

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
FACT SHEET**

Permittee's Name: The Chukchansi Gold Resort and Casino Wastewater Treatment Plant

Mailing Address: 711 Lucky Lane
Coarsegold, California 93614

Plant Location: 711 Lucky Lane
Coarsegold, California 93614

Contact Person(s): Daniel A. Burns, Environmental Director

NPDES Permit No.: CA0004009

I. Background

This permit will allow surface water discharge for an existing facility that currently land applies and/or recycles all wastewater on-site. The Picayune Rancheria of the Chukchansi Indian Community (Hereinafter “the Tribe”, “the Permittee”, or “the Discharger”), the owner of the Chukchansi Gold Resort and Casino wastewater treatment plant, (Hereinafter “Chukchansi WWTP”, “the WWTP” or “the Plant”) has applied for a National Pollutant Discharge Elimination System (NPDES) permit to allow the discharge of treated effluent from its wastewater treatment plant, in Madera County, California, to an unnamed creek on Tribal land which flows into Coarsegold Creek, a tributary to the Fresno River and San Joaquin River, which are waters of the United States.

USEPA Region 9 issued permit CA0004009 for the Chukchansi WWTP on January 4th 2007 with an expiry date of January 4th 2013. The Discharger did not timely submit an application for permit renewal and therefore the permit expired on January 4th 2013. The Discharger submitted a complete application for a new proposed permit on or about April 1, 2014. Pursuant to EPA policy, as the previous Permit was not terminated, this new proposed Permit based on the newly submitted application will retain the same Permit number as the previous one.

During the previous permit cycle there was no discharge to the receiving water from the permitted Outfall 001. There is anticipated to be no regular discharge from Outfall 001 during this next permit cycle as well. However, due to an agreement with a local fire department the Tribe is committed to maintain one million gallons of water in storage at

all times for fire suppression. With this requirement it is conceivable that maintenance of the storage tanks, and their distribution system could require the facility to discharge. The WWTP configuration requires the use of effluent pumps to access the storage tanks which are over a hundred feet above the WWTP elevation. In the event of pump failure(s) the option to discharge to the storage tank is nil. Discharge to Outfall 001 would be the only viable option as 001 discharge point is gravity fed, and could be utilized until repairs were completed. Thus the Tribe seeks to continue to maintain NPDES permit coverage.

II. General Facility Information

A. Current Operations

The Chukchansi WWTP is a tribally-owned wastewater treatment plant located in Madera, California. The current Chukchansi WWTP 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. Currently, the plant has a design capacity to treat 350,000 gallons per day (GPD) of wastewater from these facilities, and actually treats an average of about 100,000 GPD. Existing treatment of the wastewater is via an Immersed Membrane Bioreactor (MBR) treatment plant with treatment design as indicated in the process flow diagram attached as Appendix A. The MBR treatment produces a high quality effluent on a consistent basis. The facility is classified as a Minor facility under the CWA regulations which classify a wastewater treatment plant designed to treat less than one million gallons per day (MGD) as a Minor facility.

Wastewater generated by the WWTP will continue to be recycled and re-used on site for toilet flushing and on-site irrigation to the maximum extent practical. During the previous permit cycle recycling and re-use was sufficient to dispose of all wastewater and no discharge occurred from Outfall 001. However an ultra violet (UV) disinfection system has been installed and is currently operational to ensure disinfection of any discharge to the creek should it occur. A back-up, disinfection system exists for the effluent to be treated via contact chlorination and then de-chlorination (to limit residual chlorine levels) before discharge into the receiving water

III. Receiving Water

The discharge from the Chukchansi WWTP will be via Outfall No. 001 into an unnamed creek or drainage course located on Tribal land feeding into Coarsegold Creek, tributary to the Fresno River and the San Joaquin River, both waters of the United States. The

Outfall 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 from the discharge point. The Picayune Rancheria of the Chukchansi Indian Community does not currently have its own water quality standards. In situations where facilities are discharging into Tribal waters, and the Indian Nation does not have EPA-approved water quality standards, EPA's practice is to apply adjacent or downstream standards to the water body for the purpose of developing permit limitations and conditions. The federal regulation 40 Code of Federal Regulations (CFR) Section 122.4(d) gives EPA the authority to protect the waters of all affected States. Moreover, where there are no approved Tribal water quality standards, EPA has the authority to impose conditions it determines are necessary to meet the requirements of Section 402(a)(1)(B) of the Clean Water Act (CWA). EPA using its best professional judgment (Hereinafter BPJ) has applied either Federal water quality standards found in the California Toxics Rule in the Code of Federal Regulations (CFR) at 40 CFR Section 131.38, or the water quality standards found in the Basin Plan for the Central Valley Regional Water Quality Control Board (hereinafter "the RB5 Basin Plan") whichever is more protective of the beneficial uses.

