

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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

I. GENERAL MONITORING PROVISIONS

- A.** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of the Central Valley Water Board.
- B.** Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.
- C.** Chemical, bacteriological, and bioassay analyses of any material required by this Order shall be conducted by a laboratory certified for such analyses by the Department of Public Health (DPH). Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Central Valley Water Board. In the event a certified laboratory is not available to the Discharger for any onsite field measurements such as pH, DO, turbidity, temperature, and residual chlorine, such analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program for any onsite field measurements such as pH, DO, turbidity, temperature, and residual chlorine must be kept onsite in the treatment facility laboratory and/or the plant operations division 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 USEPA 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 Monitoring and Reporting Program.
- F.** Laboratories analyzing monitoring samples shall be certified by the Department of Public Health (DPH), in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.

- G. The Discharger shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Resources Control Board at the following address:

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

- H. The Discharger shall file with the Central Valley Water Board technical reports on self-monitoring performed according to the detailed specifications contained in this Monitoring and Reporting Program.
- I. The results of all monitoring required by this Order 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 this Order. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	Location where a representative sample of the Facility's influent can be obtained, prior to any additives, treatment processes, and plant return flows.
001	EFF-001	Location where a representative sample of the facility's effluent can be obtained prior to discharge into the receiving water. [Latitude: 37° 56' 15"; Longitude: 121° 20' 5"]
--	PND-123C	Location where a representative composite sample of the treatment ponds' wastewater can be obtained prior to transfer to the wetlands
--	RSW-001	San Joaquin River and Bowman Road, 8.0 miles south of Discharge Point No. 001.
--	RSW-001A	San Joaquin River, flow monitoring station located approximately 500 feet south of the Facility's outfall
--	RSW-002	San Joaquin River and Highway 4, 0.5 miles south of Discharge Point No. 001.
--	RSW-002A	San Joaquin River and Burns Cutoff, 0.5 miles north of Discharge Point No. 001.
--	RSW-003	San Joaquin River at Deep Water Channel, 1.5 miles north of Discharge Point No. 001.
--	RGW-001	Monitoring wells MW-1, MW-3, MW-5, MW-6, MW-7, MW-9, MW-10, MW-11, MW-12, MW-13, MW-16, MW-17 and MW-18 and any other well subsequently installed for the study required in Provision VI.C.7.b. of this Order
--	BIO-001	Biosolids prior to removal from the facility.

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, as long as results are flow weighted.	SPL-001	--
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The North latitude and West longitude information in Table E-1 are approximate for administrative purposes.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

1. The Discharger shall monitor influent at INF-001 as follows:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Meter	Continuous	1
Carbonaceous Biochemical Oxygen Demand (CBOD) (5-day @ 20 Deg. C)	mg/L	24-hr Composite ²	1/week	1
Total Suspended Solids (TSS)	mg/L	24-hr Composite ²	1/week	1
pH ³	Standard Units	Meter	Continuous	1
Electrical Conductivity	µmhos/cm @ 25°C	Grab ⁴	1/month	1
Total Dissolved Solids		Grab ⁴	1/month	1

1 Pollutants 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.
 2 24-hour flow proportional composite.
 3 Monitoring may be ceased for up to 30 minutes each day for cleaning and calibration of probes.
 4 Grab samples shall not be collected at the same time each day to get a complete representation of variations in the influent.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor the Facility's effluent at EFF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Meter	Continuous	1
Conventional Pollutants				
Carbonaceous Biochemical Oxygen Demand (CBOD) (5-day @ 20 Deg. C)	mg/L	24-hr Composite ²	3/Week	1
	lbs/day	Calculate	3/Week	--
Total Suspended Solids	mg/L	24-hr Composite ²	3/Week	1
	lbs/day	Calculate	3/Week	--
pH ³	Standard Units	Meter	Continuous	1
Priority Pollutants				
Bromoform	µg/L	Grab	1/Month	1, 4, 5
Chlorodibromomethane	µg/L	Grab	1/Month	1, 4, 5
Dichlorobromomethane	µg/L	Grab	1/Month	1, 4, 5
Mercury, Total Recoverable	µg/L	Grab	1/Month	8
Non-Conventional Pollutants				
Ammonia Nitrogen, Total (as N)	mg/L	24-hr Composite ²	3/Week ⁷	1
	lbs/day	Calculate	3/Week	1
Chlorine, Total Residual	mg/L	Meter	Continuous	6
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Week	1
Hardness (as CaCO ₃)	mg/L	Grab	1/Month	1
Methylmercury	µg/L	Grab	1/Month ⁸	8
Nitrate Nitrogen, Total (as N)	mg/L	24-hr Composite ²	1/Week ⁹	1
Nitrite Nitrogen, Total (as N)	mg/L	24-hr Composite ²	1/Week ⁹	1
Temperature	°F	Meter	Continuous	1
Total Coliform Organisms	MPN/100 mL	Grab	3/Week ¹⁰	1
Total Dissolved Solids	mg/L	Grab	1/Month	1
Sulfur Dioxide or Sodium Bisulfite	mg/L	Meter	Continuous	1
Turbidity	NTU	Meter	Continuous	1
Dissolved Oxygen	mg/L	Grab	1/day	1
Acute Toxicity	% Survival		1/Month	
Chronic Toxicity	TUc		1/Quarter	

¹ Pollutants 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.

