laboratory of the exceedance. Accelerated monitoring shall consist of four chronic toxicity tests conducted once every two weeks using the species that exhibited toxicity. The following protocol shall be used for accelerated monitoring and TRE initiation:

- (a) If the results of four consecutive accelerated monitoring tests do not exceed the monitoring trigger, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring. However, notwithstanding the accelerated monitoring results, if there is adequate evidence of a pattern of effluent toxicity, the Executive Officer may require that the Discharger initiate a TRE.
  - (b) If the source(s) of the toxicity is easily identified (e.g., temporary plant upset), the Discharger shall make necessary corrections to the facility and shall continue accelerated monitoring until four consecutive accelerated tests do not exceed the monitoring trigger. Upon confirmation that the effluent toxicity has been removed, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring.
  - (c) If the result of any accelerated toxicity test exceeds the monitoring trigger, the Discharger shall cease accelerated monitoring and begin a TRE to investigate the cause(s) of, and identify corrective actions to reduce or eliminate effluent toxicity. Within thirty (30) days of notification by the laboratory of any test result exceeding the monitoring trigger during accelerated monitoring, the Discharger shall submit a TRE Action Plan to the Central Valley Water Board including, at minimum:
    - (1) Specific actions the Discharger will take to investigate and identify the cause(s) of toxicity, including a TRE WET monitoring schedule;
    - (2) Specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and
    - (3) A schedule for these actions.
- b. **Phase I Methylmercury Control Study.** In accordance with the Basin Plan's Delta Mercury Control Program and the compliance schedule included in this Order for methylmercury (Section VI.C.7.a), the Discharger shall participate in the Central Valley Clean Water Association (CVCWA) Coordinated Methylmercury Control Study (Study) to evaluate existing control methods and, as needed, develop additional control methods that could be implemented to achieve the methylmercury waste load allocation. A work plan was submitted by CVCWA on **20 April 2013**. The study work plan will be reviewed by a Technical Advisory Committee (TAC) and approved by the Executive Officer. The work plan shall be implemented immediately after approval by the Executive Officer, and a progress report shall be submitted by **20 October 2015**.

The Study shall evaluate the feasibility of reducing sources more than the minimum amount needed to achieve the methylmercury allocation. The Study also may include an evaluation of innovative actions, watershed approaches, offsets projects, and other short and long-term actions that result in reducing inorganic (total) mercury and methylmercury to address the accumulation of methylmercury in fish tissue and to reduce methylmercury exposure. The Study may evaluate the effectiveness of using inorganic (total) mercury controls to control methylmercury discharges.

The Study shall include a description of methylmercury and/or inorganic (total) mercury management practices identified in Phase 1; an evaluation of the effectiveness, costs, potential environmental effects, and overall feasibility of the control actions. The Study shall also include proposed implementation plans and schedules to comply with methylmercury allocations as soon as possible. The Study shall be submitted to the Central Valley Water Board by **20 October 2018**.

The Executive Officer may, after public notice, extend the due date up to two years if the Discharger demonstrates it is making significant progress towards developing, implementing and/or completing the Study and reasonable attempts have been made to secure funding for the Study, but the Discharger has experienced severe budget shortfalls.

