ALTERNATIVE NO. 2
TENTATIVE COMPLIANCE SCHEDULE
FOR AMMONIA AND TERTIARY LEVEL EFFLUENT LIMITATIONS
IN PROPOSED CEASED AND DESIST ORDER

PLACER COUNTY DEPARTMENT OF FACILITY SERVICES
PLACER COUNTY SEWER MAINTENANCE DISTRICT 1
WASTEWATER TREATMENT PLANT
PLACER COUNTY
Proposed Waste Discharge Requirements and Proposed Cease and Desist Order
NPDES No. CA0079316

Compliance Schedule for Final Effluent Limitations - Ammonia, and Title 22 or Equivalent Requirements

1. *Delete section IV.A.2 of the Limitations and Discharge Requirements as follows:*

~~**2. Interim Effluent Limitations**~~

~~**a.** Effective immediately and ending on **31 August 2015**, the Discharger shall maintain compliance with the following limitations at Discharge Point Nos. 001 and 002, with compliance measured at Monitoring Locations EFF-001 and EFF 002 as described in the Monitoring and Reporting Program. These interim effluent limitations shall apply in lieu of all of the final effluent limitations specified for the same parameters during the time period indicated in this provision.~~

~~**i. Total Ammonia Nitrogen (as N).** The 1-hour average, 4-day average, and 30-day average effluent concentration of total ammonia nitrogen (as N) in the effluent shall not exceed the applicable interim effluent limitations in Attachments J, K, and L, respectively, based on the pH and temperature of the effluent at the time of effluent ammonia sampling.~~

~~**ii. Total Coliform Organisms[1]. When the influent flow is greater than 3.5 MGD and the 7-day median receiving water temperature at Monitoring Location RSW-001 (as described in the MRP) is less than 60°F, effluent total coliform organisms shall not exceed:~~

~~**(a)** 2.2 most probable number (MPN) per 100 mL, as a as a 30-day median;~~
~~**(b)** 23 MPN/100 mL, more than once in any 30-day period; and~~
~~**(c)** 240 MPN/100 mL as an instantaneous maximum.~~

~~[1] If these conditions are not present, then the final effluent limitations for BOD_5, total coliform organisms, and TSS in sections IV.A.1.a and IV.A.1.g above are in effect.~~

iii. BOD5 and TSS[1]. When the influent flow is greater than 3.5 MGD and the 7-day median receiving water temperature at Monitoring Location RSW-001 (as described in the MRP) is less than 60°F, effluent BOD5 and TSS shall not exceed:

Table 7. Interim Effluent Limitations for BOD_5 and TSS

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	20	30	50	--	--
	lbs/day[1]	364	546	910	--	--
Total Suspended Solids	mg/L	20	30	50	--	--
	lbs/day[1]	364	546	910	--	--

[1] Mass-based effluent limitations based on a permitted average dry weather flow of 2.18 MGD.

2. *Modify Special Provision VI.C.4.a of the Limitations and Discharge Requirements:*

   a. Turbidity Operational Requirements. Effective 1 September 2015, The Discharger shall operate the treatment system to ensure that the turbidity measured at EFF-001 and EFF-002, as described in the MRP (Attachment E), shall not exceed 2 NTU as a daily average, 5 NTU more than 5 percent of the time within a 24 hour period, and 10 NTU, at any time. Effective immediately and ending 31 August 2015, the Discharger is not required to meet the turbidity operational requirements when the influent flow is greater than 3.5 MGD and the 7-day median receiving water temperature at RSW-001 is less than 60°F. The Discharger is required to meet the turbidity operational requirement when the influent flow is less than 3.5 MGD, or the influent flow is greater than 3.5 MGD and the 7-day median receiving water temperature at RSW-001 is greater than 60°F.

3. *Delete Special Provision VI.C.7 of the Limitations and Discharge Requirements as follows:*

   7. Compliance Schedules

   a. Compliance Schedule for Final Effluent Limitations for Ammonia. This Order requires compliance with the final effluent limitations for ammonia by **1 September 2015**. The Discharger shall comply with the following time schedule to ensure compliance with the final effluent limitations:

Task	Date Due
i. Submit Method of Compliance Workplan/Schedule	Within 6 months after

Task	Date Due
	adoption of this Order
ii. Update and Implement Pollution Prevention Plan (PPP)[1] for Ammonia	Within 90 days after adoption of this Order
iii. Award Final Design and Environmental Consultant Contracts	1 May 2011
iv. Complete Final Design of Improvements and Complete CEQA Documentation	31 July 2011
v. Obtain Bids and Project Funding and Award Construction Contract	31 December 2011
vi. Complete Construction of Improvements	31 December 2014
vii. Complete Startup and Performance Testing	31 August 2015
viii. Report of Compliance or Non-Compliance with Interim Milestones	14 days following the due date for Tasks iii through vii
ix. Progress Reports[2]	30 June, annually, until final compliance
x. Full Compliance	**1 September 2015**

[1] The PPP for ammonia shall be updated and implemented in accordance with CWC section 13263.3(d)(3) as outlined in the Fact Sheet (Attachment F, section VII.B.7.b).

