NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
MODIFIED PERMIT FACT SHEET
September 2022

Permittee Name and Address:	Navajo Tribal Utility Authority ("NTUA") P.O. Box 170 Fort Defiance, AZ 86504
Permittee Contact:	David Shoultz, Principal Engineer (928) 729-6277; davids@ntua.com
Facility Address:	NTUA Northern Edge Navajo Casino Wastewater Treatment Facility (About 1 mile west of intersection of SR 471 and Indian Route 36) 2752 Indian Service Road 36 Farmington, New Mexico 87401
Facility Contact:	Wendell Murphy, Civil Engineer Engineering, Construction & Operations (928) 729-4719; WendellM@NTUA.com
NPDES Permit No.:	NN0030343

NOTICE OF PROPOSED ACTION

EPA, jointly with the Navajo Nation EPA, drafted a permit and fact sheet and provided public notice and accepted comments on the draft permit from August 3, 2022, through September 6, 2022, consistent with 40 CFR § 124.10. No comments received during the comment period. In preparing for final issuance, EPA discovered discrepancies in the draft documents that required a modification to the permit language and fact sheet language. EPA is now soliciting comments on just this specific section of the permit. All other provisions of the permit were already subject to the original public comment and review process and are not subject to renewed public comment.

EPA conducted a reasonable potential ("RP") analysis for pollutants with effluent data available, as discussed on pages 10-11 of the August 2022 fact sheet. RP analyses are done to determine whether effluent concentrations of known toxic parameters are reasonably expected to be discharged in concentration that have the reasonable potential to cause or contribute to excursions above water quality standards. According to the Table 4 – "Summary of Reasonable Potential Statistical Analysis" (page 11), EPA finds that there is reasonable potential to exceed the narrative toxicity standard and establishes new effluent limits for Whole Effluent Toxicity. And therefore, references to WET on page 5 of the permit and page 16 of the August 2022 fact sheet have been modified accordingly.

I. STATUS OF PERMIT

NTUA (the "permittee") applied for the renewal of its National Pollutant Discharge Elimination System ("NPDES") permit to authorize the discharge of treated effluent from the

Northern Edge Navajo Casino wastewater treatment facility ("WWTF") in Upper Fruitland, San Juan County, New Mexico. The WWTF is owned and operated by the NTUA. The permittee applied for a permit renewal on December 1, 2021.

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

The permittee is currently covered under NPDES Permit No. NN0030343 which became effective on June 1, 2017, through midnight May 31, 2022. The December 2021 application was deemed complete during the same month, and EPA issued an administrative continuance on June 15, 2022. Pursuant to 40 CFR § 122.6, the terms of the existing permit are administratively extended until the issuance of a new permit. This fact sheet is based on information provided by the discharger through its permit application, effluent discharge data, and applicable laws and regulations.

Pursuant to Section 402 of CWA, EPA is proposing issuance of the NPDES permit renewal to the permittee for the discharge of treated domestic wastewater to an unnamed wash located on the Navajo Nation, an eventual tributary to the San Juan River, which is a water of the United States.

This permittee is classified as a minor discharger.

II. SIGNIFICANT CHANGES TO PREVIOUS PERMIT

Table 1. Significant Changes to Previous Permit

Permit Condition	Previous Permit (2017 – 2022)	Re-issued permit (2022 – 2027)	Reason for change
DMR submittal	Hardcopy accepted for a portion of the permit period	E-reporting (NetDMR) required	EPA e-reporting Rule.
Biosolids report	Hardcopy accepted for a portion of the permit period	E-reporting (NetDMR) required	EPA e-reporting Rule.
BOD_5 and TSS mass effluent limits	Mass limits in kg/day	Mass limits in lbs/day	To be consistent with recent EPA Region 9 permits.
Total residual chlorine (TRC) monitoring and effluent limit	TRC limit of 11 µg/l	Remove effluent limit for TRC	No reasonable potential exists for TRC as chlorine is not being used for effluent disinfection nor as a backup.