### 3. **Best Management Practices and Pollution Prevention**

- a. **Pollution Prevention Plan for Mercury.** The Discharger shall update and implement a pollution prevention plan (PPP) for mercury in accordance with Water Code section 13263.3(d)(3), per the compliance schedule in this Order for methylmercury (Section VI.C.7.a). The minimum requirements for the pollution prevention plan are outlined in the Fact Sheet (Attachment F section VI.B.3.i). Progress reports shall be submitted annually in accordance with the Monitoring and Reporting Program (Attachment E section X.D.1.). The progress reports shall discuss the effectiveness of the PPP in the reduction of mercury in the discharge, include a summary of mercury and methylmercury monitoring results, and discuss updates to the PPP.
- b. **Pollution Prevention Plan for Salinity.** The Discharger submitted a PPP for salinity that meets the requirements of Water Code section 13263.3(d)(3). The Discharger shall continue to implement the PPP for salinity.
- c. **Mercury Exposure Reduction Program.** The Discharger shall participate in a mercury Exposure Reduction Program (MERP) in accordance with the Basin Plan's Delta Mercury Control Program. By letter dated 28 August 2013, the Discharger elected to provide financial support in the collective MERP with other Delta dischargers, rather than be individually responsible for any MERP activities. An exposure reduction work plan for Executive Officer approval was submitted on **20 October 2013**. The objective of the Exposure Reduction Program is to reduce mercury exposure of Delta fish consumers most likely affected by mercury. The work plan shall address the Exposure Reduction Program objective, elements, and the Discharger's coordination with other stakeholders. The minimum requirements for the exposure reduction work plan are outlined in the Fact Sheet (Attachment F section VI.B.3.ii). The Discharger shall integrate or, at minimum, provide good-faith opportunities for integration of community-based organizations, tribes, and consumers of Delta fish into planning, decision making, and implementation of exposure reduction activities. The Discharger shall continue to participate in the group effort to implement the work plan.

### 4. **Construction, Operation and Maintenance Specifications**

- a. **Title 22, or Equivalent, Disinfection Requirements.** Wastewater discharged to the San Joaquin River shall be oxidized, coagulated, filtered, and adequately disinfected pursuant to the Department of Public Health (DPH) reclamation criteria, CCR, Title 22, division 4, chapter 3, (Title 22), or equivalent.

b. **Turbidity.** Effluent turbidity shall not exceed any of the following:

- i. 2 NTU, as a daily average;
- ii. 5 NTU, more than 5% of the time within a 24-hour period;
- iii. 10 NTU, at any time.

c. **Treatment Pond Operating Requirements.**

- i. The treatment ponds shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
- ii. Public contact with wastewater in the treatment ponds shall be precluded through such means as fences, signs, and other acceptable alternatives.
- iii. Treatment ponds shall be managed to prevent breeding of mosquitoes. In particular,
  - (a) An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.
  - (b) Weeds shall be minimized.
  - (c) Dead algae, vegetation, and debris shall not accumulate on the water surface.
- iv. Freeboard shall never be less than 2 feet (measured vertically to the lowest point of overflow) as a monthly average and never less than 1 foot at any time.
- v. The discharge of waste classified as "hazardous" as defined in section 2521(a) of Title 23, California Code of Regulations (CCR), to the treatment ponds is prohibited.
- vi. Objectionable odors originating from the treatment ponds shall not be perceivable beyond the limits of the wastewater treatment and disposal areas (or property owned by the Discharger).
- vii. As a means of discerning compliance with Treatment Pond Operating Requirements (IV.C.4.c.vi) the dissolved oxygen content in the upper zone (1 foot) of wastewater in treatment ponds shall not be less than 1.0 mg/L.
- viii. Treatment ponds shall not have a pH less than 6.5 or greater than 9.0.

5. **Special Provisions for Municipal Facilities (POTWs Only)**

a. **Pretreatment Requirements**

- i. The Discharger shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR Part 403, including any subsequent regulatory revisions to 40 CFR Part 403. Where 40 CFR Part 403 or subsequent revision places mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall complete the required actions within 1 year from the issuance

date of this permit or the effective date of the 40 CFR Part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Discharger shall be subject to enforcement actions, penalties, fines, and other remedies by USEPA or other appropriate parties, as provided in the CWA. USEPA may initiate enforcement action against a nondomestic user for noncompliance with applicable standards and requirements as provided in the CWA.

