

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FACT SHEET
October 2020

Permittee Name: Picayune Rancheria of the Chukchansi Indians

Mailing Address: 711 Lucky Lane
Coarsegold, CA 93614

Facility Location: 700 Lucky Lane
Coarsegold, CA 93614

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NPDES Permit No.: CA0004009

I. STATUS OF PERMIT

The Picayune Rancheria of the Chukchansi Indians (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 Chukchansi Gold Resort and Casino Wastewater Treatment Plant (the “facility”) to an unnamed tributary to Coarsegold Creek, tributary to the Fresno River and San Joaquin River, located on Tribal land in Madera County, California. The permittee submitted an application on December 6, 2018 and provided supplemental information on January 30, 2019. EPA Region 9 has developed this permit and fact sheet pursuant to Section 402 of the Clean Water Act (CWA), 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.

EPA Region 9 issued NPDES Permit No. CA0004009 on September 1, 2014, with an expiration date of August 31, 2019. Pursuant to 40 Code of Regulations (CFR) Section 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 waters of the United States during the previous permit term. The facility currently recycles all wastewater via on-site re-use and land application for irrigation. This permittee has been classified as a minor discharger.

II. SIGNIFICANT CHANGES TO PREVIOUS PERMIT

Table 1. Significant Changes to Previous Permit

Permit Condition	Previous Permit (2014-2020)	Final Permit (2020-2025)	Reason for Change
Units for mass effluent limits	The previous permit included mass limits for 5-day Biochemical Oxygen Demand (BOD ₅), total suspended solids (TSS), copper, and zinc that were expressed in terms of kg/day.	The final permit includes mass limits for BOD ₅ , TSS, copper, and zinc that are expressed in terms of lbs/day.	To be consistent with other recently issued EPA Region 9 permits.
BOD ₅ and TSS effluent limits	The previous permit included an average monthly effluent limits (AMELs), average weekly effluent limits (AWELs), and maximum daily effluent limits (MDELs) for BOD ₅ and TSS.	The final permit removes the MDEL for BOD ₅ and TSS.	40 CFR Section 122.45(d) requires permit effluent limitations to be stated as average weekly and average monthly discharge limitations for publicly owned treatment works (POTWs).
Hardness monitoring	No effluent monitoring requirements for hardness were included in the previous permit.	The final permit requires effluent monitoring for hardness once per year.	To collect updated effluent hardness data in order to calculate hardness-dependent metals criteria
Nitrate plus Nitrite effluent limits	The previous permit included an AMEL of 10 mg/L for nitrate only.	The final permit includes an AMEL and AWEL for nitrate plus nitrite, as a single parameter, of 10 mg/L and 17 mg/L, respectively.	Effluent limits for nitrate plus nitrite are proposed based on EPA Human Health criteria. This limit is also consistent with the Primary MCL adopted by the California State Water Resources Control Board, Division of Drinking Water. An AWEL was established in addition to AMEL for the POTW in accordance with 40 CFR Section 122.45(d).
Nitrate plus Nitrite monitoring	The previous permit required weekly effluent monitoring for nitrate, only.	The final permit requires weekly effluent monitoring for nitrate plus nitrite, as a single parameter.	To calculate compliance with the effluent limits established for nitrate plus nitrite, as a single parameter.

Permit Condition	Previous Permit (2014-2020)	Final Permit (2020-2025)	Reason for Change
Total coliform effluent limits	The previous permit included an AMEL of a most probable number (MPN) of 2.2 per 100 mL.	The final permit includes effluent limits for total coliform organisms of 23 MPN/100 mL, not to be exceeded more than once in a 30-day period; 2.2 MPN/100 mL as a 7-day median, and 240 MPN/100 mL, at any time.	Effluent limits for total coliform organisms in the final permit were established in accordance with the disinfection standards in Chapter 3, Division 4, Title 22 (Title 22), of the California Code of Regulations (CCR).
Acute whole effluent toxicity (WET) testing requirements	The previous permit required the permittee to conduct acute WET testing within 90 days of the date of permit issuance.	The final permit does not require the permittee to conduct acute WET testing.	The final permit retains WET testing for chronic toxicity which is more protective than acute WET monitoring; thus, acute WET is not needed.
Chronic WET testing requirements and trigger	The previous permit required the permittee to report results in Chronic Toxicity Units (TUC) and included triggers of any one test result greater than 1.6 TUC or any calculated monthly median value greater than 1.0 TUC.	The final permit requires the permittee to report Pass "0" or Fail "1" of the Test of Significant Toxicity (TST) null hypothesis (H ₀) and the percent effect.	The requirements in the final permit have been established in accordance with the TST statistical approach described in <i>National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document</i> (EPA 833-R-10-003, 2010).
Chronic WET test species	The previous permit required the permittee to conduct short-term tests with the water flea, <i>Ceriodaphnia dubia</i> (survival and reproduction test), fathead minnow, <i>Pimephales promelas</i> (larval survival and growth test) and the green alga, <i>Raphidocelis subcapitata</i> (growth test).	The final permit requires the permittee to conduct static non-renewal toxicity tests with the water flea, <i>Ceriodaphnia dubia</i> (Survival and Reproduction Test Method 1002.0).	<i>Ceriodaphnia dubia</i> is typically more sensitive to chronic WET and the effluent limits for ammonia and chlorine in the permit are aimed at protecting fish species.
Recycled water-use standards	The previous permit did not require the permittee to comply with all recycled water-use standards.	The final permit requires the permittee to comply with State of California's recycled water-use standards outlined in CCR, Title 22.	Based on the amount of treated wastewater being diverted for recycling and to protect human health.

III. GENERAL DESCRIPTION OF FACILITY

The facility is a tribal-owned wastewater treatment plant located in Madera County, California. The current facility serves a total population of approximately 15,000 residents and visitors and treats wastewater from the various facilities at the Chukchansi Gold Resort and

Casino complex. The facility has a design treatment capacity of 350,000 gallons per day (gpd) and treats an average of approximately 100,000 gpd.

The facility consistently achieves advanced wastewater treatment through a membrane bioreactor (MBR) system. Raw wastewater is filtered through a 1-millimeter drum screen at the facility headworks prior to being sent to an aeration basin equipped with 0.002-micron membranes. Following treatment through the MBR system, treated effluent is pumped to three 500,000-gallon storage tanks. Wastewater stored within the storage tanks is recycled via on-site re-use (toilet flushing) and land application for irrigation to the maximum extent practical. The facility activities fall under the Standard International Classification (SIC) code 7011.