Permit Condition	Previous Permit (2017 – 2022)	Re-issued permit (2022 – 2027)	Reason for change
Copper, Nickel, Selenium, and Zinc monitoring and effluent limits	Monitoring required as part of priority pollutant scan	Add effluent limits and monitoring requirements for these metals	Reasonable potential exists for these constituents to exceed WQS.
Hardness (as $CaCO_3$) monitoring	No effluent monitoring requirements	Add annual monitoring requirement for hardness	To calculate hardness-dependent metals criteria.
Priority Pollutant Scan	Monitor once in the 5-year permit term	Require monitoring during Years 2 and 4 of the permit term.	To collect sufficient data to improve the analysis of reasonable potential.
Chronic Whole Effluent Toxicity (WET) testing requirements and triggers	Results reported in Chronic Toxicity Units (TUc); Triggers of any one test result greater than 1.6 TUc or any calculated monthly median value greater than 1.0 TUc.	Report Pass "0" or Fail "1" of the Test of Significant Toxicity ("TST") null hypothesis (H_o) and the percent effect.	Testing requirements in accordance with the TST statistical approach (EPA 2010a); Limits for established toxicity due to established toxicity.
Best Management Practices ("BMPs")	None	Incorporate standard BMPs language for small utilities.	Provision of 40 CFR § 122.44(k)(4)
Sanitary Sewer Overflow ("SSO")	None	Incorporate standard SSO language for small utilities.	To be consistent with EPA Region 9 policy and recent permits.
Asset Management Program ("AMP")	None	Incorporate standard asset management requirement for small utilities.	Provision of 40 CFR § 122.41(e)

III. GENERAL DESCRIPTION OF FACILITY

NTUA operates the Northern Edge Navajo Casino WWTF located in Upper Fruitland, approximately 1.5 miles southwest of Farmington, New Mexico, in the northeastern portion of the Navajo Nation. The facility is considered a Publicly Owned Treatment Works ("POTW") and meets the definition of a minor discharger. The facility serves a population of about 3,723 casino guests and employees and has a design flow capacity of 0.03 million gallons per day ("MGD"). The facility receives only domestic sewage from the casino; no other hotels nor residential services connected to the collection system.

Figure 1 provides an overview of the facility. The Northern Edge Navajo Casino plant is a Membrane Batch Reactor ("MBR"). The plant is monitored by the Supervisory Control and Data Acquisition ("SCADA") system. This is a computer-monitored alarm, response, control and data acquisition system used by the operator to monitor and adjust treatment processes. The casino collection system transfers wastewater by gravity through an 8-inch pipe to the wastewater facility. Once the wastewater enters the facility it is screened for grit by a drum screen that is sized for a peak flow of 212 gallons per minute ("GPM"). The winterized drum screen has 2-micron perforations. The screened material is transferred to a certified landfill

approximately once per month.

Wastewater flows to an equalization tank ("EQ") with active volume of 15,000 gallons. The tank is designed for instantaneous flows at peak usage from the casino. Two lift pumps are used to move wastewater from the EQ tank to the MBR train at a rate not to exceed 42 GPM. Influent flow is measured prior to entering the MBR plant. The MBR consists of three phases and is designed to handle the 30,000 gallons per day low flow load. The first section is the anoxic zone where a submersible mixer mixes influent with the return activated sludge. Flow is then advanced to the second phase which is the aerobic zone, where the mixed liquor is aerated with bubble diffusers. The waste activated sludge is removed from the bottom of these tanks. Following this biological treatment, wastewater is sent to one of two membrane units which operate in parallel. The two membrane tanks house the membrane modules and air scour equipment. The membranes are cleaned with a 50% citric acid and 50% caustic soda mixture. All solids from the MBR system will be conveyed to a steel roll off container lined with filter cloth and filtered to dry for a minimum of 20 days before being disposed of at a certified landfill. All the liquid filtered will be drained back into the influent pump station. Once the wastewater has completed the MBR process, the permeate is pumped to a holding tank. When the tank level reaches 1.6 feet, the effluent pump turns on and sends the wastewater to disinfection. The effluent flow meter is located prior to two ultraviolet ("UV") units. The UV units operate in parallel with only one unit typically in operation at a time. The units alternate once a month. The UV system incorporated Low-Pressure High-Output Inline UV. Effluent samples are taken immediately following UV disinfection. Flow is then captured in a second equalization tank before discharge. Effluent is discharged through a 6-inch pipe (Outfall No. 001) into an unnamed wash, a tributary to the San Juan River. The San Juan River is approximately 0.7 miles downstream and the Navajo Nation boundary is approximately 0.3 miles downstream.

For odor control, a scrubber is positioned at the pump station/equalization tank, the screenings dumpster, and the dewatering filter roll-off container. A spare scrubber is available for use when needed. In addition, the permittee would like the option to apply the disinfected wastewater to the casino irrigation system. To prevent growth in the irrigation system, sodium hypochlorite will be injected downstream of the UV if the reuse system is allowed to operate.

