

**ENCLOSURE 1
EXPANSION OPTION
Proposed Waste Discharge Requirements
for the
Placer County Department of Facility Services
Placer County Sewer Maintenance District 1 Wastewater Treatment Plant**

The following is an option for allowing an increased discharge to the receiving water from 2.18 million gallons per day (MGD) to 2.7 MGD (average dry weather flow) in the National Pollutant Discharge Elimination System (NPDES) permit for the Placer County Department of Facility Services (Discharger) Placer County Sewer Maintenance District 1 Wastewater Treatment Plant (Facility). This option will be available for consideration by the Central Valley Water Board at the 26/27/28 May 2010 Board meeting.

OPTION 1:

This option proposes authorization for the Discharger to increase the average dry weather flow, discharged to Rock Creek, from 2.18 MGD to 2.7 MGD.

Make the following changes to the proposed NPDES Permit considered for adoption at the 26/27/28 May 2010 Board Meeting:

1. Effluent Limitations and Discharge Specifications, modify Table 4 as follows:

Table 4. Facility Information

Discharger	Placer County Department of Facility Services
Name of Facility	Placer County Sewer Maintenance District 1 Wastewater Treatment Plant
Facility Address	11755 Joeger Road
	Auburn, CA 95603
	Placer County
Facility Contact, Title, and Phone	Bryan Kangas, Supervising Plant Operator, (530) 886-1100
Mailing Address	11476 C Avenue, Auburn, CA 95603
Type of Facility	Publicly Owned Treatment Works (POTW)
Facility Design Flow	<u>Existing – 2.18 million gallons per day (MGD), average dry weather flow</u>
	<u>Proposed – 2.7 MGD, average dry weather flow</u>

2. Effluent Limitations and Discharge Specifications, modify the last paragraph of section II.B as follows:

In October 2009, the Discharger submitted a Report of Waste Discharge that described plans to proceed with a project to upgrade the treatment process and expand the design capacity of the treatment plant to 2.7 MGD (average dry weather flow). As proposed in the Report of Waste Discharge, the upgraded and expanded Facility will include a new headworks, new primary clarifiers, new biological nutrient removal facilities, new secondary clarifiers

and tertiary filters, new ultraviolet light disinfection facilities and new and renovated solids handling facilities. ~~As discussed further in the Fact Sheet (Attachment F), this Order does not authorize the Discharger's proposed increase in flow.~~

3. Effluent Limitations and Discharge Specifications, modify Table 6 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	--	--
	lbs/day ²	<u>225</u>	<u>338</u>	<u>563</u>	--	--
Total Suspended Solids	mg/L	10	15	25	--	--
	lbs/day ¹	182	273	455	--	--
	lbs/day ²	<u>225</u>	<u>338</u>	<u>563</u>	--	--
pH	standard units	--	--	--	6.5	8.2
Priority Pollutants						
Chlorodibromomethane	µg/L	0.41	--	0.82	--	--
Copper, Total Recoverable	µg/L	7.6	--	19	--	--
Dichlorobromomethane	µg/L	0.56	--	1.5	--	--
Lead, Total Recoverable	µg/L	2.3	--	6.5	--	--
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	--	--
	lbs/day ²	<u>32</u>	--	<u>88</u>	--	--
Nitrate Plus Nitrite (as N)	mg/L	10	--	--	--	--
Nitrite Nitrogen, Total (as N)	mg/L	1.0	--	--	--	--

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

² Mass-based effluent limitations are based on a permitted average dry weather flow of 2.7 MGD, effective upon compliance with Special Provision VI.C.6.a.

4. Effluent Limitations and Discharge Specifications, modify section IV.A.1.f as follows:

f. Average Dry Weather Flow. The average dry weather discharge flow shall not exceed 2.18 MGD. Effective upon compliance with Special Provision VI.C.6.a, the average dry weather discharge flow shall not exceed 2.7 MGD.

5. Effluent Limitations and Discharge Specifications, delete section VI.C.1.g as follows:

~~**g. Increased Flow.** Upon availability of additional information indicating that an increase in discharge to Rock Creek is consistent with the antidegradation provision of 40 CFR 131.12 and Resolution No. 68-16, this Order may be reopened to allow an increased discharge to Rock Creek.~~

6. Effluent Limitations and Discharge Specifications, modify section VI.C.6 as follows:

6. Other Special Provisions – Not Applicable

a. Facility Expansion. The Discharger has requested an increased discharge to Rock Creek. The permitted average dry weather flow may increase to 2.7 MGD upon compliance with the following conditions:

i. Effluent and Receiving Water Limitation Compliance. The discharge shall demonstrate compliance with the requirements of this Order.

ii. Facility Expansions. The Discharger shall have completed construction of the upgrade and expansion project, as described in the Discharger’s Report of Waste Discharge.

iii. Request for Increase. The Discharger shall submit to the Regional Water Board a request for an increase in the permitted discharge flow rate, which demonstrates compliance with items i. through ii. of this provision. The increase in the permitted discharge flow rate shall not be effective until the Executive Officer verifies compliance with Special Provisions VI.C.6.a and approves the Discharger’s request.

