

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FACT SHEET

September 14, 2015

Permittee's Name: Buena Vista Rancheria, Buena Vue Casino

Mailing Address: 1418 20th Street, Suite 200
Sacramento, CA 95811

Plant Location: 4650 Coal Mine Road
Ione, CA 95640

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I. STATUS OF PERMIT

Buena Vista 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 Jackson Creek located near Ione, California. EPA issued this permit, CA0049675, on June 25, 2010 with an expiration date of July 31, 2015. The permittee submitted a complete application on December 30, 2014. Pursuant to 40 CFR 122.21, the terms of the existing permit are administratively extended until the issuance of a new permit.

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.

This is a permit for a facility to be constructed in 2015-16 and projected to be operational in summer 2016.

This permittee has been classified as a minor discharger.

II. SIGNIFICANT CHANGES TO PREVIOUS PERMIT

- The permittee has changed the facility name from the Buena Vista Casino to the Buena Vue Casino.
- EPA has added a permit reporting requirement for the facility to notify Amador County Environmental Health Department in event of noncompliant discharge.

III. GENERAL DESCRIPTION OF FACILITY

The Buena Vue Casino will be located on a 67 acre Rancheria located in Amador County, CA approximately four miles south of the town of Ione.

The waste water treatment plant (WWTP) will serve a casino of approximately 72,000 total square feet with approximately 24,000 square feet of gaming. Wastewater generated from the casino includes sewage, restaurant washwaters, and miscellaneous wastewater from guest support services. The WWTP will not serve residential connections, and will not accept wastewater from any industrial facilities.

The 67 acre site is relatively flat at the northern end with elevations rising several hundred feet towards the middle of the property. The site contains an area of historic archaeological and cultural significance. An archaeological survey has been conducted to determine the extent of the area. (Archaeological Inventory of the Buena Vista Rancheria, Amador County, Oct, 2005). An archaeological resource protection area has been established around this area. No construction or casino-related activities will disturb the archaeological resource protection area.

A natural spring is located in the higher elevations of the site, which drains to a pond and then drains to the east of the site where it flows and apparently disperses onto the adjacent property. The spring and existing pond will not be affected by construction or casino-related activities.

A 23.93 acre jurisdictional wetland is located in the northwest corner of the site, adjacent to Coal Mine Road on the western boundary of the property. During the site inspection, the wetland was observed to drain into a culvert that flowed under coal mine road. The culvert dropped approximately 5 feet from the elevation of the wetland. There appeared to be a berm separating the wetland area from a shallow drainage canal alongside the road that drained into the culvert. Because it was raining at the time of the site visit, the wetland was observed to be overflowing the berm and draining into the culvert.

The casino will be built in two phases. Phase I flows are anticipated to be 50,000 gallons per day (gpd) for weekdays, 100,000 gpd for weekends, and annual average of 60,000 gpd. The Phase II WWTP is anticipated (perhaps three to five years ahead) to have an average annual flow of 100,000 gpd. However, the projected flows at a casino facility may differ significantly from weekday to weekend, and the facility projects an average weekend flow of 160,000 gpd, with a contingency capacity for 200,000 gpd. The facility has therefore been designed for a peak flow of 200,000 gpd, consistent with the permittee's application.

Wastewater from the casino will be treated through an immersed membrane bioreactor (MBR) treatment system. The permit application describes an MBR system as a tertiary system similar to an activated sludge treatment plant. The MBR is operated at a higher solids concentration than conventional activated sludge systems, which make it appropriate for treating high strength wastewater with varying flows that are typical of wastewaters produced by a casino operation.

The wastewater treatment system at the Buena Vue Casino will consist of a passive oil/water separator to treat oil and grease. This is in addition to active grease interceptors that will be located at restaurant kitchen drains within the casino.

For Phase I, an OVIVO microBLOX MBR Wastewater Treatment System package plant will be used. The microBLOX system is designed to operate within varying and high pollutant loading. The microBLOX MBR System is a complete ready-to-operate plant in a deployable steel tank, with onboard zones for Process Volume and MBR.