The water quality standards found in the RB5 Basin Plan are composed of use designations, numeric and/or narrative water quality criteria. The applicable water quality standards in the RB 5 Basin Plan which have been applied to this water are those that apply to the Fresno River from Source to Hidden Reservoir. The beneficial uses designated for this surface water body are listed in Table II-1 of the basin plan as MUN, AGR, GWR, REC-1, FW HABITAT-WARM/COLD, and WILD. Applicable narrative water quality standards and numeric water quality standards are described in Section III of the RB5 Basin Plan.

The discharge location on Tribal land, is about a mile from the Tribal boundary. The discharge after entering the unnamed creek/wash on Tribal land just south of the WWTP, flows into two interconnected ponds also located on Tribal land. The two ponds are each about one acre in surface area with the pond further away from the tribal boundary being a bit larger than the pond adjacent to Highway 41. The water from the pond adjacent to Highway 41, flows under Highway 41 via a 5 foot by 5 foot reinforced concrete box, from where it enters Coarsegold Creek and eventually the Fresno River which then flows down to Hensley Lake which forms behind the Hidden Dam on the Fresno River. Downstream of Hidden Dam the Fresno River flows into the San Joaquin River.

IV. Description of Discharge

The discharge will be tertiary treated municipal wastewater treated using an Immersed Membrane Bioreactor (MBR) treatment plant. The MBR incorporates the use of a membrane barrier for solids separation. The MBR treatment produces a high quality effluent on a consistent basis, which allows for efficient recycling and re-use. The effluent prior to discharge, if it were to occur, will be disinfected using UV disinfection treatment.

A. Permit Application Summary

The Permit to the Tribe is for an on-site wastewater treatment plant that will discharge treated effluent to an unnamed creek or drainage course feeding into Coarsegold Creek, a tributary to the Fresno River and the San Joaquin River. The proposed design flow is for a maximum of 350,000 gallons per day, with a designed average flow of 235,000 gallons per day. The facility currently produces, treats, recycles, re-uses on average, 100,000 gallons per day. Under the requirements of this permit the facility will continue to recycle and re-use as much water as practical and only discharge that volume that cannot be recycled, re-used. Since no discharge occurred during the previous permit cycle no discharge data is available. However, as required in Section IV of Form 2E the discharger provided estimates for the listed parameters it has data for below:

Pollutant or Parameter	Mass (max daily value)	Conc. (max daily value)	Mass (avge daily value)	Conc. (avge daily value)	Number of Measurements	Source of Estimate
BOD	N/A	4.0 mg/L	N/A	4.0 mg/L	52	applicant
TSS	N/A	0.1 ml/L/Hr	N/A	0.1 ml/L/Hr	52	applicant
Fecal Coliform	N/A	2.0 MPN	N/A	< 2.2 MPN	52	applicant
Total Residual Chlorine	N/A	N/A	N/A	N/A	N/A	N/A

Oil and Grease	N/A	1.1 mg/L	N/A	1.1 mg/L	4	applicant
COD	N/A	N/A	N/A	N/A	N/A	N/A
TOC	N/A	N/A	N/A	N/A	N/A	N/A
Ammonia (as N)	N/A	1.0 mg/L	N/A	1.0 mg/L	4	applicant
Discharge Flow	0.0 MGD		0.0 MGD		N/A	applicant
Nitrogen (Nitrate + Nitrite)	4.8 mg/L		4.25 mg/L		4	applicant
Phosphorous (Total)	6.6 mg/L		5.75 mg/L		4	applicant
pH	7.51-7.99		N/A		N/A	applicant
Temp. in Celsius (Summer)	30.9		Unknown		N/A	applicant
Temp. (Winter)	26.4		Unknown		N/A	applicant

B. Discharge Monitoring Report (DMR) Data

As there were no discharges during the previous permit cycle there was no DMR data available.

