NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FACT SHEET
June 2021

Permittee Name: Navajo Tribal Utility Authority ("NTUA")

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Facility Location: NTUA Ganado Wastewater Treatment Facility
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Ganado, Arizona 86505

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NPDES Permit No.: NN0022195

I. STATUS OF PERMIT

NTUA (the "permittee") has applied for the renewal of its National Pollutant Discharge Elimination System ("NPDES") permit to authorize the discharge of treated effluent from the Ganado wastewater treatment lagoon facility ("WWTF") located in Ganado, in the central portion of the Navajo Nation, Arizona. The WWTF is owned and operated by the NTUA. The permittee applied for a permit renewal on October 2, 2020.

The Navajo Nation ("Tribe") is a federally recognized Indian tribe. As the Navajo Nation EPA ("NNEPA") does not have primary regulatory responsibility for administering the NPDES permitting program, U.S. EPA Region 9 ("USEPA") has developed this NPDES permit renewal and fact sheet pursuant to Section 402 of the Clean Water Act, which requires point source dischargers to control the amount of pollutants that are discharged to waters of the United States. The final permit incorporates both federal standards and applicable tribal water quality requirements.

The permittee is currently covered under NPDES Permit No. NN0022195, which became effective on February 1, 2016, through midnight January 31, 2021. This fact sheet is based on information provided by the discharger through its permit application, effluent discharge data,

along with the applicable laws and regulations. Pursuant to 40 CFR § 122.21, the terms of the existing permit are administratively extended until the issuance of a new permit.

Pursuant to Section 402 of the Clean Water Act ("CWA"), the U.S. EPA is proposing issuance of the NPDES permit renewal to the permittee for the discharge of treated domestic wastewater to Pueblo Colorado Wash, a tributary to Cottonwood Wash, an eventual tributary to the Little Colorado River, a water of the United States.

The facility is under Administrative Orders on Consent ("AOCs") with the USEPA [Docket No. CWA-309(a)-16-002, September 29, 2016] and the NNEPA [Docket No. NNCWA-AOC-2014-001, October 28, 2014] to address the shortcomings and compliance failures with the operation, maintenance, and overall implementation of the NPDES permit. Under the AOCs, NTUA committed to submit a Compliance Plan and develop an Operation and Maintenance Plan to ensure compliance with the NPDES permit. NTUA submitted a draft compliance plan on June 10, 2015 in response to the NNEPA-issued AOC.

As of the date of writing of this Fact Sheet, the facility remains subject to these AOCs and the corrective action requirements contained therein, in addition to the requirements specified in the final NPDES permit renewal.

II. SIGNIFICANT CHANGES TO PREVIOUS PERMIT

Table 1. Significant Changes to Previous Permit

Permit Condition	Previous Permit (2016 – 2021)	Re-issued permit	Reason for change
DMR submittal	Hardcopy accepted	Switch to e-reporting	EPA e-reporting Rule
Biosolids report	Hardcopy accepted	Switch to e-reporting	EPA e-reporting Rule
Chronic WET testing requirements and triggers	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_o) and the percent effect.	The requirements in the final permit have been established in accordance with the TST statistical approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010).
Best Management Practices ("BMPs")	None	The final permit incorporates standard BMPs language for small utilities.	Provision of 40 CFR § 122.44(k)(4)
Sanitary Sewer Overflow (SSO)	None	The final permit incorporates standard SSO language for small utilities.	Consistent with internal EPA Region 9 policy and other recently issued permits

Asset Management Program ("AMP")	None	The final permit incorporates standard asset management requirement for small utilities.	Provision of 40 CFR § 122.41(e)

III. GENERAL DESCRIPTION OF FACILITY

The NTUA Ganado wastewater treatment facility ("WWTF") is located approximately 0.5 mile south of US 264 in the central portion of the Navajo Nation, Arizona. The facility serves a population of approximately 3,300 from nearby homes and schools, receiving only domestic sewage with a design flow capacity of 0.4 million gallons per day ("MGD"). The Ganado WWTF is considered a Publicly Owned Treatment Works ("POTW") and a minor discharger.

Based on the October 2020 permit renewal application, the annual average flow rates were 0.025 MGD in 2018, 0.016 MGD in 2019 and 0.030 MGD in 2020. Maximum daily flow rates were 0.33 MGD, 0.03 MGD and 0.04 MGD for 2018, 2019 and 2020, respectively.

The WWTF consists of a two-cell (each 25 feet deep and clay-lined) evaporation system with aeration. Wastewater enters the plant in a deep structure that houses a bar screen, and then is lifted via a pump into the first clay cell (Cell #1) with six aerators, three of which are brush aerators. Wastewater then flows to a polishing lagoon (Cell #2) to allow for settling and evaporation. Effluent leaving Cell #2 undergoes disinfection with chlorine gas combined with potable water in a contact chamber and sulfur dioxide dechlorination. Effluent flow is measured in an effluent flume prior to discharge. The WWTF discharges intermittently during the winter months, with flows averaging 0.02 to 0.04 MGD.

EPA has not received any information on sludge handling from the facility. And based on a March 2019 inspection report, EPA is not aware that the facility has ever removed or disposed of its biosolids (eg. sewage sludge) from the site.

IV. DESCRIPTION OF RECEIVING WATER

When discharging, the treated effluent flows to Outfall 001 (latitude 35º 42' 33" N, longitude 109º 33' 57.5" W) to Pueblo Colorado Wash, a tributary to Cottonwood Wash, an eventual tributary to the Little Colorado River, which is a water of the United States.

V. DESCRIPTION OF DISCHARGE

The Ganado WWTF provides equivalent to secondary treatment of wastewater using a lagoon system. Treatment consists of bar screening, aeration, clarification, disinfection via chlorine gas, and dechlorination via sulfur dioxide.

