c. **Groundwater Monitoring.** To determine compliance with Groundwater Limitations V.B., the Discharger shall implement the Hydrogeologic Assessment Work Plan (dated 2 August 2004) that was submitted to the Regional Water Board on 3 August 2004. All monitoring wells shall comply with the appropriate standards as described in *California Well Standards Bulletin* 74-90 (June 1991) and *Water Well Standards: State of California Bulletin 74-81* (December 1981), and any more stringent standards adopted by the Discharger or County pursuant to CWC section 13801.

The Discharger, after 1 year of monitoring, shall characterize natural background quality of monitored constituents in a technical report, to be submitted within 15 months from the permit effective date. For each groundwater monitoring parameter/constituent identified in the Monitoring and Reporting Program (Attachment E, Section VIII.B.), the report shall present a summary of monitoring data, calculation of the concentration in background monitoring wells, and a comparison of background groundwater quality to that in wells used to monitor the Facility. Determination of background quality shall be made using the methods described in Title 27 California Code of Regulations Section 20415(e)(10), and shall be based on data from at least four consecutive quarterly (or more frequent) groundwater monitoring events. For each monitoring parameter/constituent, the report shall compare measured concentrations for compliance monitoring wells with the calculated background concentration.

If the monitoring shows that any constituent concentrations are increased above background water quality, the Discharger shall submit a technical report by within 20 months from the permit effective date describing the groundwater technical report results and critiquing each evaluated component of the Facility with respect to BPTC and minimizing the discharge's impact on groundwater quality. In no case shall the discharge be allowed to exceed the Groundwater Limitations. This Order may be reopened and additional groundwater limitations added.

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program. The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either: 1) A sample result is reported as DNQ and the effluent limitation is less than the RL; or 2) A sample result is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section X.5.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

i. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

ii. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;

iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;

iv. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and

v. An annual status report that shall be sent to the Regional Water Board including:

(1) All PMP monitoring results for the previous year;

(2) A list of potential sources of the reportable priority pollutant(s);

(3) A summary of all actions undertaken pursuant to the control strategy; and

(4) A description of actions to be taken in the following year.

b. Pollution Prevention Plan for Salinity. The Discharger shall prepare and implement a pollution prevention plan for salinity in accordance with CWC section 13263.3(d)(3). The minimum requirements for the pollution prevention plan are outlined in the Fact Sheet, Attachment F, section VII.B.3.b. A work plan and time schedule for preparation of the pollution prevention plan shall be completed and submitted **within 6 months of the effective date of this Order** for approval by the Executive Officer. The Pollution Prevention Plan shall be completed and submitted to the Regional Water Board **within two (2) years following work plan approval by the Executive Officer**, and progress reports shall be submitted in accordance with the Monitoring and Reporting Program (Attachment E, Section X.D.1.).

c. Salinity Reduction Goal. The Discharger shall provide annual reports demonstrating reasonable progress in the reduction of salinity in its discharge to the Feather River. Based on effluent data for this Facility, the Regional Water Board finds that a monthly average salinity effluent limitation of 1,000 µmhos/cm as electrical conductivity (EC) is a reasonable performance-based limitation that will not result in violations of the Basin Plan objective for the Feather River. The annual reports shall be submitted in accordance with the Monitoring and Reporting Program (Attachment E, Section X.D.1.).

d. 2,3,7,8-TCDD and Other Dioxin and Furan Congeners Source Evaluation and Minimization Plan. The Discharger shall prepare a 2,3,7,8-TCDD and other dioxin and furan congeners evaluation and minimization plan to address

sources of detectable dioxins (OCDD and 1,2,3,4,6,7,8-HpCDD) and furans (OCDF) from the Facility. The plan shall be completed and submitted to the Regional Water Board within 12 months of the adoption date of this Order for review and approval by the Executive Officer.

4. Construction, Operation and Maintenance Specifications

a. Treatment Pond Operating Requirements.

i. The treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency. The requirements to prevent inundation may be excepted if the study under Special Provision VI.C.2.b demonstrates that inundation of the ponds due to floods poses no significant threat to water quality or if implementation of alternative measures provides equivalent protection to the satisfaction of the Regional Water Board.

b. Diffuser Maintenance Requirements.

To ensure the proper operation of the diffuser, after 1 January of each year, and as soon as the Feather River flow is less than 3,000 cfs (as measured at Monitoring Location RSW-002 as defined in Attachment E of this Order), the Discharger shall assess the Discharge Point No. 001 effluent multi-port diffuser located in the Feather River with regards to the operational condition of the diffuser. Maintenance measures must be implemented to clear all 40 ports from blockage on an annual basis. If the assessment shows that the diffuser is not achieving the operational condition, the Discharger shall immediately implement corrective actions to ensure that the operational condition is achieved by no later than 1 July of each year.

The Discharger shall submit a technical report by 1 July each year describing the results of the diffuser assessment and any maintenance or corrective actions that have taken place to assure proper operation. If the Feather River flow is not lower than 3,000 cfs by 1 July, the Discharger shall submit a letter to the Regional Water Board demonstrating that Feather River flows are unsafe for the assessment and shall submit the technical report no later than 30 days after assessment or corrective actions have taken place. If at any time during the term of this Order the Regional Water Board determines that the operational condition of the diffuser will significantly affect the mixing zone conditions in the Feather River in the vicinity of the diffuser, the Regional Water Board may reopen the Order to incorporate changes to applicable water quality-based effluent limitations that reflect the changes in diffuser operation.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Pretreatment Requirements.

i. The Discharger shall implement its approved pretreatment program and the program shall be an enforceable condition of this Order. If the Discharger fails to perform the pretreatment functions, the Regional Water Board, the State Water Board or the USEPA may take enforcement actions against the Discharger as authorized by the CWA.

ii. The Discharger shall enforce the Pretreatment Standards promulgated under sections 307(b), 307(c), and 307(d) of the Clean Water Act. The Discharger shall perform the pretreatment functions required by 40 CFR Part 403 including, but not limited to:

a) Adopting the legal authority required by 40 CFR §403.8(f)(1);

b) Enforcing the Pretreatment Standards of 40 CFR §§403.5 and 403.6;

c) Implementing procedures to ensure compliance as required by 40 CFR §403.8(f)(2); and

d) Providing funding and personnel for implementation and enforcement of the pretreatment program as required by 40 CFR §403.8(f)(3).

iii. The Discharger shall implement, as more completely set forth in 40 CFR §403.5, the necessary legal authorities, programs, and controls to ensure that the following incompatible wastes are not introduced to the treatment system, where incompatible wastes are:

a) Wastes which create a fire or explosion hazard in the treatment works;

b) Wastes which will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5.0, unless the works is specially designed to accommodate such wastes;

c) Solid or viscous wastes in amounts which cause obstruction to flow in sewers, or which cause other interference with proper operation or treatment works;

d) Any waste, including oxygen demanding pollutants (BOD, etc.), released in such volume or strength as to cause inhibition or disruption in the treatment works, and subsequent treatment process upset and loss of treatment efficiency;

e) Heat in amounts that inhibit or disrupt biological activity in the treatment works, or that raise influent temperatures above 40°C (104°F), unless the Regional Water Board approves alternate temperature limits;

f) Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

g) Pollutants which result in the presence of toxic gases, vapors, or fumes within the treatment works in a quantity that may cause acute worker health and safety problems; and:

h) Any trucked or hauled pollutants, except at points predesignated by the Discharger.

iv. The Discharger shall implement, as more completely set forth in 40 CFR §403.5, the legal authorities, programs, and controls necessary to ensure that indirect discharges do not introduce pollutants into the sewerage system that, either alone or in conjunction with a discharge or discharges from other sources:

a) Flow through the system to the receiving water in quantities or concentrations that cause a violation of this Order, or:

b) Inhibit or disrupt treatment processes, treatment system operations, or biosolids processes, use, or disposal and either cause a violation of this Order or prevent biosolids use or disposal in accordance with this Order.

b. **Sludge/Biosolids Discharge Specifications**

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, disposal, or reuse at sites (i.e., landfill, composting sites, soil amendment sites) that are operated in accordance with valid waste discharge requirements issued by a regional water quality control board will satisfy these specifications.

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

iii. The treatment of biosolids 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 V.B. 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 V.B.

iv. The use and disposal 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 Regional 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.

c. **Biosolids Disposal Requirements**

i. The Discharger shall comply with the Monitoring and Reporting Program for biosolids disposal contained in Attachment E.

ii. 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.

iii. 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.

d. **Biosolids Storage Requirements**

i. Facilities for the storage of Class B biosolids shall be located, designed and maintained to restrict public access to biosolids.

ii. Biosolids storage facilities shall be designed and maintained to prevent washout or inundation from a storm or flood with a return frequency of 100 years.

iii. Biosolids storage facilities, which contain biosolids, shall be designed and maintained to contain all storm water falling on the biosolids storage area during a rainfall year with a return frequency of 100 years.

iv. Biosolids storage facilities shall be designed, maintained and operated to minimize the generation of leachate.

e. **Collection System.** On 2 May 2006, the State Water Board adopted State Water Board Order 2006-0003, a Statewide General WDR for Sanitary Sewer Systems. The Discharger shall be subject to the requirements of Order 2006-0003 and any future revisions thereto. Order 2006-0003 requires that all public agencies that currently own or operate sanitary sewer systems apply for coverage under the General WDR. The Discharger is required by that Order, not incorporated by reference herein, to apply for coverage under State Water Board Order 2006-0003 for operation of its wastewater collection system.