V. Technology-Based Effluent Limitations for Conventional Pollutants

Section 301(a) of the Act provides that the discharge of any pollutant to waters of the United States is unlawful except in accordance with an NPDES permit. Section 402 of

the Act establishes the NPDES program. The program is designed to limit the discharge of pollutants into waters of the U.S. from point sources (40 CFR 122.1 (b)(1)) through a combination of various requirements including technology-based and water quality-based effluent limitations.

Under 40 CFR Part 125.3(c)(2), technology-based treatment requirements may be imposed on a case-by-case basis under Section 402(a)(1) of the Act. The regulation allows the permit writer to consider appropriate technology for the category or class of point sources and any unique factors relating to the applicant. Unless otherwise noted, the following permit limitations must be met at the point of discharge.

Settleable Solids

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:

30-day average - 1ml/L

Daily maximum - 2ml/L

EPA developed technology-based treatment standards for municipal wastewater treatment plants in accordance with Section 301(b)(1)(B) of the Clean Water Act. As a municipal wastewater treatment system, the minimum levels of effluent quality attainable by secondary treatment for Biological Oxygen Demand (BOD), Total Suspended Solids (TSS), and pH, are defined in 40 CFR 133.02

The permit requires the Permittee to meet discharge limits for BOD and TSS that are more stringent than those defined in 40 CFR 133.02. Specifically, EPA has imposed, based on BPJ, requirements in the permit that are consistent with "California Title 22, tertiary 2.2" recycled water criteria. These more stringent standards are consistent with the discharge requirements for other municipal wastewater discharges in the area. The permit establishes an average monthly limit of 10 mg/L, an average weekly maximum of 15 mg/L, and a daily maximum limit of 20 mg/L. These limits are more stringent than technology-based standards

BOD and Suspended Solids

30-day average - 10 mg/l

7-day average - 15 mg/l

30-day average percent removal: minimum 85%

Mass Limits -

30-day average: $(10 \text{ mg/l}) \times (350,000 \text{ gal/day}) \times (1 \text{ kg/l} \times 10^6 \text{ mg}) \times (3.785 \text{ l/gal})$

$$\begin{aligned} &= 13.249 \text{ kg/day} \\ \text{7-day average: } &(15 \text{ mg/l}) \times (350,000 \text{ gal/day}) \times (1 \text{ kg/l} \times 10^6 \text{ mg}) \times (3.785 \text{ l/gal}) \\ &= 19.869 \text{ kg/day} \end{aligned}$$

$$\begin{aligned} &\text{Daily maximum (based on Best Professional Judgement)-} \\ &2 \times (30\text{-day average}) = 26.498 \text{ kg/day} \end{aligned}$$

VI. Water Quality Based Effluent Limitations for Other Constituents

As described in 40 CFR 122.44(d), an NPDES permit must contain “any requirements in addition to or more stringent than promulgated effluent limitation guidelines or standards necessary to achieve water quality standards...including State narrative criteria for water quality.” Additionally, as described in 40 CFR 122.44(d)(i), NPDES permits are required to limit any “pollutant or pollutant parameter (whether conventional, nonconventional, or toxic), including whole effluent toxicity, that is or that may be discharged at a level that causes, has the reasonable potential to cause, or contributes to an excursion above any water quality criterion, including State narrative water quality criteria.”

- A. Numeric Water Quality Standards: Numeric water quality standards are used to calculate limits for parameters above detection and for those expected to be present in the effluent.

The process of "reasonable potential" analysis was used to compare effluent discharges to water quality standards, as required by 40 CFR 122.44(d)(1)(ii), (iii) and (iv) which states:

When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria for a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing, and where appropriate, the dilution of the effluent in the receiving water. The procedures used to determine reasonable potential are outlined in *Technical Support Document for Water Quality-based Toxics Control (TSD)* (EPA/502/2-90-001).

When the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient

concentration of a numeric criterion for a State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant.

When the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the numeric criterion for whole effluent toxicity, the permit must contain effluent limits for whole effluent toxicity (Hereinafter WET).

