

US EPA ARCHIVE DOCUMENT

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FACT SHEET

November 29, 2017

Permittee's Name: Dry Creek Rancheria Band of Pomo Indians

Mailing Address: P.O. Box 607
Geyserville, CA 95441

Plant Location: 3250 Highway 128 East
Dry Creek Rancheria (near Geyserville), CA 95441

Contact Person: Christopher Ott, Director of Environmental Protection
(707) 486-7199

I. STATUS OF PERMIT

Dry Creek Rancheria (the “permittee”) has applied for the renewal of their National Pollutant Discharge Elimination System (NPDES) permit to authorize the discharge of treated effluent from the permittee’s wastewater reclamation facility to unnamed tributary of Russian River located near Ione, California. EPA issued this permit, CA0049675, on October 1, 2012 with an expiration date of September 30, 2017. The permittee submitted a complete application on March 20, 2017. Pursuant to 40 CFR 122.21, the terms of the existing permit are administratively extended until the issuance of a new permit.

The facility did not discharge any wastewater to water of the U.S. during the last permit term. The facility currently recycles all wastewater on-site with most re-used and some land application. This permittee has been classified as a minor discharger.

II. PROPOSED CHANGES TO PERMIT – the table below provides an overview of change from the existing permit to the proposed permit.

Parameter/item	Existing Permit 2012- 2017	Proposed Permit 2017-2022	Reason for Change
Total coliform monitoring	Once per day	Once per week	Effluent recycling, land application
Turbidity monitoring	Once week or continuous	Once per week	Land application

III. GENERAL DESCRIPTION OF FACILITY

The Dry Creek Rancheria is located in Sonoma County on Highway 128 in Sonoma County, California near the City of Geyserville.

The existing waste water treatment plant (WWTP) serves the Dry Creek Rancheria, which includes a casino with an average daily population of approximately 3,000 guests and employees. Wastewater generated by the Rancheria includes sewage, restaurant wash water, and miscellaneous wastewater from guest support services. Currently, all wastewater generated from the Dry Creek WWTP is either land-applied on site (through landscape irrigation or spray-field irrigation) or re-used on-site (through use in toilet flushing). Even during wet weather, the WWTP has sufficient storage capacity to retain treated wastewater for future landscape irrigation. There is sufficient distance between spray fields and the receiving water that plant discharge doesn't reach the stream.

The WWTP was constructed in the first quarter of 2003 and expanded upon in the fall of 2004. The WWTP has an average daily design flow rate of 150,000 gallons per day (gpd) and a maximum capacity of 200,000 gpd. The average daily flow rate was 30,000 gpd in 2015 and 20,000 gpd in 2016.

At the headworks, wastewater is screened by a self-cleaning rotary screen with 1/4" openings that is covered to control odors. Screened materials are collected in the screening bin and trucked off-site.

Wastewater flows to a 31,000 gallon transfer tank and then to 2 parallel sequencing batch reactors (SBR) with 92,000 gallon capacity each. The raw wastewater is fairly high strength with an influent BOD₅ concentration of approximately 650 mg/L due to water use in the casino. The batches are run in cycles to accomplish denitrification of wastewater through timed periods of aeration and nitrification. Approximately 75% of each batch is decanted and pumped to a 31,000 gallon filter flow equalization tank. The decant from the equalization tank is sent to 3 continuous upflow sand filters operated in parallel. A polymer is added to the inflow line prior to the sand filters to enhance coagulation. The sand is continuously backwashed and recirculated back into the media through an air cleaning system. The reject from the continuous upflow air cleaning system is sent to the sludge storage tank, decanted, and shipped off-site. Chlorine is used approximately once per month to clean the sand filter media.

Effluent from the sand filters is disinfected through UV disinfection consisting of 3 banks of 2 UV units in parallel. The system operates so that 2 of the 3 banks are in use, while the third bank undergoes cleaning. Effluent to be used on-site is pumped to a 35,200 gallon chlorine contact tank. Disinfected effluent is sent to storage tanks which currently store up to 200,000 gallons of recycled water for emergency overflow. An additional 1 million gallon storage tank is planned to be installed in 2018/19.

Recently, the WWTP has refurbished the UV system, sand filtration system and headworks. The WWTP has also upgraded the supervisory control and data acquisition (SCADA) system (including probes and sensors) and all process pumps.