During the previous permit term, the facility did not discharge effluent to ambient waters of the United States, rather on-site re-use and land application for irrigation were enough to dispose of all wastewater. Due to an agreement with the local fire department, the permittee is committed to maintaining 1 million gallons of water in storage, at all times, to be used for fire suppression. Due to this commitment, it is conceivable that discharge may be required during periods of maintenance to the storage tanks and distribution system. The facility configuration requires effluent to be pumped to the storage tanks, since they are over 100 feet above the facility's elevation. In the event of a pump failure preventing effluent from being pumped to the storage tanks, discharge to the receiving water would be the only viable option, as effluent can be gravity-fed to the outfall.

To ensure disinfection of any effluent discharged to waters of the United States, an ultra-violet (UV) disinfection system has been installed and is currently operational at the facility. Additionally, a back-up disinfection system has been installed at the facility to treat effluent via contact chlorination and de-chlorination (to limit residual chlorine levels) in the event the UV disinfection system fails.

Biosolids generated at the facility are thickened with a centrifuge and polymer feed system, which achieves 21-22 percent solids, prior to being hauled off-site and disposed in a landfill.

IV. DESCRIPTION OF RECEIVING WATER

The effluent from the facility that cannot be recycled via on-site re-use or land application for irrigation or retained in storage would be discharged at Outfall 001 to an unnamed drainage course located on Tribal land and feeding into Coarsegold Creek, a water of the United States and tributary to the Fresno River and the San Joaquin River.

Outfall 001 is located at latitude 37° 12' 49" N, longitude 119° 41' 42" W in Madera County, California. The limits in this permit apply at the point of discharge and the effluent does not exit Tribal land for approximately 1 mile downstream of Outfall 001. Once effluent is discharged to the unnamed drainage course on Tribal land, south of the facility, it flows into two interconnected ponds that are also located on Tribal land. The two ponds are approximately 1 acre in total surface area, with the pond furthest away from the Tribal land boundary being slightly larger than the pond adjacent to Highway 41. Water from the pond adjacent to Highway 41 flows under Highway 41 via a 5-foot by 5-foot reinforced concrete box, where it enters

Coarsegold Creek and eventually the Fresno River. The Fresno River flows southwest to Hensley Lake, which forms behind the Hidden Dam of the Fresno River. Downstream of Hidden Dam, the Fresno River flows into the San Joaquin River.

V. DESCRIPTION OF DISCHARGE

The discharge is tertiary-treated municipal wastewater. The MBR system used at the facility incorporates the use of a membrane barrier for solids separation and consistently produces high-quality effluent, which allows for efficient recycling and re-use. If discharge were to occur, disinfection would be achieved via UV treatment prior to discharge.

Under the requirements of this permit, the facility will continue to recycle as much treated wastewater as practical, via on-site re-use and land application for irrigation and storage for fire suppression, and only discharge the volume that cannot be recycled. Since no discharge occurred during the previous permit cycle, no discharge data is available. However, as required in Section B.6 of Form 2A within the permit application, the permittee provided the following effluent data for the existing (non-discharging) treatment system. The effluent data reported in Table 2 is representative of sampling conducted by the permittee from December 20, 2018 through February 20, 2019. Some of the parameters that were reported in the application were not limited in the previous permit, including dissolved oxygen, total kjeldahl nitrogen, phosphorus, oil and grease, and total dissolved solids.

Table 2. Effluent (Non-Discharge) Data Reported in Form 2A

Pollutant or Parameter	Units	Maximum Daily Discharge	Average Daily Discharge Concentration
Ammonia (as N)	mg/L	3.00	1.00
Dissolved Oxygen	mg/L	8.00	7.00
Nitrate Plus Nitrite (as N)	mg/L	2.30	1.25
Oil and Grease	mg/L	1.60	1.52
Phosphorus (as P)	mg/L	2.80	2.45
Total Dissolved Solids (TDS)	mg/L	780	740
Total Kjeldahl Nitrogen (TKN)	mg/L	4.30	1.73

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 CWA. The minimum levels of effluent quality attainable by secondary treatment for BOD₅, TSS, and pH, as defined in 40 CFR Section 133.102, are listed below. Mass limits, as required by 40 CFR Section 122.45(f), are also listed for BOD₅ and TSS.

BOD₅

Concentration-based Limits

30-day average – 10 mg/L

7-day average – 15 mg/L

Removal Efficiency – minimum of 85%

Mass-based Limits

30-day average – (10 mg/L)(0.35 MGD)(8.345 conversion factor) = 29 lbs/day

7-day average – (15 mg/L)(0.35 MGD)(8.345 conversion factor) = 44 lbs/day

TSS

Concentration-based Limits

30-day average – 10 mg/L

7-day average – 15 mg/L

Removal efficiency – Minimum of 85%

Mass-based Limits

30-day average – (10 mg/L)(0.35 MGD)(8.345 conversion factor) = 29 lbs/day

7-day average – (15 mg/L)(0.35 MGD)(8.345 conversion factor) = 44 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 CWA, 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 Section 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 Section 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 that 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 Section 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*, hereinafter referred to as EPA's TSD (Office of Water, U.S. EPA, March 1991) and the *U.S. EPA NPDES Permit Writers' Manual* (Office of Water, U.S. EPA, September 2010). 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 Picayune Rancheria of the Chukchansi Indian Community does not currently have approved water quality standards for effluent discharges to waters located on the Rancheria. In situations where facilities are discharging into Tribal waters, and the Tribe does not have EPA-approved water quality standards, EPA may choose to apply adjacent or downstream standards to the water body for the purpose of developing permit limitations and conditions. Federal regulations at 40 CFR Section 122.4(d) grants EPA the authority to protect all waters of all affected States. Moreover, where there are no approved Tribal water quality standards, EPA has the authority to impose conditions determined necessary to meet the requirements of Section 402(a)(1)(B) of the CWA. EPA has applied either federal water quality standards found in the California Toxics Rule (CTR) in 40 CFR Section 131.38, or the water quality standards found in the Central Valley Regional Water Quality Control Board's (Central Valley Water Board's) *Water Quality Control Plan for the Sacramento and San Joaquin River Basins, Fifth Edition, May 2018* (Central Valley Basin Plan), whichever is more protective of the receiving water beneficial uses.