Regardless of the coverage obtained under Order 2006-0003, the Discharger's collection system is part of the treatment system that is subject to this Order. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system [40 CFR §122.41(e)], report any non-compliance [40 CFR §122.41(l)(6) and (7)], and mitigate any discharge from the collection system in violation of this Order [40 CFR §122.41(d)].

6. Other Special Provisions

a. 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 Regional 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 Regional 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 California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

7. Compliance Schedules

a. Compliance Schedules for Final Effluent Limitations for Diazinon and gamma-BHC

i. **By 18 May 2010,** the Discharger shall comply with the final effluent limitations for gamma-BHC; **by 30 June 2008**, the Discharger shall comply with the final effluent limitations for diazinon; On 10 April 2007, the Discharger submitted a compliance schedule justification for diazinon and gamma-BHC. The compliance schedule justification included all items specified in Paragraph 3, items (a) through (d), of section 2.1 of the SIP. As this compliance schedule is greater than 1 year for gamma-BHC, the Discharger shall submit semi-

annual progress reports in accordance with the Monitoring and Reporting Program (Attachment E, Section X.D.1).

ii. **Corrective Action Plan/Implementation Schedule.** The Discharger shall submit to the Regional Water Board a corrective action plan and implementation schedule to assure compliance with the final effluent limitations for gamma-BHC by **within 6 months of the effective date of this Order**.

iii. **Pollution Prevention Plan.** The Discharger shall prepare and implement a pollution prevention plan for diazinon and gamma-BHC, in accordance with CWC section 13263.3(d)(3). The minimum requirements for the pollution prevention plan are outlined in the Fact Sheet, Attachment F, VII.B.3.b. A work plan and time schedule for preparation of the pollution prevention plan shall be completed and submitted to the Regional Water Board **within 6 months of the effective date of this Order** for approval by the Executive Officer. The Pollution Prevention Plan shall be completed and submitted to the Regional Water Board **within two (2) years following work plan approval by the Executive Officer**, and progress reports shall be submitted in accordance with the Monitoring and Reporting Program (Attachment E, Section X.D.1.).

iv. **Treatment Feasibility Study.** The Discharger is required to perform an engineering treatment feasibility study examining the feasibility, costs and benefits of different treatment options that may be required to remove gamma-BHC from the discharge. A work plan and time schedule for preparation of the treatment feasibility study shall be completed and submitted to the Regional Water Board **within 6 months of the effective date of this Order** for approval by the Executive Officer. The treatment feasibility study shall be completed and submitted to the Regional Water Board **within two (2) years following work plan approval by the Executive Officer**, and progress reports shall be submitted in accordance with the Monitoring and Reporting Program (Attachment E, Section X.D.1).

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

A. **BOD and TSS Effluent Limitations**. Compliance with the final effluent limitations for BOD and TSS required in Section IV.A.1.a shall be ascertained by 24-hour composite samples. Compliance with effluent limitations in Section IV.A.1.b of this Order for percent removal shall be calculated using the arithmetic mean of 20°C BOD (5-day) and total suspended solids 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. **Aluminum Effluent Limitations (Section IV.A.1.a).** Compliance with the final effluent limitations for aluminum can be demonstrated using either total or acid-soluble (inductively coupled plasma/atomic emission spectrometry or inductively coupled plasma/mass spectrometry) analysis methods, as supported by USEPA's Ambient Water Quality Criteria for Aluminum document (EPA 440/5-86-008), or other standard methods that exclude aluminum silicate particles as approved by the Executive Officer.

C. **Average Dry Weather Flow Effluent Limitations (Section IV.A.1.i).** The Average Dry Weather Flow represents the daily 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 daily flow over three consecutive dry weather months (e.g., July, August, and September).

D. **Total Coliform Organisms Effluent Limitations (Section IV.A.1.h).** 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 samples. If the 7-day median of total coliform organisms exceeds a most probable number (MPN) of 23 per 100 milliliters, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period.

E. **Persistent Chlorinated Hydrocarbon Pesticides Instantaneous Maximum Effluent Limitation (Section IV.A.1.a).** The nondetectable (ND) instantaneous maximum effluent limitation for persistent chlorinated hydrocarbon pesticides applies to each individual pesticide. No individual pesticide may be present in the discharge at detectable concentrations. The Discharger shall use USEPA standard analytical techniques with the lowest possible detectable level for persistent chlorinated hydrocarbon pesticides with a maximum acceptable detection level of 0.05 µg/L. If the analytical result of a single effluent grab sample is detected for any persistent chlorinated hydrocarbon pesticide, a violation will be flagged and the discharger will be considered out of compliance for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of noncompliance with the instantaneous maximum effluent limitation).

F. **Total Residual Chlorine (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.

G. **Mass Effluent Limitations.** Compliance with the mass effluent limitations will be determined during average dry weather periods only when groundwater is at or near normal and runoff is not occurring.

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ), also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Practicable Treatment or Control (BPTC): BPTC is a requirement of State Water Resources Control Board Resolution 68-16 – "Statement of Policy with Respect to Maintaining High Quality of Waters in California" (referred to as the "Antidegradation Policy"). BPTC is the treatment or control of a 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."* Pollution is defined in CWC Section 13050(l). In general, an exceedance of a water quality objective in the Basin Plan constitutes "pollution".

Bioaccumulative pollutants are those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (*CV*) is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Daily Discharge: Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of 1 day (a calendar day or other 24-hour period defined as a day) or by the

arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ) are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Effluent Concentration Allowance (ECA) is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in USEPA guidance (*Technical Support Document For Water Quality-based Toxics Control*, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration is the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Inland Surface Waters are all surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Maximum Daily Effluent Limitation (MDEL) means the highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median is the middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of 3 July 1999.

Minimum Level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Not Detected (ND) are those sample results less than the laboratory's MDL.

Ocean Waters are the territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program (PMP) means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The

goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Board.

Reporting Level (RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Satellite Collection System is the portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Source of Drinking Water is any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

Standard Deviation (σ) is a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

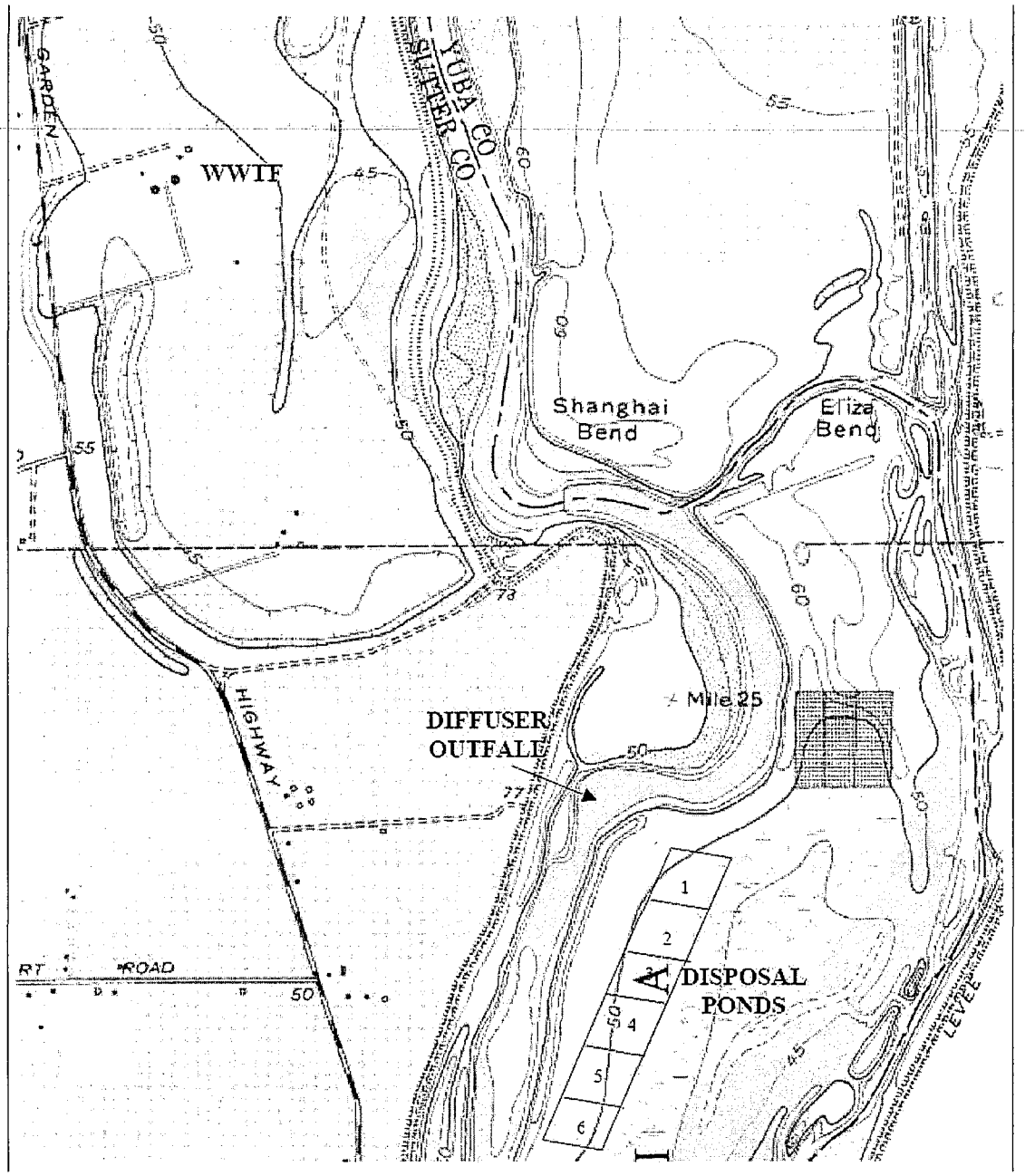
μ is the arithmetic mean of the observed values; and

