

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
FINAL PERMIT FACT SHEET
June 2010

Permittee Name: Table Mountain Rancheria WWTP

Mailing Address: P.O. Box 410
Friant, CA 93626

Facility Location: 8206 Table Mountain Road
Friant, CA 93626

Contact Person(s): Richard Rodriguez, WWTP Manager
(559) 822-2046

NPDES Permit No.: CA0084280

I. STATUS OF PERMIT

Table Mountain Rancheria Wastewater Treatment Plant (the “permittee”) has applied for the renewal of its National Pollutant Discharge Elimination System (“NPDES”) permit to authorize the discharge of treated effluent to an unnamed tributary to Little Dry Creek located in Friant, Fresno County, California. A complete application was submitted on August 20, 2009. EPA Region IX has developed this permit and fact sheet pursuant to Section 402 of the Clean Water Act, which requires point source dischargers to control the amount of pollutants that are discharged to waters of the United States through obtaining a NPDES permit.

The permittee is currently discharging under NPDES permit CA0084280 issued on March 6, 2005. Pursuant to 40 CFR 122.21, the terms of the existing permit are administratively extended until the issuance of a new permit.

This permittee has been classified as a Minor discharger.

II. GENERAL DESCRIPTION OF FACILITY

Table Mountain Rancheria is a 200-acre parcel of Chukchansi Mono tribal land located 7 miles east of the town of Friant in Fresno County, California. The wastewater treatment plant (WWTP) for Table Mountain Rancheria serves a population of approximately 10,000, largely associated with the tribal casino. The WWTP also serves 14 private residential connections and a church, and does not accept wastewater from any industrial facilities. Wastewater generated from the casino includes sewage, restaurant washwaters, and blowdown from the air conditioning system. Restaurants in the casino are equipped with grease traps and oil separators to prevent flow of oil and grease to the WWTP.

Since the drafting of the previous permit, the Tribe constructed a new WWTP, completed February 1, 2005. The treatment system has a design flow of 0.5 MGD, with a peak instantaneous flow capacity of 1.5 MGD. Wastewater is pumped through a headworks equipped

with trash and grit removal into two sequencing batch reactors (SBRs). The average retention time in the SBRs (which hold approximately 500,000 gallons each) is 57.0 hours at design flows. Approximately 25% of each batch is decanted and pumped to an equalization basin. The decant from the equalization basin is sent to 3 rapid mix sand filters with polymer addition. Backwash from the sand filters is sent back to the headworks. Effluent from the sand filters is sent to a series of ultraviolet (UV) disinfection units.

The SBR tanks are enclosed and equipped with a vapor collection system. The vapors are pumped to a wet scrubber to control odor emissions. The wet scrubber blowdown is returned to the headworks of the treatment plant.

Final effluent is pumped to two 500,000 gallon storage tanks. The effluent is used in the casino air conditioning system and for irrigation, and the Tribe must maintain 640,000 gallons in storage at all times for firefighting. The Tribe intermittently discharges all remaining effluent through outfall point 005, located at N 36°59'15", W 119°38'10".

Sludge generated from the SBRs is sent to an aerobic digester and then sent offsite for composting. A backup generator for the WWTP is maintained onsite to be used in case of a power failure.

Raw wastewater flowing into the WWTP is fairly high strength due to water use in the casino, with average influent concentrations as shown in Table 1.

Table 1. Influent Monitoring Data.⁽¹⁾

Parameter	Influent Concentration
pH	7.4
Biochemical Oxygen Demand (5-day)	303 mg/L
Total Suspended Solids	404 mg/L
Ammonia (as N)	15 mg/L

⁽¹⁾Based on WWTP influent data from 2009 (Permittee's supplemental data)

All application information and DMR data is based on discharge from the current WWTP.

III. DESCRIPTION OF RECEIVING WATER

An unnamed tributary to Little Dry Creek runs next to the WWTP, passes around the casino, and runs for approximately 7.5 miles until connecting with Little Dry Creek, which is about 1.0 mile from a continuously flowing segment of the San Joaquin River. The unnamed wash contains a small seasonal flow that originates from a spring located about 100 yards upstream of the discharge point. Outfall 005 flows approximately 200 yards through a constructed ditch before discharging into the unnamed tributary.

The Tribe does not have approved water quality standards for discharges to waters located on the Table Mountain Rancheria. Little Dry Creek is a tributary of the San Joaquin River between Friant Dam and Mendota Pool. Water quality standards applicable to the San Joaquin River and its tributaries are applicable at the point where the discharge enters State waters, and EPA has applied water quality standards based on the "Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and San Joaquin River Basin – Fourth Edition – 1998", as adopted by

the Central Valley Regional Water Quality Control Board and hereafter referred to as the Basin Plan. In order to be conservative, the permit applies the water quality standards applicable at the state boundary directly to the discharge location at outfall point 005.

The Basin Plan states on page II-2.00: “The beneficial uses of any specifically identified water body generally apply to its tributary streams.” Therefore, the beneficial uses designated for the unnamed tributary to Little Dry Creek are those that apply to the San Joaquin River from Friant Dam to Mendota Pool: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Process Supply (PRO), Water Contact Recreation (REC-1), Noncontact Recreation (REC-2), Warm Freshwater Habitat (WARM), Cold Freshwater Habitat (COLD), Migration of Aquatic Organisms (MIGR), Spawning, Reproduction, and/or Early Development (SPWN), and Wildlife Habitat (WILD).

IV. DESCRIPTION OF DISCHARGE

A. Application Discharge Data

As part of the application for permit renewal, the permittee provided data from an analysis of the facility’s treated wastewater discharge, shown in Table 2. With the exception of average daily discharge of ammonia and maximum daily discharge of chlorine, the data meet previous permit effluent limits (listed in Table 3). Some of the parameters that were reported in the application were not limited in the previous permit (including total dissolved solids, acute and chronic whole effluent toxicity, and all priority pollutants).

Table 2. Application Discharge Data.

Parameter	Units	Discharge Data ^{(1),(2)}	
		Maximum Daily Discharge	Average Daily Discharge
Flow	MGD	--	0.06
pH	Standard Units	7.7-8.2 (min-max)	
Biochemical Oxygen Demand, 5-day (BOD ₅)	mg/L	4.9	0.6
Total Suspended Solids (TSS)	mg/L	25	7
Ammonia (as N)	mg/L	6.76	4.26
Total Residual Chlorine	mg/L	0.03	0.01
Nitrate and Nitrite N	mg/L as N	0.68	0.35
Total Dissolved Solids (TDS)	mg/L	553.00	496.00
Arsenic	µg/L	4.0	--
Calcium	mg/L	39	--

Parameter	Units	Discharge Data ^{(1),(2)}	
		Maximum Daily Discharge	Average Daily Discharge
Copper	µg/L	5.7	--
Magnesium	mg/L	9.7	--
Zinc	µg/L	64	--
1,2-Dichloroethane	µg/L	63.2	--
Chloroform	µg/L	54.7	--
Toluene	µg/L	49.7	--
Benzene	µg/L	48.0	--
Bis(2-chloroethoxy)methane	µg/L	44.4	--
Indeno(1,2,3-cd)pyrene	µg/L	70.0	--
Methyl bromide (Bromomethane)	µg/L	44.4	--
1,2-trans-Dichloroethylene	µg/L	51.9	--
4-Chlorophenyl phenyl ether	µg/L	43.7	--
4-Nitrophenol	µg/L	21.9	--
Phenol	µg/L	17.8	--
Pentachlorophenol	µg/L	45.7	--
Whole Effluent Toxicity, chronic	TU _c	71.0	--
Whole Effluent Toxicity, acute	% Survival	100%	--

⁽¹⁾ Based on permittee's NPDES renewal application and supplemental data.