IV. DESCRIPTION OF RECEIVING WATER

The effluent from the WWTP that cannot be recycled or re-used will be discharged and may reach the receiving water Stream P1 (Outfall 001). Stream P1 is located on the Rancheria and is an unnamed tributary to the Russian River.

Stream P1: Facility discharge may reach Stream P1. Effluent may be conveyed to an existing storm water detention basin located to the south and west of the WWTP. Wastewater from the detention basin may flow through an outlet and down a rip-rap cascade aeration system and sheet flow until it reaches a culvert at the toe of the slope. The culvert transfers water underneath the road into an unnamed ephemeral channel where it needs to travel approximately 500 feet before intercepting Stream P1, a partially ephemeral and partially perennial stream that is a Water of the U.S. The ephemeral section flows southwesterly for several hundred feet until it reaches a segment of the stream that is perennial where the slope levels off. The perennial segment continues for several hundred feet until it reaches a culvert passing under Highway 128. At Highway 128, the perennial flow disappears into the subsurface alluvium. From the Highway, the stream is a straight conveyance channel maintained free of vegetation until it reaches the Russian River for approximately 2 mile. The distance of the WWTP to P1's confluence with the Russian River is approximately 1 mile.

V. DESCRIPTION OF DISCHARGE

The discharge is tertiary treated municipal wastewater. Disinfection by UV treatment occurs prior to discharge.

The permit application lists the following effluent data for the existing (non-discharging) treatment system:

Pollutant or parameter	Maximum Daily Discharge	Average Daily Discharge Concentration
BOD ₅	< 5 mg/L	<5 mg/L
TSS	22 mg/L	6.3 mg/L
Fecal Coliform	<2 MPN/100ml	<2 MPN/100ml
Ammonia (as N)	< 0.2 mg/L	< 0.2 mg/L
Chlorine (total residual)	0.2 mg/L	0.2 mg/L

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”) and the water quality standards applicable to the receiving water (e.g., “water quality-based effluent limits”). EPA has established the most stringent of applicable technology-based or water quality-based standards in the permit, as described below.

A. Applicable Technology-Based Effluent Limitations

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)(0.10 MGD)(8.345 conversion factor) = 25 lbs/day

7-day average – (45 mg/L)(0.20 MGD)(8.345 conversion factor) = 75 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)(0.10 MGD)(8.345 conversion factor) = 25 lbs/day

7-day average – (45 mg/L)(0.20 MGD)(8.345 conversion factor) = 75 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

Therefore, effluent limits for BOD₅, TSS, pH, and Settleable Solids are established in the permit as stated above.

B. Water Quality-Based Effluent Limitations

Water quality-based effluent limitations 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

The Tribe does not have approved water quality standards for discharges to waters located on the Rancheria. However, the discharge of wastewater from the WWTP may reach a tributary of the Russian River (via Stream P1) for which the State of California has established water quality standards. Therefore, water quality standards applicable to the Russian River and its tributaries are applicable to the discharge at the point where the discharge may enter State waters. EPA has therefore applied water quality standards based on the California Water Quality Control Plan for the North Coast Region (“Basin Plan”) for the Russian River, Geyserville Hydrologic Subarea in the permit. In order to be conservative, the permit establishes the water

quality standards applicable at the State boundary directly to the discharge location of the wastewater treatment plant without the benefit of dilution, i.e., establishing “end-of-pipe” limits. The Basin Plan lists the following beneficial uses:

MUN Municipal and Domestic Supply
AGR Agricultural Supply
IND Industrial Service Supply
GWR Groundwater Recharge
FRSH Freshwater Replenishment
NAV Navigation
REC-1 Water Contact Recreation
REC-2 Non-Contact Water Recreation
COMM Commercial and Sport Fishing
WARM Warm Freshwater Habitat
COLD Cold Freshwater Habitat
WILD Wildlife Habitat
RARE Rare, Threatened, or Endangered Species
MIGR Migration of Aquatic Organisms
SPWN Spawning, Reproduction, and/or Early Development

The following are listed as potential beneficial uses:

PRO Industrial Process Supply
POW Hydropower Generation
SHELL Shellfish Harvesting
AQUA Aquaculture

Additionally, the Russian River is listed as an impaired waterbody for sedimentation/siltation and temperature pursuant to Section 303(d) of the Clean Water Act.