An offline 250,000 gallon equalization (EQ) tank and a 10,000 gallon poly supplemental equalization tank may be utilized, as needed. The microBLOX unit will contain all equipment for normal operation while a separate skid will be provided for the offline EQ. Influent will come into the Fine Screen and be directed into the 10,000 gpd poly EQ tank. The offline EQ is brought into the flow sheet by either a high level alert in the inline EQ or an operator selection.

The microBLOX System is configured to run in a flow-through mode. The influent (raw wastewater) is screened before filling a dedicated Equalization Zone. Equalized wastewater is then pumped into a single-stage MBR process designed to operate over a range of dissolved oxygen conditions to achieve nutrient removal targets. Process oxygen is delivered by membrane aeration, with a supplemental oxygen system employed for higher strength wastes or to increase hydraulic throughput. Biologically treated wastewater is then filtered using KUBOTA membranes to produce reuse quality effluent; there is no recycle, no mechanical mixing and no fine bubble diffusers.

For Phase II, the casino anticipates adding a fully constructed plant to replace the OVIVO microBLOX Wastewater Treatment System(s). At the headworks, wastewater will be screened by a fine screen (2 mm) stainless steel bar screen with a conveyor/washer/compactor. The fine screening of large particulate matter is necessary to protect the membrane from large particles. Solids from the screen will go to a compactor and disposed at an off-site landfill. The headworks area will be covered to control odors.

Wastewater will flow to one 32,600 gallon equalization/anoxic tank. An additional equalization basin is available (77,300 gallons) that will be used for additional storage if necessary. There will be a mixer of the anoxic/denitrification basin. Wastewater then flows to 2 parallel aeration basins (57,600 gallons each) where a fine bubble diffuser system will be used to aerate the tank with an average daily residence time of approximately 24 hours. The wastewater then flows to 2 parallel membrane basins (21,800 gallons each).

Membrane filters are suspended in the MBR tanks and a slight vacuum is applied to pull clear effluent through the membranes. The membranes replace the clarifier and filter used in conventional tertiary treatment plants. The pore size of membranes (0.1 to 0.4 microns) is small enough so that coliform bacteria do not pass through, eliminating the need for conventional disinfection. A constant source of coarse bubble scour air is applied at the bottom of the membrane cassettes to remove solids that might accumulate between and on the surface of the membrane.

Mixed liquor from the membrane basins will be recirculated from the aeration basin to the anoxic basin at a rate of approximately 4 to 1. In case of excess flows, maintenance or emergency, overflow from the system will flow to 2 emergency overflow basins adjacent to the pre-aeration and MBR basins (57,600 and 21,800 gallons capacities respectively).

Membranes are cleaned typically every 15 minutes to 1 hour by using a relaxation mode that lasts for 1-2 minutes. Sodium hypochlorite will be added approximately twice per year at a concentration of 0.5% to the backflow to inhibit biogrowth in the membranes.

For both Phase I and Phase II, solids removed from the fine screen and MBR sludge line will be sent to a filter press and then sent off site to a landfill.

Final effluent will be disinfected through UV disinfection consisting of 2 UV units in parallel.

For Phase I, the casino does not anticipate recycling and re-using the treated effluent at the casino. For Phase II, the casino anticipates that approximate 30 % of treated effluent will be recycled and re-used at the casino. Recycle uses include vegetated irrigation and non-potable uses in the casino such as toilet flushing. Final effluent designated for reuse will be chlorinated and sent to a recycle water storage tank. The storage tank will contain baffle walls to double as the chlorine contact chamber.

If necessary, the WWTP has an offline 250,000 gallon tank that can serve as emergency storage, either for influent or treated effluent. The hours of emergency storage for Buena Vue WWTP are different for Phase I and Phase II as presented in immediately below.

Table 1. Hours of Emergency Storage for Buena Vista WWTP

Phase/conditions	Flow rates (gpd)	Time (hrs)
Phase I weekday	50,000	120
Phase I average	100,000	60
Phase II weekend	160,000	37
Phase II capacity	200,000	30

Based on 250,000gpd storage tank capacity

Stormwater runoff from the WWTP area will be collected and directed back to the WWTP. Therefore, the facility does not expect to obtain coverage under the multi-sector general stormwater permit.