The results of the priority pollutant scan conducted prior to issuance of previous permit indicated results of Non Detect for all regulated parameters with the exception of Copper (8.7 ug/L), and Zinc (97 ug/L). As no discharge occurred during the previous permit cycle, no subsequent priority scan was done, and the information from the original priority pollutant scan done has been used. The results of the priority pollutant scan demonstrated that Copper and Zinc may have reasonable potential to exceed the permit limit. Based on hardness data from the effluent (220 mg/L), EPA calculated the most stringent water quality standard for both Copper and Zinc and compared the water quality standard to the projected maximum expected value of the discharge in accordance with EPA guidance procedures in the Technical Support Document for Water Quality Based Toxics Control (hereinafter “the TSD”). Based on these results, EPA conducted the following reasonable potential analysis

Detected Analyte	Observed Value	Projected Maximum (based on 99% confidence, 95% probability, Cv=0.6)	Most Stringent water quality standard	Reasonable Potential?
Copper	8.7 ug/L	53.2 ug/L	14.6 ug/L	Yes
Zinc	97 ug/L	601 ug/L	116 ug/L	Yes

As there is reasonable potential for excursions above the ambient criteria, the following ambient criteria for copper and zinc were developed and included in the permit.

Copper

The Copper criteria is hardness dependent. In this case, the hardness value used is the effluent hardness value reported by the discharger. The formula for calculating the CMC and CCC are as below

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

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

Following TSD Table 5-1 for acute water quality criteria protecting aquatic life, “0.321” is the statistical multiplier for back-calculating the acute long term average (LTA) when the acute wasteload allocation is established at the 99th percentile occurrence probability and EPA estimates the Coefficient of Variation (CV) of the pollutant in the effluent is 0.6

$$\text{Therefore the acute LTA} = 29.4 \text{ ug/L} \times 0.321 = 9.4 \text{ ug/L}$$

Following TSD Table 5-1 for chronic water quality criteria protecting aquatic life, “0.527” is the statistical multiplier for back-calculating the chronic long term average (LTA) when the chronic wasteload allocation is established at the 99th percentile occurrence probability and EPA estimates the Coefficient of Variation (CV) of the pollutant in the effluent is 0.6.

$$\text{Therefore the chronic LTA} = 18.3 \text{ ug/L} \times 0.527 = 9.7 \text{ ug/L}$$

Following TSD Section 5.4, the lowest of the acute or chronic LTA is selected and used to calculate maximum daily and average monthly water quality based effluent limits. The statistical procedure outlined in TSD Table 5-2 is used to calculate 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 and chooses the statistical multiplier factor 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:

$$\text{The lowest LTA} = \text{acute LTA} = 9.4 \text{ ug/L}$$

Therefore,

The maximum daily limit = $9.4 \text{ ug/L} \times 3.11 = 29.4 \text{ ug/L}$

The average monthly limit = $9.4 \text{ ug/L} \times 1.55 = 14.6 \text{ ug/L}$

Zinc

The Zinc criteria is hardness dependent. In this case, the hardness value used is the effluent hardness value reported by the discharger. The formula for calculating the CMC and CCC are as below:

$$\text{CMC} = e \{ 0.8473 [\ln(220)] + 0.8604 \} \times 0.978 = 234 \text{ ug/L}$$

$$\text{CCC} = e \{ 0.8473 [\ln(220)] + 0.7614 \} \times 0.986 = 234 \text{ ug/L}$$

Following TSD Table 5-1 for acute water quality criteria protecting aquatic life, “0.321” is the statistical multiplier for back-calculating the acute long term average (LTA) when the acute wasteload allocation is established at the 99th percentile occurrence probability and EPA estimates the Coefficient of Variation (CV) of the pollutant in the effluent is 0.6.

$$\text{Therefore the acute LTA} = 234 \text{ ug/L} \times 0.321 = 75 \text{ ug/L}$$

Following TSD Table 5-1 for chronic water quality criteria protecting aquatic life, “0.527” is the statistical multiplier for back-calculating the chronic long term average (LTA) when the chronic waste load allocation is established at the 99th percentile occurrence probability and EPA estimates the Coefficient of Variation (CV) of the pollutant in the effluent is 0.6.

$$\text{Therefore the chronic LTA} = 234 \text{ ug/L} \times 0.527 = 123.3 \text{ ug/L}$$