⁽²⁾ Data submitted on all other priority pollutants were reported as below the detection limits used for analysis.

B. Recent Discharge Monitoring Report (DMR) Data (2005-2009)

Table 3 provides a summary of effluent limitations and monitoring data based on the facility's most recent 5 years of DMRs (2005 to 2009). The data shows elevated concentrations of ammonia, BOD₅ (mg/L and percent removal), total coliform bacteria, settleable solids, total suspended solids (mg/L and percent removal), total residual chlorine, and turbidity. All exceedances are discussed further in Part VI.B.4.

Table 3. Discharge Monitoring Report Data for years 2005-2009.

Parameter	Units	Previous Permit Effluent Limitations			Discharge Monitoring Data			Monitoring Requirements	
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly	Highest Average Weekly	Highest Maximum Daily	Monitoring Frequency	Sample Type
Flow Rate	MGD	Monitoring Only	--	Monitoring Only	0.221	--	0.559	Once/Day	Continuous
Ammonia (as N)	mg/L	(1)	--	(1)	29	--	29	Once/Month	Composite
Biochemical Oxygen Demand (5-day)	mg/L	30	45	--	41	75	--	Once/Month	Composite
	lbs/day	250	375	--	27.8	101	--		
	Percent Removal	Both the influent and the effluent shall be monitored. The arithmetic mean of the BOD ₅ values, by concentration, for effluent samples collected over a calendar month shall not exceed 15 percent of the arithmetic mean, by concentration, for influent samples collected at approximately the same times during the same period (i.e. 85 percent BOD ₅ removal).			60% (minimum)				
Electrical Conductivity	µmhos/cm	Monitoring Only	--	Monitoring Only	1375	--	1500	Once/Month	Discrete
Total Coliform Bacteria	MPN/100mL	--	2.2 ⁽²⁾	23	--	>1600 ⁽²⁾	>1600	Once/Week	Discrete
Nitrate (as N)	mg/L	10	--	--	4.5	--	--	Once/Month	Composite

Parameter	Units	Previous Permit Effluent Limitations			Discharge Monitoring Data			Monitoring Requirements	
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly	Highest Average Weekly	Highest Maximum Daily	Monitoring Frequency	Sample Type
Settleable Solids	mL/L	1	--	2	1.4	--	5.6	Once/Month	Discrete
Total Suspended Solids	mg/L	30	45	--	59.6	240	--	Once/Month	Composite
	lbs/day	250	375	--	98	275	--		
	Percent Removal	Both the influent and the effluent shall be monitored. The arithmetic mean of the TSS values, by concentration, for effluent samples collected over a calendar month shall not exceed 15 percent of the arithmetic mean, by concentration, for influent samples collected at approximately the same times during the same period (i.e. 85 percent TSS removal).			82% (minimum)				
Total Dissolved Solids	mg/L	Monitoring Only	--	Monitoring Only	777.5	--	880	Once/Month	Composite
Total Residual Chlorine	mg/L	--	0.01	0.02	--	166	360	Once/Month	Discrete
Turbidity ⁽³⁾	NTU	2	--	5	15.6	--	20	Once/Week	Discrete
pH	Standard Units	Not < 6.5 SU, Not > 8.5 SU; discharge shall not change pH in receiving water by more than 0.5 SU			7.4 – 8.2 (min-max)			Once/Day	Discrete

⁽¹⁾ Previous ammonia effluent limitations were pH and temperature dependent, and contained in the *1999 Update of Ambient Water Quality Criteria for Ammonia*. The ammonia criteria for an average pH of 7.9 and average daily maximum temperature of 26°C are 1.33 mg(N)/L for chronic response (average monthly), and 10.1 mg(N)/L for acute response (daily maximum).

⁽²⁾ As a weekly median.

⁽³⁾ Previous permit stated: “The daily average turbidity shall not exceed 2 NTU. Turbidity shall not exceed 5 NTU more than 5 percent of the time within a 24-hour period. At no time shall the turbidity exceed 10 NTU.”

V. SIGNIFICANT CHANGES TO PREVIOUS PERMIT

Since the issuance of the previous permit, the permittee completed a new WWTP, as described in Part II. Changes to the previous permit were based on data results from effluent monitoring at the new WWTP.

Numerical limits have been established for electrical conductivity, chronic whole effluent toxicity, copper, zinc, benzene, 1,2-dichloroethane, methyl bromide, toluene, pentachlorophenol, indeno(1,2,3-cd)pyrene, and 1,2-trans-dichloroethylene. The final permit also requires the permittee to submit a Salinity Evaluation and Minimization Plan to EPA.

Numerical limits for ammonia and total coliform bacteria have been changed. Ammonia limitations are incorporated as fluctuating limits by month, based on average monthly pH and temperature (see Part VI.C for further discussion). Total coliform bacteria limits are revised based on water quality standards for waters with an MUN designation.

Limits and monitoring for nitrate (measured as N) to nitrate + nitrite (measured as N) have been modified, to reflect maximum contaminant levels included by reference in the Basin Plan for waters with an MUN designation. Narrative limits for pH and turbidity have changed based on modifications to the Basin Plan.

Weekly monitoring for temperature is established, as ammonia limits are dependent upon effluent temperature. Monitoring frequency has increased for ammonia, BOD₅, nitrate + nitrite (measured as N), settleable solids, total residual chlorine, and total suspended solids (as well as for chronic toxicity and the priority pollutants listed in the previous paragraph). Increasing monitoring frequency ensures a more accurate and comprehensive characterization of discharged effluent.

VI. DETERMINATION OF NUMERICAL EFFLUENT LIMITATIONS

EPA has developed effluent limitations and monitoring requirements in the permit based on an evaluation of the technology used to treat the pollutant (e.g., “technology-based effluent limits”), the water quality standards applicable to the receiving water (e.g., “water quality-based effluent limits”), and the performance capabilities of the WWTP. EPA has established the most stringent of applicable technology-based or water quality-based standards in the final permit, as described below.