- ii. The Discharger shall enforce the requirements promulgated under sections 307(b), 307(c), 307(d), and 402(b) of the CWA with timely, appropriate and effective enforcement actions. The Discharger shall cause all nondomestic users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements or, in the case of a new nondomestic user, upon commencement of the discharge.
  - iii. The Discharger shall perform the pretreatment functions as required in 40 CFR Part 403 including, but not limited to:
    - (a) Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);
    - (b) Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;
    - (c) Implement the programmatic functions as provided in 40 CFR 403.8(f)(2); and
    - (d) Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3).
  - iv. **Pretreatment Reporting Requirements.** Pretreatment reporting requirements are included in the Monitoring and Reporting Program, section X.D.5 of Attachment E.
- b. **Sludge/Biosolids Treatment or Discharge Specifications.** Sludge in this document means the solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes. Solid waste refers to grit and screening material generated during preliminary treatment. Residual sludge means sludge that will not be subject to further treatment at the wastewater treatment plant. Biosolids refer to sewage that has been treated and tested and shown to be capable of being beneficially and legally used pursuant to federal and state regulations as a soil amendment for agricultural, silvicultural, horticultural, and land reclamation activities as specified under 40 CFR Part 503.
- i. Collected screenings, residual sludge, biosolids, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer, and consistent with Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste, as set forth in Title 27, CCR, division 2, subdivision 1, section 20005, et seq. Removal for further treatment, storage, disposal, or reuse at sites (e.g., landfill, composting sites, soil amendment sites) that are operated in accordance with valid waste discharge requirements issued by a Central Valley Water Board will satisfy these specifications.

Sludge and solid waste shall be removed from screens, sumps, ponds, clarifiers, etc. as needed to ensure optimal plant performance.

The treatment of sludge generated at the Facility shall be confined to the Facility property and conducted in a manner that precludes infiltration of waste constituents into soils in a mass or concentration that will violate groundwater limitations in section V.B. of this Order. In addition, the storage of residual sludge, solid waste, and biosolids on Facility property shall be temporary and controlled, and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate groundwater limitations included in section V.B. of this Order.

- ii. The use, disposal, storage, and transportation of biosolids shall comply with existing federal and state laws and regulations, including permitting requirements and technical standards included in 40 CFR Part 503. If the State Water Board and the Central Valley Water Board are given the authority to implement regulations contained in 40 CFR Part 503, this Order may be reopened to incorporate appropriate time schedules and technical standards. The Discharger must comply with the standards and time schedules contained in 40 CFR Part 503 whether or not they have been incorporated into this Order.
- iii. The Discharger shall comply with Section IX.A. Biosolids of the Monitoring and Reporting Program, Attachment E.
- iv. Any proposed change in biosolids use or disposal practice from a previously approved practice shall be reported to the Executive Officer and USEPA Regional Administrator at least 90 days in advance of the change.
- v. **Within 180 days of the permit effective date**, the Discharger shall update a biosolids use or disposal plan to the Central Valley Water Board. The plan shall describe at a minimum:
  - (a) Sources and amounts of biosolids generated annually.
  - (b) Location(s) of on-site storage and description of the containment area.
  - (c) Plans for ultimate disposal. For landfill disposal, include the present classification of the landfill and the name and location of the landfill.
- vi. The Discharger is encouraged to comply with the "Manual of Good Practice for Agricultural Land Application of Biosolids" developed by the California Water Environment Association.
- vii. Use of biosolids as a soil amendment shall comply with valid waste discharge requirements (WDRs) issued by the State or Regional Water Boards. In most cases, this means the WDRs contained in the State Water Resources Control Board Water Quality Order No. 2004-0012-DWQ, General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities (Biosolids General Order). For a biosolids use project to be covered by the Biosolids General Order, the Discharger must file a complete Notice of Intent and receive a Notice of Applicability for each project.

- c. **Collection System.** On 2 May 2006, the State Water Board adopted State Water Board Order No. 2006-0003-DWQ, Statewide General WDRs for Sanitary Sewer Systems. The Discharger shall be subject to the requirements of Order No. 2006-0003-DWQ and any future revisions thereto. Order No. 2006-0003-DWQ requires that all public agencies that currently own or operate sanitary sewer systems apply for coverage under the general WDRs. The Discharger has applied for and has been approved for coverage under Order 2006-0003-DWQ for operation of its wastewater collection system.