[2] The progress reports shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures implemented, and recommendations for additional measures as necessary to achieve full compliance by the final compliance date.

b. Title 22, or Equivalent, Requirements. Effective immediately and ending 31 August 2015, when the influent flow is greater than 3.5 MGD and the 7-day median receiving water temperature at RSW-001 is less than 60°F, the coagulation and filtration systems shall be operated to the maximum extent possible and all wastewater shall receive full secondary treatment. When influent flows are less than 3.5 MGD, wastewater discharged to Rock Creek shall be oxidized, coagulated, filtered, and adequately disinfected, or equivalent, pursuant to DPH reclamation criteria, Title 22 CCR, Division 4, Chapter 3, (Title 22). By **1 September 2015**, all wastewater discharged to Rock Creek shall be oxidized, coagulated, filtered, and adequately disinfected pursuant to DPH reclamation criteria, Title 22 CCR, Division 4, Chapter 3, (Title 22), or equivalent. This Order also requires compliance with the final effluent limitations for BOD_5, total coliform organisms, and TSS by **1 September 2015**. Until final compliance, the Discharger shall submit progress reports in accordance with the Monitoring and Reporting Program (Attachment E, section X.D.1).

4. *Modify section X.D.1 of the Monitoring and Reporting Program (Attachment E) as follows:*

~~1.~~ Progress Reports. Not Applicable ~~As specified in the compliance time schedules required in the Special Provisions contained in section VI of the Order, progress reports shall be submitted in accordance with the following reporting requirements. At minimum, the progress reports shall include a discussion of the status of final compliance, whether the Discharger is on schedule to meet the final compliance date, and the remaining tasks to meet the final compliance date.~~

~~Table E-11. Reporting Requirements for Special Provisions Progress Reports~~

~~Special Provision~~	~~Reporting Requirements~~
~~Compliance Schedules for Final Effluent Limitations for Ammonia, compliance with final effluent limitations. (Section VI.C.7.a)~~	~~**30 June**, annually, until final compliance~~
~~Title 22, or Equivalent, Requirements (Section VI.C.7.b)~~	~~**30 June**, annually, until final compliance~~

5. *Modify section IV.C.3.c.ii(d) of the Fact Sheet (Attachment F) as follows:*

(d) Plant Performance and Attainability. Analysis of the effluent data shows that the MEC of 15.1 µg/L is greater than applicable WQBELs. Based on the sample results for the effluent, the limitations appear to put the Discharger in immediate non-compliance. The Discharger submitted an infeasibility analysis on 4 May 2010. ~~As discussed in section IV.E of this Fact Sheet, a compliance schedule has been included in this Order.~~ New or modified control measures may be necessary in order to comply with the effluent limitations, and the new or modified control measures cannot be designed, installed and put into operation within 30 calendar days. Furthermore, these requirements are more stringent regulatory requirements within this permit, which becomes applicable to the waste discharge with the adoption of this Order, which was adopted after 1 July 2000. Therefore, a compliance time schedule for compliance with these requirements is established in Cease and Desist Order (CDO) No. R5-2010-XXXX in accordance with CWC section 13300 that requires preparation and implementation of a pollution prevention plan in compliance with CWC section 13263.3.

6. *Modify section IV.C.3.c.xi(d) of the Fact Sheet (Attachment F) as follows:*

(d) Plant Performance and Attainability. The Facility is not designed to provide full tertiary treatment for wet weather flows exceeding 3.5 MGD and discharges a blend of secondary and tertiary wastewater under those conditions. Therefore, the Discharger cannot currently comply with the effluent limitations for BOD_5, total coliform organisms, or TSS for all discharges. ~~As discussed in section IV.E of this Fact Sheet, a~~

~~compliance schedule has been included in this Order for compliance with Title 22 (or equivalent) requirements when the influent flow exceeds 3.5 MGD and the 7-day median receiving water temperature is less than 60°F.~~ New or modified control measures may be necessary in order to comply with the effluent limitations, and the new or modified control measures cannot be designed, installed and put into operation within 30 calendar days. Furthermore, these requirements are new regulatory requirements within this permit, which becomes applicable to the waste discharge with the adoption of this Order, which was adopted after 1 July 2000. Therefore, a compliance time schedule for compliance with these requirements is established in Cease and Desist Order (CDO) No. R5-2010-XXXX in accordance with CWC section 13300 that requires preparation and implementation of a pollution prevention plan in compliance with CWC section 13263.3.

7. *Delete section IV.E of the Fact Sheet (Attachment F) regarding Interim Effluent Limitations as follows:*

E. Interim Effluent Limitations – Not Applicable

~~1. Compliance Schedules for Ammonia and Title 22 (or Equivalent) Requirements.~~ ~~The permit limitations for ammonia are more stringent than the limitations previously imposed. These new limitations are based on a new interpretation of the narrative objective for toxicity. The floating ammonia effluent limitations included in the existing Order No. R5-2005-0074 were applied directly as 1 hour average, 4-day average, and 30-day average effluent limitations which vary based on pH and temperature at the time of sampling. The fixed effluent limitations in the proposed NPDES Permit are applied as an MDEL and AMEL and are based on water quality criteria conservatively determined using worst-case pH and temperature conditions observed over the term of Order No. R5-2005-0074, as discussed in section IV.C.3.c.ii.~~

~~In order to further determine whether the "newly interpreted water quality objective or criterion in a water quality standard" (i.e., the new, fixed effluent limitations for ammonia) results in a numeric permit limitation more stringent than the limit in the prior NPDES Permit issued to the Discharger, Central Valley Water Board staff evaluated the Discharger's ability to comply with the effluent limitations in Order No. R5-2005-0074 and the proposed NPDES Permit.~~