² 24-hour flow proportional composite.

³ Monitoring may be ceased for up to 30 minutes each day for cleaning and calibration of probes.

⁴ For priority pollutant constituents the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (See Table E-10).

⁵ Volatile constituents shall be sampled in accordance with 40 CFR Part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

⁶ Total chlorine residual must be monitored with a method sensitive to and accurate at the permitted level of 0.01 mg/L.

⁷ Concurrent with whole effluent toxicity monitoring.

⁸ Unfiltered methyl mercury and total mercury samples shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality

Criteria Levels, for collection of equipment blanks (section 9.4.4.2), and shall be analyzed by U.S. EPA method 1630/1631 (Revision E) with a reporting level of 0.05 ng/L for methyl mercury and 0.5 ng/L for total mercury.
⁹ Monitoring for nitrite and nitrate shall be conducted concurrently.
¹⁰ Samples for Total coliform organisms may be collected at any point following disinfection.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

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

1. Monitoring Frequency – The Discharger shall perform monthly acute toxicity testing, 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 flow proportional 24-hour composites and shall be taken at the effluent monitoring location EFF-001.

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

4. Methods – The acute toxicity testing samples shall be analyzed using EPA-821-R-02-012, Fifth Edition. Temperature, total residual chlorine, and pH shall be recorded at the time of sample collection. No pH adjustment may be made unless approved by the Executive Officer.

5. 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 three species chronic toxicity testing to determine whether the effluent is contributing chronic toxicity to the receiving water. The Discharger shall meet the following chronic toxicity testing requirements:

1. Monitoring Frequency – The Discharger shall perform quarterly three species chronic toxicity testing.

2. Sample Types – Effluent samples shall be flow proportional 24-hour composites and shall be representative of the volume and quality of the discharge. The effluent samples shall be taken at the effluent monitoring location EFF-001. The receiving water control shall be a grab sample obtained from the RSW-001 sampling location, as identified in this Monitoring and Reporting Program.

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 cladoceran, water flea, *Ceriodaphnia dubia* (survival and reproduction test);

- The fathead minnow, *Pimephales promelas* (larval survival and growth test); and
 - The green alga, *Selenastrum capricornutum* (growth test).
5. **Methods** – The presence of chronic toxicity shall be estimated as specified in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002.*
 6. **Reference Toxicant** – As required by the SIP, all chronic toxicity tests shall be conducted with concurrent testing with a reference toxicant and shall be reported with the chronic toxicity test results.
 7. **Dilutions** – For routine and accelerated chronic toxicity monitoring, it is not necessary to perform the test using a dilution series. The chronic toxicity testing shall be performed using 100% effluent and one control. If toxicity is found in any effluent test, the Discharger must conduct accelerated monitoring in accordance with Section VI.C.2.a of the Limitations and Discharge Requirements. For TRE monitoring, the chronic toxicity testing shall be performed using the dilution series identified in Table E-4, below, unless an alternative dilution series is detailed in the submitted TRE Action Plan. A receiving water control or laboratory water control may be used as the diluent.

Table E-4. Chronic Toxicity Testing Dilution Series for TRE Investigation

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

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

8. **Test Failure** – The Discharger must re-sample and re-test as soon as possible, but no later than fourteen (14) days after receiving notification of a test failure. A test failure is defined as follows:
 - a. The reference toxicant test or the effluent test does not meet all test acceptability criteria as specified in the *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA/821-R-02-013, October 2002 (Method Manual), and its subsequent amendments or revisions;* or
 - b. The percent minimum significant difference (PMSD) measured for the test exceeds the upper PMSD bound variability criterion in Table 6 on page 52 of the Method Manual. (A retest is only required in this case if the test results do not exceed the monitoring trigger specified in the Special Provision at section VI. 2.a.iii. of the Order.)
- C. **WET Testing Notification Requirements.** The Discharger shall notify the Central Valley Water Board within 24-hours after the receipt of test results exceeding the monitoring trigger during regular or accelerated 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. Regular chronic toxicity monitoring results shall be reported to the Central Valley Water Board within 30 days following completion of the test, 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 statistical methods used to calculate endpoints;

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

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

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

Additionally, the monthly discharger self-monitoring reports shall contain an updated chronology of chronic toxicity test results expressed in TUC, and organized by test species, type of test (survival, growth or reproduction), and monitoring frequency, i.e., either quarterly, monthly, accelerated, or Toxicity Reduction Evaluation (TRE).

2. Acute WET Reporting. Acute toxicity test results shall be submitted with the monthly discharger self-monitoring reports and reported as percent survival.