USEPA and the Navajo Nation EPA ("NNEPA") conducted a compliance evaluation inspection on December 4, 2018, and noted that the facility was not discharging at the time and the aerators were shut off to conserve energy. The inspectors found that process sampling was

not conducted on a routine basis and general maintenance is not performed on a routine basis, resulting in excessive vegetation along the berms of the lagoons and adversely affecting the structural integrity of the berms. Inadequate and improper maintenance hinders the ability for the facility to provide treatment. And the absence of routine process sampling data does not allow for making necessary adjustments to plant operation and evaluating treatment efficiency levels.

A. Application Discharge Data

As part of the application for permit renewal, the permittee is required to provide data from an analysis of the facility's treated wastewater discharge

Table 2. Application Discharge Data Reported in Form 2A

Pollutant Parameter	Units	Discharge Data		Number of Samples
		Maximum Daily Discharge	Average Daily Discharge	
Flow	MGD	0.033	0.023	10
Biochemical oxygen demand, 5-day (BOD_5)	mg/L	19.5	10.2	10
pH	Standard units	4.0 to 9.0		n/a
Temperature	°C	7.63 to 8.4		n/a
Fecal Coliform	CFU	547.5	67.54	10
Total Suspended Solids (TSS)	mg/L	48.5	13.26	10
Ammonia (as N)	mg/L	3.01	1.34	10
Chlorine, total residual (TRC)	µg/l	<1.2	<1.2	10
Total Dissolved Solids (TDS)	mg/L	1158	724	n/a
Hardness (as $CaCO_3$)	mg/L	n/a	n/a	n/a
Arsenic	mg/L	<0.01	n/a	1
Copper, total recoverable	mg/L	<0.01	n/a	1
Lead, total recoverable	mg/L	<0.001	n/a	1
Nickel, total recoverable	mg/L	<0.02	n/a	1
Zinc, total recoverable	mg/L	<0.02	n/a	1
Cyanide	mg/L	<0.01	n/a	1
Total Phenolic Compounds	mg/L	<0.05	n/a	1

*From the permittee's NPDES permit application and/or supplemental information

B. Recent Discharge Monitoring Report Data (2015-2021)

Table 3 shows data related to discharge from Outfall 001 based on permittee's discharge monitoring reports ("DMRs") from January 2015 to February 2021. More information is available on Enforcement and Compliance History Online ("ECHO") at https://echo.epa.gov/detailed-facility-report?fid=NN0022195. Pollutants believed to be absent or never detected in the effluent are not included in Table 3. The data does not show elevated concentrations of any parameter above the permit limits, except for *E. coli* and total ammonia as reflected in the ammonia impact ratio.

Table 3. Effluent Data for [Outfall 001] from 2015-2021 based on 0.4 MGD design flow

Parameters	Units	Permit Effluent Limitations			Effluent Data			
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly	Highest Average Weekly	Highest Maximum Daily	Monitoring Frequency
Flow Rate	MGD	-- (1)	--	-- (1)	0.06 (2/2015)	--	0.44 (10/2015)	Monthly
Ammonia (as N)	mg/L	-- (1)	--	-- (1)	7.33	--	7.33	Monthly
Ammonia Impact Ratio (AIR)	Ratio	1.0 (2)	--	1.0 (2)	4.69	--	4.69	Monthly
Biochemical Oxygen Demand 5-day (BOD_5)	mg/L	45	65	--	40.1	40.1	--	Monthly
	lbs/day	68(3)	98(3)	--	7.3	9.5	--	
	% Removal	>65 % minimum (4)			lowest = 95.7%			Monthly
Total Suspended Solids (TSS)	mg/L	90	135	--	48.5	95.4	--	Monthly
	lbs/day	136(3)	203(3)	--	10.6	14.8	--	
	% Removal	>65 % minimum (4)			lowest = 94 %			Monthly
Chlorine, total residual (TRC)	µg/l	--	--	11.0	--	--	1.2	Monthly
TDS	mg/L	--	--	--	--	--	1,158	Quarterly
E. coli	CFU/ 100mL	126	--	235	547.5	--	547.5	Monthly
pH	S.U.	6.5 to 9.0 (min-max)			4.0 - 9.69			Monthly
Temperature	°C	-- (1)	--	-- (1)	3 to 12.9	--	3 to 14	Monthly
Whole Effluent Toxicity, chronic	Pass or Fail	--	--	Pass (5)	--	--	Fail (1/2020)	Semiannually January/July

(1) No effluent limits were set, but monitoring and reporting were required.
(2) When monitoring for total Ammonia (as Nitrogen), pH monitoring must be concurrent. The Ammonia Impact Ratio (AIR) is calculated as the ratio of the Ammonia value in the effluent and the applicable ammonia standard from the chronic equation in the Tribal Water Quality Standards. See Attachment E for a sample log to help calculate and record the AIR values. The AIR is the ammonia effluent limit and must be reported in the DMRs in addition to the Ammonia-N and pH effluent values.
(3) Mass based limits calculated using 0.4 MGD flow.
(4) Both the influent and the effluent shall be monitored. The arithmetic means of the BOD_5 and TSS values, by concentration, for effluent samples collected over a calendar month shall not exceed 35 percent of the arithmetic mean, by concentration, for influent samples collected at approximately the same times during the same period (i.e. minimum of 65% BOD_5 removal; minimum of 65% TSS removal).
(5) See Section F– Chronic WET Requirements of the previous permit for details of the chronic WET test requirement. All chronic WET tests must be "Pass," and no test may be "Fail." "Pass" constitutes a rejection of the null hypothesis. Testing shall be conducted concurrent with testing for all other parameters.

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 final permit, as described below.