n is the number of samples.

Toxicity Reduction Evaluation (TRE) is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity,

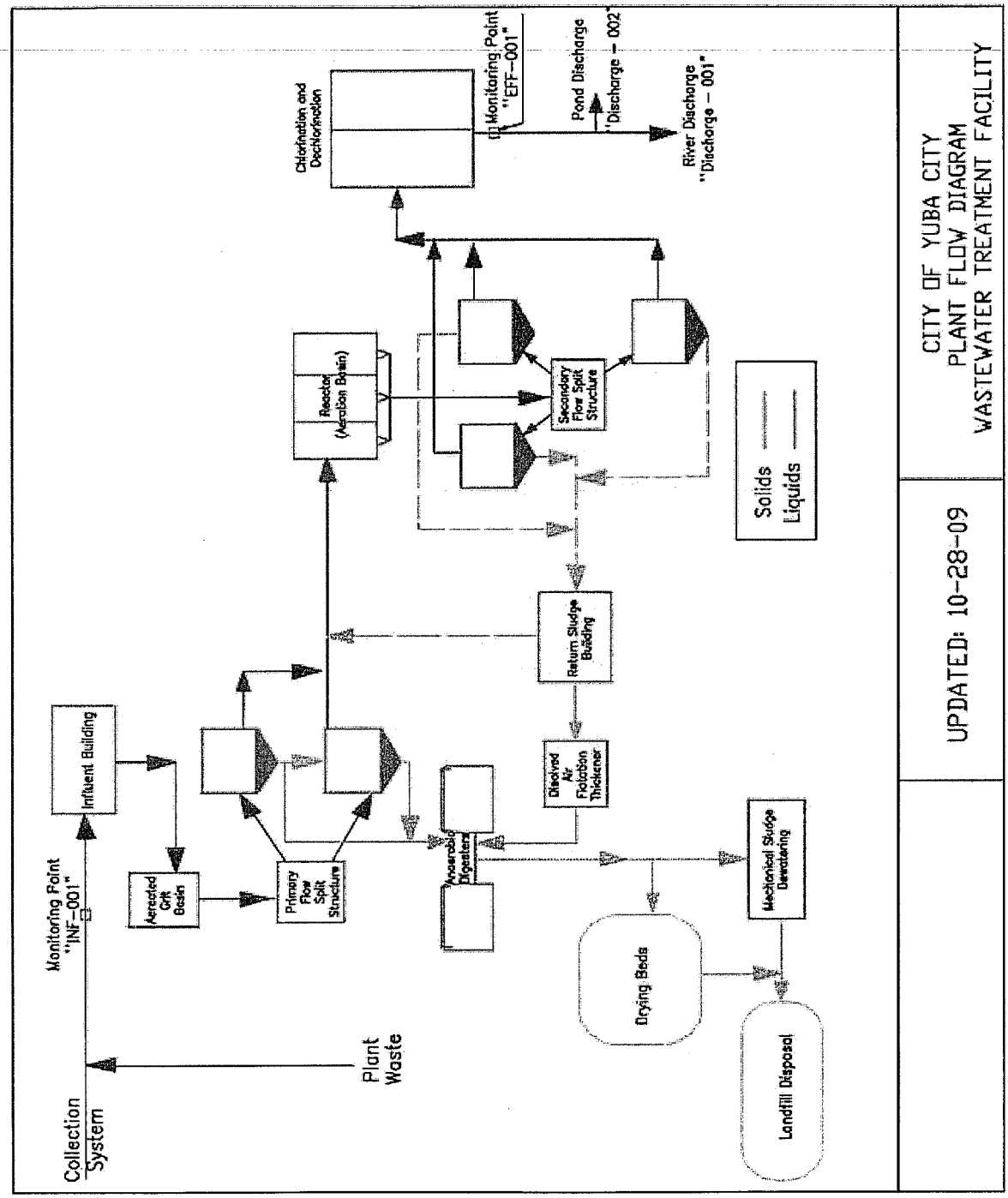
evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

ATTACHMENT B – MAP



Drawing Reference: **OLIVEHURST** U.S.G.S TOPOGRAPHIC MAP 7.5 MINUTE QUADRANGLE *Photorevised 1973* *Not to scale*	SITE LOCATION MAP CITY OF YUBA CITY WASTEWATER TREATMENT FACILITY SUTTER COUNTY	

ATTACHMENT C – FLOW SCHEMATIC



ATTACHMENT D –STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 CFR §122.41(a))

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR §122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 CFR §122.41(c))

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR §122.41(d))

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 CFR §122.41(e))

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR §122.41(g))

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR §122.5(c))

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 CFR §122.41(i); Wat. Code, §13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 CFR §122.41(i)(1));

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 CFR §122.41(i)(2));

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 CFR §122.41(i)(3)); and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 CFR §122.41(i)(4))

G. Bypass

1. Definitions

   a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR §122.41(m)(1)(i))

   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR §122.41(m)(1)(ii))

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR §122.41(m)(2))

3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR §122.41(m)(4)(i)):

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR §122.41(m)(4)(i)(A));

   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR §122.41(m)(4)(i)(B)); and

   c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 CFR §122.41(m)(4)(i)(C))

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR §122.41(m)(4)(ii).)

5. Notice

   a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 CFR §122.41(m)(3)(i))

   b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 CFR §122.41(m)(3)(ii))

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 CFR §122.41(n)(1))

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was

caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR §122.41(n)(2)).

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 CFR §122.41(n)(3)):

   a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR §122.41(n)(3)(i));

   b. The permitted facility was, at the time, being properly operated (40 CFR §122.41(n)(3)(ii));

   c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 CFR §122.41(n)(3)(iii)); and

   d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 CFR §122.41(n)(3)(iv))

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR §122.41(n)(4))

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 CFR §122.41(f))

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 CFR §122.41(b))

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 CFR §122.41(l)(3); §122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR §122.41(j)(1))

B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (40 CFR §122.41(j)(4); §122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 CFR §122.41(j)(2))

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 CFR §122.41(j)(3)(i));
2. The individual(s) who performed the sampling or measurements (40 CFR §122.41(j)(3)(ii));
3. The date(s) analyses were performed (40 CFR §122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (40 CFR §122.41(j)(3)(iv));
5. The analytical techniques or methods used (40 CFR §122.41(j)(3)(v)); and
6. The results of such analyses. (40 CFR §122.41(j)(3)(vi))

C. Claims of confidentiality for the following information will be denied (40 CFR §122.7(b)):

1. The name and address of any permit applicant or Discharger (40 CFR §122.7(b)(1)); and
2. Permit applications and attachments, permits and effluent data. (40 CFR §122.7(b)(2))

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 CFR §122.41(h); Wat. Code, §13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 CFR §122.41(k))

2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 CFR §122.22(a)(3)).

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 CFR §122.22(b)(1));

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR §122.22(b)(2)); and

   c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 CFR §122.22(b)(3))

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard

Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR §122.22(c))

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 CFR §122.22(d))

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR §122.22(l)(4))

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 CFR §122.41(l)(4)(i))

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 CFR §122.41(l)(4)(ii))

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR §122.41(l)(4)(iii))

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 CFR §122.41(l)(5))

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall

also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 CFR §122.41(l)(6)(i))

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 CFR §122.41(l)(6)(ii)):

   a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR §122.41(l)(6)(ii)(A).)

   b. Any upset that exceeds any effluent limitation in this Order. (40 CFR §122.41(l)(6)(ii)(B).)