Following TSD Section 5.4, the lowest of the acute or chronic LTA is selected and used to calculate maximum daily and average monthly water quality based effluent limits. The statistical procedure outlined in TSD Table 5-2 is used to calculate 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 and chooses the statistical multiplier factor 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 = acute LTA = 75 ug/L

Therefore,

The maximum daily limit = $75 \text{ ug/L} \times 3.11 = 233 \text{ ug/L}$

The average monthly limit = $75 \text{ ug/L} \times 1.55 = 116 \text{ ug/L}$

Additionally, in setting the effluent limitations in this permit, EPA evaluated the typical pollutants expected to be in WWTP discharge effluent and selected the following pollutants to set effluent limitations. To ensure that the effluent meets the requirements of Sections 301 and 402 of the CWA, EPA, based on BPJ, imposed the most stringent of applicable technology-based or water quality-based effluent limitations. Where effluent concentrations of toxic parameters are unknown or are not reasonably expected to be discharged in concentrations that have the reasonable potential to cause or contribute to exceedences of 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 limits if necessary based on additional monitoring data.

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 and due to the conversion of ammonia to nitrate, effluent limitations are established for ammonia.

Ammonia is to be measured concurrently with pH and temperature and both the actual ammonia level and an Ammonia Impact Ratio (AIR) are to be reported. A reporting log is provided in Appendix D. to the permit, to assist in the calculation of the AIR.

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).

Phosphorous

The Fresno River Nutrient Reduction Plan concluded that in the Fresno River basin, phosphorous may be more important in preventing nutrient loading in receiving waters than nitrogen. However the RB5 Basin Plan does not have a numeric limit for phosphorous for the receiving water. The Basin Plan does however include a narrative limitation on nutrients. Therefore EPA using BPJ, has established monthly monitoring requirements to assess the potential impacts of phosphorous on nutrient loading in the receiving water at the point of discharge and downstream.

Total Dissolved Solids/Electrical Conductivity

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

Because there was no discharge during the previous permit cycle there is a lack of discharge data, and it is unknown at this time if the discharge from the WWTP will have the reasonable potential to cause or contribute to an exceedance of water quality standards. Therefore, the draft permit, using BPJ, establishes monthly monitoring requirements for EC and TDS to assess EC and TDS levels in the discharge.

Total Coliform

Based on the nature of WWTP effluent, there is a reasonable potential for coliform bacteria to violate water quality standards. Because the treatment technology, i.e. the MBR system, used by the Tribe can under normal operating conditions meet these standards it is EPA's best professional judgment (BPJ) that the Permit be consistent with California Title 22, tertiary standards, and has included appropriate limits in the permit consistent with that goal.

Based on MUN standards, total coliform must not exceed 2.2 /100mL in a 7 day average. Since the MUN is the most stringent standard. However, pursuant to "California Title 22, tertiary disinfection standards for the re-use of wastewater for spray irrigation of food crops, parks, playgrounds, schoolyards, and other areas of public access, the treated wastewater must 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. This is consistent with the MUN standard, and the 7-day median is the limit established in the permit.

pH

The RB5 Basin Plan in Section III requires that a pH of 6.5 to 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 the technology based requirements for pH, therefore, this limit is included in the permit.

Total Residual Chlorine

Chlorine will NOT be used to disinfect treated effluent from the Chukchansi WWTP intended for discharge to surface water, instead the discharge will be disinfected through the use of Ultra Violet (UV) disinfection. Chlorine will only be used to directly treat the effluent intended for discharge as a back-up if the UV disinfection system is not able to disinfect the effluent.

Chlorine will be used routinely to disinfect treated effluent which is to be re-used and recycled on site. The California Title 22, regulations require facilities to use chlorine and not UV for disinfection of treated wastewater that is to be re-used or recycled on site. Although it is not very likely, a very small amount of the chlorine that is used to treat the re-used water may potentially still be present when that re-used water again enters the WWTP and is discharged to surface water.

Chlorine is not expected to be present in the discharge to surface water, however EPA believes there is some potential for chlorine residue to present. Therefore, effluent limits for residual chlorine have been included in the permit, with weekly testing requirements

to verify compliance during normal operations. Additionally, if chlorine is used directly to disinfect effluent (due to UV disinfection being temporarily unavailable), the permit requires stepped up daily monitoring, instead of normal weekly monitoring, to ensure compliance.