~~Finding No. 36 of Order No. R5-2005-0074 stated that the Discharger claimed that the Facility was capable of adequately~~

~~nitrifying the waste stream. A compliance schedule for the effluent limitations for ammonia was not necessary and was not included in Order No. R5-2005-0074 or CDO No. R5-2005-0075. Table 3.2 of the Discharger's Report of Waste Discharge indicates that the discharge exceeded the effluent limitations in Order No. R5-2005-0074 only twice out of 1,094 sampling events, based on monitoring data collected between 1 July 2006 and 30 June 2009. Therefore, the Discharger was consistently capable of achieving compliance with the floating effluent limitations in Order No. R5-2005-0074 for ammonia.~~

~~Monitoring data collected between 1 July 2006 and 30 June 2009 indicates that the Discharger would be out of compliance with the fixed MDEL in this Order 258 times out of 1,095 samples, or 24 percent of the time. Based on the same data set, the Discharger would be out of compliance with the fixed AMEL in this Order 20 times out of 36 months, or 56 percent of the time. Based on monitoring data collected between 1 July 2006 and 30 June 2009, the new, fixed effluent limitations for ammonia result in numeric permit limitations more stringent than the limit in the prior NPDES Permit issued to the Discharger.~~

~~The establishment of Title 22 (or equivalent) requirements has not been previously required for this discharge when the influent flow exceeds 3.5 MGD and the 7-day median receiving water temperature at RSW-001 is less than 60°F. This Order requires the Discharger to meet Title 22 (or equivalent) requirements for all flows, which represents a newly interpreted water quality objective that results in a permit limitation more stringent than the limitation previously imposed.~~

~~The Discharger has complied with the application requirements in paragraph 4 of the State Water Board's Compliance Schedule Policy, and the Discharger's application demonstrates the need for additional time to implement actions to comply with the new limitations, as described below. Therefore, a compliance schedule for compliance with the effluent limitations for ammonia and Title 22 (or equivalent) requirements is established in the Order.~~

~~**a. Demonstration that the Discharger needs time to implement actions to comply with a more stringent permit limitation specified to implement a new, revised, or newly interpreted water quality objective or criterion in a water quality standard.** Table 1 of the Infeasibility Report identifies constituents with the potential to exceed effluent limitations in the proposed NPDES Permit based on monitoring data collected~~

between July 2005 and June 2009, including ammonia, BOD5, total coliform organisms, and TSS. The Discharger states that the requested compliance schedules are driven primarily by the need to construct treatment plant upgrades.

b. Diligent efforts have been made to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream, and the results of those efforts. The Infeasibility Report states that the Discharger has conducted a number of studies and prepared a number of reports that address potential sources of pollutants. Table 2 and sections 3.2, 3.3, 3.7, and 3.9 of the Infeasibility Report indicate that potential sources of these parameters include domestic and non-domestic sources. Table 2 also identifies sediments containing suspended solids entering the collection system with I/I as a potential source of TSS.

c. Source control efforts are currently underway or completed, including compliance with any pollution prevention programs that have been established. Section 4 of the Infeasibility Report states that the Discharger has not conducted pollution prevention activities because the Facility service area contains primarily residential and commercial users. However, the Discharger states that the County Code includes prohibitions against discharges to the sewer system that contain substances or have characteristics that would impact the Facility. The Infeasibility Report also states that the County Code sets uniform requirements for discharges into the collection system, including the disposal of industrial wastes.

d. A proposed schedule for additional source control measures or waste treatment. Table 4 of the Infeasibility Report provided a proposed compliance schedule, which includes design of improvements and preparation of a California Environmental Quality Act (CEQA) document, completion of final design, and completion of CEQA documentation by 31 July 2011; obtaining bids and project funding and awarding of construction contract by 31 December 2011; construction of improvements by 31 December 2014; completion of start-up and performance testing by 31 August 2015; and full compliance with effluent limitations by 1 September 2015.

e. Data demonstrating current treatment facility performance to compare against existing permit effluent limits, as necessary to determine which is the more stringent interim permit effluent limit to apply if a schedule of compliance is

~~**granted.** This item was not addressed in the Infeasibility Report. However, interim effluent limitations must be based on current treatment plant performance or existing permit limitations, whichever is more stringent. The Discharger can consistently comply with the effluent limitations for ammonia, BOD5, total coliform organisms, and TSS required by Order No. R5-2005-0074. Therefore, the proposed NPDES Permit requires compliance with interim effluent limitations based on the effluent limitations required by Order No. R5-2005-0074.~~

~~**f. The highest discharge quality that can reasonably be achieved until final compliance is attained.** This item was not addressed in the Infeasibility Report. However, compliance with the interim effluent limitations will ensure that the Discharger maintains the discharge at levels permitted by Order No. R5-2005-0074.~~

~~**g. The proposed compliance schedule is as short as possible, given the type of facilities being constructed or programs being implemented, and industry experience with the time typically required to construct similar facilities or implement similar programs.** The Discharger determined in the Infeasibility Report that the compliance schedule is as short as possible. The estimated durations for each task and estimated completion dates were included in Table 4 of the Infeasibilty Report. The Discharger stated that, since the project may be at least partially funded using a State Revolving Fund (SRF) loan, a duration of 5 months is proposed for obtaining bids and receiving approval-to-award and an SRF loan agreement from the State Water Board. The Infeasibility Report proposed a 36-month construction period because the upgrades must be constructed sequentially while the existing facilities remain in service. The proposed schedule also allowed 4 months after completion of construction for start-up, testing, and optimization of the treatment process.~~