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR §122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 CFR §122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 CFR §122.41(l)(1)(i)); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR §122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR §122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 CFR §122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 CFR §122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 CFR §122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional 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.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 CFR §122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 CFR §122.42(b)(1)); and

2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. (40 CFR §122.42(b)(2))

3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 CFR §122.42(b)(3))

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. Water Code Sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and state 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 this Regional Water Board.

B. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the Discharger, 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 must be kept in the laboratory and shall be available for inspection by Regional Water Board staff. The Quality Assurance-Quality Control Program must conform to USEPA guidelines or to procedures approved by the Regional Water Board.

C. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services. Laboratories that perform sample analyses shall be identified in all monitoring reports.

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 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.

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 (include Latitude and Longitude when available)
--	INF-001	Influent sample location on east side of influent building, as shown in Attachment C.
001 and 002	EFF-001	Represents the final effluent from the Wastewater Treatment Facility (39°, 06', 21" N, 121°, 36', 37" W).
--	LND-001	Monitoring within Disposal Pond 1.
--	LND-002	Monitoring within Disposal Pond 2.
--	LND-003	Monitoring within Disposal Pond 3.
--	LND-004	Monitoring within Disposal Pond 4.
--	LND-005	Monitoring within Disposal Pond 5.
--	LND-006	Monitoring within Disposal Pond 6.
--	RSW-001	Approximately 500 feet upstream of the diffuser outfall, in the middle of the Feather River by boat, upstream of disposal ponds.
--	RSW-002	Approximately 1,000 feet downstream of the diffuser outfall, in the middle of the Feather River by boat.
--	RSW-003	Downstream of the disposal ponds, in the middle of the Feather River by boat directly across from Boyd's Pump boat ramp.
--	SPL-001	Station shall be established where a representative sample of the municipal water supply can be obtained.
--	G-001	Groundwater monitoring well (identified as MW-01 in the Discharger's Hydrogeologic Assessment Work Plan). This is an existing monitoring location.
--	G-002	Groundwater monitoring well (identified as MW-02 in the Discharger's Hydrogeologic Assessment Work Plan). This is an existing monitoring location.
--	G-003	Groundwater monitoring well (identified as MW-03 in the Discharger's Hydrogeologic Assessment Work Plan). This is an existing monitoring location.
--	G-004	Groundwater monitoring well (identified as MW-04 in the Discharger's Hydrogeologic Assessment Work Plan).
--	G-005	Groundwater monitoring well (identified as MW-05 in the Discharger's Hydrogeologic Assessment Work Plan).
--	G-006	Groundwater monitoring well (identified as MW-06 in the Discharger's Hydrogeologic Assessment Work Plan).
--	G-007	Groundwater monitoring well (identified as MW-07 in the Discharger's Hydrogeologic Assessment Work Plan). This location serves as the background groundwater monitoring location.
--	G-008	Groundwater monitoring well (identified as MW-08 in the Discharger's Hydrogeologic Assessment Work Plan).
--	BIO-001	Representative sample location for biosolids.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location INF-001

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

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Biochemical Oxygen Demand (BOD) (5-day @ 20 Deg. C)	mg/L	24-hr Composite[1,2]	3/week	[3]
	lbs/day	Calculate	3/week	[3]
Total Suspended Solids (TSS)	mg/L	24-hr Composite[1,2]	3/week	[3]
	lbs/day	Calculate	3/week	[3]
pH	standard units	Meter	Continuous	[3]
Ammonia Nitrogen, Total (as N)	mg/L	24-hr Composite[1,2]	1/week	[3]
Phosphorus, Total (as P)	mg/L	24-hr Composite[1]	1/month	[3]
Electrical Conductivity	µmhos/cm	Grab	1/quarter	[3]
Priority Pollutants[4]	µg/L	[5]	2/year	[3]
Flow	mgd	Meter	Continuous	[3]

[1] 24-hour flow proportional composite.

[2] BOD_5 and TSS samples shall be collected on the same day as the effluent samples.

[3] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Appendix 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

[4] Priority pollutants include all the 126 priority pollutants listed in the California Toxics Rule (40 CFR 131.38).

[5] Volatile samples shall be grab samples. The remainder shall be 24-hour flow proportional composite samples.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location EFF-001

1. The Discharger shall monitor treated wastewater from Discharge Points No. 001 and No. 002 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 – Monitoring Location EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Operational Parameters				
Discharge Location	date and time	--	When switching from discharge point 001 to 002 or vice versa	--
Flow	mgd	Meter	Continuous	[1]
Conventional Pollutants				
Biochemical Oxygen Demand (BOD) (5-day @ 20 Deg. C)	mg/L	24-hr Composite[2]	3/week	[1]
	lbs/day	Calculate	3/week	[1]
Total Suspended Solids (TSS)	mg/L	24-hr Composite[2]	3/week	[1]
	lbs/day	Calculate	3/week	[1]
pH	standard units	Meter	Continuous	[1]
Priority Pollutants				
Bis (2-ethylhexyl) phthalate	µg/L	Grab[3]	1/month	[1, 3]
Chlorodibromomethane	µg/L	Grab	1/month	[1]
Copper, Total Recoverable	µg/L	24-hr Composite[2]	1/month	[1]
Cyanide, Total (as CN)	µg/L	24-hr Composite[2]	1/month	[1]
Dichlorobromomethane	µg/L	Grab	1/month	[1]
Diethyl Phthalate	µg/L	24-hr Composite[2]	1/month	[1]
Lead, Total Recoverable	µg/L	24-hr Composite[2]	1/month	[1]
Mercury, Total Recoverable	µg/L	Grab	1/month	[1]
Persistent Chlorinated Hydrocarbon Pesticides[4]	µg/L	24-hr Composite[2]	1/month	[1]
TCDD-Equivalents[5]	pg/L	Grab	1/quarter[5] Annually	[1]
Tetrachloroethylene	µg/L	Grab	1/month	[1]
Thallium, Total Recoverable	µg/L	24-hr Composite[2]	1/month	[1]
Zinc, Total Recoverable	µg/L	24-hr Composite[2]	1/month	[1]
Priority Pollutants[6]	µg/L	[7]	2/year	[1]
Non-Conventional Pollutants				
Aluminum, Total Recoverable[8]	µg/L	24-hr Composite[2]	1/month	[1]
Aluminum, Dissolved	µg/L	24-hr Composite[2]	1/month	[1]
Ammonia Nitrogen, Total (as N)[9]	mg/L	24-hr Composite[2]	2/week	[1]
Chloride	mg/L	24-hr Composite[2]	1/month	[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Chlorine, Total Residual[10]	mg/L	Meter	Continuous	[1]
Diazinon	µg/L	24-hr Composite[2]	1/month	[1]
Dissolved Oxygen	mg/L	Grab	5/week	[1]
Electrical Conductivity @ 25 Deg. C	µmhos/cm	Grab	5/week	[1]
Hardness (as $CaCO_3$)	mg/L	Grab	1/month	[1]
Iron, Total Recoverable	µg/L	24-hr Composite[2]	1/month	[1]
Iron, Dissolved	µg/L	24-hr Composite[2]	1/month	[1]
Manganese, Total Recoverable	µg/L	24-hr Composite[2]	1/month	[1]
Manganese, Dissolved	µg/L	24-hr Composite[2]	1/month	[1]
Methylene Blue Active Substances (MBAS)	µg/L	24-hr Composite[2]	1/month	[1]
Methylmercury	µg/L	Grab	1/month	[1]
Molybdenum, Total Recoverable	µg/L	24-hr Composite[2]	1/month	[1]
Nitrite, Total (as N)	mg/L	Grab	2/month	[1]
Phosphorus, Total (as P)	mg/L	24-hr Composite[2]	1/month	[1]
Settleable Solids	mL/L/hr	Grab	5/week	[1]
Sodium Bisulfite[12]	mg/L	Meter	Continuous	[1]
Sulfate	mg/L	24-hr Composite[2]	1/month	[1]
Temperature[13]	°F	Grab	3/week	[1]
Total Coliform[14]	MPN/100 mL	Grab	3/week[15]	[1]
Total Dissolved Solids (TDS)	mg/L	Grab	1/month	[1]
Total Kieldahl Nitrogen (as N)[16]	mg/L	Grab	2/month	[1]

[1] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Appendix 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

[2] 24-hour flow proportioned composite.

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

[4] Persistent chlorinated hydrocarbon pesticides include: alpha BHC, aldrin, alpha endosulfan, beta endosulfan, beta BHC, delta BHC, gamma BHC (lindane), 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, chlordane, dieldrin, endrin, endrin aldehyde, endosulfan sulfate, heptachlor, heptachlor epoxide, and toxaphene.

[5] TCDD-Dioxin Congener Equivalents shall include all 17 of the 2,3,7,8 TCDD dioxin congeners. Monitoring is required quarterly during the first 2 years of the permit term, and then annually thereafter.