A. Applicable Technology-Based Effluent Limitations

EPA developed technology-based treatment standards for wastewater treatment plants in accordance with Section 301(b)(1)(B) of the Clean Water Act. The minimum levels of effluent quality attainable by secondary equivalency treatment for BOD_5, TSS, and pH, as defined in 40 CFR §§ 133.101(f), 133.103(c), 133.105(b) and (d), are listed below. Mass limits, as required by 40 CFR § 122.45(f), are included for BOD_5 and TSS in the permit. As the facility is operating at lower than the 0.4 MGD design capacity, a long-term average historical flow rate of 0.18 MGD has been used in determining the mass limits consistent with the previous permit.

BOD_5

Concentration-based Limits
30-day average: 45 mg/L
7-day average: 65 mg/L
Minimum of 65% Removal Efficiency

Mass-based Limits
30-day average:

$$\frac{0.18\ MG}{day} \times \frac{45\ mg}{l} \times \frac{8.345\ lb/MG}{mg/l} = 68\ lbs\ per\ day$$

7-day average:

$$\frac{0.18\ MG}{day} \times \frac{65\ mg}{l} \times \frac{8.345\ lb/MG}{mg/l} = 98\ lbs\ per\ day$$

TSS:

Concentration-based Limits
30-day average: 90 mg/L
7-day average: 135 mg/L
Minimum of 65% Removal Efficiency

Mass-based Limits
30-day average:

$$\frac{0.18\ MG}{day} \times \frac{90\ mg}{l} \times \frac{8.345\ lb/MG}{mg/l} = 136\ lbs\ per\ day$$

7-day average:

$$\frac{0.18\ MG}{day} \times \frac{135\ mg}{l} \times \frac{8.345\ lb/MG}{mg/l} = 203\ lbs\ per\ day$$

pH:

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

Priority Pollutant Scan:

The final permit includes a monitoring requirement for the full list of priority pollutants as listed in 40 CFR Part 423, Appendix A during year 5 of the permit cycle. No limit is set at this time.

B. Water Quality-Based Effluent Limitations (WQBELs)

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

When determining whether an effluent discharge causes, has the reasonable potential to cause, or contributes to an excursion above narrative or numeric criteria, the permitting authority shall use procedures 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 § 122.44(d)(1)(ii)).

EPA evaluated the reasonable potential to discharge toxic pollutants according to guidance provided in the *Technical Support Document for Water Quality-Based Toxics Control* (TSD) (Office of Water Enforcement and Permits, U.S. EPA, March 1991) and the *U.S. EPA NPDES Permit Writers Manual* (Office of Water, U.S. EPA, 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 and toxic impacts
5. Existing data on toxic pollutants - Reasonable Potential Analysis

1. Applicable Standards, Designated Uses, and Impairments of Receiving Water

In order to protect the designated uses of surface waters, the Tribe has developed Navajo Nation Surface Water Quality Standards ("NNSWQS") for different stream segments, depending on the level of protection required. USEPA approved the 1999 NNSWQS on March 23, 2006. The NNSWQS were revised in 2007 and approved by the USEPA on March 26, 2009. A *draft* 2017 NNSWQS revision has been under review by USEPA. The approved 1999 NNSWQS and 2007 revision, and the 2017 *draft* revision will be used on a best professional judgment ("BPJ") basis for purposes of developing water quality based effluent limitations.

The NNSWQS established water quality criteria for the following designated uses for Pueblo Colorado Wash, tributary to Cottonwood Wash, tributary to the Little Colorado River (Table 205.1, page 22):

- **PrHC** - Primary Human Contact
- **SCHC** - Secondary Human Contact,
- **FC** - Fish Consumption,
- **A&WHbt** - Aquatic & Wildlife Habitat, and
- **LW** - Livestock Watering

Pueblo Colorado Wash is not listed as impaired according to CWA Section 303(d) List of Water Quality Limited Segments. No TMDLs are applicable to permittee's discharge.

2. Dilution in the Receiving Water

Discharge from Outfall 001 flows to Pueblo Colorado Wash, which may have no natural flow during certain times of the year. Therefore, no dilution of the effluent has been considered in the development of WQBELs applicable to the discharge.

3. Type of Industry

Typical pollutants of concern in untreated and treated domestic wastewater include ammonia nitrate, oxygen demand, pathogens, temperature, pH, oil and grease, and solids. Chlorine is of concern due to the treatment plant disinfection operations and therefore, dechlorination is necessary to minimize impact on WQBELs. The SIC code for this facility is 4952 (Sewerage Systems).

4. History of Compliance Problems and Toxic Impacts

Review of DMRs from January 2015 to February 2021 showed no elevated concentrations of any parameter above the permit limits, with the exception of *E. coli* and total ammonia as reflected in the ammonia impact ratio. DMRs were often submitted late. The facility conducted semiannual whole effluent toxicity ("WET") testing to evaluate toxic impacts of the effluent. Results in 2016 WET testing revealed presence of toxicity in the effluent that could be caused by elevated ammonia levels.

USEPA visited the facility on December 4, 2018 and found that general maintenance was not performed on a routine basis, dense vegetation and tall weeds were observed around the lagoon cells, and trees were growing into the berms impacting the integrity of the structure. The inspectors were informed that aerators were shut off to conserve energy while the facility was not discharging to receiving waters. In addition, EPA has not received a Biosolids plan for this facility. While the facility has not removed and disposed of biosolids (eg. sewage sludge) from the site, Section D of the NPDES permits requires the facility to submit a Biosolids plan about the estimate of sewage sludge currently on-site within lagoons to USEPA and NNEPA within 90 days of the permit issuance. The permit was effective on February 1, 2016.