~~Interim performance-based limitations have been established in this Order. The interim limitations were determined as described in section IV.E.2, below, and are in effect until the final limitations take effect. In addition, the Discharger shall prepare and implement a pollution prevention plan that is in compliance with CWC section 13263.3(d)(3). The interim numeric effluent limitations and source control measures will result in the highest discharge quality that can reasonably be achieved until final compliance is attained.~~

2. Interim Limitations for Ammonia and Title 22 (or Equivalent) Requirements. The Compliance Schedule Policy requires the Regional Water Board to establish interim requirements and dates for their achievement in the NPDES permit. Interim numeric effluent limitations are required for compliance schedules longer than 1 year. Interim effluent limitations must be based on current treatment plant performance or existing permit limitations, whichever is more stringent.

The interim limitations for ammonia in this Order are based on the current treatment plant performance and the final effluent limitations included in Order No. R5-2005-0074. Therefore, this Order includes interim floating 1-hour average limitations with a performance-based cap of 15.1 mg/L, reflecting the maximum observed effluent concentration from the Facility. In developing the interim limitation, where there are 10 sampling data points or more, sampling and laboratory variability is accounted for by establishing interim limits that are based on normally distributed data where 99.9% of the data points will lie within 3.3 standard deviations of the mean (Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row). Therefore, the interim limitations in this Order are established as the mean plus 3.3 standard deviations of the available data.

When there are less than 10 sampling data points available, the EPA *Technical Support Document for Water Quality-based Toxics Control* (EPA/505/2-90-001), or TSD, recommends a coefficient of variation of 0.6 be utilized as representative of wastewater effluent sampling. The TSD recognizes that a minimum of 10 data points is necessary to conduct a valid statistical analysis. The multipliers contained in Table 5-2 of the TSD are used to determine a maximum daily limitation based on a long-term average objective. In this case, the long-term average objective is to maintain, at a minimum, the current plant performance level. Therefore, when there are less than 10 sampling points for a constituent, interim limitations are based on 3.11 times the maximum observed effluent concentration to obtain the daily maximum interim limitation (TSD, Table 5-2).

Interim limitations for Title 22 (or equivalent) requirements (i.e., for BOD_5, total coliform organisms, and TSS) are established at the levels allowed by Order No. R5-2005-0074 when influent flows exceed 3.5 MGD and the 7-day median receiving water temperature at RSW-001 is less than 60°F.

~~The Regional Water Board finds that the Discharger can undertake source control and treatment plant measures to maintain compliance with the interim limitations included in this Order. Interim limitations are established when compliance with final effluent limitations cannot be achieved by the existing discharge. Discharge of constituents in concentrations in excess of the final effluent limitations, but in compliance with the interim effluent limitations, can significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis. The interim limitations, however, establish an enforceable ceiling concentration until compliance with the effluent limitation can be achieved. The limited, short-term degradation associated with the compliance schedule is consistent with State and federal policies and is authorized by 40 CFR 122.47 and the Compliance Schedule Policy.~~

~~The following table summarizes the calculations of the interim effluent limitations for ammonia and Title 22 (or equivalent) requirements:~~

~~Table F-11. Interim Effluent Limitation Calculation Summary~~

~~Parameter~~	~~Units~~	~~MEC~~	~~Mean~~	~~Std. Dev.~~	~~# of Samples~~	~~Interim Maximum Daily Effluent Limitation~~
~~Ammonia Nitrogen, Total (as N)~~	~~mg/L~~	~~15.1~~	~~2.4~~	~~3.0~~	~~1,095~~	~~1~~
~~Biochemical Oxygen Demand~~	~~mg/L~~	~~--~~	~~--~~	~~--~~	~~--~~	~~2~~
~~Total Coliform Organisms~~	~~MPN/100 mL~~	~~--~~	~~--~~	~~--~~	~~--~~	~~2~~
~~Total Suspended Solids~~	~~mg/L~~	~~--~~	~~--~~	~~--~~	~~--~~	~~2~~

~~1 Because the MEC for ammonia was greater than the statistically calculated effluent limitation, the interim performance-based cap was established at the MEC. The interim limitations in this Order include a 1-hour average effluent limitation with a performance-based cap of 15.1 mg/L as determined in Attachment J; a 4-day average effluent limitation as determined in Attachment K, and a 30-day average effluent limitation as determined in Attachment L.~~

~~2 Interim limitations established at the levels allowed by Order No. R5-2005-0074 when influent flows exceed 3.5 MGD and the 7-day median receiving water temperature at RSW-001 is less than 60°F.~~

8. Delete section VII.B.7 of the Fact Sheet (Attachment F) as follows:

7. Compliance Schedules – Not Applicable

~~a.~~ ~~The Discharger submitted a request, and justification (dated 4 May 2010), for a compliance schedule for ammonia. The compliance schedule justification included all items specified in paragraph 4 of the Compliance Schedule Policy, as discussed in section IV.E of this Fact Sheet. This Order~~

establishes a compliance schedule for the new, final, WQBELs for ammonia and requires full compliance by 1 September 2015.

b. A pollution prevention plan for ammonia is required in this Order per CWC section 13263.3(d)(1)(C). In accordance with CWC section 13263.3(d)(3), the pollution prevention plan for ammonia shall, at a minimum, meet the following requirements:

i. An estimate of all of the sources of a pollutant contributing, or potentially contributing, to the loadings of a pollutant in the treatment plant influent.