7. Fact Sheet (Attachment F), modify Table F-1 as follows:

Table F-1. Facility Information

WDID	5A310104007
Discharger	Placer County Department of Facility Services
Name of Facility	Placer County Sewer Maintenance District 1 Wastewater

	Treatment Plant
Facility Address	11755 Joeger Road
	Auburn, CA 95603
	Placer County
Facility Contact, Title and Phone	Bryan Kangas, Supervising Plant Operator, (530) 886-1100
Authorized Person to Sign and Submit Reports	Will Dickinson, Deputy Director for Department of Facility Services, (530) 886-4980
Mailing Address	11476 C Avenue, Auburn, CA 95603
Billing Address	Same as Mailing Address
Type of Facility	Publicly Owned Treatment Works (POTW)
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Yes
Reclamation Requirements	N/A
Facility Permitted Flow	<u>Existing – 2.18 million gallons per day (MGD), average dry weather flow</u>
	<u>Proposed – 2.7 MGD, average dry weather flow</u>
Facility Design Flow	<u>Existing – 2.18 MGD, average dry weather flow</u>
	<u>Proposed – 2.7 MGD, average dry weather flow</u>
Watershed	Upper Coon-Upper Auburn
Receiving Water	Rock Creek
Receiving Water Type	Inland surface water

8. Fact Sheet (Attachment F), modify section II as follows:

The Discharger provides sewerage service for the unincorporated area of North Auburn in Placer County and serves a population of approximately 16,900. The design average dry weather flow capacity of the Facility is 2.18 MGD. As described further in section II.E of this Fact Sheet, the Discharger is planning to ~~either upgrade the treatment process to comply with effluent limitations or to cease the discharge and connect to the City of Lincoln Wastewater Treatment and Reclamation Facility~~ upgrade and expand the Facility to provide tertiary treatment for up to 2.7 MGD.

9. Fact Sheet (Attachment F), delete the last paragraph of section II.E as follows:

~~As described further in section IV.D.4 of this Fact Sheet, this Order does not authorize the Discharger's proposed increase. This Order contains a reopener provision to reconsider the proposed increase upon availability of additional information indicating that an increase in discharge to Rock Creek is consistent with the antidegradation provisions of 40 CFR 131.12 and Resolution No. 68-16.~~

10. Fact Sheet (Attachment F), modify section IV.B.2.b as follows:

b. Flow. The Facility was designed to provide a tertiary level of treatment for up to a design average dry weather flow of 2.18 MGD. The Discharger is proposing to expand the Facility and increase the average dry weather flow capacity to 2.7 MGD. Until expansion of the Facility, this Order requires that the average dry weather flow shall not exceed 2.18 MGD. Upon completion of the expansion of the Facility, this Order requires that the average dry weather flow shall not exceed 2.7 MGD.

11. Fact Sheet (Attachment F), modify Table F-3 as follows:

Table F-3. Summary of Technology-based Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	MGD	2.18 ^{1,2}	--	--	--	--
		<u>2.7^{3,4}</u>	--	--	--	--
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	30	45	--	--	--
	lbs/day ^{2,5}	545	818	--	--	--
	<u>lbs/day^{4,6}</u>	<u>675</u>	<u>1,013</u>	--	--	--
	% Removal	85	--	--	--	--
Total Suspended Solids	mg/L	30	45	--	--	--
	lbs/day ^{2,5}	545	818	--	--	--
	<u>lbs/day^{4,6}</u>	<u>675</u>	<u>1,013</u>	--	--	--
	% Removal	85	--	--	--	--
pH	standard units	--	--	--	6.0	9.0

¹ The average dry weather discharge flow shall not exceed 2.18 MGD. The average dry weather discharge 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 (i.e., July, August, and September).

² Applicable until completion of expansion of the Facility.

³ The average dry weather discharge flow shall not exceed 2.7 MGD. The average dry weather discharge 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).