5. Existing Data on Toxic Pollutants - Reasonable Potential Analysis

For pollutants with effluent data available, EPA conducted a reasonable potential analysis based on statistical procedures outlined in EPA's TSD (EPA 1991). These statistical procedures calculate the projected maximum effluent concentration based on available monitoring data to account for effluent variability and a limited data set. EPA estimated the projected maximum effluent concentrations assuming a coefficient of variation ("CV") of 0.6 and the 99% 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). Because of data variability and of small sample sizes (i.e. n = 1), EPA used a CV of 0.6 for all parameters. EPA

calculated the projected maximum effluent concentration for each pollutant using the following equation:

Projected maximum concentration = C_e × *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. (EPA 1991).

Table 4. Summary of Reasonable Potential Statistical Analysis Parameter

Pollutant Parameter (1)	Maximum Observed Concentration	*n*	RP Multiplier	Projected Maximum Effluent Concentration	Most Stringent Water Quality Criterion	Statistical Reasonable Potential?
Ammonia (as N)	3.01 mg/L	10	2.8	8.4 mg/L	1.3 to 1.7 (depending on temp and pH) (2)	Yes (3)
Arsenic	1 µg/L	1	13.2	13.2 µg/L	30 µg/L	No
Beryllium	< 2 µg/L	1	13.2	26.4 µg/L	85 µg/L	No
Cadmium	< 0.1 µg/L	1	13.2	1.32 µg/L	8 µg/L	No
Copper, total recoverable	< 1 µg/L	1	13.2	13.2 µg/L	18.3 µg/L (4)	No
Lead, total recoverable	< 1 µg/L	1	13.2	13.2 µg/L	15 µg/L (4)	No
Nickel, total recoverable	< 2 µg/L	1	13.2	26.4 µg/L	52 µg/L (4)	No
Zinc, total recoverable	< 2 µg/L	1	13.2	26.4 µg/L	234 µg/L(4)	No

Footnotes:
(1) For purposes of RP analysis, parameters measured as Non-Detect are considered to be zeroes. Only pollutants detected are included in this analysis.
(2) 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.
(3) See Section VI.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.
(4) The applicable NNSWQS for hardness-dependent metals are based on a hardness value of 220 mg/L.

C. Rationale for Effluent Limitations and Monitoring

EPA evaluated the typical pollutants expected to be in WWTP discharge effluent and selected the most stringent of applicable technology-based standards or water quality-based effluent limitations. Where effluent concentrations of toxic parameters are unknown or are not reasonably expected to be discharged in concentration that have the reasonable potential to cause or contribute to water quality standards, EPA has established monitoring requirements in the permit. This data will be re-evaluated and the permit re-opened to incorporate effluent limitations if necessary.

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.

BOD_5 and TSS:

The BOD_5 and TSS technology-based limits are described above, and the permit retains these limits. Under 40 CFR § 122.45(f), mass limits are required for BOD_5 and TSS. The mass-based limits included in the permit are calculated based on the 0.4 MGD design flow.

E. coli

Presence of pathogens in untreated and treated domestic wastewater indicates that there is a reasonable potential for *E. coli* bacteria levels in the effluent to cause or contribute to an excursion above the NNSWQS. As required by the final permit, the monthly geometric mean of *E. coli* bacteria must not exceed 126/100 ml as a monthly average and 235/100 ml as a single sample maximum. These limits are based on the NNSWQS for protection of **PrHC** (p. 14). The monitoring frequency is once per month, consistent with the previous permit.

Total Residual Chorine ("TRC")

Chlorination for disinfection purposes indicates that there is reasonable potential for TRC levels in the effluent to cause or contribute to an excursion above the NNSWQS. Therefore, a TRC limit of 11 µg/l has been established in the final permit to protect the beneficial uses of the receiving waters. The monitoring frequency is once per month, consistent with the previous permit.

Whole Effluent Toxicity (WET):

The NNSWQS includes a narrative objective for toxicity that requires that "All waters of the Navajo Nation shall be free of toxic pollutants from other than natural sources in amounts, concentrations, or combinations which affect the propagation of fish or which of toxic to humans, livestock or other animals, fish or other aquatic organisms, wildlife using aquatic environments for habitation or aquatic organisms for food..." EPA's Technical Support Document for Water Quality-Based Toxics Control recommends a chronic toxicity monthly median limit of 1.0 TUc and a maximum daily limit of 1.6 TUc. The previous permit established a whole effluent toxicity limit based on a measurement of 1.6 TUs measured in February 2016. The Ganado facility experienced several exceedances of the WET limit in 2016. Prior to the 2016 permit cycle, EPA has initially required that the facility conduct monthly WET testing with fish, invertebrate and algae which NTUA did over a period of a year. Based on a review of the monthly toxicity data collected and a toxicity identification evaluation which identified the potential source of toxicity to be elevated ammonia levels, the monitoring frequency for WET was reduced by EPA in April 2013 to twice per year with the most sensitive species, which was Fathead minnow*(Pimephales promela)*.

To ensure continued compliance with the narrative objective for toxicity, the final permit includes monitoring requirements for chronic WET to be conducted **semiannually** using a 24-hour composite sample of the treated effluent for Fathead minnow*)*. This requirement is consistent with the previous permit. Testing for chronic WET must be completed in accordance with Part II, Section C of the permit.

Ammonia and Ammonia Impact Ratio ("AIR")

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 the biological denitrification process. Due to the potential for ammonia to be present in sanitary wastewater at toxic levels, the establishment of reasonable potential for ammonia levels to cause an excursion above water quality standards, and due to the conversion of ammonia to nitrate, effluent limitations are established using the AIR.

The AIR is calculated as the ratio of the ammonia value in the effluent to the applicable ammonia water quality standard. The NNSWQS for Ammonia in freshwater for protection of **A&WHbt** listed in Table 206.3 (page 37) of the 2007 NNSWQS contains ammonia criteria that are pH and temperature dependent. Therefore, pH, temperature, and ammonia sampling must be concurrent. See Attachment C of the permit for applicable Water Quality Standards for ammonia and Attachment D for a sample log to help calculate and record the AIR values. The AIR effluent limitation value is 1.0.