ii. An analysis of the methods that could be used to prevent the discharge of the pollutants into the Facility, including application of local limits to industrial or commercial dischargers regarding pollution prevention techniques, public education and outreach, or other innovative and alternative approaches to reduce discharges of the pollutant to the Facility. The analysis also shall identify sources, or potential sources, not within the ability or authority of the Discharger to control, such as pollutants in the potable water supply, airborne pollutants, pharmaceuticals, or pesticides, and estimate the magnitude of those sources, to the extent feasible.

iii. An estimate of load reductions that may be attained through the methods identified in subparagraph ii.

iv. A plan for monitoring the results of the pollution prevention program.

v. A description of the tasks, cost, and time required to investigate and implement various elements in the pollution prevention plan.

vi. A statement of the Discharger's pollution prevention goals and strategies, including priorities for short-term and long-term action, and a description of the Discharger's intended pollution prevention activities for the immediate future.

vii. A description of the Discharger's existing pollution prevention programs.

viii. An analysis, to the extent feasible, of any adverse environmental impacts, including cross-media impacts or substitute chemicals that may result from the implementation of the pollution prevention program.

ix. An analysis, to the extent feasible, of the costs and benefits that may be incurred to implement the pollution prevention program.

c. Title 22, or Equivalent, Requirements. Order No. R5-2005-0074 required a Title 22, or equivalent, level of treatment for flows less than 3.5 MGD, but did not require a Title 22, or equivalent, level of treatment when the influent flow

~~is greater than 3.5 MGD and the 7-day median receiving water temperature is less than 60°F. This Order requires that all wastewater discharged to Rock Creek be oxidized, coagulated, filtered, and adequately disinfected pursuant to DPH reclamation criteria, Title 22 CCR, Division 4, Chapter 3, (Title 22), or equivalent. The Facility is not designed to provide full tertiary treatment for wet weather flows exceeding 3.5 MGD, and discharges a blend of secondary and tertiary wastewater under those conditions. In order to provide the time necessary for the Discharger to complete the necessary upgrades, a compliance schedule has been included. The compliance schedule allows the Discharger until 1 September 2015 to complete the necessary upgrades and come into compliance with Title 22, or equivalent, requirements. This Order also requires compliance with the final effluent limitations for BOD_5, total coliform organisms, and TSS by **1 September 2015**. As part of this compliance schedule, the Discharger will be required to provide interim status reports to the Regional Water Board regarding progress on the actual construction of the upgrades.~~

Cease and Desist Order

1. Add new Findings 5 and 6 as follows:

5. Order No. R5-2005-0074 included effluent limitations for ammonia, 5-day biochemical oxygen demand (BOD_5), total suspended solids (TSS) and total coliform organisms when influent flow is less than or equal to 3.5 MGD which required, in part:

Constituents	***Units***	***Monthly Average***	***Weekly Average***	***7-Day Median***	***24-Hour Average***	***Daily Maximum***
Ammonia Nitrogen, Total (as N)	*mg/L*	*1.4*	--	*3.9*	--	--
	lbs/day[1]	*25*	--	*71*	--	--
BOD[1]	*mg/l*	*10*[2]	*15*[2]	---	---	*25*[2]
	lbs/day[3]	*182*	*273*	---	---	*455*
Total Suspended Solids	*mg/l*	*10*[2]	*15*[2]	---	---	*25*[2]
	lbs/day[3]	*182*	*273*	---	---	*455*
Total Coliform Organisms	*MPN/100 ml*	---	---	*2.2*[4]	---	*23/240*[5]

[1] *5-day, 20°C biochemical oxygen demand (BOD)*
[2] *To be ascertained by a flow proportional 24-hour composite*
[3] *Based upon the Design Dry Weather Flow Rate of 2.18 mgd (x mg/l x 8.345 x 2.18 mgd = y lbs/day)*
[4] *7-Day Median based on previous seven daily sample results*
[5] *In a 30-day period, only a single sample may exceed 23 MPN/100 ml, and no sample shall exceed 240 MPN/100 ml*

6. Order No. R5-2005-0074 included effluent limitations for BOD_5, TSS, and total coliform organisms when wet weather flow is greater than 3.5 MGD and the 7-day median receiving water temperature is less than 60°F which required, in part:

Constituents	***Units***	***Monthly Average***	***Monthly Median***	***Weekly Average***	***Daily Maximum***
BOD[1]	*mg/l*	*20*[2]	---	*30*[2]	*50*[2]
	lbs/day[3]	*364*	---	*546*	*910*

Constituents	Units	Monthly Average	Monthly Median	Weekly Average	Daily Maximum
Total Suspended Solids	mg/l	20[2]	---	30[2]	50[2]
	lbs/day[3]	364	---	546	910
Total Coliform Organisms	MPN/100 ml	---	2.2[4]	---	23/240[5]

[1] 5-day, 20°C biochemical oxygen demand (BOD)
[2] To be ascertained by a flow proportional 24-hour composite
[3] Based upon the Design Dry Weather Flow Rate of 2.18 mgd (x mg/l x 8.345 x 2.18 mgd = y lbs/day)
[4] 30-Day Median based on previous thirty daily sample results
[5] In a 30-day period, only a single sample may exceed 23 MPN/100 ml, and no sample shall exceed 240 MPN/100 ml