The water quality standards found in the Central Valley Basin Plan are composed of use designations, numeric and/or narrative water quality criteria. The applicable water quality standards in the Central Valley Basin Plan are those that apply to the Fresno River from Source to Hidden Reservoir. The following beneficial uses are designated for this surface water body, as listed in Table 2-1 of the Central Valley Basin Plan:

MUN Municipal and Domestic Supply
AGR Agricultural Supply, including Irrigation and Stock Watering
REC-1 Water Contact Recreation
REC-2 Non-Contact Water Recreation
WARM Warm Freshwater Habitat
COLD Cold Freshwater Habitat
WILD Wildlife Habitat

Applicable narrative numeric water quality standards are described in Section 3 of the Central Valley Basin Plan.

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. As no discharge occurred during the previous permit cycle, no effluent hardness data was collected during the permit term. Based on available hardness data for the discharge collected prior to issuance of the previous permit, the permit establishes water quality standards for hardness-dependent metals based on a hardness value of 220 mg/L.

The Fresno River, from above Hensley Reservoir to the confluence with Nelder Creek and Lewis Fork, is listed as impaired for low dissolved oxygen according to the CWA Section 303(d) List of Water Quality Limited Segments. A Total Maximum Daily Load (TMDL) has not been established to address low dissolved oxygen within the water body.

EPA has opted to not require monitoring the effluent for dissolved oxygen since the casino discharge point is several miles from the Fresno River, and no discharges to receiving waters occurred during the previous permit term.

2. Dilution in the Receiving Water

Discharge from Outfall 001 is to an unnamed tributary to Coarsegold Creek, tributary to the Fresno River and San Joaquin River. The unnamed tributary to Coarsegold Creek may have no natural flow during certain times of the year; therefore, no dilution of the facility’s effluent has been considered in the development of water quality-based effluent limits applicable to the discharge.

3. Type of Industry

Most of the influent to the facility originates from sanitary uses at the casino. No industrial sources discharge to the facility, although there are amenities, including restaurants, a spa, and other entertainment, within the casino that contribute wastewater to the facility. Typical pollutants of concern in untreated and treated domestic wastewater include nitrate, oxygen demand, coliform bacteria, temperature, pH, and solids. Chlorine and turbidity may also be of concern due to treatment plant operations.

4. History of Compliance Problems and Toxic Impacts – EPA visited the facility on July 17, 2019 and found no issues of non-compliance during the previous permit term.

5. Existing Data on Toxic Pollutants

The facility's effluent is typically stored and either re-used on-site or land applied for irrigation. Although the facility has not discharged in recent history, the permittee has reported operational data for some non-conventional pollutants in Form 2A of the permit application, which is representative of the current treatment system performance. In addition to the operational data included in Table 2, above, EPA has considered the results of a priority pollutant scan conducted prior to issuance of the previous permit in conducting the reasonable potential analysis.

For pollutants with effluent data available, EPA has conducted a reasonable potential analysis based on statistical procedures outlined in EPA's TSD. 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 (CV) of 0.6 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). 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 and the multiplier factor is obtained from Table 3-1 of the TSD.

Table 3. Summary of Reasonable Potential Statistical Analysis

Parameter ⁽¹⁾	Units	Maximum Observed Conc.	<i>n</i>	RP Multiplier	Projected Maximum Effluent Conc.	Most Stringent Water Quality Criterion	Statistical Reasonable Potential
Ammonia (as N)	mg/L	3.0	12	2.8	8.40	(1)	Yes ⁽²⁾
Copper, total recoverable	µg/L	8.7	1	13.2	115	18.3 ⁽³⁾	Yes
Nitrate Plus Nitrite (as N)	mg/L	2.3	4	4.7	10.9	10	Yes
Total Dissolved Solids (TDS)	mg/L	780	4	4.7	3,690	500	Inconclusive ⁽²⁾
Zinc, total recoverable	µg/L	97	1	13.2	1,280	234 ⁽³⁾	Yes

- (1) EPA's 1999 Ambient Water Quality Criteria for the Protection of Freshwater Aquatic Life recommends acute criteria for ammonia that are pH-dependent and chronic criteria for ammonia that are pH- and temperature-dependent.
- (2) See Section IV.C, below, for a discussion of the reasonable potential statistical analysis results and rationale for establishing numeric effluent limits and monitoring requirements in the permit.
- (3) The applicable water quality criteria for hardness-dependent metals are based on a hardness value of 220 mg/L.

C. Rationale for Numeric Effluent Limits and Monitoring

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 have been established for flow, but flow rates must be monitored and reported. Continuous monitoring is required for flow when discharging at Outfall 001.

BOD₅ and TSS

The permit requires the permittee to meet discharge limits for BOD₅ and TSS that are more stringent than those defined in 40 CFR Section 133.02. Specifically, EPA has imposed, based on BPJ, requirements in the permit that are consistent with State of California's criteria in CCR, Title 22, Section 60304, et seq. for the use of recycled water. These more stringent standards are consistent with the discharge requirements for other municipal wastewater treatment facilities in the area that are capable of consistently meeting a tertiary level of treatment.

As listed below, the permit establishes an average monthly limit of 10 mg/L and an average weekly maximum of 15 mg/L for BOD₅ and TSS. These limits are more stringent than the technology-based standards for BOD₅ and TSS described above. Under 40 CFR Section 122.45(f), mass limits are also required for BOD₅ and TSS. Based on the design flow of the facility, mass-based limits are included in the permit.

BOD₅

Concentration-based Limits

30-day average – 10 mg/L

7-day average – 15 mg/L

Mass-based Limits

30-day average – (10 mg/L)(0.35 MGD)(8.345 conversion factor) = 29 lbs/day

7-day average – (15 mg/L)(0.35 MGD)(8.345 conversion factor) = 44 lbs/day

TSS

Concentration-based Limits

30-day average – 10 mg/L

7-day average – 15 mg/L

Mass-based Limits

30-day average – (10 mg/L)(0.35 MGD)(8.345 conversion factor) = 29 lbs/day

7-day average – (15 mg/L)(0.35 MGD)(8.345 conversion factor) = 44 lbs/day

pH

The Central Valley 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 that applicable technology-based requirements for pH; therefore, water quality-based effluent limits for pH of 6.5 as an instantaneous minimum and 8.5 as an instantaneous maximum are included in this permit based on protection of the Central Valley Basin Plan objectives.