3. TRE Reporting. Reports for TREs 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. RECEIVING WATER MONITORING REQUIREMENTS

The Discharger shall implement the Receiving Water Monitoring Requirements in Attachment E, Sections VII.A.1, VII.A.2 and VII.B.1 of this Order. However, in lieu of conducting the individual monitoring specified in Attachment E, Sections VII.A.1, VII.A.2 and VII.B.1 of this Order (including

visual observations), the Discharger may elect to participate in the Delta Regional Monitoring Program.¹ The Discharger may choose to conduct all or part of the receiving water monitoring through the Delta Regional Monitoring Program. If the Discharger elects to cease all or part of the individual receiving water monitoring and instead participates in the Delta Regional Monitoring Program, the Discharger shall submit a letter signed by an authorized representative informing the Board that the Discharger will participate in the Delta Regional Monitoring Program, and the date on which individual receiving water monitoring required under Attachment E, Sections VII.A.1, VII.A.2 and VII.B.1 will cease, or be modified, and specific monitoring locations and constituent combinations that will no longer be conducted individually. Written approval of the Discharger's request, by the Executive Officer, is required prior to discontinuing part or all of individual receiving water monitoring. Approval by the Executive Officer is not required prior to participating in the Delta Regional Monitoring Program.

If the Discharger participates in the Delta Regional Monitoring Program in lieu of conducting individual receiving water monitoring, the Discharger shall continue to participate in the Delta Regional Monitoring Program until such time as the Discharger informs the Board that participation in the Delta RMP will cease and individual monitoring is reinstated. Receiving water monitoring under Attachment E, Sections VII.A.1, VII.A.2 and VII.B.1, is not required under this Order so long as the Discharger adequately supports the Delta Regional Monitoring Program. If the Discharger fails to adequately support the Delta Regional Monitoring Program, as defined by the Delta RMP Steering Committee, the Discharger shall reinstate individual receiving water monitoring under Attachment E, Sections VII.A.1, VII.A.2 and VII.B.1, upon written notice from the Executive Officer. During participation in the Delta RMP, the Discharger may conduct and submit any or part of the receiving water monitoring included in this Monitoring and Reporting Program that is deemed appropriate by the Discharger.

Delta RMP data is not intended to be used directly to represent either upstream or downstream water quality for purposes of determining compliance with this Permit. Delta RMP monitoring stations are established generally as "integrator sites" to evaluate the combined impacts on water quality of multiple discharges into the Delta; Delta RMP monitoring stations would not normally be able to identify the source of any specific constituent, but would be used to identify water quality issues needing further evaluation. Delta RMP monitoring data, along with individual Discharger data, may be used to help establish background receiving water quality for Reasonable Potential analyses in an NPDES Permit after evaluation of the applicability of the data for that purpose. Delta RMP data, as with all environmental monitoring data, can provide an assessment of water quality at a specific place and time that can be used in conjunction with other information, such as other receiving water monitoring data, spatial and temporal distribution and trends of receiving water data, effluent data from the Discharger's discharge and other point and non-point source discharges, receiving water flow volume, speed and direction, and other information to determine the likely source or sources of a constituent that resulted in exceedance of a receiving water quality objective.

During the period of participation in the Delta Regional Monitoring Program, the Discharger shall continue to report any individually conducted receiving water monitoring data in the Electronic Self-

¹ If the Discharger elects to participate in the Delta RMP, it shall continue to submit receiving water data for temperature. At minimum, one representative upstream receiving water temperature sample shall be submitted annually for the month of January. The temperature data shall be submitted in the January self-monitoring report and will be used to determine compliance with the temperature effluent limitation. Temperature data may be collected by the Discharger for this purpose or the Discharger may submit representative temperature data from the Delta RMP or other appropriate monitoring programs (e.g., Department of Water Resources, United States Geological Survey, etc.).

Monitoring Reports (eSMR) according to the Monitoring and Reporting Program. In addition, 1) with each submitted eSMR, the Discharger's eSMR cover letter shall state that the Discharger is participating in the Delta Regional Monitoring Program in lieu of conducting the individual receiving water monitoring program required by the permit, and 2) with each annual report, the Discharger shall attach a copy of the letter originally submitted to the Central Valley Water Board describing the monitoring location(s) and constituent combinations that will no longer be conducted individually.

A. Monitoring Location RSW-001, RSW-001A, RSW-002, RSW-002A, and RSW-003

1. The Discharger shall monitor San Joaquin River flow at RSW-001A. Flow information reported to the Discharger by the USGS, collected from the flow monitoring station located approximately 500 feet south of the outfall at RSW-001A shall be used. Flow will continue to be recorded in 15-minute intervals and reported within self-monitoring report as a daily net flow value in units of cubic feet per second.
2. The Discharger shall monitor the San Joaquin River at RSW-001, RSW-002, RSW-002A, and RSW-003 as follows:

Table E-5. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	1/week	
pH	Standard Units	Grab	1/week	
Temperature	°F (°C)	Grab	1/week	
Turbidity	NTUs	Grab	1/week	
Electrical Conductivity @ 25 Deg. C	µmhos/cm	Grab	1/week	
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/week	1, 2
Hardness (as CaCO ₃)	mg/L	Grab	1/month	

¹ Temperature and pH shall be collected at the time of ammonia monitoring to allow for determination of ammonia toxicity.
² The reporting limit shall be at or below 0.5 mg/L.

B. Visual Observations RSW-002, RSW-002A, and RSW-003

1. In conducting the weekly receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by RSW-002, RSW-002A, and RSW-003. A description, including at the minimum, the presence or absence of the following shall be recorded and summarized in the monthly self-monitoring reports.
 - 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.