2. Dilution in the Receiving Water

Discharge from Outfall 001 is to stream P1, a tributary to the Russian River. Stream P1 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

The WWTP does not serve any residential customers, and most flows originate from sanitary uses at the casino. No industrial sources discharge to the WWTP, although there is a restaurant in the casino. Typical pollutants of concern in untreated and treated domestic wastewater include, nitrate, oxygen demand, pathogens, temperature, pH, and solids. Chlorine and turbidity may also be of concern due to treatment plant operations.

4. History of compliance – not applicable since no discharge to receiving waters during last permit term (effluent has been land applied)

5. Existing data on toxic pollutants

The facility's effluent discharge is typically stored and then re-used. Although the WWTP has never discharged, operational data for conventional and non-conventional pollutants is available from the current treatment system performance.

The permit will continue requirements for monitoring, including WET testing, and EPA will continue to evaluate monitoring results to determine if additional effluent limitations are required in the future.

C. Rationale for Effluent Limitations

Biochemical Oxygen Demand (BOD)

The Basin Plan contains the requirement that, in addition to flow restrictions, “the discharge of municipal waste during October 1 through May 14 shall be of advanced treated wastewater in accordance with effluent limitations contained in NPDES permits for each affected discharger...”

EPA is interpreting the Basin Plan's requirement to discharge “advanced treated wastewater” to require water quality discharge restrictions for TSS and BOD₅ more stringent than technology-based secondary treatment standards. Therefore, EPA has incorporated water quality based standards for BOD₅ more stringent than technology-based standards that are consistent with the discharge requirements for other municipal wastewater discharges in the north coast regional area. The permit therefore establishes an average monthly limit of 10 mg/L, an average weekly maximum of 15 mg/L, and a daily maximum limit of 20 mg/L. These limits are more stringent than technology-based standards and have been incorporated into the permit.

Nitrate

Treated and untreated domestic wastewater may contain levels of ammonia that are toxic to aquatic organisms. Ammonia is converted to nitrate during biological nitrification process, and then nitrate is converted to nitrogen gas through biological denitrification process.

The primary MCL for protection of MUN is 10 mg/L and the USEPA Ambient Water Quality Criteria for the Protection of Human Health is also 10 mg/L for non-cancer effects. Due to the potential for ammonia to be present in sanitary wastewater and due to the conversion of ammonia to nitrate, effluent limitations are established for nitrate (measured as N).

Total Dissolved Solids/Electrical Conductivity

To protect the beneficial uses of water for agriculture uses, studies by the United Nations have recommended a goal of 700 umhos/cm for electrical conductivity (EC). The California Department of Health Services has recommended an SMCL for EC of 900 umhos/cm, with an upper level of 1600 umhos/cm and a short term level of 2200 umhos/cm.

Due to lack of discharge data, it is unknown at this time if the discharge from the new WWTP will have the reasonable potential to cause or contribute to an exceedance of water quality standards. Therefore, the draft permit establishes monthly monitoring requirements for EC and TDS to assess reasonable potential.

pH:

The basin plan requires that a pH of 6.5-8.5 must be met at all times and that changes in normal ambient pH level not exceed 0.5 units. This is more stringent than technology based requirements for pH, therefore, this limit is included in the permit.

Total Coliform bacteria:

Based on the nature of WWTP effluent, there is a reasonable potential for coliform bacteria to violate water quality standards. Based on REC-1 Beneficial Use, total coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed 200/100 ml, nor shall more than 10% of the total number of samples during any 30-day period exceed 400/100 ml - 10% of samples for 30-day period. Based on the Regional Board's Basin Plan, the discharge of municipal waste during October 1 through May 14 shall be of advanced treated wastewater in accordance with effluent limitations contained in NPDES permits for each affected discharger, and shall meet a median total coliform level of 2.2 MPN/100 ml. in a 7-day average.

The effluent is designed to meet California (Title 22) disinfection standards for the re-use of wastewater. Title 22 requires that for spray irrigation of food crops, parks, playgrounds, schoolyards, and other areas of public access, wastewater be adequately disinfected, oxidized, coagulated, clarified, and filtered. The effluent total coliform levels are evaluated in two ways:

- (a) may not exceed 2.2 MPN/100 ml as 7-day median or
- (b) may not exceed 23 MPN/100 ml in any 30-day period.