Copper

The CTR includes hardness-dependent criteria for the protection of freshwater aquatic life for copper. Using an effluent hardness reading of 220 mg/L and default dissolved-to-total metal translators, EPA calculated the Criterion Maximum Concentration (CMC) and Criterion Continuous Concentration (CCC) for copper as shown below:

$$\text{CMC} = e^{\{0.9422[\ln(220)] - 1.464\}} \times 0.960 = 29.4 \text{ } \mu\text{g/L}$$

$$\text{CCC} = e^{\{0.8545[\ln(220)] - 1.465\}} \times 0.960 = 18.3 \text{ } \mu\text{g/L}$$

To conduct the reasonable potential analysis, EPA compared the most stringent water quality standard to the projected maximum expected value for copper in the discharge in accordance with EPA's TSD. As shown in Table 3 above, copper in the effluent exhibits reasonable potential to cause or contribute to an exceedance above the most stringent water quality criterion.

Following EPA's TSD Table 5-1 for acute water quality criteria protecting aquatic life, the statistical multiplier for calculating the acute long-term average (LTA) is 0.321 when the acute waste load allocation is established at the 99th percentile occurrence probability and EPA estimates the CV of the pollutant in the effluent to be 0.6. Using the statistical multiplier of 0.321 and the CMC above, the acute LTA for copper is equal to 9.4 $\mu\text{g/L}$.

Following EPA's TSD Table 5-1 for chronic water quality criteria protecting aquatic life, the statistical multiplier for calculating the chronic LTA is 0.527 when the chronic waste load allocation is established at the 99th percentile occurrence probability and EPA estimates the CV of the pollutant in the effluent to be 0.6. Using the statistical multiplier of 0.527 and the CCC above, the chronic LTA for copper is equal to 9.7 $\mu\text{g/L}$.

Following Section 5.4 of EPA's TSD, the lowest of the acute and chronic LTA's is selected and used to calculate maximum daily and average monthly water quality-based effluent limits. The statistical procedure outlined in Table 5-2 of EPA's TSD is used to calculate the maximum daily and average monthly water quality-based effluent limits. In this procedure, EPA estimates that the CV of pollutants in the effluent is 0.6, chooses the statistical multiplier of 3.11 to calculate a maximum daily water quality-based effluent limit established at the 99th percentile occurrence probability, and chooses the statistical multiplier of 1.55 to calculate an average monthly water quality-based effluent limit established at the 95th percentile occurrence probability. The lowest LTA for copper is the acute LTA of 9.4 $\mu\text{g/L}$; therefore, the maximum daily and average monthly water quality-based effluent limits are calculated as shown below.

Regulations at 40 CFR Section 122.45(f)(1) require that all that all permit limits, standards, or prohibitions be expressed in terms of mass units (e.g., pounds, kilograms, grams) except under the following conditions: 1) For pH, temperature, radiation, or other pollutants that cannot

appropriately be addressed by mass limits; 2) When applicable standards and limitations are expressed in terms of other units of measurement; or 3) If in establishing technology-based permit limitations on a case-by-case basis, limitations based on mass are infeasible because the mass or pollutant cannot be related to a measure of production. The limitations, however, must ensure that dilution will not be used as a substitute for treatment. While the regulations require that limitations be expressed in terms of mass, a provision is included at 40 CFR Section 122.45(f)(2) that allows the permit writer, at his or her discretion, to express limits in additional units (e.g., concentration units). Where limits are expressed in more than one unit, the permittee must comply with both. In accordance with 40 CFR Section 122.45(f), mass limits have been included in the permit for copper.

Concentration-based Limits

$$30\text{-day average} - 9.4 \mu\text{g/L} \times 1.55 = 14.6 \mu\text{g/L}$$

$$\text{Daily maximum} - 9.4 \mu\text{g/L} \times 3.11 = 29.4 \mu\text{g/L}$$

Mass-based Limits

$$30\text{-day average} - (0.0146 \text{ mg/L})(0.35 \text{ MGD})(8.345 \text{ conversion factor}) = 0.043 \text{ lbs/day}$$

$$\text{Daily maximum} - (0.0294 \text{ mg/L})(0.35 \text{ MGD})(8.345 \text{ conversion factor}) = 0.086 \text{ lbs/day}$$

Zinc

The CTR includes hardness-dependent criteria for the protection of freshwater aquatic life for zinc. Using an effluent hardness reading of 220 mg/L and default dissolved-to-total metal translators, EPA calculated the CMC and CCC for zinc as shown below:

$$\text{CMC} = e^{\{0.8473[\ln(220)] - 0.8604\}} \times 0.978 = 234 \mu\text{g/L}$$

$$\text{CCC} = e^{\{0.8473[\ln(220)] - 0.7614\}} \times 0.986 = 234 \mu\text{g/L}$$

To conduct the reasonable potential analysis, EPA compared the most stringent water quality standard to the projected maximum expected value for zinc in the discharge in accordance with EPA's TSD. As shown in Table 3 above, zinc in the effluent exhibits reasonable potential to cause or contribute to an exceedance above the most stringent water quality criterion.

Following EPA's TSD Table 5-1 for acute water quality criteria protecting aquatic life, the statistical multiplier for calculating the acute LTA is 0.321 when the acute waste load allocation is established at the 99th percentile occurrence probability and EPA estimates the CV of the pollutant in the effluent to be 0.6. Using the statistical multiplier of 0.321 and the CMC above, the acute LTA for zinc is equal to 75 $\mu\text{g/L}$.

Following EPA's TSD Table 5-1 for chronic water quality criteria protecting aquatic life, the statistical multiplier for calculating the chronic LTA is 0.527 when the chronic waste load allocation is established at the 99th percentile occurrence probability and EPA estimates the CV of the pollutant in the effluent to be 0.6. Using the statistical multiplier of 0.527 and the CCC above, the chronic LTA for zinc is equal to 123 $\mu\text{g/L}$.

Following Section 5.4 of EPA's TSD, the lowest of the acute and chronic LTA's is selected and used to calculate maximum daily and average monthly water quality-based effluent limits. The statistical procedure outlined in Table 5-2 of EPA's TSD is used to calculate the maximum daily and average monthly water quality-based effluent limits. In this procedure, EPA estimates that the CV of pollutants in the effluent is 0.6, chooses the statistical multiplier of 3.11 to calculate a maximum daily water quality-based effluent limit established at the 99th percentile occurrence probability, and chooses the statistical multiplier of 1.55 to calculate an average monthly water quality-based effluent limit established at the 95th percentile occurrence probability. The lowest LTA for zinc is the acute LTA of 75 µg/L; therefore, the maximum daily and average monthly water quality-based effluent limits are calculated as shown below.