C. Groundwater Monitoring Location RGW-001

1. 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. The existing monitoring network currently consists of 21 active wells, including Monitoring Well Nos. MW-1, MW-1s, MW-2, MW-2s, MW-3, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-17, MW-18, MW-19 and MW-19s. Monitoring wells MW-1s, MW-2s, and MW-19s are scheduled to be closed, while monitoring wells MW-2, MW-8, MW-14, MW-15, and MW-19 are to become dormant, but maintained in operable condition.
2. 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. All samples shall be collected using approved EPA methods. Water table elevations shall be calculated to determine groundwater gradient and direction of flow.
3. The Discharger shall monitor Monitoring Well Nos. MW-1, MW-7, MW-10, MW-12, MW-13, MW-17 and MW-18 as follows:

Table E-6. Groundwater Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Depth to Groundwater	±0.01 feet	Measurement	2/Year	--
Groundwater Elevation ¹	±0.01 feet	Calculated	2/Year	--
Gradient	feet/feet	Calculated	2/Year	--
Gradient Direction	degrees	Calculated	2/Year	--
Electrical Conductivity @ 25°C	µmhos/cm	Grab	2/Year	²
Total Dissolved Solids	mg/L	Grab	2/Year	²
pH	standard units	Grab	2/Year	²
Total Coliform Organisms	MPN/100 mL	Grab	2/Year	²
Nitrite Nitrogen, Total (as N)	mg/L	Grab	2/Year	²
Nitrate Nitrogen, Total (as N)	mg/L	Grab	2/Year	²
Total Kjeldahl Nitrogen	mg/L	Grab	2/Year	²

¹ 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.

² Pollutants 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.

4. The Discharger shall monitor Monitoring Well Nos. MW-3, MW-5, MW-6, MW-9, MW-11 and MW-16 as follows:

VIII. OTHER MONITORING REQUIREMENTS

A. Biosolids

1. Monitoring Location BIO-001

- a. A composite sample of sludge shall be collected annually at Monitoring Location BIO-001 in accordance with EPA's *POTW Sludge Sampling and Analysis Guidance Document*, August 1989, and tested for priority pollutants listed in 40 CFR Part 122, Appendix D, Tables II and III (excluding total phenols).

- b. Biosolids monitoring shall be conducted using the methods in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (EPA publication SW-846), as required in 40 CFR 503.8(b)(4). All results must be reported on a 100% dry weight basis. Records of all analyses must state on each page of the laboratory report whether the results are expressed in "100% dry weight" or "as is".

- c. Sampling records shall be retained for a minimum of 5 years. A log shall be maintained of sludge quantities generated and of handling and disposal activities. The frequency of entries is discretionary; however, the log must be complete enough to serve as a basis for part of the annual report.

B. Municipal Water Supply

1. Monitoring Location SPL-001

The Discharger shall monitor the municipal water supply at SPL-001 as follows. A sampling station shall be established where a representative sample of the municipal water supply can be obtained. Municipal water supply samples shall be collected at approximately the same time as effluent samples.

Table E-8. Municipal Water Supply Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Dissolved Solids ¹	mg/L	Grab	1/year	
Electrical Conductivity @ 25°C ¹	µmhos/cm	Grab	1/year	
Standard Minerals ²	mg/L	Grab	1/year	

¹ 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.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Depth to Groundwater	±0.01 feet	Measurement	2/Year	--
Groundwater Elevation ¹	±0.01 feet	Calculated	2/Year	--
Gradient	feet/feet	Calculated	2/Year	--
Gradient Direction	degrees	Calculated	2/Year	--

Table E-7. Groundwater Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
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- ¹ If the water supply is from more than one source, the total dissolved solids and electrical conductivity shall be reported as a weighted average and include copies of supporting calculations.
- ² Standard minerals shall include all major cations and anions and include verification that the analysis is complete (i.e., cation/anion balance).

C. Wastewater in Treatment Ponds – Monitoring Location PND-123C

At a minimum, the Discharger shall monitor wastewater impounded in each Facility pond(s) at PND-123C as required in Table E-9, below.

Table E-9. Pond(s) Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen ¹	mg/L	Grab	1/week	
pH	Standard Units	Grab	1/week	
Freeboard	feet	--	1/week	
Total Dissolved Solids	mg/L	Grab	2/year ²	
Electrical Conductivity	µmhos/cm	Grab	2/year ²	
Nitrate (as N)	mg/L	Grab	2/year ²	
Nitrite (as N)	mg/L	Grab	2/year ²	
Total Kjeldahl Nitrogen	mg/L	Grab	2/year ²	

- ¹ Samples shall be collected at a depth of one foot from each pond in use, opposite the inlet.
- Samples shall be collected between 0700 and 0900 hours.
- ² Grab samples shall be collected from each pond at the specified sampling frequency and combined to create one composite sample.