A. Applicable Technology-based Effluent Limitations for Publicly Owned Wastewater Treatment Systems (POTWs)

EPA developed technology-based treatment standards for municipal wastewater treatment plants in accordance with Section 301(b)(1)(B) of the Clean Water Act. The minimum levels of effluent quality attainable by secondary treatment for Biochemical Oxygen Demand (BOD₅), Total Suspended Solids (TSS), and pH, as defined in 40 CFR 133.102, are listed below. Mass limits, as required by 40 CFR 122.45(f), are included for BOD₅ and TSS.

BOD₅

Concentration-based Limits

30-day average – 30 mg/L

7-day average – 45 mg/L
Removal Efficiency – minimum of 85%

Mass-based Limits

30-day average – (30 mg/L)(0.5 MGD)(8.345 conversion factor) = 125 lbs/day
7-day average – (45 mg/L)(0.5 MGD)(8.345 conversion factor) = 188 lbs/day

TSS

Concentration-based Limits

30-day average – 30 mg/L
7-day average – 45 mg/L
Removal efficiency – Minimum of 85%

Mass-based Limits

30-day average – (30 mg/L)(0.5 MGD)(8.345 conversion factor) = 125 lbs/day
7-day average – (45 mg/L)(0.5 MGD)(8.345 conversion factor) = 188 lbs/day

pH

Instantaneous Measurement: 6.0 – 9.0 standard units (S.U.)

Technology-based treatment requirements may be imposed on a case by case basis under Section 402(a)(1) of the Act, to the extent that EPA promulgated effluent limitations are inapplicable (i.e., the regulation allows the permit writer to consider the appropriate technology for the category or class of point sources and any unique factors relating to the applicant) (40 CFR 125.3(c)(2)).

The minimum levels of effluent quality attainable by secondary treatment for Settleable Solids, as specified in the EPA Region IX Policy memo dated May 14, 1979, are listed below:

Settleable Solids

30-day average – 1 mL/L
Daily maximum – 2 mL/L

Effluent limits for BOD₅, TSS, and settleable solids are established in the final permit as stated above. However, Basin Plan standards for pH are more stringent than technology-based limits (see Part C).

B. Water Quality-Based Effluent Limitations (“WQBELs”)

Water quality-based effluent limitations, or WQBELs, are required in NPDES permits when the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an excursion above any water quality standard (40 CFR 122.44(d)(1)).

When determining whether an effluent discharge causes, has the reasonable potential to cause, or contributes to an excursion above narrative or numeric criteria, the permitting authority shall use procedures which account for existing controls on point and non point sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity) and where appropriate, the dilution of the effluent in the receiving water (40 CFR 122.44(d)(1)(ii)).

EPA evaluated the reasonable potential to discharge toxic pollutants according to guidance provided in the *Technical Support Document for Water Quality-Based Toxics Control* (TSD) (Office of Water Enforcement and Permits, U.S. EPA, March 1991) and the *U.S. EPA NPDES Permit Writers Manual* (Office of Water, U.S. EPA, December 1996). These factors include:

1. Applicable standards, designated uses and impairments of receiving water
2. Dilution in the receiving water
3. Type of industry
4. History of compliance problems and toxic impacts
5. Existing data on toxic pollutants - Reasonable Potential analysis

1. Applicable standards, designated uses and impairments of receiving water

As described in Section III of this Fact Sheet, the Basin Plan establishes water quality criteria for the following beneficial uses:

MUN Municipal and Domestic Supply

AGR Agricultural Supply

PRO Industrial Process Supply

REC-1 Water Contact Recreation

REC-2 Noncontact Recreation

WARM Warm Freshwater Habitat

COLD Cold Freshwater Habitat

MIGR Migration of Aquatic Organisms

SPWN Spawning, Reproduction, and/or Early Development

WILD Wildlife Habitat

Applicable water quality standards establish water quality criteria for the protection of aquatic wildlife from acute and chronic exposure to certain metals that are hardness dependent. Based on available hardness data for the discharge, the permit establishes water quality standards for these metals based on a hardness value of 140 mg/L.

The San Joaquin River from Friant Dam to Mendota Pool (into which Little Dry Creek flows) is listed as impaired for exotic species according to the CWA Section 303(d) List of Water Quality Limited Segments; however, discharge from the WWTP is not expected to introduce exotic species to the San Joaquin River.

To protect WARM and COLD beneficial uses, EPA's National Recommended Water Quality Criteria for protection of freshwater aquatic life are applied for chlorine and ammonia.

2. Dilution in the receiving water

Discharge from outfall point 005 is to a tributary of Little Dry Creek, which may have no natural flow during certain times of the year. Therefore, no dilution of the WWTP effluent has been considered in the development of water quality based effluent limits applicable to the discharge.

3. Type of industry

Typical pollutants of concern in untreated and treated domestic wastewater include ammonia, nitrate, oxygen demand, pathogens, temperature, pH, oil and grease, and solids. Chlorine and turbidity may also be of concern due to treatment plant operations.

4. History of compliance problems and toxic impacts

In late 2005 and early 2006, there were violations of permit limits for total residual chlorine, chronic toxicity, total suspended solids, and turbidity. These violations were determined to be a result of unknown use of bromine to clean water in cooling towers at the Table Mountain Rancheria Casino. The treatment plant informed Casino Management, and they instructed their staff to discontinue using bromine; the casino staff now uses peroxide to disinfect the cooling towers.

There were also violations of permit limits in 2005 for BOD₅ (this was due to lack of dissolved oxygen; the dissolved oxygen meter was subsequently properly calibrated and has been calibrated on a monthly basis since then) and total coliform bacteria (the Tribe was hesitant to use chlorine as a disinfectant in storage tanks due to permit limits; they resolved to “shock” storage tanks with chlorine to eliminate coliform bacteria, then let the chlorine dissipate before discharging the water).

Since 2006, there have been other pollutant exceedances, as indicated in Table 4 (previous permit limits are listed in Table 3).

Table 4. Exceedances of Previous Permit Limits (2007-2009).

Parameter	Units	Number of Exceedances (2007-2009)		
		Average Monthly	Average Weekly	Maximum Daily
Ammonia (as N)	mg/L	10 ⁽¹⁾	--	1 ⁽¹⁾
Biochemical Oxygen Demand (5-day)	mg/L	0	0	--
	lbs/day	0	0	--
	Percent Removal	0		
Total Coliform Bacteria	MPN/ 100mL	--	3	2
Nitrate (as N)	mg/L	0	--	--
Settleable Solids	mL/L	1	--	3
Total Suspended Solids	mg/L	1	1	--
	lbs/day	0	0	--
	Percent Removal	0		
Total Residual Chlorine	mg/L	--	3	2
Turbidity	NTU	1	--	2
pH	Standard Units	0		

⁽¹⁾ Previous ammonia effluent limitations were pH and temperature dependent, and contained in the *1999 Update of Ambient Water Quality Criteria for Ammonia*. Since no temperature data exist for the WWTP, these exceedances are for limits based on an average effluent pH by month and average monthly air temperature (see ammonia rationale under Part VI.C for further discussion).