[6] Priority pollutants include all the 126 priority pollutants listed in the California Toxics Rule (40 CFR 131.38). Sampling shall be performed concurrent with receiving surface water sampling.

[7] Volatile, Bis(2-ethylhexyl) phthalate and 2,3,7,8-TCDD samples shall be grab samples. The remainder shall be 24-hour flow proportional composite samples.

[8] Compliance with the final effluent limitations for aluminum can be demonstrated using either total or acid-soluble (inductively coupled plasma/atomic emission spectrometry or inductively coupled plasma/mass spectrometry) analysis methods, as supported by USEPA's *Ambient Water Quality Criteria for Aluminum* document (EPA 440/5-86-008), or other standard methods that exclude aluminum silicate particles as approved by the Executive Officer.

[9] Concurrent with whole effluent toxicity monitoring.

[10] Total chlorine residual monitoring only required during effluent discharge to Discharge Point No. 001. Total chlorine residual must be monitored with a method sensitive to and accurate at the permitted level of 0.01 mg/L. 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.

[11] Concurrent with total mercury monitoring.

[12] Sodium Bisulfate monitoring only required during effluent discharge to Discharge Point No. 001.

[13] A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

[14] Total coliform samples may be collected at any point following disinfection, provided that samples are dechlorinated at the time of collection. The Discharger shall report the sampling locations(s) in the monthly self-monitoring reports.

[15] Monitoring frequency 1/week during effluent discharge to Discharge Point No. 002

[16] TKN monitoring only required during effluent discharge to Discharge Point No. 002.

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. Because the chronic toxicity test provides both acute and chronic toxicity information concurrently, acute toxicity testing is not necessary when chronic toxicity testing is being conducted in the same period.

2. *Sample Types* – For static non-renewal and static renewal testing, the 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.

3. *Test Species* – Test species shall be fathead minnows (*Pimephales promelas*).

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. The Discharger is authorized to adjust the effluent pH to suppress the level of unionized (free) ammonia. This adjustment shall be achieved through the addition of MOPS (3-N morpholino propane sulfonic acid) buffer. If other specific identifiable substances in the discharge can be demonstrated by the Discharger as being rapidly rendered harmless upon discharge to the receiving water, compliance with the acute toxicity limit may be determined after the test samples are adjusted to remove the influence of those substances. Written approval from the Executive Officer must be obtained to authorize such an adjustment.

   When effluent from the Facility is discharged through Discharge Point No. 002, the Discharger is authorized to dechlorinate the sample prior to testing.

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 specified in the Monitoring and Reporting Program. The receiving water control shall be a grab sample

obtained from the RSW-001 sampling location, as identified in the 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* –The chronic toxicity testing shall be performed using the dilution series identified in Table E-4, below. The receiving water control shall be used as the diluent (unless the receiving water is toxic).

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 Special Provisions VI.2.a.iii.)

Table E-4. Chronic Toxicity Testing Dilution Series

Sample	Dilutions (%)					Controls	
	100	54.2	8.3	4.2	2.1	Receiving Water	Laboratory Water
% Effluent	100	54.2	8.3	4.2	2.1	0	0
% Receiving Water	0	45.8	91.7	95.8	97.9	100	0
% Laboratory Water	0	0	0	0	0	0	100

C. **WET Testing Notification Requirements.** The Discharger shall notify the Regional Water Board within 24-hrs 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 Regional 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 $100/LC_{50}$, $100/EC_{25}$, $100/IC_{25}$, and $100/IC_{50}$, 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 TRE. (Note: items a through c, above, are only required when testing is performed using the full dilution series.)

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 Toxicity Reduction Evaluations shall be submitted in accordance with the schedule contained in the Discharger's approved TRE Work Plan.

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

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

A. Monitoring Locations LND-001, LND-002, LND-003, LND-004, LND-005, and LND-006

1. The Discharger shall monitor the disposal ponds at LND-001, LND-002, LND-003, LND-004, LND-005, and LND-006 as follows:

Table E-5. Pond Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Freeboard	Feet[1,2]	--	1/week	[3]
Electrical Conductivity @ 25 Deg. C	µmhos/cm	Grab	1/week	[3]
Dissolved Oxygen	mg/L	Grab	1/week	[3]
Odors	--	--	1/week	[3]

[1] To be measured vertically to the lowest non-spillway point of overflow from the perimeter berm of pond system.

[2] Include estimation of volume of wastewater in each pond.

[3] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Appendix 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

VII. RECLAMATION MONITORING REQUIREMENTS

[Not Applicable]

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

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

1. The Discharger shall monitor surface water from the Feather River at RSW-001, RSW-002, and RSW-003 as follows:

Table E-6. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen[1,2,3]	mg/L	Grab	1/week	[4]
	% Saturation	mg/L	1/week	[4]
pH[1,5]	Standard Units	Grab	1/week	[4]
Temperature[1,5]	°F (°C)	Grab	1/week	[4]
Turbidity	NTU	Grab	1/week	[4]
Electrical Conductivity @ 25 Deg. C[1]	µmhos/cm	Grab	1/week	[4]
Hardness (as $CaCO_3$)[5]	mg/L	Grab	1/month	[4]
Fecal Coliform	MPN/100 mL	Grab	1/quarter	[4]
Radionuclides	pCi/L	Grab	2/5 years	[4]
Priority Pollutants[6]	µg/L	Grab	[7]	[4]

[1] A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

[2] Temperature shall be determined at the time of sample collection for use in determining saturation concentration. Any additional factors or parameters used in determining saturation concentration shall also be reported.

[3] Report both saturation and saturation concentration.

[4] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Appendix 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

[5] pH, temperature, and hardness data shall be collected at the same time and on the same date as the effluent Priority Pollutant samples.

[6] Priority pollutants include all the 126 priority pollutants listed in the California Toxics Rule (40 CFR 131.38).

[7] Priority pollutants shall be sampled quarterly at RSW-001 during the third year following the date of permit adoption and shall be conducted concurrently with upstream receiving water monitoring for hardness (as $CaCO_3$) and pH.

2. In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Monitoring Locations RSW-001, RSW-002, and RSW-003. Attention shall be given to the presence or absence of:

   a. Floating or suspended matter
   b. Discoloration
   c. Bottom deposits
   d. Aquatic life
   e. Visible films, sheens, or coatings
   f. Fungi, slimes, or objectionable growths
   g. Potential nuisance conditions

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

B. Monitoring Locations G-001, G-002, G-003, G-004, G-005, G-006, G-007, and G-008

1. The Discharger shall monitor groundwater at G-001, G-002, G-003, G-004, G-005, G-006, G-007, and G-008 as follows:

Table E-7. Groundwater Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency[4]	Required Analytical Test Method
Depth to Groundwater[1]	feet	--	1/month	[2]
Groundwater Elevation[1]	feet	--	1/month	[2]
Gradient	feet/feet	Calculated	1/month	
Gradient Direction	degrees	Calculated	1/month	
pH[3]	standard units	Grab	1/month	[2]
Electrical Conductivity @ 25 Deg. C	µmhos/cm	Grab	1/month	[2, 3]
Total Kjeldahl Nitrogen (as N)	mg/L	Grab	1/quarter	[2]
Nitrite Nitrogen, Total (as N)	mg/L	Grab	1/quarter	[2]
Nitrate Nitrogen, Total, (as N)	mg/L	Grab	1/quarter	[2]
Total Coliform	MPN/100 mL	Grab	1/quarter	[2]
Fecal Coliform	MPN/100 mL	Grab	1/quarter	[2]
Total Dissolved Solids	mg/L	Grab	1/month	[2]
Priority Pollutants	µg/L	Grab	1/5 years	[2]

[1] The groundwater elevation shall be used to calculate the direction and gradient of groundwater flow. Elevations shall be measured to the nearest one-hundredth of a foot from mean sea level. The groundwater elevation shall be measured prior to purging the wells. Gradient and gradient direction are not required to be reported until completion of the groundwater study.

[2] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Appendix 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

[3] A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

[4] Monitoring is required only during the months or calendar quarters that effluent is directed to the disposal ponds for more than one day per month. During those months and calendar quarters that effluent is not directed to the disposal ponds and monitoring is not performed, the Discharger shall indicate as such in the monthly self-monitoring reports.

IX. OTHER MONITORING REQUIREMENTS

A. Biosolids

1. Monitoring Location BIO-001

1. A composite sample of biosolids shall be collected annually at Monitoring Location BIO-001 in accordance with USEPA'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).

2. A composite sample of biosolids shall be collected when biosolids are removed for disposal in accordance with USEPA's POTW Sludge Sampling and Analysis Guidance Document, August 1989, and tested for the metals listed in Title 22.

3. Sampling records shall be retained for a minimum of **5 years**. A log shall be kept of biosolids quantities generated and of handling and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the annual report.