Regulations at 40 CFR Section 122.45(f)(1) require that all that all permit limits, standards, or prohibitions be expressed in terms of mass units (e.g., pounds, kilograms, grams) except under the following conditions: 1) For pH, temperature, radiation, or other pollutants that cannot appropriately be addressed by mass limits; 2) When applicable standards and limitations are expressed in terms of other units of measurement; or 3) If in establishing technology-based permit limitations on a case-by-case basis, limitations based on mass are infeasible because the mass or pollutant cannot be related to a measure of production. The limitations, however, must ensure that dilution will not be used as a substitute for treatment. While the regulations require that limitations be expressed in terms of mass, a provision is included at 40 CFR Section 122.45(f)(2) that allows the permit writer, at his or her discretion, to express limits in additional units (e.g., concentration units). Where limits are expressed in more than one unit, the permittee must comply with both. In accordance with 40 CFR Section 122.45(f), mass limits have been included in the permit for zinc.

Concentration-based Limits

$$30\text{-day average} - 75 \mu\text{g/L} \times 1.55 = 116 \mu\text{g/L}$$

$$\text{Daily maximum} - 75 \mu\text{g/L} \times 3.11 = 233 \mu\text{g/L}$$

Mass-based Limits

$$30\text{-day average} - (0.116 \text{ mg/L})(0.35 \text{ MGD})(8.345 \text{ conversion factor}) = 0.34 \text{ lbs/day}$$

$$\text{Daily maximum} - (0.233 \text{ mg/L})(0.35 \text{ MGD})(8.345 \text{ conversion factor}) = 0.68 \text{ lbs/day}$$

Ammonia and Ammonia Impact Ratio

Treated and untreated domestic wastewater may contain levels of ammonia that are toxic to aquatic organisms. Ammonia is converted to nitrate during the biological nitrification process, and then nitrate is converted to nitrogen gas through the biological denitrification process. 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 using the Ammonia Impact Ratio (AIR) for all facilities.

EPA's 1999 Ambient Water Quality Criteria for the protection of freshwater aquatic life for total ammonia recommends acute (1-hour average; criteria maximum concentration or CMC)

standards based on pH and chronic (30-day average; criteria continuous concentration or CCC) standards based on pH and temperature.

The AIR is calculated as the ratio of the ammonia value in the effluent to the applicable ammonia water quality standard. EPA's Ambient Water Quality Criteria for the Protection of Freshwater Aquatic Life recommends acute and chronic criteria for ammonia that are pH- and temperature-dependent. Therefore, pH, temperature, and ammonia sampling must be concurrent. See Attachment D of the permit for a sample log to help calculate and record the AIR values and Attachment E for applicable Water Quality Standards.

The permittee also must monitor and report ammonia effluent values in addition to the AIR value. AIR provides more flexibility than a specific, fixed effluent concentration and is protective of water quality standards since the value is set relative to the water quality standard. If the reported value exceeds the AIR limitation, then the effluent ammonia concentration (as N) exceeded the applicable ammonia water quality criterion.

Nitrate and Nitrite

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.

EPA's Ambient Water Quality Criteria for the Protection of Human Health for nitrate (only) is also 10 mg/L for non-cancer effects. California has also adopted a Primary MCL of 10 mg/L for the sum of nitrate and nitrite (measured as N). 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 plus nitrite (measured as N).

In accordance with 40 CFR Section 122.45(d), EPA has established average monthly and average weekly water quality-based effluent limits for discharges of nitrate plus nitrite from the facility. Following Section 5.4 of EPA's TSD, which describes procedures for calculating water quality-based effluent limits for pollutants affecting human health, the average monthly water quality-based effluent limit for nitrate plus nitrite is set equal to the waste load allocation of 10 mg/L. For non-priority pollutants with Primary MCL's to protect human health (e.g., nitrate plus nitrite), the Central Valley Water Board calculates average weekly water quality-based effluent limits using a statistical multiplier that is calculated by dividing the statistical multiplier established at the 98th percentile occurrence probability by the statistical multiplier established at the 95th percentile occurrence probability. In this procedure, EPA estimates that the CV of pollutants in the effluent is 0.6 and, based on Table 5-2 of the TSD, chooses the statistical multiplier of 2.68 established at the 98th percentile occurrence probability and the statistical multiplier of 1.55 established at the 95th percentile occurrence probability. The resulting statistical multiplier for calculating the average weekly water quality-based effluent limit is 1.73. Using a waste load allocation of 10 mg/L for nitrate plus nitrite, the average monthly and average weekly water quality-based effluent limits are calculated as shown below:

$$30\text{-day average} = 10 \text{ mg/L}$$

$$7\text{-day average} = 10 \text{ mg/L} \times 1.73 = 17 \text{ mg/L}$$

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, only narrative standards, which have been incorporated into the permit. Effluent monitoring requirements for oil and grease have been incorporated in the permit to ensure that the applicable narrative standards are not exceeded.

Phosphorus

The Fresno River Nutrient Reduction Plan concluded that in the Fresno River basin, phosphorus may be more important in preventing nutrient loading in receiving waters than nitrogen. However, the Central Valley Basin Plan does not have a numeric limit for phosphorus for the receiving water. The Central Valley Basin Plan does, however, include a narrative limitation for nutrients. Therefore, EPA has established monthly monitoring requirements to assess the potential impacts of phosphorus on nutrient loading in the receiving water at the point of discharge and downstream.

Temperature

There are no numeric water quality standards for temperature, only narrative standards, which have been incorporated into the permit. Effluent monitoring requirements for temperature have been incorporated in the permit to ensure that the applicable narrative standards are not exceeded and to calculate temperature-specific ammonia criteria, as described above.

Total Coliform Bacteria

Based on the nature of wastewater treatment plant effluent, there is a reasonable potential for total coliform bacteria to violate water quality standards.

Effluent from the facility is designed to meet California Code of Regulations, Title 22 disinfection standards for the recycling 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 a most probable number (MPN) of 23 per 100 mL not to be exceeded more than once in a 30-day period; 22. MPN/100 mL as a 7-day median; and 240 MPN/100 mL, not to be exceeded at any time.

Because the facility's treatment technology, i.e., the MBR system, can meet the Title 22 standards for disinfected tertiary recycled water under normal operating conditions, EPA has developed the permit to be consistent with the standards described above and has included effluent limits in the permit consistent with these goals.

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 $\mu\text{mhos/cm}$ for electrical conductivity. California has recommended a Secondary MCL for electrical conductivity of 900 $\mu\text{mhos/cm}$, with an upper level of 1,600 $\mu\text{mhos/cm}$ and a short-term level of 2,200 $\mu\text{mhos/cm}$. When expressed as total dissolved solids, California has recommended a Secondary MCL of 500 mg/L, with an upper level of 1,000 mg/L, and a short-term level of 1,500 mg/L.