Figure 1. WWTF Satellite View

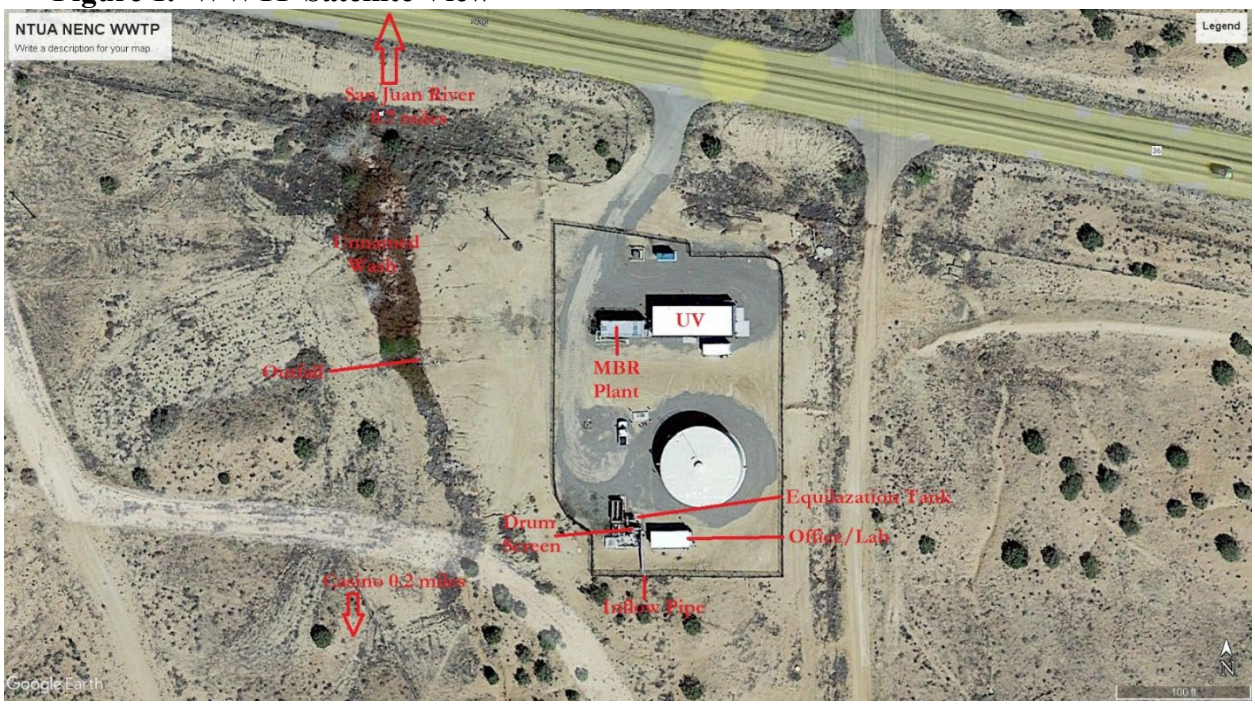
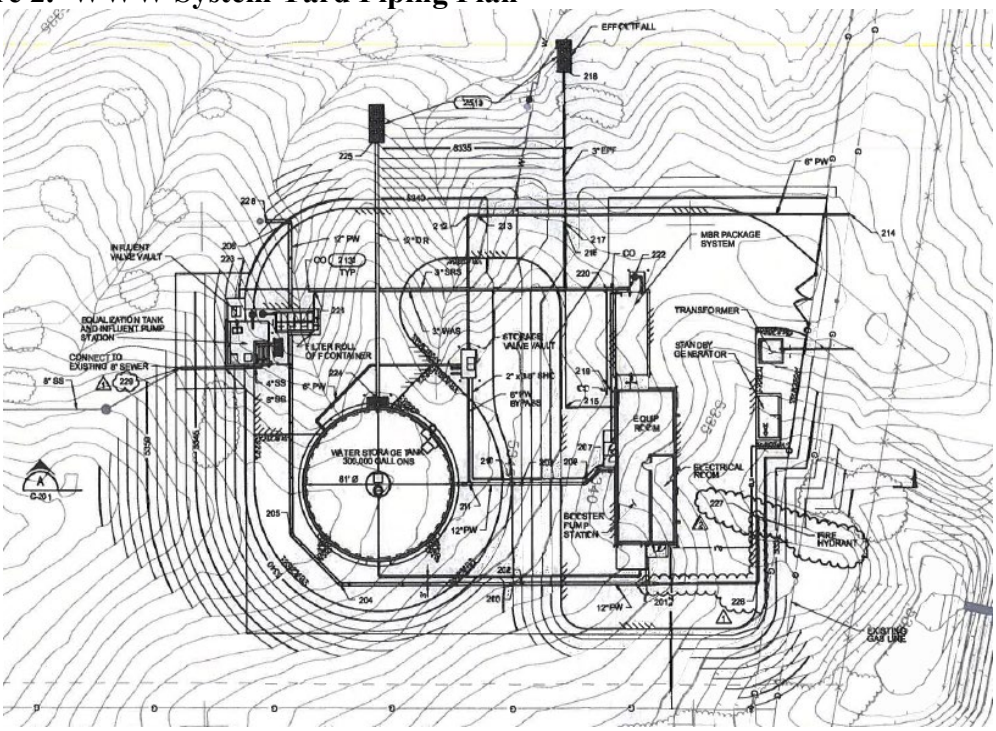