4. Upon removal of biosolids, the Discharger shall submit characterization of biosolids quality, including biosolids percent solids and quantitative results of chemical analysis for the priority pollutants listed in 40 CFR Part 122 Appendix D, Tables II and III (excluding total phenols). Suggested methods for analysis of biosolids are provided in USEPA publications titled "*Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*" and "*Test Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater*". Recommended analytical holding times for sludge samples should reflect those specified in 40 CFR §136.6.3(e). Other guidance is available in USEPA's *POTW Sludge Sampling and Analysis Guidance Document*, August 1989.

B. Municipal Water Supply

1. Monitoring Location SPL-001

The Discharger shall monitor the Municipal Water Supply at SPL-001 as follows. A group of sampling stations shall be established where a representative sample of the municipal water supply can be obtained from each of the independent water systems. Water quality shall be a flow weighted average of the sample locations. 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
Electrical Conductivity @ 25 Deg. C[1]	µmhos/cm	Grab	1/quarter	[2]
Total Dissolved Solids[1]	mg/L	Grab	1/quarter	[2]

[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] Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Appendix 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

X. 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 Regional 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 Regional 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 Regional Water Board by letter when it returns to compliance with the compliance time schedule.

4. The Discharger shall report to the Regional 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.

5. **Reporting Protocols.** The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 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 as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such

information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.

6. **Multiple Sample Data.** When determining compliance with an AMEL, AWEL, or MDEL and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "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.

7. **Calendar Year Annual Average Effluent Limits.** The Discharger shall report the calculated annual average monitoring results in the December SMR.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. Monitoring results shall be submitted to the Regional Water Board by the **first day** of the second month following sample collection. Quarterly and annual monitoring results shall be submitted by the **first day of the second month following each calendar quarter, semi-annual period, and year**, respectively.

3. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the discharge complies with waste discharge requirements. The highest daily maximum for the month, monthly and weekly averages, and medians, and removal efficiencies (%) for BOD and Total Suspended Solids, shall be determined and recorded as needed to demonstrate compliance.

4. 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.

5. If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

6. A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the penalty of perjury statement by the Discharger, or the Discharger's authorized agent, as described in the Standard Provisions.

7. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

   Regional Water Quality Control Board
   Central Valley Region
   NPDES Compliance and Enforcement Unit
   11020 Sun Center Dr., Suite #200
   Rancho Cordova, CA 95670-6114

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

Table E-9. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	First day of second calendar month following month of sampling
1/week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	First day of second calendar month following month of sampling
2/week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	First day of second calendar month following month of sampling
3/week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	First day of second calendar month following month of sampling
5/week	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	First day of second calendar month following month of sampling
1/month	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	First day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
2/month	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	First day of calendar month through last day of calendar month	First day of second calendar month following month of sampling
1/quarter	Closest of 1 January, 1 April, 1 July, or 1 October following (or on) permit effective date	1 January through 31 March 1 April through 30 June 1 July through 30 September 1 October through 31 December	1 May 1 August 1 November 1 February
2/year	Closest of January 1 or July 1 following (or on) permit effective date	1 January through 30 June 1 July through 31 December	1 August 1 February
2/5 years	Permit effective date	2nd year of the permit term 4th year of the permit term	30 days from the end of the monitoring period

9. Monthly monitoring reports must clearly identify when the facility is discharging to the Feather River (Discharge Point No. 001) and when discharging to the discharge ponds (Discharge Point No. 002).

C. Discharge Monitoring Reports (DMRs)

1. As described in Section X.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.

2. DMRs 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	FedEx/UPS/ Other Private Carriers
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15th Floor Sacramento, CA 95814

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated cannot be accepted unless they follow the exact same format as EPA form 3320-1.

D. Other Reports

1. **Progress Reports.** As specified in the compliance time schedules required in Special Provisions VI, progress reports shall be submitted in accordance with the following reporting requirements. At a minimum, the progress reports shall include a discussion of the status of final compliance, whether the Discharger is on schedule to meet the final compliance date, and the remaining tasks to meet the final compliance date.

Table E-10. Reporting Requirements for Special Provisions Reports

Special Provision	Reporting Requirements
Compliance Schedules Progress Reports for Final Effluent Limitations for diazinon and gamma-BHC, compliance with final effluent limitations. (VI.C.7.a.i)	**1 June and 1 December**, annually, until final compliance
Compliance Schedules for Final Effluent Limitations for gamma-BHC, Corrective Action Plan/Implementation Schedule (VI.C.7.a.ii)	**1 December, 2008**
Compliance Schedules for Final Effluent Limitations for diazinon and gamma-BHC, Pollution Prevention Plan Progress Reports (VI.C.7.a.iv)	**1 June**, annually, after approval of work plan until final compliance
Compliance Schedules for Final Effluent Limitations for gamma-BHC, Treatment Feasibility Study Progress Reports (VI.C.7.a.v)	**1 June**, annually, after approval of work plan until final compliance
Pollution Prevention Plan Progress Reports for Salinity (VI.C.3.b)	**1 June**, annually, after approval of work plan until final compliance
Salinity Reduction Goal Annual Reports (VI.C.3.c)	**1 June,** annually
2,3,7,8-TCDD and Other Dioxin and Furan Congeners Source Evaluation and Minimization Plan (VI.C.4.d)	**Within 12 months of permit adoption**
Disposal Pond Study, Revised Workplan to Address New/Revised Effluent Limitations (VI.C.2.b)	**Within 60 days of permit adoption**
Disposal Pond Study, Study Results (VI.C.2.b)	**1 year after permit adoption**

Special Provision	Reporting Requirements
Disposal Pond Study, Technical Report (VI.C.2.b)	**Within 15 months after permit adoption**
Groundwater Monitoring, Technical Report (VI.C.2.c)	**Within 15 months after permit adoption**
Diffuser Maintenance; Technical Report (VI.C.4.b)	**1 July or within 30 days of assessment or corrective actions if Feather River flows have not fallen below 3,000 cfs by 1 July, annually**

2. Within **60 days** of permit adoption, the Discharger shall submit a report outlining minimum levels, method detection limits, and analytical methods for approval, with a goal to achieve detection levels below applicable water quality criteria. At a minimum, the Discharger shall comply with the monitoring requirements for CTR constituents as outlined in Section 2.3 and 2.4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, adopted 2 March 2000 by the State Water Resources Control Board. All peaks identified by analytical methods shall be reported.

3. The Discharger's sanitary sewer system collects wastewater using sewers, pipes, pumps, and/or other conveyance systems and directs the raw sewage to the wastewater treatment plant. A "sanitary sewer overflow" is defined as a discharge to ground or surface water from the sanitary sewer system at any point upstream of the wastewater treatment plant. Sanitary sewer overflows are prohibited by this Order. All violations must be reported as required in Standard Provisions. Facilities (such as wet wells, regulated impoundments, tanks, highlines, *etc.*) may be part of a sanitary sewer system and discharges to these facilities are not considered sanitary sewer overflows, provided that the waste is fully contained within these temporary storage facilities.

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 Regional 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 Regional Water Board, with copies to USEPA Region 9 and the State Water Board, describing the Discharger's pretreatment activities over the previous 12 months. 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 industrial users.

      Biosolids shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples taken at equal time intervals over the 24-hour period. Wastewater and sludge sampling and analysis shall be performed at least annually. 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 industrial 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 industrial 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 industrial users that the Discharger has notified regarding Baseline Monitoring Reports and the cumulative number of industrial user responses.

d. An updated list of the Discharger's industrial users including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The Discharger shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to federal categorical standards by specifying which set(s) of standards are applicable. The list shall indicate which categorical industries, or specific pollutants from each industry, are subject to local limitations that are more stringent than the federal categorical standards. The Discharger shall also list the noncategorical industrial users that are subject only to local discharge limitations. The Discharger shall characterize the compliance status through the year of record of each industrial user 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.

   A report describing the compliance status of each industrial user characterized by the descriptions in items iii. through vii. above shall be submitted for each calendar quarter **within 21 days of the end of the quarter**. The report shall identify the specific compliance status of each such industrial user 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. This quarterly reporting requirement shall commence upon issuance of this Order.

e. A summary of the inspection and sampling activities conducted by the Discharger during the past year to gather information and data regarding the industrial users. The summary shall include:

   i. the names and addresses of the industrial users 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.

f. A summary of the compliance and enforcement activities during the past year. The summary shall include the names and addresses of the industrial users affected by the following actions:

   i. Warning letters or notices of violation regarding the industrial users' apparent noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the apparent violation concerned the federal categorical standards or local discharge limitations.
   ii. Administrative orders regarding the industrial users noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations.
   iii. Civil actions regarding the industrial users' noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations.
   iv. Criminal actions regarding the industrial users noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations.
   v. Assessment of monetary penalties. For each industrial user identify the amount of the penalties.
   vi. Restriction of flow to the POTW.
   vii. Disconnection from discharge to the POTW.

g. A description of any significant changes in operating the pretreatment program which differ from the information in the Discharger's approved Pretreatment Program including, but not limited to, changes concerning: the program's administrative structure, local industrial discharge limitations, monitoring program or monitoring frequencies, legal authority or enforcement policy, funding mechanisms, resource requirements, or staffing levels.