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-N concentration exceeded the ammonia water quality criterion. With an AIR value exceeding 1.0, the permittee would be in violation of the permit.

pH:

Untreated and treated domestic wastewater could be contaminated with substance that affects the pH. Therefore, there is a reasonable potential for pH levels in the effluent to cause or contribute to an excursion above the WQS. In order to ensure adequate protection of beneficial uses of the receiving water, a maximum pH limit of 9.0 and a minimum limit of 6.5 S.U. are established in Section 206.C. of 2007 NNSWQS and *draft* 2017 NNSWQS revisions. The monitoring frequency is once per month, consistent with the previous permit. Measurements for pH are required to be taken concurrently with ammonia and temperature measurements.

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 final permit to ensure that the applicable narrative standards are not exceeded and to calculate temperature-specific ammonia criteria, as described above. Measurements for temperature are required to be taken concurrently with ammonia and pH measurements.

Total Dissolved Solids:

Total dissolved solids ("TDS") is an indicator parameter for salinity. Presence of solids in untreated and treated domestic wastewater indicates that reasonable potential for TDS level in the effluent to cause or contribute to an excursion above narrative water quality standards. While NNSWQS do not include criteria for TDS, the regulations at 40 CFR §

122.44(i) allow requirements for monitoring as determined to be necessary. No limits are set at this time. The monitoring frequency is once per discharge.

D. Anti-Backsliding

Sections 402(o) and 303(d)(4) of the CWA and 40 CFR § 122.44(l) prohibit the renewal or reissuance of an NPDES permit that contains effluent limits and permit conditions less stringent than those established in the previous permit, except as provided in the statute and regulation.

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

E. Antidegradation Policy

EPA's antidegradation policy under CWA Section 303(d)(4) and 40 CFR § 131.12 and the NNSWQS require that existing water uses and the level of water quality necessary to protect the existing uses be maintained. The receiving water is not listed as an impaired waterbody for BOD_5, TSS, coliform, temperature or total ammonia under section 303(d) of the CWA.

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.

Since the permittee is expected to comply with all limits in the permit, the effluent should not have a negative, degrading effect, on the receiving waterbody. A priority pollutant scan has been conducted of the effluent, demonstrating that most pollutants will be discharged below detection levels. While no limits are set at this time, the permittee is required to monitor for the full list of priority pollutants as listed at 40 CFR Part 423 Appendix A. Therefore, due to the low levels of toxic pollutants present in the effluent, and inclusion of water quality-based effluent limitations, the discharge is not expected to adversely affect receiving water bodies or result in any degradation of water quality.

VII. 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 DMR forms and submitted monthly as specified in the permit.

B. Priority Toxic Pollutants Scan

A priority toxic pollutants scan must be conducted during the fifth year of the five-year permit term to ensure that the discharge does not contain toxic pollutants in concentrations that may cause a violation of water quality standards. The permittee must 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 § 131.36 provides a complete list of Priority Toxic Pollutants.

C. Whole Effluent Toxicity ("WET") Requirements

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. EPA's WET methods are specified under 40 CFR Part 136 and/or in applicable water quality standards.

EPA recommends inferential statistical approaches that a permitting authority chooses from to set a protective level for toxicity in an NPDES discharge. The statistical approach chosen for this permit is based on bioequivalence hypothesis testing and is called the Test of Significant Toxicity ("TST") statistical approach. It is described in EPA's *National Pollutant Discharge Elimination System Test of Significant Toxicity Technical Document* (EPA 833-R-10-004, 2010; TST Technical Document) and Denton DL, Diamond J, and Zheng L. 2011.

Test of significant toxicity: A statistical application for assessing whether an effluent or site water is truly toxic. *Environ Toxicol Chem* 30:1117-1126. This statistical approach supports important choices made within a toxicity laboratory which favor quality data and EPA's intended levels for statistical power when true toxicity is statistically determined to be unacceptably high (≥ 25 PE, Percent (%) Effect), or acceptably low (< 10 PE). Example choices are practices supporting healthy test organisms, increasing the minimum recommended replication component of the WET method's experimental design (if needed), technician training, etc.

TST results do not often differ from other EPA-recommended statistical approaches using hypothesis testing (Diamond D, Denton D, Roberts J, Zheng L. 2013. Evaluation of the Test of Significant Toxicity for determining the toxicity of effluents and ambient water samples. *Environ Toxicol Chem* 32:1101-1108.) The TST maintains EPA's desired low false positive rate for WET methods—the probability of declaring toxicity when true toxicity is acceptably low ≤ 5% — when quality toxicity laboratories conduct toxicity tests (TST Technical Document); Fox JF, Denton DL, Diamond J, and Stuber R. 2019.

Comparison of false-positive rates of 2 hypothesis-test approaches in relation to laboratory toxicity test performance. *Environ Toxicol Chem* 38:511-523.) Note: The false positive rate is a long-run property for the toxicity laboratory conducting a WET method. A low false positive rate is indicted by a low long-run toxicity laboratory control coefficent of variation for the test species/WET method, using a minimum of 30 to 50 toxicity tests.

Following 40 CFR § 122.44(d)(1) and guidance for determining reasonable potential in chapter 3 of Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001, 1991), chapter 2 in EPA Regions 8, 9 and 10 Toxicity Training Tool (January 2010), and appendix E in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010), reasonable potential for chronic toxicity has been established. See, also, Toxicity Reduction and Toxicity Identification Evaluations for Effluents, Ambient Waters, and Other Aqueous Media (SETAC 2005). Based on the concentration levels of cyanide, cadmium, copper, lead, nickel, and zinc during the last priority pollutant scan, a chronic toxicity WQBEL (i.e., WET limit) is required for the permitted discharge. As a result, monitoring and reporting for compliance with median monthly and maximum daily effluent limits for the parameter of chronic toxicity are required, so that effluent toxicity can be assessed in relation to these WQBELs for the permitted discharge (see Part I, Table 1 in NPDES permit). See VI.C. for more information.