Figure 2. WWW System Yard Piping Plan



IV. DESCRIPTION OF RECEIVING WATER

The discharge of treated domestic wastewater from Outfall No. 001 is to a non-perennial, unnamed wash, which is a tributary to the San Juan River, a water of the United States. The

coordinates for discharge Outfall No. 1 are: 36º 43' 11" north, longitude 108º 15' 12" west.

V. DESCRIPTION OF DISCHARGE

The MBR system discharges continuously from a single location (Outfall No. 001) with average flow rates ranging from 0.004 MGD to 0.022 MGD. The effluent data show elevated concentrations of *E. coli*, AIR, pH and TSS % removal exceedances in the past 5 years. The casino was closed from March 2020 until March 2021 due to the Covid-19 pandemic. The facility has achieved over 85% removal efficiencies in BOD_5, but less than the 85% required removal efficiency for TSS. BOD_5 effluent concentrations typically range about 0.03 mg/L to 12.4 mg/L while TSS effluent concentrations range from 0.02 mg/L to 37.1 mg/L. The effluent was found to be clear and free of objectionable odor during an August 2021 inspection conducted jointly by USEPA and NNEPA. More detailed discussions of the inspection findings are followed in Section VI.B.4.

A. Application Discharge Data

Table 2 shows data related to discharge from Outfall 001 based on the permittee's NPDES renewal application and supplemental data. Pollutants believed to be absent or never detected in the effluent are not included.

Table 2. Application Discharge Data

Pollutant Parameter	Units	Discharge Data		Number of Samples
		Max Daily Discharge	Average Daily Discharge	
Flow	MGD	0.03	0.03	
Biochemical oxygen demand, 5-day (BOD_5)	mg/L	12.4	12.4	41
pH	S.U.	6.5 to 8.09		n/a
Temperature (winter)	ºC	13.8		41
Temperature (summer)	ºC	30.0		41
Fecal Coliform	CFU	770.1	770.1	41
Total Suspended Solids (TSS)	mg/L	32.7	32.7	41
Ammonia (as N)	mg/L			
Total Dissolved Solids (TDS)	mg/L			
Hardness (as $CaCO_3$)	mg/L	n/a	n/a	n/a
Antimony, total recoverable	mg/L	0.00092	n/a	1
Arsenic, total recoverable	mg/L	0.0055	n/a	1
Selenium, total recoverable	mg/L	0.0026	n/a	1
Zinc, total recoverable	mg/L	0.022	n/a	1

*From the permittee's NPDES permit application, priority toxic pollutant scan, discharge monitoring reports and/or supplemental information. Values below the minimum detection limits are not shown.

B. Recent Discharge Monitoring Report Data (2017-2022)

Table 3 shows data related to discharge from Outfall 001 based on permittee's discharge monitoring reports ("DMRs") from June 2017 (when the new activated sludge plant

was brought online) to April 2022. Additional information is available on Enforcement and Compliance History Online ("ECHO") at https://echo.epa.gov/detailed-facility-report?fid=NN0030343. Pollutants believed to be absent or never detected in the effluent are not included in the table.

Table 3. Effluent Data for Outfall 001 from June 2017-April 2022
Based on 0.03 MGD Design Flow