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

Duplicate signed copies of these Pretreatment Program reports shall be submitted to the Regional Water Board and the:

State Water Resources Control Board
Division of Water Quality
P.O. Box 944213
Sacramento, CA 94244-2130, and

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

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

NPDES No.	CA0079260
Discharger	City of Yuba City
Name of Facility	Wastewater Treatment Facility
Facility Address	302 Burns Drive
	Yuba City, CA 95991
	Sutter County
Facility Contact, Title and Phone	William P. Lewis, Director of Utilities, (530) 822- 4319
Authorized Person to Sign and Submit Reports	William P. Lewis, Director of Utilities, (530) 822- 4319
Mailing Address	Same
Billing Address	Same
Type of Facility	Publicly Owned Treatment Works (POTW)
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Y
Reclamation Requirements	Not Applicable
Facility Permitted Flow	10.5 million gallons per day (mgd) average dry weather flow
Facility Design Flow	10.5 mgd average dry weather flow
Watershed	Sacramento River
Receiving Water	Feather River
Receiving Water Type	Inland surface water

A. The City of Yuba City (hereinafter Discharger) is the owner and operator of the City of Yuba City Wastewater Treatment Facility (hereinafter Facility), a Publicly Owned Treatment Work (POTW).

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The Facility discharges wastewater to the Feather River, a water of the United States, and is currently regulated by Order R5-2003-0085 which was adopted on 6 June 2003 and expires on 1 June 2008.

C. The Discharger petitioned the State Water Board to review the decision of the Regional Water Board regarding final adoption of Order No. R5-2003-0085 and the associated Cease and Desist Order No. R5-2003-0086 (CDO). The basis of the Discharger's petition was primarily related to the effluent limitations for most non-conventional and toxic pollutant parameters contained in the Order. To address the petition, the State Water Board adopted Order WQO 2004-0013 on 22 July 2004, remanding the Order and the CDO to the Regional Water Board for modifications.

The Regional Water Board is reissuing Order No. R5-2003-0085 to address the technical issues that were raised in the petition and addressed in the remand. Although Order No. R5-2003-0085 expires on 1 June 2008, the Regional Water Board is revoking and reissuing Order No. R5-2003-0085 due to the significant number of issues and changes to be made to Order based on the remand, as well as the request by the Discharger to expand operations at the Facility. In accordance with 40 CFR §124.5(c)(1), a new Report of Waste Discharge (application) is required when a permit is revoked and reissued.

D. The Discharger submitted a new Report of Waste Discharge, and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on 18 July 2006. Prior to and after the petition of Order No. R5-2003-0085, the Discharger provided to the Regional Water Board several technical analyses and studies related to the issues raised in the petition. As agreed upon prior to submission of the new Report of Waste Discharge, the Discharger did not resubmit analyses and studies, however the Regional Water Board utilized the information in these analyses and studies as necessary while developing this Order.

As part of the new Report of Waste Discharge, the Discharger provided a capacity evaluation for expansion of their existing Facility (with a dry weather design flow of 7.0 mgd) to provide wastewater treatment for an average dry weather flow of 10.5 mgd. The Discharger provided an antidegradation analysis as part of its application to demonstrate that the increased Facility capacity is consistent with federal and State antidegradation requirements. The Discharger's report of discharge also included the following additional information:

- Mixing Zone Analysis
- Assimilative Capacity Tables
- Metals WQBEL Calculations
- Dynamic Model Results for Ammonia and Copper

- Water Effects Study Plan.

The Regional Water Board reviewed the Discharger's Report of Waste Discharge, including the additional information described above, and provided comments to the Discharger on 19 January 2007. A response was provided by the Discharger on 1 February 2007, including updates to the mixing zone analysis, dynamic model, and water effects study plan. Discussion of the Regional Water Board's comments and conclusions related to the additional information and studies are provided in Section IV of this Fact Sheet. On 20 February 2007, the Regional Water Board formally notified the Discharger that the Report of Waste Discharge was deemed complete.

E. On 5 December 2005, a permit site visit was conducted to observe operations and collect additional data to develop permit limitations and conditions. Details from the December 2005 site visit and subsequent meetings with the Discharger after the State Water Board remand that affect Order requirements are discussed when applicable throughout this Fact Sheet.

F. The Regional Water Board adopted Order No. R5-2007-0134 on 25 October 2007. The permit was subsequently petitioned by the California Sportfishing Protection Alliance, and on 18 November 2008, the State Water Board adopted Order WQ 2008-0010 remanding the permit back to the Regional Water Board. The State Water Board remand required the Regional Water Board address items related to the mixing zone and diffuser, modify the monitoring and reporting requirements for Discharge Point 002, and remove the effluent limits based on the Lower Yuba River Accord. On 28 January 2010, the Regional Water Board adopted Order No. R5-2010-0007 amending Order No. R5 2007-0134 in accordance with State Water Board Order WQ 2008-0010.

II. FACILITY DESCRIPTION

The Discharger provides sewerage service for the community of Yuba City and serves a population of approximately 52,000. The Facility design average dry weather flow capacity is 10.5 mgd. In addition, the Facility accepts septage from unsewered portions of Sutter and Yuba Counties. The current residential monthly sewer fee for a single family dwelling is $27.62. The current hook-up/capacity fee is $5,100 per single family dwelling (plus costs associated with installation of onsite pipelines and the pipeline from the sewer main to the home).

Treated municipal and industrial wastewater is discharged to the Feather River or to disposal ponds within the levee on the eastern side of the Feather River. The Facility also uses treated wastewater for landscape irrigation of 3.5 acres at the Facility. The Report of Waste Discharge estimates the seasonal dependent annual average daily volume used for irrigation to be 0.10 mgd.

A. Description of Wastewater and Biosolids Treatment or Controls

In 2005 the Discharger completed an upgrade of the Facility to meet current and future demands. The treatment system at the Facility currently consists of bar screens,

aerated grit removal, primary sedimentation, pure oxygen aeration, secondary sedimentation, chlorine disinfection, and dechlorination using sodium bisulfite. In addition, pH adjustment with sodium hydroxide solution is performed as needed in the chlorine contact basins. Nutrients (aqueous ammonia and ammonia polyphosphate) are added at the inlet box to aeration basins on an as-needed basis to ensure adequate food-to-microorganisms ratio in the activated sludge process due to nutritionally dilute industrial discharges. Approximately 50 percent of the biochemical oxygen demand loading to the Facility is from one significant industrial user (Sunsweet Growers) that discharges a nutritionally dilute industrial discharge.

Biosolids are thickened using dissolved air flotation thickeners, and then anaerobically digested. Digested biosolids are dewatered by belt press and/or drying beds, and disposed of off-site as landfill cover material. The Facility is also equipped with three composite bed biofilters that are used to control odors from headworks, primary sedimentation, and dewatering building operations.

The Discharger Report of Waste Discharge included a Capacity Evaluation that was prepared in June 2006 subsequent to completion of the 2005 Facility upgrade. The evaluation examined each of the unit processes to determine the limiting unit process in terms of flow capacity. This evaluation concluded that the upgraded Facility is capable of handling and treating 10.5 mgd of average dry weather flow. The limiting unit process was determined to be primary sedimentation. Upon review of the Capacity Evaluation submitted by the Discharger, the Regional Water Board concurs with the study conclusions.

As described above, effluent from the Facility may be directed to one or more of six disposal (percolation) ponds. Each disposal pond is roughly 1 million square feet in size; the total capacity of the six disposal ponds is approximately 179 million gallons. At the ponds, the depth to groundwater is approximately 30 feet. The Facility can discharge to any pond at any time. There is no operational plan on which disposal pond to use and when. The Facility's goal is to have all disposal ponds dry by 1 November of each year. According to the Report of Waste Discharge, the annual average flow to the disposal ponds is 5.41 mgd calculated from days discharge was to the ponds.

The six disposal ponds are at varying elevations such that the flow will cascade from the first pond to the last pond depending on the water level of the pond (pond 1 is the highest elevation and pond 6 is the lowest elevation). When flooding occurs pond 6 will receive flood waters first, then pond 5, etc. Pond 6 previously had a discharge point to the Feather River, but this discharge point has been removed and no longer exists.

The following description of disposal pond operation was provided by the Discharger:

> "Yuba City currently uses the effluent ponds during planned maintenance of process units such as the chlorine contact basin. In addition, the effluent ponds are used to protect the Feather River water quality in the event permit requirements can not be achieved. Finally the ponds provide permit compliance reliability.

The ponds are located between the two main east and west levee banks within the Feather River floodway however; they are above the physical ordinary high water mark (elevation). Discharge to the ponds occurs from underground piping to outlets near the center of the ponds. The water then percolates through the ponds with corresponding evaporation. The ponds may collect rain water during the winter months however scheduled maintenance does not occur during the winter months.