**6. Other Special Provisions**

Not Applicable

**7. Compliance Schedules**

- a. **Compliance Schedule for Final Effluent Limitations for Methylmercury.** This Order requires compliance with the final effluent limitations for methylmercury by **31 December 2030**. The Discharger shall comply with the following time schedule to ensure compliance with the final effluent limitations:

<u>Task</u>	<u>Date Due</u>
<b><u>Phase 1</u></b>	
i. Submit CVCWA Coordinated Methylmercury Control Study Work Plan	<b>Complete</b>
ii. Implement Pollution Prevention Plan (PPP) <sup>1</sup> for Mercury (per Section VI.C.3.a)	<b>Complete</b>
iii. Implement CVCWA Coordinated Methylmercury Control Study Work Plan	<b>Immediately following Executive Officer Approval</b>
iv. Annual Progress Reports <sup>2</sup>	<b>30 January, annually</b>
v. Submit CVCWA Coordinated Methylmercury Control Study Progress Report	<b>20 October 2015</b>
vi. Submit Final CVCWA Coordinated Methylmercury Control Study	<b>20 October 2018<sup>3</sup></b>
<b><u>Phase 2</u></b>	
vii. Implement methylmercury control programs	<b>TBD<sup>4</sup></b>
viii. Full Compliance	<b>31 December 2030</b>

- | <u>Task</u>  | <u>Date Due</u> |
|--|-----------------|
| 1 The PPP for Mercury shall be updated and implemented in accordance with Section VI.C.3.a. The Discharger shall continue to implement its existing PPP for mercury during the period in which it updates the PPP.   |                 |
| 2 Beginning 30 January 2015 and annually thereafter until the Facility achieves compliance with the final effluent limitations for methyl mercury, the Discharger shall submit annual progress reports on pollution minimization activities implemented and evaluation of their effectiveness, including a summary of total mercury and methylmercury monitoring results.  |                 |
| 3 The Executive Officer may, after public notice, extend the due date for the Final CVCWA Coordinated Methylmercury Control Study up to two years if the Discharger demonstrates it is making significant progress towards developing, implementing and/or completing the Study and reasonable attempts have been made to secure funding for the Study, but the Discharger has experienced severe budget shortfalls. |                 |
| 4 To be determined. Following Phase 1 the Central Valley Water Board will conduct a Phase 1 Delta Mercury Control Program Review that considers: modification of methylmercury goals, objectives, allocations, final compliance date, etc. Consequently, the start of Phase 2 and the final compliance date is uncertain at the time this Order was adopted.   |                 |

b. **Time Schedule for Compliance with Groundwater Limitations and Best Practicable Treatment or Control (BPTC).** State Water Board Resolution 68-16 (Antidegradation Policy) requires best practicable treatment or control 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.” The Discharger currently stores digested sludge in an unlined lagoon. A recently completed *Background Groundwater Quality Characterization Technical Report for the City of Stockton Regional Wastewater Control Facility* (March 2013) indicated possible groundwater degradation from the Facility (see Attachment C for groundwater monitoring well network contour map). Data evaluation identified three localized possible impacts to groundwater quality: 1) known leak at the foul air duct near monitoring well MW-13 that was repaired in 2004. Groundwater at this well has substantially self-remediated with respect to nitrate and shows statistically significant decreasing trends with respect to TDS, ED, and chloride; however, groundwater salinity remains high relative to most other wells; 2) MW-12 adjacent to the sludge lagoon had elevated nitrate and has increasing salinity trends; and 3) MW-10, under which groundwater does not move, has elevated nitrate.

The Discharger must submit a BPTC Technical Evaluation Work Plan and Time Schedule that sets forth a comprehensive technical evaluation and time schedule to implement or modify the Facility as necessary to comply with the Antidegradation Policy.