⁴ Applicable upon completion of expansion of the Facility

^{2,5} Based on a design flow of 2.18 MGD.

⁶ Based on a design flow of 2.7 MGD.

12. Fact Sheet (Attachment F), modify Table F-9 as follows:

Table F-9. Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitations					Basis ¹
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Average Dry Weather Flow	MGD	2.18 ^{2,3}	--	--	--	--	DC
		2.7 ^{4,5}	--	--	--	--	
Conventional Pollutants							
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	10	15	25	--	--	TTC
	lbs/day ^{3,6}	182	273	455	--	--	
	lbs/day ^{5,7}	225	338	563	--	--	
	% Removal	85	--	--	--	--	CFR
Total Suspended Solids	mg/L	10	15	25	--	--	TTC
	lbs/day ^{3,6}	182	273	455	--	--	
	lbs/day ^{5,7}	225	338	563	--	--	
	% Removal	85	--	--	--	--	CFR
pH	standard units	--	--	--	6.5	8.2	BP, PB
Priority Pollutants							
Arsenic, Total Recoverable	µg/L	10 ⁴⁸	--	--	--	--	MCL
Chlorodibromomethane	µg/L	0.41	--	0.82	--	--	CTR
Copper, Total Recoverable	µg/L	7.6	--	19	--	--	CTR
Dichlorobromomethane	µg/L	0.56	--	1.5	--	--	CTR
Lead, Total Recoverable	µg/L	2.3	--	6.5	--	--	CTR
Mercury, Total Recoverable	lbs/month	0.0018 ⁵⁹	--	--	--	--	PB
Non-Conventional Pollutants							
Acute Toxicity	% Survival	--	--	⁶¹⁰	--	--	BP
Aluminum, Total Recoverable	µg/L	68	--	151	--	--	NAWQC
Ammonia Nitrogen, Total (as N)	mg/L	1.4	--	3.9	--	--	NAWQC
	lbs/day ^{3,6}	25	--	71	--	--	
	lbs/day ^{5,7}	32	--	88	--	--	
Chlorine, Total Residual	mg/L	--	0.011 ⁷¹¹	0.019 ⁸¹²	--	--	NAWQC
Chronic Toxicity	TUc	--	--	⁹¹³	--	--	BP
Electrical Conductivity @ 25°C	µmhos/cm	700 ¹⁰¹⁴	--	--	--	--	PB
Nitrate Plus Nitrate (as N)	mg/L	10	--	--	--	--	MCL
Nitrite Nitrogen, Total (as N)	mg/L	1.0	--	--	--	--	MCL
Total Coliform Organisms	MPN/100 mL	--	2.2 ¹⁴¹⁵	23 ¹²¹⁶	--	240	Title 22

Parameter	Units	Effluent Limitations					Basis ¹
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	

- ¹ DC – Based on the design capacity of the Facility.
 TTC – Based on tertiary treatment capability. These effluent limitations reflect the capability of a properly operated tertiary treatment plant.
 CFR – Based on secondary treatment standards contained in 40 CFR Part 133.
 BP – Based on water quality objectives contained in the Basin Plan.
 MCL – Based on the Primary Maximum Contaminant Level.
 CTR – Based on water quality criteria contained in the California Toxics Rule and applied as specified in the SIP.
 PB – Based on the performance of the treatment system.
 NAWQC – Based on USEPA’s National Ambient Water Quality Criteria for the protection of freshwater aquatic life.
 PO – Based on effluent limitations established in Order No. R5-2005-0074.
 Title 22 – Based on CA Department of Public Health Reclamation Criteria, CCR, Division 4, Chapter 3 (Title 22).
- ² The average dry weather discharge flow shall not exceed 2.18 MGD. The average dry weather discharge 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 (i.e., July, August, and September).
- ³ Applicable until completion of expansion of the Facility.
- ⁴ The average dry weather discharge flow shall not exceed 2.7 MGD. The average dry weather discharge 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 (i.e., July, August, and September).
- ⁵ Applicable upon completion of expansion of the Facility
- ³⁶ Based on a design flow of 2.18 MGD.
- ⁷ Based on a design flow of 2.7 MGD.
- ⁴⁸ Applied as an annual average concentration.
- ⁵⁹ The total monthly mass discharge of mercury from the Facility shall not exceed 0.0018 lbs.
- ⁶¹⁰ Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:
 Minimum for any one bioassay: 70%
 Median for any three or more consecutive bioassays: 90%
- ⁷¹¹ Applied as a 4-day average effluent limitation.
- ⁸¹² Applied as a 1-hour average effluent limitation.
- ⁹¹³ There shall be no chronic toxicity in the effluent discharge.
- ⁴⁰¹⁴ For a calendar year, the annual average effluent electrical conductivity shall not exceed 700 µmhos/cm.
- ⁴⁴¹⁵ Applied as a 7-day median effluent limitation.
- ⁴²¹⁶ Effluent total coliform organisms are not to exceed 23 MPN/100 mL more than once in any 30-day period.