2. Modify Previous Finding 4 (new Finding 7) as follows:

4. 7. On **<DATE>**, the Central Valley Water Board adopted Order No. R5-2010-XXXX rescinding Order No. R5-2005-0074 and prescribing renewed WDRs for the Facility. Order No. R5-2010-XXXX section IV.A.1.a contains Final Effluent Limitations for Discharge Point Nos. 001 and 002 which read, in part, as follows:

"Table 6. Final Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants						
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	10	15	25	--	--
	lbs/day[1]	182	273	455	--	--
Total Suspended Solids	mg/L	10	15	25	--	--
	lbs/day[1]	182	273	455	--	--
Priority Pollutants						
Chlorodibromomethane	µg/L	0.41	--	0.82	--	--
Dichlorobromomethane	µg/L	0.56	--	1.5	--	--
Non-Conventional Pollutants						
Aluminum, Total Recoverable	µg/L	68	--	151	--	--
Ammonia Nitrogen, Total (as N)	mg/L	1.4	--	3.9	--	--
	lbs/day[1]	25	--	71	--	--
Nitrate Plus Nitrite (as N)	mg/L	10	--	--	--	--
Nitrite Nitrogen, Total (as N)	mg/L	1.0	--	--	--	--

Additionally, Order No. R5-2010-XXXX section VI.C.4.a contains special provisions that read, in part, as follows:

a. **Turbidity Operational Requirements.** The Discharger shall operate the treatment system to ensure that the turbidity measured at EFF-001 and EFF-002, as described in the MRP (Attachment E), shall not exceed 2 NTU as a daily

average, 5 NTU more than 5 percent of the time within a 24 hour period, and 10 NTU, at any time.

3. Add new Finding 8 as follows:

8. On **<DATE>**, the Central Valley Water Board adopted Order No. R5-2010-XXXX rescinding Order No. R5-2005-0074 and prescribing renewed WDRs for the Facility. Order No. R5-2010-XXXX section IV.A.1.g contains Final Effluent Limitations for Discharge Point Nos. 001 and 002 which read, in part, as follows:

g. Total Coliform Organisms. Effluent total coliform organisms shall not exceed:

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

4. Modify previous Findings 8, 9, 11 and 12 (new Findings 11, 12, 14 and 15) as follows:

~~8.~~ 11. The Central Valley Water Board finds that the Discharger is not able to consistently comply with the effluent limitations for ammonia, aluminum, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite. When the influent flow exceeds 3.5 MGD, the Discharger also cannot comply with the effluent limitations for BOD_5, TSS, and total coliform organisms (7-day median). The schedules for completing the actions necessary to achieve full compliance exceed the adoption date of this Order. Additional time is necessary to provide the necessary treatment to comply with the requirements of Order No. R5-2010-XXXX. New time schedules are necessary in a CDO for all the constituents listed above. These limitations were new and/or more stringent requirements that became applicable to the Order after the effective date of adoption of the WDRs, and after 1 July 2000, for which new or modified control measures are necessary in order to comply with the limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

~~9.~~ 12. Immediate compliance with the effluent limitations for ammonia, aluminum, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite is not possible or practicable. Immediate compliance with the effluent limitations for BOD_5, TSS, and total coliform organisms (7-day median) when the influent flow exceeds 3.5 MGD is not possible or practicable. The Clean Water Act and the California Water Code authorize time schedules for achieving compliance.

The Discharger indicated in the *Infeasibility Report for the Sewer Maintenance District 1 Wastewater Treatment Plant* (Infeasibility Report) submitted 4 May 2010 that additional time is required to comply with the final effluent limitations for ammonia, aluminum, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, ~~and~~ nitrate, BOD_5, TSS and total coliform organisms (7-day median). The Regional Water Board is providing no later than 1 September 2015 for the Discharger to comply with these requirements.

14. By statute, a Cease and Desist Order or Time Schedule Order may provide protection from MMPs for no more than five years. Compliance schedules for ammonia, chlorodibromomethane and dichlorobromomethane have not previously been included in an enforcement order. Compliance schedules for BOD_5, TSS, and total coliform organisms when the influent flow exceeds 3.5 MGD have not previously been included in an enforcement order. Therefore, compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the final effluent limitations for ammonia, chlorodibromomethane and dichlorobromomethane, as well as BOD_5, TSS, and total coliform organisms (7-day median) when influent flows are greater than 3.5 MGD, in accordance with CWC section 13385(j)(3). Protection from MMPs for these constituents begins on the adoption date of this Order and may not extend beyond 1 September 2015. Order No. R5-2005-0074 will remain in effect for 50 days, until the effective date of R5-2010-XXXX. During that time, the Discharger will be unable to comply with existing effluent limitations for dichlorobromomethane.

15. CWC section 13385(j)(3) requires the preparation and implementation of a pollution prevention plan pursuant to section 13263.3 of the CWC. This Order requires the Discharger to develop and implement a pollution prevention plan for ammonia, chlorodibromomethane, ~~and~~ dichlorobromomethane, BOD_5, TSS, and total coliform organisms in order to effectively reduce the effluent concentrations by source control measures.