D. Effluent and Receiving Water Characterization

If the Discharger is participating in the Delta Regional Monitoring Program as described in Attachment E, Section VII above, the Receiving Water portion of this Characterization is not required. However, the Report of Waste Discharge for the next permit renewal shall include, at minimum, one representative ambient background characterization monitoring event for priority pollutant constituents during the term of the permit. Data from the Delta Regional Monitoring Program may be utilized to characterize the receiving water in the permit renewal. The Discharger may request that the RMP perform sampling and laboratory analysis to address all or a portion of the monitoring under this Characterization Monitoring with the understanding that the Discharger will provide funding to the RMP sufficient to reimburse all of the costs of this additional effort. Alternatively, the Discharger may conduct any site-specific receiving water monitoring deemed appropriate by the Discharger and submit that monitoring data with the Characterization Monitoring. In general, monitoring data from samples collected in the immediate vicinity of the discharge will be given greater weight in permitting decisions than receiving water monitoring data collected at greater distances from the discharge point.

1. **Bi-Monthly Monitoring (2017).** Bi-monthly (i.e. every other month) samples shall be collected from the effluent and upstream receiving water (EFF-001 and RSW-001) and analyzed for the constituents listed in Table E-10, below. Bi-monthly monitoring shall be conducted during 2017 (6 consecutive samples, evenly distributed throughout the year)

and the results of such monitoring be submitted to the Central Valley Water Board with the monthly self-monitoring reports. Each individual monitoring event shall provide representative sample results for the effluent and upstream receiving water.

2. **Concurrent Sampling.** Effluent and receiving water sampling shall be performed at approximately the same time, on the same date.

3. **Sample Type.** All receiving water samples shall be taken as grab samples. Effluent samples shall be taken as described in Table E-10, below.

Table E-10. Effluent and Receiving Water Characterization Monitoring

Parameter	Units	Effluent Sample Type	Maximum Reporting Level ¹
2-Chloroethyl vinyl ether	µg/L	Grab	1
Acrolein	µg/L	Grab	2
Acrylonitrile	µg/L	Grab	2
Benzene	µg/L	Grab	0.5
Bromoform	µg/L	Grab ²	0.5
Carbon Tetrachloride	µg/L	Grab	0.5
Chlorobenzene	µg/L	Grab	0.5
Chloroethane	µg/L	Grab	0.5
Chloroform	µg/L	Grab	2
Chloromethane	µg/L	Grab	2
Dibromochloromethane	µg/L	Grab ²	0.5
Dichlorobromomethane	µg/L	Grab ²	0.5
Dichloromethane	µg/L	Grab	2
Ethylbenzene	µg/L	Grab	2
Hexachlorobenzene	µg/L	Grab	1
Hexachlorobutadiene	µg/L	Grab	1
Hexachloroethane	µg/L	Grab	1
Methyl bromide (Bromomethane)	µg/L	Grab	1
Naphthalene	µg/L	Grab	10
Parachlorometa cresol	µg/L	Grab	
Tetrachloroethene	µg/L	Grab	0.5
Toluene	µg/L	Grab	2
trans-1,2-Dichloroethylene	µg/L	Grab	1
Trichloroethene	µg/L	Grab	2
Vinyl chloride	µg/L	Grab	0.5
Methyl-tert-butyl ether (MTBE)	µg/L	Grab	
Trichlorofluoromethane	µg/L	Grab	
1,1,1-Trichloroethane	µg/L	Grab	0.5
1,1-dichloroethane	µg/L	Grab	0.5
1,1-dichloroethylene	µg/L	Grab	0.5
1,2-dichloropropane	µg/L	Grab	0.5
1,3-dichloropropylene	µg/L	Grab	0.5
1,1,2-Trichloro-1,2,2-Trifluoroethane	µg/L	Grab	
1,2,4-trichlorobenzene	µg/L	Grab	1
1,2-dichloroethane	µg/L	Grab	0.5
1,2-dichlorobenzene	µg/L	Grab	0.5
1,3-dichlorobenzene	µg/L	Grab	0.5
1,4-dichlorobenzene	µg/L	Grab	0.5
Styrene	µg/L	Grab	