Based on the facility's current performance and that over course of last 5 years, 100% of discharge is re-used, EPA is choosing to apply the total coliform limit as not to exceed 23 MPN/100 ml in any 30-day period with weekly monitoring.

Total Suspended Solids (TSS):

The Basin Plan contains the requirement, in addition to flow restrictions, that “the discharge of municipal waste during October 1 through May 14 shall be of advanced treated wastewater in accordance with effluent limitations contained in NPDES permits for each affected discharger...”

EPA is interpreting the Basin Plan's requirement to discharge “advanced treated wastewater” to require water quality discharge restrictions for TSS and BOD₅ more stringent than technology-based secondary treatment standards. Therefore, EPA has incorporated water quality based standards for BOD₅ more stringent than technology-based standards that are consistent with the discharge requirements for other municipal wastewater discharges in the North Coast Region. The permit therefore establishes an average monthly limit of 10 mg/L, an average weekly maximum of 15 mg/L, and a daily maximum limit of 20 mg/L. These limits are more stringent than technology-based standards and have been incorporated into the permit.

The Russian River is listed as an impaired water body for sedimentation/siltation pursuant to Section 303(d) of the Clean Water Act. A Total Maximum Daily Load has not been established to address sediment loadings. Aspects of the sediment impairing the Russian River include settleable solids, suspended solids, and turbidity. EPA concluded that the discharge does not contain sediment (i.e., settleable solids, suspended solids, and turbidity) at levels that will

cause, have the reasonable potential to cause, or contribute to increases in sediment levels in the Russian River. This finding is based on the advanced level of treatment provided, including filtration, which reduces settleable solids, total suspended solids and turbidity to negligible levels through filtration of effluent. The summer discharge prohibition, the one-percent flow limitation for winter discharge to the Russian River, and the results of previous solids and turbidity monitoring (conducted for wastewater reuse) also support this conclusion.

Total Residual Chlorine:

Chlorine will not be used to disinfect WWTP effluent intended for discharge, which is disinfected through the use of filtration and UV disinfection, although chlorine is used at the WWTP approximately once/month to clean the sand filters. Chlorine will also be added to recycled effluent immediately prior to storage in the recycle water storage tanks. This water is not anticipated to be discharged, but may, in certain circumstances, be discharged after dechlorination.

Although chlorine is not expected to be present in the discharge, EPA believes there is a reasonable potential for chlorine residual to be present due to the use of chlorine at the WWTP and its use for reclaimed water applications. Therefore, effluent limits for residual chlorine have been included in the permit to verify compliance.

Additionally, the permittee will be required to develop a “Surface Water Discharge Operations Plan”, which will include the requirement to maintain an on-site log book of chlorine usage and wastewater flows directed to discharge or reclamation to ensure that wastewater intended for discharge is not chlorinated.

Dissolved oxygen

The Basin Plan contains the requirement that dissolved oxygen not be reduced below 7.0 mg/L. Therefore, this is included in the permit.

Toxicity:

The Basin Plan includes a narrative objective for toxicity that requires that: All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

Therefore, the permit requires monitoring for toxicity based on Whole Effluent Toxicity Procedures to assess the reasonable potential of the discharge to have toxic effects on aquatic organisms.

D. Flow Limitations

The Basin Plan includes a prohibition against discharge to the Russian River and its tributaries during the period May 15 through September 30 and all other periods when the waste discharge flow is greater than one percent of the receiving stream’s flow. From the Basin Plan:

“WASTE DISCHARGE PROHIBITIONS”

Section 13243 of the Porter-Cologne Water Quality Control Act authorizes the Regional Water Board - in a water quality control plan or in waste discharge requirements - to specify certain conditions or areas where the discharge of waste, or certain types of waste, will not be permitted.

Under this authority and in order to achieve water quality objectives, protect present and future beneficial water uses, protect public health, and prevent nuisance, the Regional Water Board declares that point source waste discharges, except as stipulated by the Thermal Plan, the Ocean Plan, and the action plans and policies contained in the Point Source Measures section of this Water Quality Control Plan, are prohibited in the following locations in the Region:

North Coastal Basin – The Russian River and its tributaries during the period of May 15 through September 30 and during all other periods when the waste discharge flow is greater than one percent of the receiving stream's flow as set forth in NPDES permits. In addition, the discharge of municipal waste during October 1 through May 14 shall be of advanced treated wastewater in accordance with effluent limitations contained in NPDES permits for each affected discharger, and shall meet a median coliform level of 2.2 mpn/100 ml.