The Discharger shall comply with the following schedule:

Task	Compliance Date
1 – Submit Background Groundwater Quality Characterization Technical Report	Completed (22 March 2013)
2 – Submit Work Plan and Time Schedule for BPTC Technical Evaluation	31 December 2014
3 – Submit BPTC Technical Evaluation Study	As established by Task 2 and following approval of the work plan and time schedule

Task	Compliance Date
4 – Implement necessary modifications to achieve BPTC	As established by Task 3 and following approval of technical evaluation and time schedule.
5 – Progress Reports	1 June, annually, beginning 1 June 2016
6 – Submit report documenting completion of implementation of BPTC Recommendations and compliance with Groundwater Limitations V.B	No later than 5 years following Task 3

- c. **Compliance Schedule for Nitrate plus Nitrite.** This Order requires compliance with the final effluent limitations for nitrate plus nitrite in Section IV.A.1.a of this Order by **1 June 2024**. The Discharger shall comply with the following time schedule to ensure compliance with these requirements:

	Task	Date Due
i.	<b>Submit Method of Compliance Workplan.</b> Submit workplan that ensures compliance with final effluent limitations for nitrate plus nitrite by the final compliance date.	<b>31 December 2014</b>
ii.	<b>Submit and Implement Pollution Prevention Plan (PPP) for Nitrate Plus Nitrite in accordance with Water Code section 13263.3(d)(3).</b> The PPP shall be prepared and implemented in accordance with Attachment F, Section VI.B.3.	<b>31 December 2014</b>
iii.	<b>Progress Reports.</b> The progress reports shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures implemented, and recommendations for additional measures as necessary to achieve full compliance by the final compliance date.	<b>30 June</b> , annually, beginning June 2015 until final compliance.
iv.	<b>Complete Treatment Technology Evaluation and Pilot Testing.</b> Submit with the annual progress report confirmation of compliance with this task.	<b>30 June 2016</b>
v.	<b>Select Preferred Treatment Option and Complete Preliminary Design.</b> Submit with the annual progress report confirmation of compliance with this task.	<b>30 June 2017</b>
vi.	<b>Complete Financing Plan.</b> Submit with the annual progress report a financing plan for the selected compliance project(s) and a schedule for obtaining funding.	<b>30 June 2019</b>
vii.	<b>Complete CEQA Documentation for Implementation of the Preferred Treatment Option.</b> File CEQA Submit environmental documents to the State Clearinghouse.	<b>31 December 2019</b>

	<u>Task</u>	<u>Date Due</u>
viii.	<b>Award Construction Bid.</b> Submit a letter confirming and describing detailed information on awarded construction bid process (e.g. date awarded, company, etc.).	<b>31 December 2020</b>
ix.	<b>Obtain Funding.</b> Submit with the annual progress report confirmation of compliance with this task.	<b>30 June 2021</b>
x.	<b>Complete Construction of Preferred Treatment Option.</b> Submit construction approval documentation.	<b>31 December 2023</b>
xi.	<b>Final Compliance.</b> Submit report demonstrating compliance with the final effluent limits for nitrate plus nitrite.	<b>1 June 2024</b>

**VII. COMPLIANCE DETERMINATION**

- A. CBOD<sub>5</sub> and TSS Effluent Limitations (Section IV.A.1.a and b).** Compliance with the final effluent limitations for CBOD<sub>5</sub> and TSS required in Limitations and Discharge Requirements section IV.A.1.a shall be ascertained by 24-hour composite samples. Compliance with effluent limitations required in Limitations and Discharge Requirements section IV.A.1.b for percent removal shall be calculated using the arithmetic mean of CBOD<sub>5</sub> and TSS in effluent samples collected over a monthly period as a percentage of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period.
- B. Total Mercury Mass Loading Effluent Limitations (Section IV.A.2.a).** The procedures for calculating mass loadings are as follows:
  - a. The total pollutant mass load for each individual calendar month shall be determined using an average of all concentration data collected that month and the corresponding total monthly flow. All effluent monitoring data collected under the monitoring and reporting program, pretreatment program, and any special studies shall be used for these calculations. The total annual mass loading shall be the sum of the individual calendar months.
  - b. In calculating compliance, the Discharger shall count all non-detect measures at one-half of the detection level. If compliance with the effluent limitation is not attained due to the non-detect contribution, the Discharger shall improve and implement available analytical capabilities and compliance shall be evaluated with consideration of the detection limits.
- C. Average Dry Weather Flow Effluent Limitations (Section IV.A.1.j).** The average dry weather discharge flow represents the average flow when groundwater is at or near normal and runoff is not occurring. Compliance with the average dry weather flow effluent limitations will be determined annually based on the average of daily flow measurements over three consecutive dry weather months (e.g., July, August, and September).
- D. Total Coliform Organisms Effluent Limitations (Section IV.A.1.i).** For each day that an effluent sample is collected and analyzed for total coliform organisms, the 7-day median shall be determined by calculating the median concentration of total coliform bacteria in the effluent utilizing the bacteriological results of the last 7 days. For example, if a sample is collected on a Wednesday, the result from that sampling event and all results from the previous 6 days (i.e., Tuesday, Monday, Sunday, Saturday, Friday, and Thursday) are used to calculate the