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

CITY OF STOCKTON
REGIONAL WASTEWATER CONTROL FACILITY

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

Parameter	Units	Effluent Sample Type	Maximum Reporting Level
Aluminum	µg/L	24-hr Composite	5
Antimony	µg/L	24-hr Composite	10
Arsenic	µg/L	24-hr Composite	10
Asbestos	µg/L	24-hr Composite	
Barium	µg/L	24-hr Composite	
Beryllium	µg/L	24-hr Composite	2
Cadmium	µg/L	24-hr Composite	0.5
Chromium (III)	µg/L	24-hr Composite	50
Chromium (VI)	µg/L	24-hr Composite	10
Copper	µg/L	24-hr Composite	0.5
Cyanide	µg/L	24-hr Composite	5
Fluoride	µg/L	24-hr Composite	
Iron	µg/L	24-hr Composite	
Lead	µg/L	24-hr Composite	0.5
Mercury	µg/L	Grab	0.5
Manganese	µg/L	24-hr Composite	
Molybdenum	µg/L	24-hr Composite	
Nickel	µg/L	24-hr Composite	20
Selenium	µg/L	24-hr Composite	5
Silver	µg/L	24-hr Composite	0.25
Thallium	µg/L	24-hr Composite	1
Tributyltin	µg/L	24-hr Composite	
Zinc	µg/L	24-hr Composite	20
4,4'-DDD	µg/L	24-hr Composite	0.05
4,4'-DDE	µg/L	24-hr Composite	0.05
4,4'-DDT	µg/L	24-hr Composite	0.01
alpha-Endosulfan	µg/L	24-hr Composite	0.02
(BHC)			
alpha-Hexachlorocyclohexane	µg/L	24-hr Composite	0.01
Aldrin	µg/L	24-hr Composite	
beta-Endosulfan	µg/L	24-hr Composite	0.005
beta-Hexachlorocyclohexane	µg/L	24-hr Composite	0.01
Chlordane	µg/L	24-hr Composite	0.005
delta-Hexachlorocyclohexane	µg/L	24-hr Composite	0.1
Dieldrin	µg/L	24-hr Composite	0.005
Endosulfan sulfate	µg/L	24-hr Composite	0.01
Endrin	µg/L	24-hr Composite	0.05
Endrin Aldehyde	µg/L	24-hr Composite	0.01
Heptachlor	µg/L	24-hr Composite	0.01
Heptachlor Epoxide	µg/L	24-hr Composite	0.01
Lindane (gamma-Hexachlorocyclohexane)	µg/L	24-hr Composite	0.01
PCB-1016	µg/L	24-hr Composite	0.02
PCB-1221	µg/L	24-hr Composite	0.5
PCB-1232	µg/L	24-hr Composite	0.5
PCB-1242	µg/L	24-hr Composite	0.5
PCB-1248	µg/L	24-hr Composite	0.5
PCB-1254	µg/L	24-hr Composite	0.5
PCB-1260	µg/L	24-hr Composite	0.5
Toxaphene	µg/L	24-hr Composite	0.5

Parameter	Units	Effluent Sample Type	Maximum Reporting Level ¹
Atrazine	µg/L	24-hr Composite	
Bentazon	µg/L	24-hr Composite	
Carbofuran	µg/L	24-hr Composite	
2,4-D	µg/L	24-hr Composite	
Dalapon	µg/L	24-hr Composite	
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	24-hr Composite	
Di(2-ethylhexyl)adipate	µg/L	24-hr Composite	
Dinoseb	µg/L	24-hr Composite	
Diquat	µg/L	24-hr Composite	
Endothal	µg/L	24-hr Composite	
Ethylene Dibromide	µg/L	24-hr Composite	
Methoxychlor	µg/L	24-hr Composite	
Molinate (Ordram)	µg/L	24-hr Composite	
Oxamyl	µg/L	24-hr Composite	
Picloram	µg/L	24-hr Composite	
Simazine (Princep)	µg/L	24-hr Composite	
Thiobencarb	µg/L	24-hr Composite	
2,3,7,8-TCDD (Dioxin)	µg/L	24-hr Composite	
2,4,5-TP (Silvex)	µg/L	24-hr Composite	
Diazinon	µg/L	24-hr Composite	
Chlorpyrifos	µg/L	24-hr Composite	
Ammonia (as N)	mg/L	24-hr Composite ²	
Boron	µg/L	24-hr Composite	
Chloride	mg/L	24-hr Composite	
Flow	MGD	Meter	
Hardness (as CaCO ₃)	mg/L	Grab	
Foaming Agents (MBAS)	µg/L	24-hr Composite	
Mercury, Methyl	ng/L	Grab	
Nitrate (as N)	mg/L	24-hr Composite ²	
Nitrite (as N)	mg/L	24-hr Composite ²	
pH	Std Units	Grab ²	
Phosphorus, Total (as P)	mg/L	24-hr Composite	
Specific conductance (EC)	µmhos/cm	24-hr Composite	
Sulfate	mg/L	24-hr Composite	
Sulfide (as S)	mg/L	24-hr Composite	
Sulfite (as SO ₃)	mg/L	24-hr Composite	
Temperature	°C	Meter	
Total Dissolved Solids (TDS)	mg/L	Grab	
Total Kjeldahl Nitrogen (TKN)	mg/L	24-hr Composite	
Total Organic Carbon (TOC)	mg/L	24-hr Composite	
Dissolved Organic Carbon (DOC)	mg/L	24-hr Composite	

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

² Receiving water characterization monitoring only.

IX. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

2. Upon written request of the Central Valley Water Board, the Discharger shall submit a summary monitoring report. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s).

3. **Compliance Time Schedules.** For compliance time schedules included in the Order, the Discharger shall submit to the Central Valley Water Board, on or before each compliance due date, the specified document or a written report detailing compliance or noncompliance with the specific date and task. If noncompliance is reported, the Discharger shall state the reasons for noncompliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the compliance time schedule.

4. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act" of 1986.

B. Self-Monitoring Reports (SMR's)

1. The Discharger shall electronically submit SMR's using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). The CIWQS Web site will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly, quarterly, and annual SMR's including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. 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 Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-11. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Permit Effective Date	All	Submit with monthly SMR
1/day	Permit Effective Date	(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	Permit Effective Date	Sunday through Saturday	Submit with monthly SMR

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
3/week	Permit Effective Date	Sunday through Saturday	Submit with monthly SMR
1/month	Permit Effective Date	First day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
1/quarter	Permit Effective Date	1 January through 31 March 1 April through 30 June 1 July through 30 September 1 October through 31 December	May 1 of the same year August 1 of the same year November 1 of the same year February 1 of the next year
2/year	Permit Effective Date	1 January through 30 June 1 July through 31 December	August 1 of the same year February 1 of the next year
1/year	Permit Effective Date	1 January through 31 December	February 1 of the next year

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

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

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

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (\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 Minimum Level (ML) value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

5. Multiple Sample Data. When determining compliance with an AMEL, AWEL, or MDEL for priority pollutants and more than one sample result is available, the Discharger shall

compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

- a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
- b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

6. The Discharger shall submit 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 is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
- b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDR's; 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.