Secondary MCLs are drinking water standards contained in Title 22 of the California's CCR. Title 22 requires compliance with these standards on an annual average basis, when sampling at least quarterly. The total dissolved solids data considered for the reasonable potential statistical analysis is based on four effluent (non-discharge) samples collected by the permittee between December 20, 2018 and February 20, 2019. Therefore, EPA has determined that the limited, non-discharge effluent data collected over the term of the previous permit is insufficient for calculating an annual average total dissolved solids concentration and determining statistical reasonable potential. However, since downstream beneficial uses include municipal and domestic supply and agricultural supply, and the non-discharge effluent is typically land-applied for irrigation, EPA finds that the permittee should continue to characterize the effluent for salinity parameters. Instead of effluent limits, the permittee will be required to collect total dissolved solids samples weekly, during periods of discharge. Total dissolved solids is an indicator parameter for salinity, and monitoring results for total dissolved solids should be characteristic of other salinity parameters, including electrical conductivity. Therefore, monitoring requirements for electrical conductivity have not been retained from the existing permit.

Total Residual Chlorine

Chlorine will not be used to disinfect the facility's effluent intended for discharge, which is disinfected through the use of UV disinfection. Chlorine will only be used to disinfect the effluent intended for discharge as a backup to the UV disinfection system.

Chlorine, and not UV, is routinely used at the facility to disinfect treated effluent that is to be re-used on-site. Although it is not very likely, a small amount of chlorine that is used to treat recycled water may potentially still be present when the recycled water re-enters the facility's treatment system and is discharged to surface water.

Although chlorine is not expected to be present in discharges to surface water, EPA believes there is a reasonable potential for chlorine residual to be present in some cases. Therefore, effluent limits and weekly monitoring requirements for total residual chlorine have been included in the permit to verify compliance during normal operations. Additionally, if chlorine is directly used to disinfect the effluent (due to the UV disinfection system being temporarily unavailable), the permit requires daily monitoring of total residual chlorine in the effluent, instead of weekly monitoring, to ensure compliance with the effluent limitations.

Turbidity

Due to the amount of treated wastewater being diverted for recycling at the facility, EPA has determined that effluent should meet the tertiary standards for recycled water described in the California's Title 22 recycled water regulations. Therefore, effluent limits consistent with the goals included in Title 22 have been established in the permit.

Toxicity

The Central Valley 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. To verify compliance with the narrative objective for toxicity, the permit includes monitoring requirements

for chronic WET. Testing for chronic WET shall be completed in accordance with Part II, Section C of the permit.

D. Anti-Backsliding

Sections 402(o) and 303(d)(4) of the CWA and 40 CFR Section 122.44(l)(1) prohibit 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 and regulation.

The permit does not establish any effluent limits less stringent than those in the previous permit and does not allow backsliding, except for effluent limitations for BOD₅ and TSS. The effluent limitations for these pollutants are less stringent than those in the previous permit. This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

CWA Section 402(o)(1) prohibits the establishment of less stringent water quality-based effluent limitations “except in compliance with Section 303(d)(4).” CWA Section 303(d)(4) has two parts: paragraph (A) which applies to non-attainment waters and paragraph (B) which applies to attainment waters.

For waters where standards are not attained, CWA Section 303(d)(4)(A) specifies that any effluent limit based on a TMDL or other waste load allocation (WLA) may be revised only if the cumulative effect of all such revised effluent limits based on such TMDL’s or WLA’s will assure the attainment of such water quality standards.

For attainment waters, CWA Section 303(d)(4)(B) specifies that a limitation based on a water quality standard may be relaxed where the action is consistent with the antidegradation policy.

The receiving water is considered an attainment water for BOD₅ and TSS because the receiving water is not listed as impaired on the CWA Section 303(d) list for these constituents. As discussed in Section VI.E, below, relaxation of the effluent limits complies with the applicable antidegradation requirements. Thus, removal of the MDELs for BOD₅ and TSS meets the exception in CWA Section 303(d)(4)(B).

For total coliform bacteria, the prior permit included only the monthly value (2.2 MPN/100mL) and this permit includes both the weekly (23 MPN) and daily (240 MPN) values. This is not a relaxation of permit limits, rather a more comprehensive approach to meeting the California’s recycled water standards.

E. Antidegradation Policy

EPA’s antidegradation policy under CWA Section 303(d)(4) and 40 CFR Section 131.12, and the State of California’s antidegradation 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 to 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 low dissolved oxygen on the CWA Section 303(d) List of Water Quality Limited Segments and there is no approved TMDL, this permit does not anticipate any significant contributions of oxygen-demanding substances from the facility's discharge to the receiving water since effluent is either re-used or land applied for irrigation and due to the infrequent nature of discharges from the facility.

This Order removes MDELs for BOD₅ and TSS based on federal regulations at 40 CFR Section 122.45(d). The removal of MDELs for BOD₅ and TSS will not result in a decrease in the level of treatment or control, or a reduction in water quality.

Therefore, due to the high level of treatment being obtained at the facility, water quality-based effluent limitations, and on-site re-use and land application practices implemented by the permittee, the discharge is not expected to adversely affect receiving water bodies or result in any degradation of water quality.

VII. NARRATIVE WATER QUALITY-BASED EFFLUENT LIMITS

The Central Valley 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 Central Valley Basin Plan.

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 Part 136, unless otherwise specified in the permit. All monitoring data shall be reported on monthly DMRs and submitted quarterly as specified in the permit. All DMRs are to be submitted electronically to EPA using NetDMR.

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 Part 136, unless otherwise specified in the permit or by EPA. 40 CFR Section 131.36 provides a complete list of priority toxic pollutants.

C. Whole Effluent Toxicity Testing

Aquatic life is a public resource protected in surface waters covered by the CWA. As evidence that CWA requirements protecting aquatic life from toxicity are met in surface waters receiving the NPDES discharge, samples are collected from the effluent and tested for toxicity in a laboratory using EPA's WET methods. These results are used to determine if the effluent causes toxicity to aquatic organisms. Toxicity testing is important because for scores of individual chemicals and compounds, chemical-specific environmentally protective levels for toxicity to aquatic life have not been developed or set as water quality standards. These chemicals and compounds can eventually make their way into NPDES effluents and their receiving surface waters. When this happens, toxicity tests of effluents can demonstrate toxicity due to present, but unknown, toxicants (including possible synergistic and additive effects), signaling a water quality problem for aquatic life.