In accordance with 40 CFR § 122.44(d)(1)(ii), in setting the permit's levels for chronic toxicity and conditions for discharge, EPA is using a test species/chronic short-term WET method and a discharge Instream Waste Concentration ("IWC") representing conservative assumptions for effluent dilution necessary to protect receiving water quality. The IWC is a discharge-specific term based on the permit's authorized mixing zone or initial dilution. Generally, the dilution model result "S" from Visual Plumes/Cormix is used. S is the volumetric dilution factor, i.e. 1 volume effluent is diluted with S − 1 volumes surface water) = [(Ve + Va) / Ve]. Following the mass balance equation, if the dilution ratio D = Qs / Qe, then [(Qe + Qs) / Qe] = 1 + D = S.

For this discharge, S = 1 (i.e., no authorized dilution). The discharge-specific IWC = 1 to 1 dilution (1:1, 1/1) = 100% effluent. The IWC made by the toxicity laboratory is mixed as 1 part solute (i.e., effluent) to 0 parts dilutant (1: (1 – 1)) for a total of 1 part.

The TST's null hypothesis for chronic toxicity (H_o) is:

IWC mean response (% effluent) ≤ 0.75 × Control mean response

The TST's alternative hypothesis (H_a) is:

IWC mean response (% effluent) > 0.75 × Control mean response

For this permit, results obtained from a single chronic toxicity test are analyzed using the TST statistical approach, where the required chronic toxicity IWC for Discharge Outfall Number 001 is 100% effluent.

For NPDES samples for toxicity 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 at the first time of sample use (initiation of toxicity test). 40 CFR § 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.

For this discharge, EPA has set a median monthly effluent limit and a maximum daily effluent limit (40 CFR § 122.45(d)) for chronic toxicity. These limits are set to restrict the discharge of toxic pollutants in toxic amounts and protect both applicable aquatic life water quality standards, including standards downstream of the discharge, and existing aquatic life designated uses in receiving waters (CWA §§ 101(a)(3), 301(b)(1)(C)). The median monthly WQBEL, of no more than 1 of a maximum of 3 chronic toxicity tests with unacceptably high toxicity declared by the TST statistical approach, ensures a high probability of declaring such discharges toxic. The maximum daily WQBEL, of 1 toxicity test rejecting the TST null hypothesis and an associated chronic biological endpoint PE < 50 (2x the TST's chronic toxicity Regulatory Management Decision ("RMD") of 25 PE), ensures the restriction of highly toxic (chronic, acute) discharges. Both effluent limits take into account that, on occasion, quality toxicity laboratories conducting effluent toxicity tests can incorrectly declare a sample with acceptable toxicity "toxic" (≤ 5% of the time when the true toxicity of the discharge is < 10 PE).

Species sensitivity screening for chronic toxicity is not an automatic requirement in this permit. However, the permit retains a species sensitivity screening condition as an option for the authority to exercise, particularly when the quality of the permitted discharge has changed, or is expected to change, during the permit term.

VIII. SPECIAL CONDITIONS

A. Biosolids Requirements

Standard requirements for the monitoring, reporting, recordkeeping, and handling of biosolids, in accordance with 40 CFR Part 503, are contained in the permit. If the permittee changes the management of its biosolids, the permittee must notify EPA of any changes. The permit also includes biosolids annual reports and electronic reporting requirements. Permittees must submit biosolids annual reports using EPA's NPDES Electronic Reporting Tool ("NeT") by February 19th of the following year.

B. Development and Implementation of Best Management Practices and Pollution Prevention

40 CFR § 122.44(k)(4) requires permittees to develop (or update) and implement Best Management Practices ("BMPs") for pollution prevention. A Pollution Prevention Plan must be developed (updated) and implemented with appropriate pollution prevention measures or BMPs designed to prevent pollutants from entering the unnamed wash that discharges into Pueblo Colorado Wash while performing normal processing operations at the facility.

The permittee must develop and implement BMPs that are necessary to control the high BOD_5 and TSS concentrations and reduce the AIR.

C. 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.

D. Asset Management Plan

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).

IX. OTHER CONSIDERATIONS UNDER FEDERAL LAW

A. Consideration of Environmental Justice

USEPA conducted a screening level evaluation of vulnerabilities in the community posed to local residents near the vicinity of the permitted Ganado wastewater treatment facility using USEPA's EJSCREEN tool (https://www.epa.gov/ejscreen). 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 drafting permit conditions.

On March 24, 2021, USEPA conducted an EJSCREEN analysis of the community in a 5-mile radius of the vicinity of the outfall. Of the 11 environmental indicators screened through EJSCREEN, the evaluation determined elevated risk for the following factors:

Table 5. EJSCREEN Analysis – Ganado WWTP

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	70	53	74
EJ Index for Ozone	76	69	87
EJ Index for NATA* Diesel PM	55	39	61
EJ Index for NATA* Air Toxics Cancer Risk	65	52	72
EJ Index for NATA* Respiratory Hazard Index	63	49	71
EJ Index for Traffic Proximity and Volume	53	36	59
EJ Index for Lead Paint Indicator	81	63	77
EJ Index for Superfund Proximity	60	45	66
EJ Index for RMP Proximity	55	38	60
EJ Index for Hazardous Waste Proximity	52	36	59
EJ Index for Wastewater Discharge Indicator	N/A	67	73

EJ Index for the Selected Area Compared to All People's Blockgroups in the State/Region/US

The results, summarized in Table 5, suggest that the area around the facility are at high risk for EJ factors. For example, the population within a wide range of the Ganado facility is at greater risk for hazardous wastewater discharge than 67% of the population in the state and 73% of people in the nation. Wastewater facilities don't generate ozone. The EJSCREEN analysis of demographic characteristics of the community living near the facility indicates the local population may be at relatively higher risk if exposed to environmental contaminants than the national population. Demographic characteristics that showed potentially sensitive scores were a high proportion of minority and low-income population.