Elevated total suspended solids, total residual chlorine, and turbidity levels were attributed to misconduct of personnel and incorrect calibration of monitoring equipment in early 2009. Elevated total coliform bacteria levels were due to the UV disinfection system requiring service in 2009. The permittee now replaces UV lights on an annual basis to preempt the need for servicing.

5. Existing data on toxic pollutants

For pollutants with effluent data available, EPA has conducted a reasonable potential analysis based on statistical procedures outlined in EPA's *Technical Support Document for Water Quality-based Toxics Control* herein after referred to as EPA's TSD (EPA 1991). These statistical procedures result in the calculation of the projected maximum effluent concentration based on monitoring data to account for effluent variability and a limited data set. The projected maximum effluent concentrations were estimated assuming a coefficient of variation of 0.6 for $n < 10$, and the 99 percent confidence interval of the 99th percentile based on an assumed lognormal distribution of daily effluent values (sections 3.3.2 and 5.5.2 of EPA's TSD). For $n > 10$, the CV was calculated as the standard deviation \div mean for each parameter. EPA calculated the projected maximum effluent concentration for each pollutant using the following equation:

$$\text{Projected maximum concentration} = C_e \times \text{reasonable potential multiplier factor.}$$

Where “ C_e ” is the reported maximum effluent value (“Maximum Observed Concentration”) and the multiplier factor is obtained from Table 3-1 of the TSD (“RP Multiplier”).

Table 5. Summary of Reasonable Potential Statistical Analysis.

Parameter ⁽¹⁾	Maximum Observed Concentration ⁽²⁾ ($\mu\text{g/L}$ or other)	n	CV	RP Multiplier	Projected Maximum Effluent Concentration ($\mu\text{g/L}$ or other)	Most Stringent Water Quality Criterion ($\mu\text{g/L}$ or other)	Statistical Reasonable Potential?
Nitrate	4.5 mg/L	56	1.7	3.1	13.95 mg/L	10 mg/L ⁽³⁾	Yes
Electrical Conductivity	1500 $\mu\text{mhos/cm}$	56	0.2	1.2	1800 $\mu\text{mhos/cm}$	150 $\mu\text{mhos/cm}$ ⁽⁴⁾	Yes
Total Dissolved Solids	880 mg/L	56	0.2	1.2	1056 mg/L	400 mg/L ⁽⁵⁾	Yes
Hardness	140 mg/L	2	0.6	7.4	1036 mg/L	N/A ⁽⁶⁾	No
Arsenic	5.6	2	0.6	7.4	41	150 ⁽⁷⁾	No
Calcium	39 mg/L	1	0.6	13.2	514.8 mg/L	N/A ⁽⁶⁾	No
Copper	5.7	2	0.6	7.4	42.18	12 ⁽⁷⁾	Yes
Magnesium	9.7 mg/L	1	0.6	13.2	128.04 mg/L	N/A ⁽⁶⁾	No
Zinc	64	2	0.6	7.4	473.6	110 ⁽⁷⁾	Yes
1,2-Dichloroethane	63.2	2	0.6	7.4	467.68	0.38 ⁽⁷⁾	Yes

Parameter ⁽¹⁾	Maximum Observed Concentration ⁽²⁾ (µg/L or other)	n	CV	RP Multiplier	Projected Maximum Effluent Concentration (µg/L or other)	Most Stringent Water Quality Criterion (µg/L or other)	Statistical Reasonable Potential?
Chloroform	54.7	2	0.6	7.4	404.78	N/A ⁽⁶⁾	No
Toluene	49.7	2	0.6	7.4	367.78	150 ⁽⁵⁾	Yes
Benzene	48.0	2	0.6	7.4	355.2	1 ⁽⁵⁾	Yes
Bis(2-chloroethoxy) methane	44.4	2	0.6	7.4	328.56	N/A ⁽⁶⁾	No
Indeno(1,2,3-cd)pyrene	70.0	1	0.6	13.2	924	0.0044 ⁽⁷⁾	Yes
Methyl bromide (Bromomethane)	44.4	2	0.6	7.4	328.56	48 ⁽⁷⁾	Yes
1,2-trans-Dichloroethylene	51.9	2	0.6	7.4	384.06	10 ⁽⁵⁾	Yes
4-Chlorophenyl phenyl ether	43.7	2	0.6	7.4	323.38	N/A ⁽⁶⁾	No
4-Nitrophenol	21.9	2	0.6	7.4	162.06	N/A ⁽⁶⁾	No
Phenol	17.8	2	0.6	7.4	131.72	21,000 ⁽⁷⁾	No
Pentachloro-phenol	45.7	2	0.6	7.4	338.18	0.28 ⁽⁷⁾	Yes
Whole Effluent Toxicity, chronic	71.0 TU _c	9	0.6	3.2	227.2 TU _c	⁽⁸⁾	Yes

⁽¹⁾ For purposes of RP analysis, parameters measured as Non-Detect are considered to be zeroes. Only parameters with Maximum Observed Concentration >0 are included in this analysis.

⁽²⁾ Maximum Observed Concentrations considered for RP analysis were found in the application for permit renewal, and the 2007 and 2008 priority toxic pollutants scans.

⁽³⁾ Previous permit limit.

⁽⁴⁾ Basin Plan water quality objective for San Joaquin River between Friant Dam and Gravelly Ford.

⁽⁵⁾ Basin Plan water quality objective for water designated MUN (based on California Code of Regulations Title 22, Division 4, Chapter 15), unless otherwise indicated.

⁽⁶⁾ No applicable water quality standard available.

⁽⁷⁾ Based on 40 CFR 131.38 (the “California Toxics Rule”), as specified for inland surface freshwater with an MUN use designation.

⁽⁸⁾ Only narrative regulations exist for toxicity in the Basin Plan. The previous permit designated a trigger value of greater than 1.6 TU_c for any chronic toxicity test.

C. Rationale for Effluent Limits

EPA evaluated the typical pollutants expected to be present in the effluent and selected the most stringent of applicable technology-based standards or water quality-based effluent limitations. Where effluent concentrations of toxic parameters are unknown or are not reasonably expected to be discharged in concentration that have the reasonable potential to cause or contribute to water quality violations, EPA may establish monitoring requirements in the permit. Where monitoring is required, data will be re-evaluated and the permit may be re-opened to incorporate effluent limitations as necessary.

Flow

No limits are established for flow, but flow rates must be monitored and reported. Continuous monitoring is required.