EPA's WET methods are systematically-designed instructions for laboratory experiments that expose sensitive life stages of a test species (e.g., fish, invertebrate, algae) to both an NPDES effluent sample and a negative control sample. During the toxicity test, each exposed organism can show a difference in biological response. Undesirable biological responses include eggs not fertilized, early life stages that grow too slowly or abnormally, death, etc. At the end of a toxicity test, the different biological responses of the organisms in the effluent group and the organisms in the control group are summarized using common descriptive statistics (e.g., means, standard deviations, coefficients of variation). The effluent and control groups are then compared using an applicable inferential statistical approach (i.e., hypothesis testing or point estimate model) specified in the NPDES permit. The chosen statistical approach shall be compatible with both the experimental design of the EPA's WET method and the applicable toxicity water quality standard. Based on this statistical comparison, a toxicity test will demonstrate that the effluent is either toxic or not toxic.

The facility did not discharge any wastewater to surface waters during the previous permit term; therefore, no chronic WET data is available to evaluate reasonable potential. This permit establishes a non-limit WET trigger and monitoring for chronic toxicity so effluent toxicity can be assessed in relation to CWA requirements for the permitted discharge.

Following 40 CFR Section 122.44(d)(1), in setting the permit's level for chronic WET and conditions for discharge, EPA is using a chronic short-term WET method/test species (40 CFR Part 136) and an In-stream Waste Concentration (IWC) for the discharge representing conservative assumptions for effluent dilution necessary to protect receiving water quality. EPA recommends several statistical approaches that a permitting authority can choose from to set a

permit's WET limit. One, based on hypothesis testing, is the TST statistical approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010).

The TST's null hypothesis for chronic toxicity (H_0) is: IWC mean response (% effluent) ≤ 0.75 Control mean response. The TST's alternative hypothesis is (H_a): IWC mean response (% effluent) > 0.75 Control mean response. Results obtained from a single chronic toxicity test are analyzed using only the TST approach and an acceptable level of chronic toxicity is demonstrated by statistically rejecting the null hypothesis.

The required chronic toxicity IWC for Discharge Point 001 is $1/(D+1) \times 100 = 100\%$ effluent, where D is dilution ratio. For each chronic toxicity test, the permittee is required to report Pass "0" or Fail "1" on the DMR form. Pass "0" constitutes rejection (i.e., statistical fail) and Fail "1" constitutes non-rejection (i.e., statistical pass) of the TST null hypothesis (H_0), at the required IWC (i.e., IWC mean response (100% effluent) $\leq 0.75 \times$ Control mean response). This is determined by following the instructions in the TST, Appendix A.

For NPDES samples for WET testing, the sample hold time begins when the 24-hour composite sampling period is completed (or the last grab sample in a series of grab samples is taken) and ends when WET testing with the sample begins (i.e., initiation of WET test). 40 CFR Section 136.3(e) states that the WET method's 36-hour hold time cannot be exceeded unless a variance of up to 72-hours is authorized by EPA. See the WET Requirements section in permit.

D. Receiving Water Monitoring and Reporting

If there is any effluent discharge to surface waters, then the permittee must conduct monitoring of surface water, to ensure that the quality of water that leaves Tribal land is unlikely to impact drinking water sources downstream of the outfall. The monitoring location shall be at the furthest point of surface water present on Tribal land. This monitoring location shall be at the Tribal boundary if surface water flows off Tribal land, or at the point on Tribal land where there is no longer flow downstream of the discharge point. The substances monitored and the monitoring frequency shall be the same as in Table 1 of the permit. If the ambient monitoring shows an increase in the levels of any substance compared to levels found at the discharge point, an investigation into the probable cause for this increase shall be conducted.

After 6 months of such monitoring, if there is no indication that the quality of water that leaves Tribal land is likely to impact drinking water sources because it meets or exceeds the requirements established for the effluent at the discharge location described in the permit, the receiving water monitoring requirements may be discontinued upon written application to EPA and EPA approval.

If there is a sewage spill or other upset that is likely to result in release of effluent with concentrations higher than the permitted levels, the permittee shall conduct ambient water monitoring within 24 hours of such event and shall report the results immediately to EPA, as outlined in the permit.

IX. SPECIAL CONDITIONS

A. Development and Implementation of Best Management Practices (BMPs)

Pursuant to 40 CFR Section 122.44(k)(4), EPA may impose BMPs that are “reasonably necessary...to carry out the purposes of the Act.”

1. The permittee shall develop and implement BMPs that are necessary to safeguard against erosion from the discharge and prevent adverse impacts to receiving waters.
2. The permittee shall ensure that the facilities or systems are operated by an operator that has training and/or certification equivalent to the requirements of the State of California for operating and maintaining such facilities or systems.

B. Biosolids

Standard requirements for the monitoring, reporting, recordkeeping, and handling of biosolids in accordance with 40 CFR Part 503 are incorporated into the permit. The facility has been and anticipates continuing to dispose of biosolids in a landfill.

C. Pretreatment

EPA has established pretreatment standards to prevent the introduction of pollutants into POTWs that will interfere with or pass through the treatment works, and to improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges (Section 307 of the CWA). EPA requires any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 MGD and receiving from nondomestic sources pollutants that pass through or interfere with the operations of the POTW or are otherwise subject to pretreatment standards to establish a pretreatment program.

There are no non-domestic facilities discharging pollutants that pass through or interfere with the operations of this POTW, or which are otherwise subject to pretreatment standards. Therefore, there are no pretreatment requirements in this permit.

D. Sanitary Sewer Overflows

The permit prohibits sanitary sewer overflows and requires the permittee to identify and describe all sanitary sewer overflows that occur over the permit term.

E. Asset Management

40 CFR § 122.41(e) requires permittees to properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this permit. Asset management planning provides a framework for setting and operating quality assurance procedures and ensuring the permittee has sufficient financial and technical resources to continually maintain a targeted level of service. Asset management requirements have been established in the permit to ensure compliance with the provisions of 40 CFR § 122.41(e).

F. 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.

G. Recycled Water-Use Standards

The permittee recycles wastewater via land application for irrigation and non-potable water uses, such as toilet flushing. California has established criteria for the use of recycled water in CCR Title 22 to protect public health and the environment.

EPA has elected to utilize and apply the California's Title 22 criteria for recycled water use in order to protect public health, even though the permittee is not required to comply with California criteria for wastewater re-use on tribal land. These terms are therefore included in the permit, except monitoring for total coliform shall be weekly.