IV. DESCRIPTION OF RECEIVING WATER

The effluent from the WWTP will discharge to a constructed vegetated swale located on the Rancheria. Over flow from the swale will flow into existing drainage that appears to be a partially constructed, partially natural channel and runs alongside Coal Mine Road. The existing drainage runs adjacent to the road, and, at the northwestern boundary of the property, adjacent to the wetlands area but separated by a small soil berm, and then flows into a drain under Coal

Mine Road to an unnamed tributary to Jackson Creek, which subsequently flows into Dry Creek and to the lower Mokelumne River.

V. DESCRIPTION OF DISCHARGE

The discharge will be tertiary treated municipal wastewater. Disinfection will be by UV treatment prior to discharge.

The permit application lists the following design parameters for the new treatment system:

Pollutant or parameter	Influent Concentration	Effluent Concentration
BOD5	450-600 mg/L	<10 mg/L
TSS	450-600 mg/L	<10 mg/L
Total Nitrogen	N/A	<10 mg/L Total Nitrogen
NH4-N	N/A	< 2 mg/L NH3-N

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) = 75.1 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

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

Guidance for the determination of reasonable potential to discharge toxic pollutants is included in both the Technical Support Document for Water Quality-Based Toxics Control (TSD) - Office of Water Enforcement and Permits, U.S. EPA, dated March 1991 and the U.S.EPA NPDES Permit Writers Manual - Office of Water, U.S. EPA, dated December 2010. EPA's technical support document contains guidance for determining the need for permit limits. In doing so, the regulatory authority must satisfy all the requirements of 40 CFR 122.44(d)(1)(ii). In determining whether the discharge causes, has the reasonable potential to cause or contributes to an excursion of a numeric or narrative water quality criterion for individual toxicants, the regulatory authority must consider a variety of factors. These factors include the following:

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 Buena Vista Rancheria. However, the discharge of wastewater from the WWTP flows to a tributary of the Mokelumne River (via Dry Creek and Jackson Creek), for which the State of California has established water quality standards. Therefore, water quality standards applicable to the Mokelumne River (Camanche Reservoir to Delta) and its tributaries are applicable to the discharge, and EPA has applied water quality standards based on the "Water Quality Control Plan (Basin Plan) for the Sacramento and San Joaquin River Basins - Fourth Edition - 1998", as adopted by the Central Valley Regional Water Quality Control Board and hereafter referred to as the Basin Plan.

The Basin Plan on page II-2.00 states: "Existing and potential beneficial uses which currently apply to surface waters of the basin plan are presented in Figure II-1 and Table II-1. The beneficial uses of any specifically identified water body generally apply to its tributary streams". There are no specifically identified beneficial uses for the tributaries of Dry Creek. Therefore, the beneficial uses designated for Jackson Creek are those that apply to the Mokelumne River from Camanche Reservoir to the Delta and are listed as: Agricultural supply (AGR), Water Contact Recreation (REC-1), Non-contact 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). Additionally, the California State Water Resources Control Board Resolution 88-63, incorporated into the Basin Plan pursuant to Regional Board Resolution 89-056, requires that municipal and domestic supply (MUN) use be applied to surface waterbodies that do not have beneficial uses listed in Table II-1. Therefore, MUN also applies to tributaries to the Mokelumne River.

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, with a "cap" of 400 mg/l.

Jackson Creek is not listed as impaired according to California’s CWA Section 303(d) List of Water Quality Limited Segments. No TMDLs are applicable to permittee’s discharge.

2. Dilution in the Receiving Water

Discharge from the facility flows into the swale and then into the unnamed tributary of Jackson Creek, which may have no natural flow during certain times of the year. Therefore, no dilution of the 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.

The WWTP will not serve any residential customers, and most flows originate from sanitary uses at the casino. No industrial sources will discharge to the WWTP, although there will be a restaurant in the casino. The permittee will be required to conduct a full scan of priority pollutants within 90 days of discharge from the new treatment plant and in the 3rd and 5th year thereafter. Reasonable potential will be re-evaluated at this time and the permit may be re-opened to incorporate new water quality based limits as necessary.

4. History of compliance – not applicable

5. Existing data on toxic pollutants

This is a new discharge and therefore no discharge of effluent has been reported during the previous permit term and therefore there is no data on toxic pollutants.