Ponds can be operated in series from north to south, or flow can be directed to any individual pond. In order to reduce impacts from weeds and mosquitoes, ponds are normally supplied water individually to "flood" weed and plant growth, and to allow mosquito fish to be added as soon as possible."

B. Discharge Points and Receiving Waters

1. The Facility is located in Section 7-010-001, T15N, R3E, MDB&M, as shown in Attachment B (Figure B-1), a part of this Order.

2. Treated municipal and industrial wastewater is discharged from a multi-port diffuser into the Feather River, a water of the United States at a point Latitude 39° 05' 48" N and longitude 121° 35' 45" W at Discharge Point No. 001. According to the mixing zone analysis provided as part of the Report of Waste Discharge, the multi-port diffuser is located 160 feet from the bank of the Feather River. The diffuser consists of 40 ports each of 3 inches in diameter, located 4 feet on center. The total diffuser length is 156 feet. According to the Discharger, since installation, 15 ports on the left end of the diffuser had been covered. These ports were cleared in December 2006.

3. The wastewater may also be discharged to one of six disposal ponds located within the floodplain of the Feather River to the Feather River at a point Latitude 39° 05' 00" N and longitude 121° 35' 53" W at Discharge Point No. 002.

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

1. Effluent limitations contained in the existing Order for discharges from Discharge Point No. 001 (discharge to the Feather River) and representative monitoring data as reported in monthly SMRs from the term of the previous Order are as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitation			Monitoring Data (From 1 July 2003 – To 30 June 2006)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
BOD[1]	mg/L	30[2]	45[2]	60[2]	20.4	25	46
	lbs/day[3]	1,800	2,600	3,500	970	1,197	2,051

Parameter	Units	Effluent Limitation			Monitoring Data (From 1 July 2003 – To 30 June 2006)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
	% Removal	85[4]	--	--	93.8	--	--
Total Suspended Solids	mg/L	30[2]	45[2]	60[2]	17.8	21.43	83
	lbs/day[3]	1,800	2,600	3,500	781	1,030	3,229
	% Removal	85[4]	--	--	92.4	--	--
Settleable Solids	mL/L-hr	0.1	--	0.2	0.29	--	7.5
Total Coliform Organisms	MPN/100 mL	--	23[5]	240[6]	--	1,600	>1,600
Chlorine, Total Residual	mg/L	0.01	--	0.02	ND	--	ND
	lbs/day	0.58	--	1.1	ND	--	ND
Iron, Total Recoverable	µg/L	300[2]	--	--	210	--	--
	lbs/day[3]	20	--	--	14	--	--
Manganese, Total Recoverable	µg/L	50[2]	--	--	410	--	--
	lbs/day[3]	3	--	--	17.4	--	--
Molybdenum, Total Recoverable	µg/L	10[2]	--	--	10.5	--	--
	lbs/day[3]	0.6	--	--	0.5	--	--
N-Nitrosodi-n-Propylamine	µg/L	0.005[2]	--	0.01[2]	ND	--	ND
	lbs/day[3]	0.0003	--	0.0006	ND	--	ND
Bis (2-ethylhexyl) phthalate	µg/L	--	--	150[2]	--	--	18
	lbs/day[3]	--	--	8.8	--	--	0.92
pH	standard units	--	6.5[7]	8.5[8]	--	6.8	8.1
Electrical Conductivity	µmhos/cm	850[9]	--	--	--	--	1,000
Flow	mgd	--	--	[10]	--	--	8.048
Acute Toxicity	% survival	--	--	[11]	--	--	--

1 5-day, 20°C biochemical oxygen demand (BOD).
2 Ascertained by a 24-hour composite.
3 Based upon a design treatment capacity of 7.0 mgd (x mg/L X 8.345 X 7.0 mgd = y lbs/day).
4 The arithmetic mean of 20°C BOD (5-day) and of total suspended solids in effluent samples collected over a calendar month shall not exceed 15 percent of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period (85 percent removal).
5 Expressed as a 7-day median effluent limitation.
6 Expressed as an instantaneous maximum effluent limitation.
7 The discharge to the Feather River shall not have a pH less than 6.5 standard units.
8 The discharge to the Feather River shall not have a pH greater than 8.5 standard units.
9 The 30-day 90th percentile effluent electrical conductivity shall not exceed 830 µmhos/cm.
10 Existing Order No. R5-2003-0085 contains an average dry weather flow limitation of 7.0 mgd.
11 Survival of aquatic organisms in pH buffered 96-hour bioassays of undiluted waste shall be no less than:
   a. Minimum for any one bioassay—70%
   b. Median for any three consecutive bioassays—90%

2. Effluent limitations contained in the existing Order for discharges from Discharge Point No. 002 (discharge to the disposal ponds) and representative monitoring data from the term of the previous Order are as follows:

Table F-3. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Effluent Limitation			Monitoring Data (From 1 July 2003 – To 30 June 2006)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Dissolved Oxygen	mg/L	--	--	1[1]	--	--	0.4
pH[2]	standard units	--	6.5[3]	8.5[4]	--	6.4	11
Freeboard	feet	--	--	2[5]	--	--	0.3

1 The dissolved oxygen content in the upper zone (1 foot) of wastewater in the pond shall not be less than 1.0 mg/L.
2 The pH limitations were remanded by State Water Board Order WQO-2004-0013.
3 Ponds shall not have a pH less than 6.5 standard units.
4 Ponds shall not have a pH greater than 8.5 standard units.
5 During non-flood conditions, pond freeboard shall never be less than 2 feet (measured vertically to the lowest, non-spillway point of overflow).

3. Receiving water limitations contained in the existing Order and representative monitoring data from the term of the previous Order are as follows:

Table F-4. Historic Receiving Water Limitations and Monitoring Data

Parameter	Units	Limitation			Monitoring Data[1] (From 1 July 2003 – To 30 June 2006)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Fecal Coliform	MPN/100 mL	--	--	[2]	--	--	1,600[3]
Dissolved Oxygen	mg/L	--	--	7[4]	--	--	8.3[5]
pH	standard units	--	6.5[6]	8.5[7]	--	6.3[5]	8.7[3]
Temperature	°F	--	--	5[8]	--	--	3.1[9]
Turbidity	NTU	--	--	[10]	--	--	--
Electrical Conductivity	µmhos/cm	150[11]	--	-	116	--	--

1 Data is representative of monitoring at Monitoring Locations R-1 and R-2, however it cannot be conclusively determined that the discharge is the cause of any changes in receiving water conditions.
2 The discharge shall not cause 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 or cause more than 10% of the fecal coliform samples taken during any 30-day period to exceed 400 MPN/100 mL.
3 Represents the maximum observed value at R-2 (sample was collected from the river bank).
4 The discharge shall not cause the dissolved oxygen to fall below 7.0 mg/L. The monthly median of the mean daily dissolved oxygen concentration shall not be caused to fall below 85 percent of saturation in the main water mass, and the 95th percentile concentration shall not be caused to fall below 75 percent of saturation.
5 Represents the minimum observed value at R-2. Sample collected from river bank.
6 The discharge shall not cause the ambient pH to fall below 6.5.

[7] The discharge shall not cause the ambient pH to exceed 8.5, or change by more than 0.5 units.
[8] The discharge shall not cause the ambient temperature to increase more than 5°F.
[9] Represents the maximum difference in temperature between R-1 and R-2.
[10] The discharge shall not cause the turbidity to increase as follows:
a. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
b. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
c. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
d. More than 10 percent where natural turbidity is greater than 100 NTUs.
[11] The discharge shall not cause the 30-day 90th percentile electrical conductivity to exceed 150 µmhos/cm.

4. Groundwater limitations contained in the existing Order and representative monitoring data from the term of the previous Order are as follows:

Table F-5. Historic Groundwater Limitations and Monitoring Data

Parameter	Units	Effluent Limitation			Data (From 1 July 2003 – To 30 June 2006)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Total Coliform	MPN/100 mL	--	2.2[1]	--	--	280	--

[1] Any increase in total coliform organisms shall not exceed a most probably number of 2.2 MPN/100 mL over any 7 day period.

D. Compliance Summary

The Discharger has been in substantial compliance with their previous NPDES permit, Order No. R5-2003-0085, resulting in no Regional Water Board enforcement actions taken during the last NPDES permit term.

E. Planned Changes

[Not Applicable]

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the applicable plans, policies, and regulations identified in section II of the Limitations and Discharge Requirements (Findings). This section provides supplemental information, where appropriate, for the plans, policies, and regulations relevant to the discharge.

A. Legal Authority

See Limitations and Discharge Requirements - Findings, Section II.C.

B. California Environmental Quality Act (CEQA)

See Limitations and Discharge Requirements - Findings, Section II.E.

C. State and Federal Regulations, Policies, and Plans