BOD₅, TSS, Settleable Solids

There are no water-quality based limits for BOD₅, TSS, and settleable solids in the Basin Plan; therefore, technology-based limits established for POTWs for these parameters as described in Part A are incorporated into the permit. As required by 40 CFR 122.45(f), mass limits have been included for BOD₅ and TSS based on the design flow of the facility (0.5 MGD).

pH

The Basin Plan requires that a pH of 6.5-8.5 must be met at all times. As this is more stringent than technology-based requirements for pH, this limit is included in the permit. The Basin Plan has removed the requirement that changes in normal ambient pH levels shall not exceed 0.5; therefore, this condition has been omitted from the final permit.

Ammonia

EPA's 1999 *Update of Ambient Water Quality Criteria for Ammonia* recommends acute criteria that are expressed as a function of pH and the presence or absence of salmonids, and chronic criteria that are expressed as a function of pH, temperature, and the presence or absence of fish early life stages. As ammonia effluent levels violated floating limits in the previous permit, specific numerical limits derived from EPA criteria are included. Due to annual variation in effluent pH and temperature, a table of ammonia limitations by month is incorporated into the final permit. Limits are based on average effluent pH by month, average monthly air temperature for the past 5 years (no temperature monitoring of the effluent was conducted, but effluent is believed to be near air-temperature at the time of discharge), presence of fish early life stages, and absence of salmonids. Temperature monitoring is established to ensure that appropriate ammonia limits are applied to the discharge.

Total Residual Chlorine

Chlorine is not used to disinfect the facility's effluent (it is disinfected through filtration and UV disinfection). However, chlorine is intermittently applied to treated wastewater in the 500,000-gallon storage tanks to remove bacteria for spray irrigation and wastewater reuse (firefighting and air conditioning).

Chlorine is known to cause toxicity to aquatic organisms when discharged to surface waters. Therefore, the use of chlorine at the facility presents a reasonable potential that it could be discharged in toxic concentrations even though it is not used for primary disinfection. In order to prevent the discharge of wastewater containing chlorine to surface waters, chlorine will not be added to the storage tanks when discharge is anticipated. The final permit requires the operator to maintain a daily log documenting chlorine addition to the tanks and chlorine levels in the discharge.

EPA's National Recommended Water Quality Criteria proposes chlorine limits of 0.02 mg/L as a 1-hour average or 0.01 mg/L as a 4-day average. The previous permit contained effluent limitations based on these criteria. The Basin Plan does not contain any criteria or objectives for chlorine concentrations. Therefore, previous effluent limitations for chlorine are retained in the permit.

Nitrate + Nitrite

The previous permit contained limits for nitrate (as N). Based on the reasonable potential analysis, EPA has determined that the discharge has reasonable potential to cause or contribute to an exceedance for nitrate (as N). However, the primary MCL in 22 CCR Division 4, Chapter 15 for protection of MUN is 10 mg/L for nitrate + nitrite, not nitrate alone. Therefore, limits are established for nitrate + nitrite (measured as N) to replace previous limits for nitrate (as N).

Table 6. WQBEL Calculations for Nitrate + Nitrite.

	Human Health⁽¹⁾
Human Health Criteria, mg/L	10
No Dilution Credit Authorized	0
Background Concentration, mg/L	0
WLA (Dissolved), mg/L	n/a
WLA (Total Recoverable), mg/L	10
WLA Multiplier (99 th %)	n/a
LTA, mg/L	10
LTA _{MDL} Multiplier (99 th %)	2.96
MDL, mg/L	29.6
LTA _{AML} Multiplier (95 th %)	n/a
AML, mg/L	10

⁽¹⁾Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Turbidity

Numeric limits for turbidity were calculated based on 22 CCR Division 4, Chapter 15 for waters designated MUN (see Table 7). However, because previous permit limits based on California water re-use standards (22 CCR Division 4, Chapter 3) are more stringent, these limits are retained. To ensure proper filter performance, turbidity shall be continuously monitored immediately downstream of the sand filters. Narrative limits for turbidity are also included, based on Basin Plan objectives.

Table 7. WQBEL Calculations for Turbidity.

	Human Health⁽¹⁾
Human Health Criteria, NTU	5
No Dilution Credit Authorized	0
Background Concentration, NTU	0
WLA (Dissolved), NTU	n/a
WLA (Total Recoverable), NTU	5
WLA Multiplier (99 th %)	n/a
LTA, NTU	5
LTA _{MDL} Multiplier (99 th %)	3.72
MDL, NTU	18.6
LTA _{AML} Multiplier (95 th %)	n/a
AML, NTU	5

⁽¹⁾Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Electrical Conductivity (EC) / Total Dissolved Solids (TDS)

Salt has been identified as a pollutant impairing the lower reaches of San Joaquin River. Due to water reuse at Table Mountain Rancheria, there is reasonable potential for elevated salinity (measured as EC and TDS concentrations) in WWTP effluent. Water quality standards for EC and TDS are listed in Table 8.

Table 8. Salinity Water Quality Objectives

Parameter	Agricultural WQ Goal⁽¹⁾	Secondary MCLs⁽²⁾	Basin Plan WQ objective⁽³⁾
Electrical Conductivity, $\mu\text{mhos/cm}$	700	900, 1600, 2200	150
Total Dissolved Solids, mg/L	450	500, 1000, 1500	--

⁽¹⁾Agricultural water quality goals based on *Water Quality for Agriculture* (R.S. Ayers and D.W. Westcot, 1985)

⁽²⁾The secondary MCLs are stated as a recommended level, upper limit, and short-term limit, respectively.

⁽³⁾As designated for the San Joaquin River between Friant Dam and Gravelly Ford.

Agricultural and drinking water criteria are presented as an EC limit *or* a TDS limit. TDS is the dissolved portion of solids in water, including ionic, colloidal, and small, suspended particles. Ionic substances impart an ability of the water to conduct an electrical charge, measured as EC. It is the high concentration of ions in water, and therefore high EC, that can adversely affect plant growth, drinking water, industrial use water and other beneficial uses. Thus EC limits, rather than TDS, are established to regulate salt discharge.

Agricultural water quality goals are based on maximum salinity that will cause no reduction in crop yield for salt-sensitive crops (such as beans, carrots, turnips, radishes, onions, and strawberries). Discharged effluent from Table Mountain Rancheria is not expected to be used for irrigation of salt-sensitive crops, as these crops are not grown in the vicinity of the discharge. Other crops can handle EC levels of 900 $\mu\text{mhos/cm}$ or greater with no reduction in crop yield.

The Basin Plan specifies a water quality objective for EC for the San Joaquin River from Friant Dam to Gravelly Ford of 150 $\mu\text{mhos/cm}$. With steady-state dilution in the San Joaquin River under the most stringent circumstances, the WWTP could release up to 2255 $\mu\text{mhos/cm}$ under design flows without exceeding this water quality objective.

Thus, the most stringent criteria applicable to the discharge are secondary MCLs, which recommend a long-term limit of 900 $\mu\text{mhos/cm}$. This limit is incorporated into the final permit as an annual average, with monthly monitoring requirements. The annual EC average shall be calculated using data only from months when discharge has occurred.