USEPA also considers the characteristics of the wastewater treatment facility operation and discharges, and whether those discharges pose exposure risks that the NPDES permit needs to further address. USEPA found no evidence to indicate the treatment facility discharge poses a significant risk to residents. USEPA concludes that the facility is unlikely to contribute to any EJ issues. Furthermore, USEPA believes that by implementing and requiring compliance with the provisions of the Clean Water Act, which are designed to ensure full protection of human and aquatic health, the permit is sufficient to ensure the effluent discharges do not cause or contribute to human health risk in the vicinity of the facility.

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.

The website for the U.S. Fish and Wildlife Service's ("USFWS") Arizona office generated an Official Species list on December 12, 2020, which identified the threatened and endangered species and their critical habitat that may occur in the vicinity of the Ganado facility and Pueblo Colorado Wash. This Information for Planning and Conservation ("IPaC") report provides an up-to-date listing of all proposed (P), candidate (C), threatened (T) and endangered (E) species that occur in area neighboring the NTUA Ganado Wastewater Treatment Facility in Apache County and should be considered as part of an effect analysis for this permit. (See https://ecos.fws.gov/ipac/gettingStarted/map). The listed species are provided in Table 6 below.

Table 6. Listed species, designated under the U.S. Endangered Species Act

Type	Common Name	Scientific Name	Status	Critical Habitat
Fish	Zuni Bluehead Sucker	*Catostomus discobolus yarrowi*	E	No*
Reptile	Northern Mexican Gartersnake	*Thamnophis eques megalops*	T	No*
Birds	California Condor	*Gymnogyps californianus*	E	No*
	Yellow-billed Cuckoo	*Coccyzus americanus*	T	No*
Mammal	Gray Wolf (of which Mexican gray wolf is a subset)	*Canis lupus* (Mexican gray wolf = *Canis lupus baileyi*)	P, Experimental, non-essential population."	No

*These species have designated critical habitat outside of the Action Area.

The action area is defined as the wastewater treatment facility and discharge outfall, the stretch of the unnamed tributary from the outfall to where the unnamed tributary meets Pueblo Colorado Wash, a tributary to Cottonwood Wash, an eventual tributary to the Little Colorado River. The facility discharges only sporadically when the last cell is full. As the discharge from the facility is limited, the unnamed tributary may have no natural flow during certain times of the year and does not reach Pueblo Colorado Wash. The action area does not include Pueblo Colorado Wash, Cottonwood Wash nor the Little Colorado River, as effluent discharge from the facility is limited and would only reach these waters during times of high flow when it would become so diluted as to have no effect. There are no designated critical habitats for any of the listed species in the action area. Furthermore, the proposed permit contains limits to protect designated uses of the receiving waters, including protection of aquatic life and wildlife habitat and does not involve physical habitat alteration or change in flow.

Fish

Zuni Bluehead sucker (*Catostomus discobolus yarrowi*) is found most commonly in shaded pools and pool-runs (0.3 to 0.5 m deep) with water velocity < 10 cm/sec where the substrate varies from gravel, cobble, and boulders to bedrock. (https://ecos.fws.gov/ecp/species/3536) The action area does not provide suitable habitat for the Zuni Bluehead Sucker because it is dry for part of the year with no fast flowing water. Therefore, EPA has determined that the action will not affect the Zuni bluehead sucker.

Reptile

Northern Mexican Gartersnake (*Thamnophis eques megalops*) is considered a riparian obligate (restricted to riparian areas when not engaged in dispersal behavior) and occurs chiefly

in the following general habitat types: (1) Source-area wetlands [e.g., cienegas (mid-elevation wetlands with highly organic, reducing (basic, or alkaline) soils), stock tanks (small earthen impoundment), etc.]; (2) large river riparian woodlands and forests; and (3) streamside gallery forests (as defined by well-developed broadleaf deciduous riparian forests with limited, if any, herbaceous ground cover or dense grass). (https://ecos.fws.gov/ecp/species/7655) The Northern Mexican Gartersnake occurs only in or adjacent to the lower reaches of the Little Colorado River. The action area is not adjacent to the little Colorado River and contains no suitable wetland or riparian habitat for the Northern Mexican Gartersnake. Therefore, EPA has determined that the action will not affect on the Northern Mexican Garter Snake.

Birds

The California Condor (*Gymnogyps californianus*) ranges throughout parts of California, Nevada, Colorado, Arizona, and Utah, although no known specific populations are known to occur in the project action area (https://ecos.fws.gov/ecp/species/8193). California Condors may use roosting sites on ridges, rocky outcrops, or steep canyons, and they forage for carrion, primarily in foothill grasslands and oak savanna habitats. (USFWS 2013). Stressors affecting California Condors include consumption of lead shot, predators, powerlines, starvation, consumption of micro-trash, fire, hunting, falls, and other isolated incidents (USFWS 2013). While California Condors may on occasion pass through the action area, the action area does not contain suitable sites for roosting or foraging. Periodic, short-term releases of water from lagoons, including those authorized by this permit would not affect availability of carrion or otherwise contribute to stressors affecting California Condors. Therefore, EPA has determined that the action will have no effect on California Condors.