7. With the exception of flow, all constituents monitored on a continuous basis (metered), shall be reported as daily maximums, daily minimums, and daily averages; flow shall be reported as the total volume discharged per day for each day of discharge.

8. The Discharger shall submit in the SMR's calculations and reports in accordance with the following requirements:

- a. **Average Dry Weather Flow.** The Discharger shall calculate and report the average dry weather flow for the effluent. The average dry weather flow shall be calculated as specified in Section VII.C and reported in the December SMR.
- b. **Calendar Annual Average Limitations.** For constituents with effluent limitations specified as "annual average" (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 monthly averages gathered for the calendar year.
- c. **Chlorpyrifos and Diazinon Effluent Limitations.** The Discharger shall calculate and report the value of SAMDEL and SMDEL for the effluent, using the equation in Effluent Limitations IV.A.1.k and consistent with the Compliance Determination language specified in Section VIII.1.
- d. **Mass Loading Limitations.** For CBOD₅, TSS, and ammonia, the Discharger shall calculate and report the mass loading (lbs/day) in the SMRs. The mass loading shall be calculated as follows:

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

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

- e. **Removal Efficiency (CBOD₅ and TSS).** The Discharger shall calculate and report the percent removal of CBOD₅ and TSS in the SMRs. The percent removal shall be calculated as specified in Section VII.A. of the Limitations and Discharge Requirements.
- f. **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 VII.D. of the Limitations and Discharge Requirements.
- g. **Turbidity Receiving Water Limitations.** The Discharger shall calculate and report the turbidity change in the receiving water between RSW-002 and RSW-002A applicable to the natural turbidity condition specified in Section V.A.17.a-e of the Limitations and Discharge Requirements. Due to the tidal nature of the receiving water, the direction of flow in the San Joaquin River shall be recorded at the time of sampling to ascertain which location (i.e. RSW-002 or RSW-002A) is "upstream" or "downstream" of the Facility's discharge.
- g. **Temperature Receiving Water Limitations.** The Discharger shall calculate and report the temperature change in the receiving water due to the effluent based on the difference in temperature at RSW-002 and RSW-002A. Due to the tidal nature of the receiving water, the direction of flow in the San Joaquin River shall be recorded at the time of sampling to ascertain which location (i.e. RSW-002 or RSW-002A) is "upstream" or "downstream" of the Facility's discharge.
- h. **Temperature Effluent Limitation.** For every day receiving water temperature samples are collected at RSW-002 and RSW-002A, the Discharger shall calculate and report the temperature difference between the effluent and "upstream" receiving water based on the difference in the daily average temperature at EFF-001 and temperature of grab samples collected at RSW-002 or RSW-002A, depending on the direction of San Joaquin River flow at the time of sampling. Due to the tidal nature of the receiving water, the direction of flow in the San Joaquin River shall be recorded at the time of sampling to ascertain which location (i.e. RSW-002 or RSW-002A) is "upstream" of the Facility's discharge.

C. Discharge Monitoring Reports (DMR's)

1. At any time during the term of this permit, the State Water Board or Central Valley Water Board may notify the Discharger to electronically submit DMR's. Until such notification is given specifically for the submittal of DMR's, the Discharger shall submit DMR's in accordance with the requirements described below.
2. DMR's must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR and one copy of the DMR to the address listed below:

STANDARD MAIL	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000
FEDEX/UPS/ OTHER PRIVATE CARRIERS	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15 th Floor Sacramento, CA 95814

3. All discharge monitoring results must be reported on the official U.S. EPA pre-printed DMR forms (EPA Form 3320-1) or on self-generated forms that follow the exact same format of EPA Form 3320-1.

D. Other Reports

1. Special Study Progress Reports. As specified in the compliance time schedules required in the Special Provisions contained in section VI of the Order, special study and progress reports shall be submitted in accordance with the following reporting requirements.

Table E-12. Reporting Requirements for Special Provisions Reports

Special Provision	Reporting Requirements
Pollution Prevention Plan for Mercury and Compliance Schedule for Methylmercury, Progress Reports (Provisions VI.C.3.a and VI.C.7.a)	30 January, annually, beginning 30 January 2015
Pollution Prevention Plan for Salinity, Progress Reports (Provision VI.C.3.b)	1 June, annually, beginning 1 June 2015
Phase 1 Methylmercury Control Study Progress Report (Special Provision VI.C.7.a)	20 October 2015
Groundwater Limitations and BPTC Compliance Schedule, Progress Reports (Special Provision VI.C.7.b)	1 June, annually, beginning 1 June 2016
Nitrate plus Nitrite Compliance Schedule (Special Provision VI.C.7.c)	30 June, annually, beginning 30 June 2015

2. The Discharger shall report the results of any acute and chronic toxicity testing, TIE, and Pollution Prevention Plan required by Special Provisions – VI.C.3.a and b. The Discharger shall report the progress in satisfaction of compliance schedule dates specified in Special Provisions – VI.C.7. The Discharger shall submit reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date in compliance with SMR reporting requirements described in subsection IX.B above.