5. Modify previous Finding 15 (new Finding 18) as follows:

~~15.~~ 18. The compliance time schedule in this Order includes interim effluent limitations for ammonia, aluminum, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, ~~and~~ nitrite, BOD_5, TSS, and total coliform organisms (7-day median). In developing the interim limitations for ammonia, aluminum, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite, where there are 10 sampling data points or more, sampling and laboratory variability is accounted for by establishing interim limits that are based on normally distributed data where 99.9 percent of the data points will lie within 3.3 standard deviations of the mean (*Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row, 3rd Edition, January 1986*). Where actual sampling shows an exceedance of the proposed mean plus 3.3-standard deviation interim limit, the maximum detected concentration has been established as the interim limitation. In developing the interim limitations, when there are less than 10 sampling data points available, the USEPA *Technical Support Document for Water Quality- based Toxics Control* ((EPA/505/2-90-001), TSD) recommends a coefficient of variation of 0.6 be utilized as representative of wastewater effluent sampling. The TSD recognizes that a minimum of 10 data points is necessary to conduct a valid statistical analysis. The multipliers contained in Table 5-2 of the TSD are used to determine a maximum daily limitation based on a long-term average objective. In this case, the long-term average objective is to maintain, at a minimum, the current plant performance level. Therefore, when there are less than 10 sampling points for a constituent, an interim limitation is based on 3.11 times the maximum observed effluent concentration to obtain the daily maximum interim limitation (TSD, Table 5-2). The

following table summarizes the calculations of the interim performance-based effluent limitations for aluminum, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite:

Interim Effluent Limitation Calculation Summary

Parameter	Units	MEC	Mean	Std. Dev.	# of Samples	Interim Maximum Daily Effluent Limitation
Aluminum, Total Recoverable	µg/L	162	55	40	25	188
Chlorodibromomethane	µg/L	0.97	0.4	0.3	7	3.0
Dichlorobromomethane	µg/L	14	3.4	4.2	24	17
Nitrate Plus Nitrite (as N)	mg/L	49	17.5	3.8	1,094	49[1]
Nitrite Nitrogen, Total (as N)	mg/L	3.12	0.2	0.3	1,094	9.7

[1] Because the maximum effluent concentration for this parameter was greater than the statistically calculated effluent limitations, the interim limitation was established at the maximum effluent concentration.

Interim limitations for ammonia are established as the pH and temperature-based floating limitations allowed by Order No. R5-2005-0074. BOD_5, TSS, and total coliform organisms are established at the levels allowed by Order No. R5-2005-0074 when influent flows exceed 3.5 MGD and the 7-day median receiving water temperature is less than 60°F.

6. Add new Provision 2 as follows:

2. Effective immediately and ending **31 August 2015**, when the influent flow is greater than 3.5 MGD and the 7-day median receiving water temperature at RSW-001 is less than 60°F, the coagulation and filtration systems shall be operated to the maximum extent possible and all wastewater shall receive full secondary treatment.

When influent flows are less than 3.5 MGD, wastewater discharged to Rock Creek shall be oxidized, coagulated, filtered, and adequately disinfected, or equivalent, pursuant to DPH reclamation criteria, Title 22 CCR, Division 4, Chapter 3, (Title 22), and in accordance with operational requirements with turbidity set forth in Special Provisions VI.C.4.a of Order No. 2010-XXXX,.

By **1 September 2015**, all wastewater discharged to Rock Creek shall be oxidized, coagulated, filtered, and adequately disinfected pursuant to DPH reclamation criteria, Title 22 CCR, Division 4, Chapter 3, (Title 22), or equivalent. This Order also requires compliance with the final effluent limitations for BOD_5, TSS, and total coliform organisms and the operational specifications for turbidity (Special Provisions VI.C.4.a).

Until final compliance, the Discharger shall submit progress reports **30 June, annually** that describe what steps have been implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures

implemented, and recommendations for additional measures as necessary to achieve full compliance by the final date.

7. Add new Provision 4 as follows:

4. The following interim effluent limitations for ammonia, BOD_5, TSS, and total coliform organisms shall be effective immediately, and shall remain in effect through **31 August 2015**, or when the Discharger is able to come into compliance with the final effluent limitations, whichever is sooner.

a. Total Coliform Organisms. When the influent flow is greater than 3.5 MGD and the 7-day median receiving water temperature at Monitoring Location RSW-001 (as described in the MRP) is less than 60°F, effluent total coliform organisms shall not exceed 2.2 most probable number (MPN) per 100 mL, as a 30-day median.

b. BOD_5 and TSS. When the influent flow is greater than 3.5 MGD and the 7-day median receiving water temperature at Monitoring Location RSW-001 (as described in the MRP) is less than 60°F, effluent BOD_5 and TSS shall not exceed the following interim limitations:

Interim Effluent Limitations for BOD_5 and TSS

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	20	30	50
	lbs/day[1]	364	546	910
Total Suspended Solids	mg/L	20	30	50
	lbs/day[1]	364	546	910

[1] Mass-based effluent limitations based on a permitted average dry weather flow of 2.18 MGD.

c. Interim 1-Hour Average Effluent Limitations For Ammonia

pH[1]	Ammonia Nitrogen, Total (as N) 1-Hour Average Effluent Limitation (mg/L)
6.5	15.1
6.6	15.1
6.7	15.1
6.8	15.1
6.9	15.1
7.0	15.1
7.1	15.1
7.2	15.1
7.3	15.1
7.4	15.1
7.5	13.3
7.6	11.4
7.7	9.64
7.8	8.11
7.9	6.77
8.0	5.62
8.1	4.64
8.2	3.83
8.3	3.15
8.4	2.59
8.5	2.14
8.6	1.77
8.7	1.47
8.8	1.23
8.9	1.04
9.0	0.885