7-day median. If the 7-day median of total coliform organisms exceeds a most probable number (MPN) of 2.2 per 100 milliliters, the Discharger will be considered out of compliance.

- E. Total Residual Chlorine Effluent Limitations (Section IV.A.1.g).** Continuous monitoring analyzers for chlorine residual or for dechlorination agent residual in the effluent are appropriate methods for compliance determination. A positive residual dechlorination agent in the effluent indicates that chlorine is not present in the discharge, which demonstrates compliance with the effluent limitations. This type of monitoring can also be used to prove that some chlorine residual exceedances are false positives. Continuous monitoring data showing either a positive dechlorination agent residual or a chlorine residual at or below the prescribed limit are sufficient to show compliance with the total residual chlorine effluent limitations, as long as the instruments are maintained and calibrated in accordance with the manufacturer's recommendations.

Any excursion above the 1-hour average or 4-day average total residual chlorine effluent limitations is a violation. If the Discharger conducts continuous monitoring and the Discharger can demonstrate, through data collected from a back-up monitoring system, that a chlorine spike recorded by the continuous monitor was not actually due to chlorine, then any excursion resulting from the recorded spike will not be considered an exceedance, but rather reported as a false positive. Records supporting validation of false positives shall be maintained in accordance with Section IV Standard Provisions (Attachment D).

- F. Mass Effluent Limitations.** The mass effluent limitations contained in the Final Effluent Limitations IV.A.1.a are based on the permitted average dry weather flow and calculated as follows:.

$$\text{Mass (lbs/day)} = \text{Flow (MGD)} \times \text{Concentration (mg/L)} \times 8.34 \text{ (conversion factor)}$$

If the effluent flow exceeds the permitted average dry weather flow during wet-weather seasons, the effluent mass limitations contained in Final Effluent Limitations IV.A.1.a shall not apply. If the effluent flow is below the permitted average dry weather flow during wet-weather seasons, the effluent mass limitations do apply.

- G. Priority Pollutant Effluent Limitations.** Compliance with effluent limitations for priority pollutants shall be determined in accordance with Section 2.4.5 of the SIP, as follows:
1. Dischargers shall be deemed out of compliance with an effluent limitation, if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).
  2. Dischargers shall be required to conduct a Pollutant Minimization Program (PMP) in accordance with section 2.4.5.1 of the SIP when there is evidence that the priority pollutant is present in the effluent above an effluent limitation and either:
    - a. A sample result is reported as detected, but not quantified (DNQ) and the effluent limitation is less than the RL; or
    - b. A sample result is reported as non-detect (ND) and the effluent limitation is less than the method detection limit (MDL).
  3. When determining compliance with an average monthly effluent limitation (AMEL) and more than one sample result is available in a month, the discharger shall compute the



Program data and other receiving water monitoring data that is not specifically required to be conducted by the Discharger under this permit, will not be used directly to determine that the discharge is in violation of this Permit. The Discharger may, however, conduct any site-specific receiving water monitoring deemed appropriate by the Discharger that is not conducted by the Delta RMP and submit that monitoring data. As described in Section VII of Attachment E, such data may be used, if scientifically defensible, in conjunction with other receiving water data, effluent data, receiving water flow data, and other pertinent information to determine whether or not a discharge is in compliance with this Permit.