13. Fact Sheet (Attachment F), modify section IV.D.4.a as follows:

- a. Water quality parameters and beneficial uses which will be affected by this Order and the extent of the impact.** This Order does not adversely impact beneficial uses of the receiving water or downstream receiving waters. All beneficial uses will be maintained and protected. This Order ~~does not provide~~ provides for an increase in the volume and mass of pollutants discharged directly to the receiving water. 40 CFR 131.12 defines the following tier designations to describe water quality in the receiving water body.

14. Fact Sheet (Attachment F), modify paragraph 2 of section IV.D.4.c.ii as follows:

The Discharger reported at the April 2009 Board Meeting, and in a subsequent semi-annual progress report submitted 1 June 2009, that the Discharger is continuing to actively pursue regionalization. In a letter dated 22 February 2010, the Discharger indicated that the regionalization project would take at least 2 years to complete beyond the 5 years requested for the proposed expansion project (i.e., in 7 years) due to delays associated with the slow pace of acquiring federal funding and the need to resolve complex issues between the Discharger and other local entities. The Regional Water Board concurs that regionalization is not currently feasible.

15. Fact Sheet (Attachment F), modify paragraph 2 of section IV.D.4.e.ii as follows:

ii. Regional Water Board Rationale. Potential degradation identified in the Antidegradation Analysis due to this Order is not justified by the following considerations:

(a) Implementation of alternatives does not provide important socioeconomic benefit to the people of the region, nor do they provide maximum benefit to the people of the State. The alternatives to the proposed project would inhibit socioeconomic growth making it economically infeasible for any new development to occur;

(b) The Discharger's planned wastewater treatment facility will produce Title 22 tertiary treated effluent that will result in minimal water quality degradation. The Discharger's planned wastewater treatment process will meet or exceed the highest statutory and regulatory requirements which meets or exceeds best practical, treatment and control (BPTC);

(c) The Order is fully protective of beneficial uses of Rock Creek and Dry Creek. The anticipated water quality changes in Rock Creek and Dry Creek will not reduce or impair designated beneficial uses and is consistent with State and federal antidegradation policies;

(d) No feasible alternatives currently exist to reduce the impacts available; and

(e) The Discharger has fully satisfied the requirements of the intergovernmental coordination and public participation provisions of the State's continuing planning process concurrent with the public participation period of this Order.

- ~~(a) Projected demand for treatment will not exceed the current treatment capacity of 2.18 MGD until 2020, which is 5 years after the term of this permit; and~~
- ~~(b) The Discharger continues to pursue the regionalization alternative concurrent with the proposed expansion, and estimates that regionalization could be complete in 7 years, should funding become available and make this project feasible, which is before the demand in the service area is projected to approach the current permitted capacity, but after final effluent limitations in this Order become effective.~~

~~Given the projected demand for treatment will not exceed the treatment capacity of 2.18 MGD until 2020 and that regionalization continues to be a feasible option, provided that adequate funding options are available, the Regional Water Board finds that the increased flows associated with the expansion cannot be permitted. This Order includes a reopener that will allow the Regional Water Board to reopen the Order to allow an increased discharge to Rock Creek upon availability of additional information indicating that an increase in flow to Rock Creek is in the best interest of the people of the State.~~

16. Fact Sheet (Attachment F), delete section VII.B.1.e as follows:

- ~~**e. Increased Flow.** The Discharger indicated in the report of waste discharge plans to upgrade the treatment process to comply with permit requirements. In addition to upgrading the Facility, the Discharger submitted a report titled Antidegradation Analysis for the Placer County SMD1 Wastewater Treatment Plant, October 2009 (Robertson-Bryan, Inc.) on 10 November 2009 for an increased discharge to the receiving water from 2.18 MGD to 2.7 MGD (average dry weather flow). As described in section IV.D.4 of this Fact Sheet, allowing an increase in flow to Rock Creek at this time is not consistent with State and federal antidegradation requirements. This reopener allows the Regional Water Board to reopen the Order to authorize an increase in flow upon submission of additional information indicating that a reduction in water quality is consistent with State and federal antidegradation requirements.~~