In order to reduce salt discharge to the San Joaquin River basin, the final permit also includes a requirement to submit a Salinity Evaluation and Minimization Plan to EPA for review. EC effluent limitations and monitoring requirements may be modified based on a review of the results of implementation of the plan.

Total Coliform Bacteria

Based on the nature of WWTP effluent, there is reasonable potential for total coliform to violate water quality standards. To protect the REC-1 beneficial use, total coliform concentration shall not exceed 200/100 mL based on a minimum of not less than five samples for any 30-day period, nor shall more than 10% of the total number of samples during any 30-day period exceed 400/100 mL. 22 CCR Division 4, Chapter 15 states that no more than one sample per month may test positive for total coliform for waters designated MUN (the current method

detection limit for purposes of reporting is 2 MPN/100 mL). Since MUN is the most stringent standard, limits based on this criterion are included in the permit, as calculated in Table 9.

Table 9. WQBEL Calculations for Total Coliform Bacteria.

	Human Health⁽¹⁾
Human Health Criteria, MPN/100 mL	2
No Dilution Credit Authorized	0
Background Concentration, MPN/100 mL	0
WLA (Dissolved), MPN/100 mL	n/a
WLA (Total Recoverable), MPN/100 mL	2
WLA Multiplier (99 th %)	n/a
LTA, MPN/100 mL	2
LTA _{MDL} Multiplier (99 th %)	3.39
MDL, MPN/100 mL	6.78
LTA _{AML} Multiplier (95 th %)	n/a
AML, MPN/100 mL	2

⁽¹⁾Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Temperature

As average monthly limits for ammonia are temperature-based, monitoring is required for effluent temperature. Temperature shall be recorded concurrent with sampling for ammonia.

Whole Effluent Toxicity

The Basin Plan states, "All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal or aquatic life." Whole Effluent Toxicity tests were performed on WWTP effluent in 2006, 2007, and 2008. Testing results were above specified trigger values designated in the previous permit for chronic response in all three test species in 2006 and the algae *Selenastrum capricornutum* in 2008. EPA's TSD recommends a chronic toxicity monthly median limit of 1.0 TU_c and a maximum daily limit of 1.6 TU_c. Therefore, monthly median and maximum daily limits are established for chronic whole effluent toxicity. Due to multiple exceedances of chronic toxicity triggers, quarterly testing requirements are established.

Acute toxicity test results did not exceed the designated trigger value of less than 90% survival. As chronic toxicity criteria are more stringent than acute toxicity criteria, no permit limits or monitoring requirements are established for acute toxicity.

Copper, Zinc, 1,2-Dichloroethane, Methyl Bromide, Pentachlorophenol, Indeno(1,2,3-cd)pyrene

Criteria listed in 40 CFR 131.38 (the California Toxics Rule) for the protection of freshwater aquatic life and human health (consumption of water and organisms), as designated for inland freshwater bodies with an MUN beneficial use, apply to the receiving water. Therefore, limits based on the most stringent of these criteria are established for copper, zinc, 1,2-dichloroethane, methyl bromide, pentachlorophenol, and indeno(1,2,3-cd)pyrene. As there is minimal effluent data for these parameters, monthly testing requirements are established for the first year of the permit. If concentrations of any of these parameters consistently demonstrate no reasonable

potential to exceed permit limits, monitoring may be reduced for that pollutant to once per year thereafter.

Table 10. QBEL Calculations for Copper.

	Acute	Chronic⁽¹⁾
Freshwater Aquatic Life Criteria, µg/L	18	12
No Dilution Credit Authorized	0	0
Background Concentration, µg/L	0	0
WLA (Dissolved), µg/L	n/a	n/a
WLA (Total Recoverable), µg/L	18	12
WLA Multiplier (99 th %)	0.321	0.527
LTA, µg/L	5.8	6.3
LTA _{MDL} Multiplier (99 th %)	3.11	--
MDL, µg/L	18	--
LTA _{AML} Multiplier (95 th %)	2.13	--
AML, µg/L	12	--

⁽¹⁾Derivation of permit limit based on Section 5.4.1 of EPA's TSD

Table 11. QBEL Calculations for Zinc.

	Acute	Chronic⁽¹⁾
Freshwater Aquatic Life Criteria, µg/L	160	160
No Dilution Credit Authorized	0	0
Background Concentration, µg/L	0	0
WLA (Dissolved), µg/L	n/a	n/a
WLA (Total Recoverable), µg/L	160	160
WLA Multiplier (99 th %)	0.321	0.527
LTA, µg/L	51	84
LTA _{MDL} Multiplier (99 th %)	3.11	--
MDL, µg/L	160	--
LTA _{AML} Multiplier (95 th %)	2.13	--
AML, µg/L	110	--

⁽¹⁾Derivation of permit limit based on Section 5.4.1 of EPA's TSD

Table 12. QBEL Calculations for 1,2-Dichloroethane.

	Human Health⁽¹⁾
Human Health Criteria, µg/L	0.38
No Dilution Credit Authorized	0
Background Concentration, µg/L	0
WLA (Dissolved), µg/L	n/a
WLA (Total Recoverable), µg/L	0.38
WLA Multiplier (99 th %)	n/a
LTA, µg/L	0.38
LTA _{MDL} Multiplier (99 th %)	1.46
MDL, µg/L	0.55
LTA _{AML} Multiplier (95 th %)	n/a
AML, µg/L	0.38

⁽¹⁾Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Table 13. WQBEL Calculations for Methyl Bromide.

	Human Health⁽¹⁾
Human Health Criteria, µg/L	48
No Dilution Credit Authorized	0
Background Concentration, µg/L	0
WLA (Dissolved), µg/L	n/a
WLA (Total Recoverable), µg/L	48
WLA Multiplier (99 th %)	n/a
LTA, µg/L	48
LTA _{MDL} Multiplier (99 th %)	1.46
MDL, µg/L	70
LTA _{AML} Multiplier (95 th %)	n/a
AML, µg/L	48

⁽¹⁾Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Table 14. WQBEL Calculations for Pentachlorophenol.

	Human Health⁽¹⁾
Human Health Criteria, µg/L	0.28
No Dilution Credit Authorized	0
Background Concentration, µg/L	0
WLA (Dissolved), µg/L	n/a
WLA (Total Recoverable), µg/L	0.28
WLA Multiplier (99 th %)	n/a
LTA, µg/L	0.28
LTA _{MDL} Multiplier (99 th %)	1.46
MDL, µg/L	0.41
LTA _{AML} Multiplier (95 th %)	n/a
AML, µg/L	0.28

⁽¹⁾Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Table 15. WQBEL Calculations for Indeno(1,2,3-cd)pyrene.