C. Rationale for Effluent Limitations

EPA evaluated the typical pollutants expected to be in WWTP discharge 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 standards, EPA has established monitoring requirements in the permit. This data will be re-evaluated and the permit re-opened to incorporate effluent limitations if necessary.

Ammonia

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. USEPA’s Ambient Water Quality Criteria for the Protection of Freshwater Aquatic Life recommends acute and chronic criteria that are pH and temperature dependent. Due to the potential for ammonia to

be present in sanitary wastewater at toxic levels and due to the conversion of ammonia to nitrate, effluent limitations are established for ammonia.

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. 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. Due to previous studies conducted by the RWQCB on the origin of dissolved solids impairment, it is unlikely that the WWTP will be a significant contributor of dissolved solids. 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.

Fecal Coliform:

Based on the nature of WWTP effluent, there is a reasonable potential for fecal coliform to violate water quality standards. Based on REC-1 Beneficial Use fecal 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 MUN standards, fecal coliform must not exceed 2.2 /100mL in a 7 day average. Since the MUN is the most stringent standard, this limit is included in the permit.

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 and that the effluent total coliform levels not exceed 2.2 MPN/100 ml as a 7-day median. Although a limit for fecal coliform and turbidity has been required in the permit that are analogous to Title 22 standards, EPA is not including effluent limits in the permit to demonstrate full compliance with California Title 22 disinfection standards.

Total Residual Chlorine:

Chlorine will not be used to disinfect WWTP effluent which is disinfected through the use of filtration and UV disinfection. Chlorine will be added to recycled effluent immediately prior to storage in the recycle water storage tanks. This water will not be discharged. Therefore, there is no reasonable potential for chlorine residual to be present in the effluent and no limitations have been included in this permit.

Dissolved oxygen

The basin plan contains the requirement that dissolved oxygen not be reduced below 7.0 mg/L based on COLD and SPWN beneficial uses. Therefore, this is included in the permit.

Oil and Grease

Treated and untreated domestic wastewater may contain levels of oil and grease which may be toxic to aquatic organisms. There are no numeric water quality standards for oil and grease. Therefore, an effluent limit based on Best Professional Judgment is being established. Therefore, this is included in the permit.

Toxicity:

The basin plan includes that language that “All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal or aquatic life.” Therefore, the permit requires yearly 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. 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.

The permit establishes less stringent mass-based technology-based effluent limitations for total suspended solids and oil and grease based on an estimated increase in the daily and monthly production level over the term of the permit. 40 CFR 122.44(l)(1) allows for backsliding to technology-based effluent limitations in the permit since circumstances on which the existing permit were based, i.e., a lower production of processed tuna than projected in the next permit term, have materially and substantially changed since the time the existing permit was issued and would have constituted cause for a permit modification under 40 CFR 122.62(a).

E. 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. Furthermore, the waterbody is not listed as an impaired waterbody for total suspended solids, turbidity or oil and grease under section 303(d) of the CWA.

VII. NARRATIVE WATER QUALITY-BASED EFFLUENT LIMITS

The Central Valley 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 DMR forms and submitted monthly as specified in the permit.

B. Priority Toxic Pollutants Scan

A Priority Toxic Pollutants scan shall be conducted during the first, third and 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 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* (also called *Raphidocelis subcapitata*) (growth test). The presence of chronic toxicity shall be estimated as specified by the methods in the 40 CFR Part 136 as amended on November 19, 2002.

IX. SPECIAL CONDITIONS**a. Twenty-four Hour Reporting of Noncompliance**

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

b. Reclaimed Water Limitations

The Rancheria may re-use wastewater for on-site irrigation and non-potable water uses such as toilet flushing. Therefore, 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, the Tribe has agreed to follow criteria for the re-use of its wastewater, and these terms are therefore included in the permit.

c. Re-openers

EPA may modify effluent limits, monitoring or other permit conditions to implement new regulations, including EPA-approved water quality standards, or to address new information

indicating the presence of effluent toxicity of the reasonable potential for the discharge to cause or contribute to exceedences of water quality standards.