3. By **15 August 2014**, the Discharger shall submit a report outlining reporting levels (RLs), method detection limits, and analytical methods for approval. The Discharger shall comply with the monitoring and reporting requirements for CTR constituents as outlined in section 2.3 and 2.4 of the SIP. The maximum required reporting levels for priority pollutant constituents shall be based on the Minimum Levels (MLs) contained in Appendix 4 of the

SIP, determined in accordance with Section 2.4.2 and Section 2.4.3 of the SIP. In accordance with Section 2.4.2 of the SIP, when there is more than one ML value for a given substance, the Central Valley Water Board shall include as RLs, in the permit, all ML values, and their associated analytical methods, listed in Appendix 4 that are below the calculated effluent limitation. The Discharger may select any one of those cited analytical methods for compliance determination. If no ML value is below the effluent limitation, then the Central Valley Water Board shall select as the RL, the lowest ML value, and its associated analytical method, listed in Appendix 4 for inclusion in the permit. Table E-10 (Attachment E) provides required maximum reporting levels in accordance with the SIP.

4. **Annual Operations Report.** By 30 January of each year, the Discharger shall submit a written report to the Executive Officer containing the following:
 - a. The names, certificate grades, and general responsibilities of all persons employed at the Facility.
 - b. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.
 - c. A statement certifying when the flow meter(s) and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration.
 - d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the wastewater treatment plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.
 - e. The Discharger may also be requested to submit an annual report to the Central Valley Water Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.
5. **Annual Pretreatment Reporting Requirements.** The Discharger shall submit annually a report to the Central Valley Water Board, with copies to USEPA Region 9 and the State Water Board, describing the Discharger's pretreatment activities over the previous 12 months (1 January through 31 December). In the event that the Discharger is not in compliance with any conditions or requirements of this Order, including noncompliance with pretreatment audit/compliance inspection requirements, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements.

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

- a. A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the POTW's influent and effluent for those pollutants USEPA has identified under section 307(a) of the CWA which are known or suspected to be discharged by nondomestic users. This will consist of an annual full priority pollutant scan. The Discharger is not required to sample and analyze for asbestos. The

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

Sludge sampling and analysis shall be conducted according to Section VIII.A of the monitoring and reporting program, and sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. The Discharger shall also provide any influent, effluent or sludge monitoring data for nonpriority pollutants which may be causing or contributing to interference, Pass-Through or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136 and amendments thereto.

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

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

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

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

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

ii. consistently achieved compliance;

iii. inconsistently achieved compliance;

iv. significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f)(2)(vii);

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

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

- vii. compliance status unknown.
- f. A report describing the compliance status of each SIU characterized by the descriptions in items iii through vii above shall be submitted for each calendar quarter by the first day of the second month following the end of the quarter. The report shall identify the specific compliance status of each such SIU and shall also identify the compliance status of the POTW with regards to audit/pretreatment compliance inspection requirements. If none of the aforementioned conditions exist, at a minimum, a letter indicating that all industries are in compliance and no violations or changes to the pretreatment program have occurred during the quarter must be submitted. The information required in the fourth quarter report shall be included as part of the annual report due every 28 February. This quarterly reporting requirement shall commence upon issuance of this Order.
- g. A summary of the inspection and sampling activities conducted by the Discharger during the past year to gather information and data regarding the SIUs. The summary shall include:
 - i. The names and addresses of the SIUs subjected to surveillance and an explanation of whether they were inspected, sampled, or both and the frequency of these activities at each user; and
 - ii. The conclusions or results from the inspection or sampling of each industrial user.
- h. The Discharger shall characterize the compliance status of each SIU by providing a list or table which includes the following information:
 - i. Name of SIU;
 - ii. Category, if subject to federal categorical standards;
 - iii. The type of wastewater treatment or control processes in place;
 - iv. The number of samples taken by the POTW during the year;
 - v. The number of samples taken by the SIU during the year;
 - vi. For an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided;
 - vii. A list of the standards violated during the year. Identify whether the violations were for categorical standards or local limits.
 - viii. Whether the facility is in significant noncompliance (SNC) as defined at 40 CFR 403.8(f)(2)(viii) at any time during the year; and
 - ix. A summary of enforcement or other actions taken during the year to return the SIU to compliance. Describe the type of action (e.g., warning letters or notices of violation, administrative orders, civil actions, and criminal actions), final compliance date, and the amount of fines and penalties

collected, if any. Describe any proposed actions for bringing the SIU into compliance;

x. Restriction of flow to the POTW.

xi. Disconnection from discharge to the POTW.

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

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

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

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

Pretreatment Program reports shall be submitted to the Central Valley Water Board and the:

State Water Resources Control Board
Division of Water Quality
1001 I Street or P.O. Box 100
Sacramento, CA 95812

and the

Regional Administrator
U.S. Environmental Protection Agency WTR-5
75 Hawthorne Street
San Francisco, CA 94105