Flow Limitations for Outfall 001 discharge to Stream P1.

Outfall 001 is discharged to an unnamed tributary to the Russian River, termed stream P1 for this permit. In accordance with restrictions contained in Basin Plan, the permit prohibits the discharge of effluent to stream P1 (Outfall 001) from May 15 through September 30 each year.

During the period of October 1 through May 14, the permit limits the discharge of effluent to P1 (Outfall 001) to not exceed one percent of the natural flow of the Russian River in any one day. The permit establishes flow monitoring requirements to meet the one percent flow restriction based on flow measured at the Cloverdale USGS gaging station # 11463000. The Cloverdale gaging station is the gaging station closest to the discharge location, located upstream of the discharge point. EPA concluded this is consistent with NPDES permits issued by the North Coast Regional Water Quality Control Board, which have established the flow restriction based on the nearest available USGS gaging station.

E.. 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.

F. Antidegradation Policy

EPA's antidegradation policy at 40 CFR 131.12 and State of California's anti-degradation Policy 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. Due the high level of treatment being obtained, and water quality-based effluent limitations, the discharge is not expected to adversely affect receiving water bodies or result in any degradation of water quality. Although the receiving waterbody is impaired for sedimentation on the CWA Section 303(d) List and there is no approved TMDL, this permit does not anticipate any contribution of sediment from the facility's discharge to the receiving water since effluent is either re-used or land applied.

VII. NARRATIVE WATER QUALITY-BASED EFFLUENT LIMITS

The North Coast Regional Water Quality Control Board's Basin Plan contains narrative water quality standards applicable to the downstream receiving water. Therefore, the permit incorporates applicable narrative 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 mg/L or cause more than 10 percent of total samples taken during any 30-day period to exceed 400 MPN/100 mg/L.
2. Biostimulatory substances that promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.
3. Esthetically undesirable discoloration.
4. Concentrations of dissolved oxygen 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. The ambient pH to fall below 6.5, exceed 8.5, or change by more than 0.5 units. A one-month averaging period may be applied when calculating the pH change of 0.5 units.
 8. 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.
 9. Deposition of material that causes nuisance or adversely affects beneficial uses.
 10. 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.
 11. The ambient temperature to increase more than 5°F.
 12. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental response in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health.
 13. The turbidity to increase as follows:
 - a. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
 - b. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
 - c. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
 - d. More than 10 percent where natural turbidity is greater than 100 NTUs.
- 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.
14. 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 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 permit. All monitoring data shall be reported on monthly netDMR forms and submitted quarterly as specified in the permit.

B. Priority Toxic Pollutants Scan

A Priority Toxic Pollutants scan shall be conducted during the fourth 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 permit or by EPA. 40 CFR 131.36 provides a complete list of Priority Toxic Pollutants. Preferably the priority pollutants scan will occur concurrently with the whole effluent toxicity testing.

C. Whole Effluent Toxicity Testing

The permit establishes monitoring for chronic whole effluent toxicity as specified by the methods in the 40 CFR Part 136 as amended on November 19, 2002. Chronic toxicity testing evaluates reduced growth/reproduction at 100 percent effluent. For this discharge, the determination of “Pass” or “Fail” from a single-effluent concentration chronic toxicity test at the IWC of 100 percent effluent is determined using the Test of Significant Toxicity (TST) approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010). The permittee shall also report the percent mean effect as well as the determination of “Pass” or “Fail”. 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* (also called *Raphidocelis subcapitata*) (growth test) to determine the most sensitive species. The permittee shall use the most sensitive species to conduct routine whole effluent toxicity testing. Preferably the whole effluent toxicity testing will occur concurrently with the priority pollutants scan.

IX. SPECIAL CONDITIONS

1. Erosion Control

The Permittee shall implement best management practices to safeguard against erosion from the discharge and prevent adverse impact to receiving waters.