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 Amador County and should be considered as part of an effect analysis for this permit. (See <https://ecos.fws.gov/ipac/gettingStarted/map>)

EPA used this updated list along with the document prepared for the Tribal Environmental Impact Report (TEIR), “Biological Resource Assessment for the 67 acre Buena Vista Rancheria Project” (North Fork Associates, September 26, 2005) to determine whether the discharge would affect any endangered species or habitat. The Candidate Species list indicated that the following 9 non-plant Threatened and Endangered Species are present in Amador County. In 2009, the bald eagle has been removed from the endangered species.

Invertebrates *Branchinecta lynchi* - Critical habitat, vernal pool fairy shrimp (X), *Branchinecta lynchi* - vernal pool fairy shrimp (T), *Desmocerus californicus dimorphus* - valley elderberry longhorn beetle (T), *Lepidurus packardi* - Critical habitat, vernal pool tadpole shrimp (X), *Lepidurus packardi* - vernal pool tadpole shrimp (E)

Reptiles *Thamnophis gigas* - giant garter snake (T)

Fish *Oncorhynchus mykiss* - Central Valley steelhead (T)

Amphibians *Ambystoma californiense* - California tiger salamander (T), *Rana aurora draytonii* - California red-legged frog (T)

Of the five invertebrates listed, four are found in vernal pools and the remaining one is not waterborne; therefore none have any nexus with Jackson Creek beyond speculative incidental contact. The one reptile listed does not have any nexus with Jackson Creek beyond speculative incidental contact. The one fish species listed, the Central Valley steelhead has historical spawning habitat may have included Jackson Creek. Steelhead are known to migrate through waterbodies downstream of Jackson Creek. SPWN and MIGR beneficial uses are recognized as beneficial uses for Jackson Creek in the permit, and the permit contains effluent limitations to protect these beneficial uses. Therefore, the discharge is not expected to have a negative effect on the migration or spawning of steelhead.

The 2 amphibians listed were the California tiger salamander and California red-legged frog. The “Biological Resource Assessment for the 67-acre Buena Vista Rancheria Project” (September 26, 2005) concluded that neither of these species were observed during surveys and that wetland areas on-site are not likely to support breeding populations.

This permit authorizes the discharge of tertiary treated sanitary wastewater into unnamed tributaries to Jackson Creek which, as outlined above, is not habitat for most the aforementioned threatened and endangered species. The draft permit contains provisions for monitoring conventional pollutants, toxic chemicals, and nonconventional pollutants in compliance with Federal and the State Water Quality Control Plan for the Sacramento and San Joaquin River Basins to ensure an appropriate level of quality of water discharged by the facility. Re-opener clauses have been included should new information become available to indicate that the requirements of the permit need to be changed.

In considering all information available during the drafting of this permit, EPA believes that a No Effect determination is appropriate for this federal action. A copy of the draft fact sheet and permit were forwarded to the Sacramento Field Office of the United States Fish and Wildlife Service for review and comment prior to and during the 30-day public review period. No comments were received.

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 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act (MSA) set forth a number of new mandates for the National Marine Fisheries Service, regional fishery management councils and other federal agencies to identify and protect important marine and anadromous fish species and habitat. The MSA requires Federal agencies to make a determination on Federal actions that may adversely impact Essential Fish Habitat (EFH).

The permit contains technology-based effluent limits and numerical and narrative water quality-based effluent limits as necessary for the protection of applicable aquatic life uses. The permit does not directly discharge to areas of essential fish habitat. Therefore, EPA has determined that the permit will not adversely affect essential fish habitat.

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.

The permit does not allow the disturbance of any historic properties. The permittee has previously conducted archeologic surveys to determine areas of historic interest and has

established a boundary of construction that will not affect any historic areas. See “Archaeological Inventory of the Buena Vista Rancheria, Amador County, California”, Project Number 1550-01, October 2005 prepared by Pacific Legacy, Inc.

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 May 21, 2015 and ended June 22, 2015. 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. 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 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. 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 Buena Vista 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:

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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.
- Archaeological Inventory of the Buena Vista Rancheria, Amador County, California, Project Number 1550-01, October 2005 prepared by Pacific Legacy, Inc.
- Biological Resource Assessment for the 67 acre Buena Vista Rancheria Project, prepared by North Fork Associates, September 26, 2005.
- Final Tribal Environmental Impact Report, State Clearinghouse # 2005012029, October, 2005.