The Yellow-billed Cuckoo (*Coccyzus americanus*) is a highly mobile as well as a migratory bird species, traveling between its wintering grounds in Central and South America and its breeding grounds in North America (Continental U.S. and Mexico) each spring and fall often using river corridors as travel routes. Habitat conditions through most of the western Yellow-billed Cuckoo's range are often dynamic and may change location within or between years depending on vegetation growth, tree regeneration, plant maturity, stream dynamics, and sediment movement and deposition. The Yellow-billed Cuckoo is known or believed to occur throughout most of Arizona and Utah, and in parts of New Mexico, Colorado, Idaho, Montana, Nevada, Texas, Wyoming, Oregon, and Washington. They are found in dense cover with water nearby, such as woodlands with low vegetation, overgrown orchards, and dense thickets along streams or marshes and riparian vegetation. Caterpillars are their primary food source, along with cicadas, katydids and crickets. They also forage on wild fruits in the summer, with seeds becoming a larger portion of their winter diet. (https://ecos.fws.gov/ecp/species/3911). In February 2020 USFWS proposed 72 units in the arid southwest as critical habitat for the western yellow-billed cuckoo which were its best assessment of areas that meet the definition of critical habitat for the western yellow-billed cuckoo. See page 11477 of the following Federal Register notice: (https://www.govinfo.gov/content/pkg/FR-2020-02-27/pdf/2020-02642.pdf). The USFWS has not yet finalized this proposed critical habitat designation. However, the action area does not fall into any of the 72 identified units proposed to be designated as critical habitat by the USFWS. Due to the highly mobile nature of the yellow-billed cuckoo and fact that the action area is outside any proposed critical habitat areas, it is very unlikely for there to be any contact between the discharge authorized by this permit and the Yellow-billed Cuckoo. Therefore, EPA

has determined that its action will not affect the Yellow-billed Cuckoo or its proposed critical habitat.

Mammal

The Mexican gray wolf (*Canis lupus baileyi*) is an endangered species. An experimental non-essential population of Mexican gray wolves has been *proposed* in the action area. Generally, an experimental population of a listed species shall be treated as a species proposed for listing under the ESA as a threatened species. 50 CFR § 17.83(a). Federal agencies are required to confer with FWS on any action which is likely to jeopardize the continued existence of any species proposed for listing as threatened or endangered. 50 CFR § 402.10(a). Here, since the experimental population is proposed, and is not yet in existence, the applicable standard is whether the action *may affect* the existing listed species. 50 CFR § 402.14(a).

Experimental populations may only be established outside of a species' current natural range. 50 CFR § 17.81(a). The best available information on the Mexican gray wolf, including the proposal to establish an experimental population, indicates that the species is not present in the action area and therefore EPA has determined that the action will not affect the Mexican gray wolf.

Conclusion

Considering all the information available, EPA concludes that the reissuance of this permit will not affect any of the above listed species. There is no designated critical habitat for any of the listed species within the action area. A copy of the draft fact sheet and permit has been forwarded to the Arizona Field Office of the USFWS for review and comment prior to and during the 30-day public review period. If, in the future, EPA obtains information or is provided information that indicates that there could be adverse impacts to federally listed species, EPA will contact the appropriate agency or agencies and initiate consultation, to ensure that such impacts are minimized or mitigated. In addition, re-opener clauses have been included should new information become available to indicate that the requirements of the permit need to be changed.

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 (Tribe or Territory) Coastal Zone Management program, and the State (Tribe or Territory) or its designated agency concurs with the certification.

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

D. Impact to Essential Fish Habitat

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

The permit contains technology-based effluent limits and numerical and narrative water quality-based effluent limits as necessary for the protection of applicable aquatic life uses. The permit does not directly discharge to areas of essential fish habitat (i.e., not in marine waters). Therefore, EPA has determined that essential fish habit 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 § 800.3(a)(1), EPA is making a determination that re-issuing this NPDES permit does not have the potential to affect any historic properties or cultural properties. As a result, Section 106 does not require EPA to undertake additional consulting on this permit reissuance.

The permit does not allow the disturbance of any historic properties.

F. Water Quality Certification Requirements (40 CFR § 124.53 and § 124.54) to National Historic Properties

For this permit, the Permittee is required to seek water quality certification that this Permit will meet applicable water quality standards (including paying applicable fees) from the Navajo Nation EPA. Certification under section 401 of the CWA must be in writing and include the conditions necessary to assure compliance with referenced applicable provisions of sections 208(e), 301, 302, 303, 306, and 307 of the CWA and appropriate requirements of Tribal law. EPA cannot issue the Permit until the certifying Tribes have granted certification under 40 CFR § 124.55 or waived its right to certify.

If the Tribes does not respond within 60 days of public notice date, it will be deemed to have waived certification.

XI. STANDARD CONDITIONS

A. Reopener Provisions

In accordance with 40 CFR Parts 122 and 124, the final permit may be modified by EPA to include effluent limits, monitoring, or other conditions to implement new regulations, including EPA-approved Tribal water quality standards; 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; or new permit conditions for species pursuant to ESA requirements.

B. Standard Provisions

The permit requires the permittee to comply with USEPA Region 9's *Standard Federal NPDES Permit Conditions* found at Attachment A.

XII. ADMINISTRATIVE INFORMATION

A. Public Notice (40 CFR § 124.10)

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

B. Public Comment Period (40 CFR § 124.10)

Notice of the draft permit was placed on EPA Region 9's website on May 17, 2021 for a 30-day comment period for interested parties to respond in writing to EPA. No comments were received on the draft permit during this period.

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

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. 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:

Linh Tran, NPDES Permits Office, U.S. EPA Region 9
Tran.Linh@epa.gov
(415) 972-3511

XIV. REFERENCES

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

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

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EPA. 2015. December 7 compliance evaluation inspection; Report prepared by PG Environmental LLC on January 7, 2016

EPA. 2018. December 4 compliance evaluation inspection; Report prepared by EPA Wastewater Section on March 5, 2019

USFWS 2020. IPaC report for Endangered and Threatened species list within NTUA Ganado WWTP discharge area of Apache County, Arizona (provided by U.S. Fish and Wildlife Service dated December 2020)