2. Pretreatment Requirements

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

3. Reclaimed Water-use Standards

The Rancheria re-uses wastewater for on-site irrigation and non-potable water uses such as toilet flushing. The Tribe has agreed to follow the reclamation criteria established by the California

Department of Health Services to protect public health and the environment. The California Department of Health Services (DHS) has established statewide reclamation criteria in Chapter 3, Division 4, Title 22, California Code of Regulations (CCR), Section 60304, et seq. (Hereafter Title 22) for the use of reclaimed water. These requirements implement the reclamation criteria in Title 22.

Although the Tribe is not required to comply with these State criteria for wastewater reused on Tribal lands, the Tribe is currently voluntarily willing to follow these criteria for the re-use of its wastewater. These terms are therefore included in the permit, except monitoring for total coliform shall weekly in this permit.

4. *Biosolids*

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

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.

EPA completed an Information for Planning and Conservation report via US Fish and Wildlife Service website. This provides an up-to-date list of all proposed, candidate, threatened and endangered species that occur in area neighboring the Dry Creek Rancheria and should be considered as part of an effect analysis for this permit. (See <https://ecos.fws.gov/ipac/gettingStarted/map>)

From the USFWS Threatened and Endangered Species Online Database, EPA found there are currently two Federally-listed endangered (E) species and four Federally-listed threatened (T) species in Geyserville, California.

Table 12. ESA Species List for Rancheria area, near Geyserville, California

Status	Species (Common Name/ <i>Scientific Name</i>)
T	Red-legged Frog/ <i>Rana draytonii</i>
T	Northern Spotted Owl/ <i>Strix occidentalis caurina</i>
E	Freshwater Shrimp/ <i>Syncaris pacifica</i>
T	Steelhead/ <i>Oncorhynchus mykiss</i>
T	Coho Salmon / <i>Oncorhynchus kisutch</i>
E	Burke's Goldfields (flower)/ <i>Lasthenia burkei</i>

Based on the facility's efforts to maximize re-use and minimal discharge (10% land application), EPA has determined that the permit will have no effect on the northern spotted owl, red-legged frog, freshwater shrimp, steelhead, coho salmon and Burke's Goldfields flower.

B. Impact to Coastal Zones

The permit does not affect land or water use in the coastal zone.

C. Impact to Essential Fish Habitat

The permit does not directly discharge to coastal areas of essential fish habitat; therefore, the determination regarding Essential Fish Habitat (EFH) does not apply.

D. 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)

The public comment period started October 17, 2017 and ended, November 16, 2017. Notice of the draft permit was placed on EPA's website and sent via email to interested parties that may be affected by the facility or activity, with a minimum of 30 days provided for interested parties to respond in writing to EPA. No comments were received during the public comment period.

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. The permitting authority has discretion to hold a public 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.

D. Water Quality Certification Requirements (40 CFR 124.53 and 124.54)

For States, Territories, or Tribes with EPA approved water quality standards, EPA is requesting certification from the affected State, Territory, or Tribe that the permit will meet all applicable water quality standards. Certification under section 401 of the CWA shall be in writing and shall include the conditions necessary to assure compliance with referenced applicable provisions of sections 208(e), 301, 302, 303, 306, and 307 of the CWA and appropriate requirements of Territory law.

The Dry Creek Tribe does not have EPA approved water quality standards, and the effluent discharge point is within Tribal lands; thus there is no 401 certification (by California) required for issuing the NPDES permit for this facility.

XIII. CONTACT INFORMATION

Information relating to this permit may be directed to:

Peter Kozelka, (415) 972-3448
kozelka.peter@epa.gov

EPA Region IX
NPDES Office (WTR-2-3)
75 Hawthorne Street
San Francisco, CA 94105

XIV. REFERENCES

EPA. 1991. *Technical Support Document for Water Quality-based Toxics Control*. Office of Water, EPA. EPA/505/2-90-001.

EPA. 1996. *Regions IX & X Guidance for Implementing Whole Effluent Toxicity Testing Programs*, Interim Final, May 31. 1996.

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.

EPA. 2010. *U.S. EPA NPDES Permit Writers' Manual*. Office of Water, EPA. EPA-833-K-10-001.

Water Quality Control (Basin) Plan for the State of California, North Coast Region, (2011 and as amended)

40 CFR Parts 122, 131, and 13