X. OTHER CONSIDERATIONS UNDER FEDERAL LAW

A. Consideration of Environmental Justice

EPA conducted a screening level evaluation of vulnerabilities in the community posed to local residents near the vicinity of the permitted facility using EPA's EJSCREEN tool. The purpose of the screening is to identify areas disproportionately burdened by pollutant loadings and to consider demographic characteristics of the population living in the vicinity of the discharge when finaling permit conditions.

In September 2019, EPA conducted an EJSCREEN analysis of the community near the vicinity of the outfall. Of the 11 environmental indicators screened through EJSCREEN, the evaluation determined an elevated indicator score for ozone.

As a result of the analysis, EPA is aware of the potential for cumulative burden of the permitted discharge on the impacted community and will issue this permit in consideration of permittee and consistent with the Clean Water Act, which is protective of all beneficial uses of the receiving water, including human health.

B. 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 (IPaC) report via the US Fish and Wildlife Service (USFWS) website. This May 2020 report provides an up-to-date list of all

proposed, candidate, threatened and endangered species that occur in the area neighboring the permittee and should be considered as part of an effect analysis for this permit. (See <https://ecos.fws.gov/ipac/location/index>)

From the USFWS Threatened and Endangered Species IPaC report, EPA found there are currently four Federally-listed threatened (T) species in 12 acres around the casino, located in Coarsegold, California. The IPaC report concluded there was no critical habitat for each of these species within the 12 acres. The listed species are presented in Table 4, below.

Table 4. ESA Species List for area near Chukchansi Casino in Coarsegold, California

Status	Species (Common Name/ <i>Scientific Name</i>)
T	California Red-legged Frog/ <i>Rana draytonii</i>
T	California Tiger Salamander/ <i>Ambystoma californiense</i>
T	Delta smelt/ <i>Hypomesus transpacificus</i>
T	Mariposa Pussypaws/ <i>Calyptridium pulchellum</i>

Under the requirements of this permit, the facility will continue to re-use treated wastewater and has one million gallons of storage for fire suppression; thus, if facility were to discharge it would be small volumes (only the volume that cannot be recycled or stored) that would likely not reach surface waters. As noted in the section above describing the general description, this facility has not discharged any treated wastewater since the initial opening of the casino in 2007. Also, there is no critical habit for each of the above species within the 12 acres surrounding the facility and where treated wastewater is applied for irrigation. Therefore, EPA has determined reissuance of the NPDES permit for the facility will have no effect on each species listed in Table 4, above. EPA provided the USFWS with copies of the final fact sheet and the final permit during the public notice period. No comments from USFWS were received.

C. Impact to Coastal Zones

The Coastal Zone Management Act (CZMA) requires that Federal activities and licenses, including Federally permitted activities, must be consistent with an approved state Coastal Management Plan (CZMA Sections 307(c)(1) through (3)). Section 307(c) of the CZMA and implementing regulations at 40 CFR Part 930 prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State (or Territory) Coastal Zone Management program, and the State (or Territory) or its designated agency concurs with the certification.

The permit does not affect land or water use in the coastal zone; therefore, CMZA does not apply to this permit.

D. Impact to Essential Habitat

The 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act (MSA) set forth a number of new mandates for the NMFS, 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 determine 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 (i.e., not in marine waters). Therefore, EPA has determined that essential fish habitat does not apply to this permit.

E. 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 Section 800.3(a)(1), EPA is making a determination that issuing this proposed NPDES permit does not have the potential to affect any historic properties or cultural properties. As a result, Section 106 of the NHPA does not require EPA to undertake additional consulting on this permit issuance.

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

EPA is the Clean Water Act (Act) Section 401 certifying authority for this permit, because the Picayune Rancheria of the Chukchansi Indians has not received authorization to implement section 303(c) of the Act. As stated in the public notice for this permit, EPA asked for public comment on Section 401 certification requirements, no comments were received. EPA granted the Section 401 certification on October 5, 2020.

Generally, the permit contains conditions and requirements for the facility discharges to meet water quality standards in the receiving waters. As explained in part III of this factsheet, general facility description, this wastewater treatment plant uses membrane bioreactor (which is a tertiary treatment technique) and UV disinfection that combine to yield high quality effluent with very low levels of pollutants. The effluent limitations are set at levels such that the discharge, if it should occur, will maintain water quality standards upon mixing with receiving waters. The term water quality standards includes numeric and narrative water quality criteria as well as the beneficial uses of the ambient waterbody; e.g., recreational bathing, fishing, and supporting aquatic life.

XI. STANDARD CONDITIONS

A. Reopener Provision

In accordance with 40 CFR Parts 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.

XII. ADMINISTRATIVE INFORMATION

A. Public Notice (40 CFR Section 124.10)

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

B. Public Comment Period (40 CFR Section 124.10)

Notice of the final permit was placed on EPA's website on August 10, 2020 for 30 days for interested parties to respond in writing to EPA. No comments were received during that time.

C. Public Hearing (40 CFR Section 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.

During the public comment time, EPA did not receive a request from an interested party to hold a public hearing.

XIII. CONTACT INFORMATION

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

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

XIV. REFERENCES

- California Department of Public Health Regulations Related to Recycled Water
(Revisions effective on 6/18/14)
- Central Valley Regional Water Quality Control Board. 2018. *Water Quality Control Plan for the Sacramento and San Joaquin River Basins, Fifth Edition, May 2018*.
- 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. 2010. *U.S. EPA NPDES Permit Writers' Manual*. Office of Water, EPA. EPA-833-K-10-001.
- EPA. 2013. *National Recommended Water Quality Criteria*. Office of Water, EPA. Aquatic Life Criteria Table. <https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table#table>
- EPA. 2014. NPDES Permit and Factsheet for the Chukchansi Gold Resort and Casino Wastewater Treatment Plant in Coarsegold, California. Issued September 14, 2014.
- EPA. 2015. *National Recommended Water Quality Criteria*. Office of Water, EPA. Human Health Criteria Table. <https://www.epa.gov/wqc/national-recommended-water-quality-criteria-human-health-criteria-table>
- EPA. 2020. IPaC report for Endangered and Threatened species list within Chukchansi resort area of Madera County, California (dated May 2020).
- EPA. 2020. Letter to Picayune Rancheria of Chukchansi Indians providing administrative extension of the 2014 permit (dated May 29, 2020).
- Picayune Rancheria of Chukchansi Indians NPDES Permit Application (dated December 6, 2018) and supplemental information (dated January 30, 2019).