	Human Health⁽¹⁾
Human Health Criteria, µg/L	0.0044
No Dilution Credit Authorized	0
Background Concentration, µg/L	0
WLA (Dissolved), µg/L	n/a
WLA (Total Recoverable), µg/L	0.0044
WLA Multiplier (99 th %)	n/a
LTA, µg/L	0.0044
LTA _{MDL} Multiplier (99 th %)	1.46
MDL, µg/L	0.0064
LTA _{AML} Multiplier (95 th %)	n/a
AML, µg/L	0.0044

⁽¹⁾Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Benzene, Toluene, 1,2-trans-Dichloroethylene

Based on the permittee's 2007 and 2008 priority toxic pollutants scans, there is reasonable potential for concentrations of benzene, toluene, and 1,2-trans-dichloroethylene to exceed

California standards for waters designated MUN, as specified in 22 CCR Division 4, Chapter 15. Thus, effluent limits are established for these priority pollutants, as calculated below. As there is minimal effluent data for these parameters, monthly testing requirements are established for the first year of the permit. If concentrations of any of these parameters consistently demonstrate no reasonable potential to exceed permit limits, monitoring may be reduced for that pollutant to once per year thereafter.

Table 16. WQBEL Calculations for Benzene.

	Human Health⁽¹⁾
Human Health Criteria, µg/L	1
No Dilution Credit Authorized	0
Background Concentration, µg/L	0
WLA (Dissolved), µg/L	n/a
WLA (Total Recoverable), µg/L	1
WLA Multiplier (99 th %)	n/a
LTA, µg/L	1
LTA _{MDL} Multiplier (99 th %)	1.46
MDL, µg/L	1.46
LTA _{AML} Multiplier (95 th %)	n/a
AML, µg/L	1

⁽¹⁾Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Table 17. WQBEL Calculations for Toluene.

	Human Health⁽¹⁾
Human Health Criteria, µg/L	150
No Dilution Credit Authorized	0
Background Concentration, µg/L	0
WLA (Dissolved), µg/L	n/a
WLA (Total Recoverable), µg/L	150
WLA Multiplier (99 th %)	n/a
LTA, µg/L	150
LTA _{MDL} Multiplier (99 th %)	1.46
MDL, µg/L	219
LTA _{AML} Multiplier (95 th %)	n/a
AML, µg/L	150

⁽¹⁾Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Table 18. WQBEL Calculations for 1,2-trans-Dichloroethylene.

	Human Health⁽¹⁾
Human Health Criteria, µg/L	10
No Dilution Credit Authorized	0
Background Concentration, µg/L	0
WLA (Dissolved), µg/L	n/a
WLA (Total Recoverable), µg/L	10
WLA Multiplier (99 th %)	n/a
LTA, µg/L	10
LTA _{MDL} Multiplier (99 th %)	1.46
MDL, µg/L	14.6
LTA _{AML} Multiplier (95 th %)	n/a
AML, µg/L	10

⁽¹⁾Derivation of permit limit based on Section 5.4.4 of EPA's TSD

D. Anti-Backsliding.

Section 402(o) of the CWA prohibits the renewal or reissuance of an NPDES permit that contains effluent limits less stringent than those established in the previous permit, except as provided in the statute.

The permit does not establish any effluent limits less stringent than those in the previous permit and does not allow backsliding.

E. Antidegradation Policy

The Basin Plan and EPA's antidegradation policy at 40 CFR 131.12 require that existing water uses and the level of water quality necessary to protect the existing uses be maintained.

As described in this document, the permit establishes effluent limits and monitoring requirements to ensure that all applicable water quality standards are met. The permit does not include a mixing zone; therefore these limits will apply at the end of pipe without consideration of dilution in the receiving water. Priority toxic pollutants scans of the effluent have been conducted, demonstrating that most pollutants will be discharged below detection levels.

Therefore, due to the low levels of toxic pollutants present in the effluent, high level of treatment being obtained, and water quality based effluent limitations, the discharge is not expected to adversely affect receiving waterbodies or result in any degradation of water quality.

VII. NARRATIVE WATER QUALITY-BASED EFFLUENT LIMITS

The following narrative water quality standards contained in the permit are based upon water quality objectives contained in the Basin Plan.

The discharge shall not cause the following in downstream waters:

1. The fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, to exceed a geometric mean of 200 MPN/100 mL; nor shall more than

ten percent of the total number of samples taken during any 30-day period exceed 400 MPN/100 mL.

2. Biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.
3. Discoloration that causes nuisance or adversely affects beneficial uses.
4. Dissolved oxygen concentrations to fall below 7.0 mg/L. The monthly median of the mean daily dissolved oxygen concentration shall not fall below 85 percent of saturation in the main water mass, and the 95th percentile concentration shall not fall below 75 percent of saturation.
5. Floating material to be present in amounts that cause nuisance or adversely affect beneficial uses.
6. Oils, greases, waxes, or other materials to accumulate in concentrations that cause nuisance, result in a visible film or coating on the water surface or on objects in the water, or otherwise adversely affect beneficial uses.
7. Radionuclides to be present in concentrations that harm human, plant, animal or aquatic life; or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.
8. Suspended sediment load and suspended sediment discharge rate of surface waters to be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
9. Deposition of material that causes nuisance or adversely affects beneficial uses.
10. Concentrations of suspended material that cause nuisance or adversely affect beneficial uses.
11. Taste- or odor-producing substances to impart undesirable tastes or odors to domestic or municipal water supplies or to fish flesh or other edible products of aquatic origin or to cause nuisance or adversely affect beneficial uses.
12. The ambient temperature to increase more than 5°F.
13. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that:
 - a. adversely affect beneficial uses;
 - b. produce detrimental response in human, plant, animal, or aquatic life; or
 - c. bioaccumulate in aquatic resources at levels which are harmful to human health.

14. The turbidity to increase as follows:
 - a. Beyond 2 Nephelometric Turbidity Units (NTUs) where natural turbidity is below 1 NTU.
 - b. More than 1 NTU where natural turbidity is between 1 and 5 NTUs.
 - c. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
 - d. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
 - e. More than 10 percent where natural turbidity is greater than 100 NTUs.
 - f. When wastewater is treated to a tertiary level (including coagulation) or equivalent, a one-month averaging period may be used when determining compliance with Receiving Water Limitation E.13.a.

15. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.

VIII. MONITORING AND REPORTING REQUIREMENTS

The permit requires the permittee to conduct monitoring for all pollutants or parameters where effluent limits have been established, at the minimum frequency specified. Additionally, where effluent concentrations of toxic parameters are unknown or where data are insufficient to determine reasonable potential, monitoring may be required for pollutants or parameters where effluent limits have not been established.

A. Effluent Monitoring and Reporting

The permittee shall conduct effluent monitoring to evaluate compliance with the final permit conditions. The permittee shall perform all monitoring, sampling and analyses in accordance with the methods described in the most recent edition of 40 CFR 136, unless otherwise specified in the final permit. All monitoring data shall be reported on monthly DMR forms and submitted quarterly as specified in the final permit.