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

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). Monitoring of oil and grease levels in the effluent has been incorporated to ensure that the narrative standards are not exceeded.

Toxicity

The RB5 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. Both Acute and Chronic WET testing is required, and will be conducted as described in the permit section Part I. Section C. to assess the reasonable potential of the discharge to have toxic effects on aquatic organisms.

B. Narrative water quality standards: Based on its BPJ EPA has determined that, as stated in the RB5 Basin Plan, the following narrative water quality standards apply:

1. Waters shall not contain bio-stimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses;
2. Waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses;
3. Water shall be free of discoloration that causes nuisance or adversely affects beneficial uses;

4. Water shall not contain floating material in amounts that cause nuisance or adversely affect beneficial uses;
5. Waters shall not contain oils, greases, waxes, or other materials in concentrations that cause nuisance, result in visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses;
6. No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses;
7. Radionuclides shall not be present in concentrations that are harmful to human, plant, animal, or aquatic life nor result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life;
8. The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses;
9. Waters shall not contain substances in concentrations that result in the deposition of material that causes nuisance or adversely affect beneficial uses;
10. Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses;
11. The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of EPA that such alteration of temperature does not adversely affect beneficial uses;
12. All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal or aquatic life. This objective applies whether the toxicity is caused by a single substance or the interactive effect of multiple substances. Compliance with this objective will be determined by analyses of indicator organisms, species diversity, population density, growth anomalies, and biotoxicity tests of appropriate duration or other methods as specified by EPA;

13. Waters shall not contain taste or odor producing substances in concentrations that impart undesirable tastes or odors to domestic or municipal water supplies or to fish or other edible products of aquatic origin, or that cause nuisance, or otherwise adversely affect beneficial uses;
14. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses;

VII. Special Conditions

A. Screening of Priority Toxic Pollutants

Based on BPJ, EPA has determined that within 90 days of the first discharge from outfall 001 following the issuance of the final permit a comprehensive screening for Priority Toxic Pollutants listed for the California Toxics Rule must be completed.

If an exceedence of the limits, or a reasonable potential for exceedence of such limits is detected, further testing of that or those particular compound(s) must be undertaken within 30 days of the initial testing or the issuance of the permit to determine the cause of exceedence or potential exceedence and this permit may be re-opened to require appropriate limits.

If no exceedence of the limits, or a reasonable potential for exceedence of such limits is detected, the Permittee shall conduct a comprehensive screening for Priority Toxic Pollutants, within the final year of the permit cycle. Results of this screening shall be included in any application for permit renewal submitted.

B. Ambient Water Monitoring

The discharger must conduct monitoring of surface water if there is any discharge to surface water to ensure that the quality of water that leaves Tribal land is unlikely to impact drinking water sources downstream of the location. The testing location shall be at the furthest point of surface water present on Tribal land. This point 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 six 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 in the permit, this monitoring 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 as required in the permit, 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.

C. Erosion Control

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

VIII. Monitoring Requirements

A. Flow Quantity, Organics, and Inorganics

The permit requires daily flow monitoring and weekly and monthly monitoring for the technology-based parameters noted in VII.B. Table 1 also indicates requirements for the type of sample to be collected, i.e., discrete or composite.

B. Technology-Based Limitations and Indicator Parameters

Technology-based and indicator parameters will be monitored to ensure proper operational control of the facility. pH, temperature and turbidity will be monitored daily, BOD and suspended solids, total coliform and other parameters will be monitored weekly.

Some operationally related parameters will also be monitored to ensure compliance with water quality standards. Monitoring for TRC is proposed at weekly intervals to verify adequate removal of chlorine prior to discharge to the receiving water, when chlorine treatment of the effluent is used.

C. Sample Locations

Samples taken in compliance with the monitoring requirements specified in the permit shall be taken downstream from the last treatment process prior to discharge into receiving waters.

D. Whole Effluent Toxicity

The permit establishes tests for toxicity 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, *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. Other Considerations Under Federal Law

A. Anti-Degradation

USEPA's anti-degradation policy at 40 CFR Section 131.12 requires existing water uses and the level of water quality necessary to protect the existing uses to be maintained. Due to the nature of the discharge activities, management practices that ensure clean or relatively pollutant-free wastewaters, it is not expected that the discharge will adversely affect the water quality standards in the receiving water.