[1] Effluent pH at time of effluent ammonia sampling.

$$CMC = \left(\frac{0.275}{1+10^{7.204-pH}} + \frac{39.0}{1+10^{pH-7.204}} \right)$$

d. Interim 4-Day Average Effluent Limitations For Ammonia

pH[1]	Ammonia Nitrogen, Total (as N) 4-Day Average Effluent Limitation (mg/L) Temperature (°C/°F)[2]									
	0 (32)	14 (57)	16 (61)	18 (64)	20 (68)	22 (72)	24 (75)	26 (79)	28 (82)	30 (86)
6.5	16.7	16.7	15.1	13.3	11.8	10.3	9.04	7.95	6.99	6.14
6.6	16.4	16.4	14.9	13.1	11.5	10.1	8.91	7.83	6.88	6.05
6.7	16.1	16.1	14.6	12.9	11.3	9.94	8.74	7.68	6.75	5.94
6.8	15.7	15.7	14.3	12.8	11.1	9.71	8.54	7.51	6.60	5.80
6.9	15.3	15.3	13.9	12.2	10.7	9.44	8.30	7.30	6.41	5.64
7.0	14.8	14.8	13.4	11.8	10.4	9.12	8.02	7.05	6.19	5.45
7.1	14.2	14.2	12.9	11.3	9.95	8.75	7.69	6.76	5.94	5.22
7.2	13.5	13.5	12.3	10.8	9.46	8.32	7.31	6.43	5.65	4.97
7.3	12.7	12.7	11.5	10.1	8.91	7.84	6.89	6.05	5.32	4.68
7.4	11.8	11.8	10.8	9.46	8.31	7.31	6.42	5.65	4.96	4.36
7.5	10.9	10.9	9.92	8.72	7.66	6.74	5.92	5.20	4.57	4.02
7.6	9.94	9.94	9.03	7.94	6.98	6.14	5.39	4.74	4.17	3.66
7.7	8.95	8.95	8.13	7.15	6.28	5.52	4.85	4.27	3.75	3.3
7.8	7.96	7.96	7.23	6.36	5.59	4.91	4.32	3.79	3.34	2.93
7.9	6.99	6.99	6.36	5.59	4.91	4.32	3.80	3.34	2.93	2.58
8.0	6.08	6.08	5.53	4.86	4.27	3.76	3.30	2.90	2.55	2.24
8.1	5.24	5.24	4.77	4.19	3.68	3.24	2.85	2.50	2.20	1.93
8.2	4.48	4.48	4.07	3.58	3.15	2.77	2.43	2.14	1.88	1.65
8.3	3.81	3.81	3.46	3.04	2.68	2.35	2.07	1.82	1.60	1.40
8.4	3.22	3.22	2.93	2.58	2.26	1.99	1.75	1.54	1.35	1.19
8.5	2.72	2.72	2.48	2.18	1.91	1.68	1.48	1.30	1.14	1.00
8.6	2.30	2.30	2.09	1.84	1.61	1.42	1.25	1.10	0.964	0.848
8.7	1.95	1.95	1.77	1.55	1.37	1.20	1.06	0.928	0.816	0.717
8.8	1.65	1.65	1.50	1.32	1.16	1.02	0.897	0.788	0.693	0.609
8.9	1.41	1.41	1.28	1.13	0.992	0.872	0.766	0.674	0.592	0.520
9.0	1.22	1.22	1.11	0.971	0.854	0.751	0.660	0.580	0.510	0.448

[1] Effluent pH at time of effluent ammonia sampling.

[2] Effluent temperature at time of effluent ammonia sampling.

$$2.5CCC = 2.5 \times \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}} \right) \times Min\left(2.85 \text{ or } 1.45 \times 10^{0.028\times(25-T)}\right)$$

e. Interim 30-Day Average Effluent Limitations For Ammonia

pH[1]	Ammonia Nitrogen, Total (as N) 30-Day Average Effluent Limitation (mg/L) Temperature (°C/°F)[2]									
	0 (32)	14 (57)	16 (61)	18 (64)	20 (68)	22 (72)	24 (75)	26 (79)	28 (82)	30 (86)
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	6.12	6.12	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.67	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	5.39	5.39	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.73	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32
7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	2.80	2.80	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8.0	2.43	2.43	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
8.1	2.10	2.10	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.8550	0.752	0.661
8.3	1.52	1.52	1.39	1.22	1.07	0.941	0.827	0.7270	0.639	0.562
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.700	0.6150	0.541	0.475
8.5	1.09	1.09	0.990	0.870	0.765	0.672	0.591	0.5200	0.457	0.401
8.6	0.920	0.920	0.836	0.735	0.646	0.568	0.499	0.4390	0.386	0.339
8.7	0.778	0.778	0.707	0.622	0.547	0.480	0.422	0.3710	0.326	0.287
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.3150	0.277	0.244
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.2690	0.237	0.208
9.0	0.486	0.486	0.442	0.389	0.342	0.300	0.264	0.2320	0.204	0.179

[1] Effluent pH at time of effluent ammonia sampling.

[2] Effluent temperature at time of effluent ammonia sampling.

$$CCC = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}} \right) \times Min\left(2.85 \text{ or } 1.45 \times 10^{0.028\times(25-T)}\right)$$