B. Priority Toxic Pollutants Scan

A Priority Toxic Pollutants scan shall be conducted during the fifth year of the five-year permit term to ensure that the discharge does not contain toxic pollutants in concentrations that may cause a violation of water quality standards. The permittee shall perform all effluent sampling and analyses for the priority pollutants scan in accordance with the methods described in the most recent edition of 40 CFR 136, unless otherwise specified in the final permit or by EPA. 40 CFR 131.36 provides a complete list of Priority Toxic Pollutants.

C. Whole Effluent Toxicity Testing

The permit establishes tests for chronic toxicity.

Chronic toxicity testing evaluates reduced growth/reproduction at 100 percent effluent. Chronic toxicity is to be reported based on the No Observed Effect Concentration (NOEC). The permittee shall conduct short-term tests with the 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). The presence of chronic toxicity shall be estimated as specified by the methods in the 40 CFR 136 as amended on November 19, 2002.

IX. SPECIAL CONDITIONS

A. Biosolids

Standard requirements for the monitoring, reporting, recordkeeping, and handling of biosolids in accordance with 40 CFR 503 are incorporated into the permit.

B. Pretreatment

There are no industrial facilities discharging to the WWTP. Therefore, there are no pretreatment requirements in this permit.

C. Capacity Attainment and Planning

The permit requires that a written report be filed within ninety (90) days if the average dry-weather wastewater treatment flow for any month exceeds 90 percent of the annual dry weather design capacity of the waste treatment and/or disposal facilities.

D. Development of an Initial Investigation TRE Workplan for Whole Effluent Toxicity

In the event effluent toxicity is triggered from WET test results, the permit requires the permittee to develop and implement a Toxics Reduction Evaluation (“TRE”) Workplan. For chronic toxicity, unacceptable effluent toxicity is found in a single test result greater than 1.6 TU_c, or when any one or more monthly test results in a calculated median value greater than 1.0 TU_c. The draft permit also requires additional toxicity testing if a chronic toxicity monitoring trigger is exceeded. Within 90 days of the permit effective date, the permittee shall prepare and submit a copy of their Initial Investigation TRE Workplan (1-2 pages) for chronic toxicity to EPA for review.

X. OTHER CONSIDERATIONS UNDER FEDERAL LAW

A. Impact to Threatened and Endangered Species

Section 7 of the Endangered Species Act of 1973 (16 U.S.C. § 1536) requires federal agencies to ensure that any action authorized, funded, or carried out by the federal agency does not jeopardize the continued existence of a listed or candidate species, or result in the destruction or adverse modification of its habitat.

The Sacramento office of the U.S. Fish and Wildlife Service (USFWS) website generated an “Official Online Species List” of 14 threatened or endangered species that may be affected by activities in the Friant quadrant of California (in which the permittee is located). EPA conducted a biological analysis and found that the discharge will have “no effect” on any of these listed species. EPA has forwarded a copy of the biological analysis, draft permit, and this fact sheet to USFWS for review and comment on conclusions concerning the effects of the permit on listed species.

B. Impact to National Historic Properties

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effect of their undertakings on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. Pursuant to the NHPA and 36 CFR 800.3(a)(1), EPA is making a determination that issuing this NPDES permit does not have the potential to affect any historic properties or cultural properties. As a result, Section 106 does not require EPA to undertake additional consulting on this permit issuance.

XI. STANDARD CONDITIONS

A. Reopener Provision

In accordance with 40 CFR 122 and 124, this permit may be modified by EPA to include effluent limits, monitoring, or other conditions to implement new regulations, including EPA-approved water quality standards; or to address new information indicating the presence of effluent toxicity or the reasonable potential for the discharge to cause or contribute to exceedances of water quality standards.

B. Standard Provisions

The permit requires the permittee to comply with EPA Region IX Standard Federal NPDES Permit Conditions, dated July 1, 2001.

XII. ADMINISTRATIVE INFORMATION

A. Public Notice (40 CFR 124.10)

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft NPDES permit or other significant action with respect to an NPDES permit or application.

B. Public Comment Period (40 CFR 124.10)

Notice of the draft permit will be placed in a daily or weekly newspaper within the area affected by the facility or activity, with a minimum of 30 days provided for interested parties to respond in writing to EPA. After the closing of the public comment period, EPA is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

C. Public Hearing (40 CFR 124.12(c))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if EPA determines there is a significant amount of interest expressed during the 30-day public comment period or when it is necessary to clarify the issues involved in the permit decision.

XIII. CONTACT INFORMATION

Comments, submittals, and additional information relating to this proposal may be directed to:

Amelia Whitson, (415) 972-3216
Whitson.Amelia@EPA.gov

EPA Region IX
75 Hawthorne Street (WTR-5)
San Francisco, California 94105

XIV. REFERENCES

- Ayers, R.S. and Westcot, D.W. 1985. *Water Quality for Agriculture*. Food and Agriculture Organization of the United Nations.
- California Department of Water Resources: California Data Exchange Center. "San Joaquin River below Friant". [Online] Available: http://cdec.water.ca.gov/cgi-progs/stationInfo?station_id=SJF.
- EPA. 1991. *Technical Support Document for Water Quality-based Toxics Control*. Prepared by EPA, Office of Water Enforcement and Permits, in March 1991. EPA/505/2-90-001.
- EPA. 1996a. *Regions IX & X Guidance for Implementing Whole Effluent Toxicity Testing Programs*. Interim Final. May 31, 1996.
- EPA. 1996b. *U.S. EPA NPDES Basic Permit Writers Manual*. EPA. EPA-833-B-96-003.
- EPA. 1999. *1999 Update of Ambient Water Quality Criteria for Ammonia*. Office of Water, EPA. EPA-822-R-99-014.
- EPA. 2002a. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms - Fifth Edition*. Office of Water, EPA. EPA-821-R-02-012.
- EPA. 2002b. *National Recommended Water Quality Criteria*. Office of Water, EPA. EPA-822-R-02-047.
- Permittee's NPDES renewal application. Dated August 20, 2009.
- Permittee's supplemental data. Dated December 29, 2009.
- Permittee's correspondence to EPA CWA Compliance Office. Dated April 25, 2006.
- U.S. Fish and Wildlife Service (USFWS). 2009. "Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads you requested (Friant, Quad No. 378B)". [Online] Available: http://www.fws.gov/sacramento/es/spp_list.htm.
- Water Quality Control Board, Central Valley Region. 1998. *Water Quality Control Plan for the State of California, Region 5: The Sacramento River Basin and the San Joaquin River Basin*. California Regional Water Quality Control Board.
- Water Quality Control Board, Central Valley Region. 2006. *Salinity in the Central Valley: An Overview*. California Environmental Protection Agency.
- Western Regional Climate Center. 2009. *FRIANT GOVERNMENT CAMP, CALIFORNIA: Monthly Average Temperature (Degrees Fahrenheit)*. < <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca3261>>.