B. 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 proposed permit does not contain any provisions that are less stringent than those established in the previous permit and therefore does not allow backsliding.

C. Endangered Species Act

Background

The Endangered Species Act (ESA) requires and authorizes Federal agencies to evaluate the effects of their proposed actions on threatened or endangered species of fish, wildlife, or plants and habitat of such species that have been designated as critical. Specifically the ESA requires Federal agencies such as the U.S. Environmental Protection Agency (EPA) to ensure, in consultation with the U.S. Fish and Wildlife Service (USFWS), that any action authorized, funded or carried out by EPA is not likely to jeopardize the continued existence of any Federally listed threatened or endangered species or adversely affect critical habitat of such species. [40 CFR 122.49(c)]. Since the issuance of NPDES permits by EPA is a Federal action, consideration of a permitted discharge and its effect on any listed species is appropriate.

Implementing regulations for the ESA establish a process by which Federal agencies consult with one another to ensure that the concerns of both the USFWS and the National Marine Fisheries Service (NMFS) (collectively “Services”) are addressed. EPA provided copies of the draft permit and fact sheet to the USFWS during the public comment period along with its tentative finding, based on the information EPA collected, that the permit will have no effect on any federally listed threatened or endangered species. USFWS has not provided any additional information to suggest that this finding is not accurate.

EPA’s Finding

The NPDES permit authorizes the discharge of treated wastewater in conformance with the more stringent of federal and state water quality standards as described in Sections V., VI., and VII., of this permit and contains provisions for monitoring conventional, toxic chemicals, and non-conventional pollutants in compliance with the applicable federal and California water quality standards, to

ensure an appropriate level of quality of water discharged by the facility. These standards are applied in the permit as both numeric and narrative limits. The standards are themselves designed to protect aquatic species, including threatened and endangered species, therefore, discharge in compliance with these standards will not adversely impact any threatened and endangered species.

Based on the review of information on threatened and endangered species, critical habitats, and review of other pertinent information obtained, EPA believes that discharge in compliance with this permit will have no effect on any federally listed threatened or endangered species. EPA may decide that changes to the permit may be warranted based on receipt of new information and EPA will initiate consultation should new information reveal impacts not previously considered, or should the activities affect a newly-listed species. Re-opener clauses have been included in the permit should new information become available to indicate that the requirements of the permit need to be changed.

X. Standard Conditions

Conditions applicable to all NPDES permits are included in accordance with 40 CFR, Part 122.

XI. Administrative Information

A. Public Notice (40 CFR Part 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 a NPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit.

B. Public Comment Period (40 CFR Part 124.10)

Regulations require that NPDES permits be noticed in a daily or weekly newspaper within the area affected by the facility or activity and provide a minimum of 30 days for interested parties to respond in writing to EPA. EPA

noticed the permit in a daily newspaper within the area (The Fresno Bee) for a period of 30 days commencing on or about June 30, 2014. No Comments were received during the public comment period.

XII. Additional Information

Additional information relating to this proposed permit was made available at the following location:

U.S. Environmental Protection Agency, Region IX
NPDES Permits Office Mail Code: WTR-5
75 Hawthorne Street
San Francisco, California 94105
Telephone: (415)972-3516
Attn: Gary Sheth

XIII. Information Sources

While developing effluent limitations, monitoring requirements and special conditions for the draft permit, the following information sources were used:

1. NPDES Permit Application Forms and supplementary information submitted by Permittee dated 03/31/14.
2. 40 CFR Part 131.38 Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California. 40 CFR Parts 122, 124, and 133.
3. EPA Technical Support Document for Water Quality-Based Toxics Control (EPA/505/2-98-001, March, 1991).
4. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA 821-R-02-013, October 2002).
5. EPA NPDES Permit Writers Manual (EPA-833-K-10-001, September 2010).

6. Water Quality Control Plan for the State of California, Region 5, Central Valley Region Sacramento and San Joaquin River Basins, 4th Edition September 1998, and all amendments to date.
7. Interim Final Regions 9 and 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs, May 31, 1996.
8. Species List for NPDES Permit No. CA0004009. Document No. 140421111914. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, April 21, 2014.