Parameters	Units	Permit Effluent Limitations			Effluent Data			
		Average Monthly	Average Weekly	Max Daily	Highest Average Monthly	Highest Average Weekly	Highest Maximum Daily	Monitoring Frequency
Flow Rate	MGD	-- (1)	--	-- (1)	0.04 (04/2022)	--	0.058 (05/2021)	Monthly
Ammonia (as N)	mg/L	-- (1)	--	-- (1)	35.3 (04/2021)	--	37.1 (04/2021)	Monthly
Ammonia Impact Ratio (AIR)	Ratio	1.0 (2)	--	1.0 (2)	6.02 (04/2021)	--	--	Monthly
Biochemical Oxygen Demand 5-day (BOD_5)	mg/L	30	45	--	12.4 (10/2019)	12.4 (10/2019)	--	Monthly
	kg/day	3.4	5.1	--	1.03 (10/2019)	1.5 (10/2019)	--	
	% Removal	>85 % minimum (4)			lowest = 95 % (10/2019)			
Total Suspended Solids (TSS)	mg/L	30	45	--	32.7 (10/2019)	32.7 (06/2017)	--	Monthly
	kg/day	3.4	5.1	--	2.72 (10/2019)	3.96 (10/2019)	--	
	% Removal	>85 % minimum (3)			lowest = 75.7% (10/2019)			
Chlorine, total residual (TRC)	µg/L	--	--	11.0	--	--	N/A (4)	Monthly
TDS	mg/L	--	--	--	--	--	488	Quarterly
E. coli	CFU/ 100mL	126	--	235	770.1 (03/2021)	--	770.1 (03/2021)	Monthly
pH	S.U.	6.5 to 9.0 (min-max)			6.5 (06/2021) – 8.5 (07/2019)			Monthly
Temperature	°C	-- (1)	--	-- (1)	--	--	30 (07/2021)	Monthly
Whole Effluent Toxicity, chronic	Pass (0) or Fail (1)	Pass (0) (5)	--	Pass (0) (5)	Fail (1) (06/2020)	--	Fail (1) (06/2020)	Quarterly

FOOTNOTES:
(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) 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 15 percent of the arithmetic mean, by concentration, for influent samples collected at approximately the same times during the same period (i.e. minimum of 85% BOD_5 removal; minimum of 85% TSS removal).
(4) Chlorine was not used for disinfection as a substitute for UV disinfection.

(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 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 downstream receiving water (e.g., "water quality-based effluent limits"). EPA has established the most stringent of applicable technology-based or water quality-based effluent limitations in the permit, as described below.

A. Applicable Technology-Based Effluent Limitations

Publicly Owned Wastewater Treatment Systems ("POTWs")

EPA developed technology-based treatment standards for municipal wastewater treatment plants in accordance with Section 301(b)(1)(B) of the CWA. The minimum levels of effluent quality attainable by secondary treatment for BOD_5, TSS, and pH, as defined in 40 CFR § 133.102(a) and listed below. Mass limits, as required by 40 CFR § 122.45(f), are included for BOD_5 and TSS.

BOD_5 and TSS:

Concentration-based Limits

30-day average: 30 mg/L
7-day average: 45 mg/L
Minimum of 85% Removal Efficiency

Mass-based Limits

30-day average:

$$\frac{0.03\ MG}{day} \times \frac{30\ mg}{l} \times \frac{8.345\ lb/MG}{mg/l} = 7.5\ lbs\ per\ day$$

7-day average:

$$\frac{0.03\ MG}{day} \times \frac{45\ mg}{l} \times \frac{8.345\ lb/MG}{mg/l} = 11.3\ lbs\ per\ day$$

pH:

Instantaneous Measurement: 6.5 – 9.0 standard units (S.U.)

Priority Pollutant Scan:

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

Technology-based treatment requirements may be imposed on a case-by-case basis under Section 402(a)(1) of the CWA, to the extent that EPA-promulgated effluent limitations are inapplicable (i.e., the regulation allows the permit writer to consider the appropriate technology for the category or class of point sources and any unique factors relating to the discharger) (40 CFR § 125.3(c)(2)).

B. Water Quality-Based Effluent Limitations

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

When determining whether an effluent discharge causes, has the reasonable potential to cause, or contributes to an excursion above narrative or numeric criteria, the permitting authority shall use procedures which account for existing controls on point and non-point sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity) and where appropriate, the dilution of the effluent in the receiving water (40 CFR § 122.44(d)(1)(ii)).

EPA evaluated the reasonable potential to discharge toxic pollutants according to guidance provided in the *Technical Support Document for Water Quality-Based Toxics Control* (TSD) (Office of Water, U.S. EPA, March 1991) and the *U.S. EPA NPDES Permit Writers' Manual* (Office of Water, U.S. EPA, September 2010). These factors include:

1. Applicable standards, designated uses and impairments of receiving water
2. Dilution in the receiving water
3. Type of industry
4. History of compliance problems and toxic impacts
5. Existing data on toxic pollutants for a 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. EPA approved the 1999 NNSWQS on March 23, 2006. The NNSWQS were later revised in 2007 and approved by EPA on March 26, 2009. EPA partially approved the 2015 NNSWQS revisions on October 5, 2020, effective March 17, 2021. The approved 2015 NNSWQS revisions will be used on a best professional judgment ("BPJ") basis for purposes of developing water quality based effluent limitations. The requirements contained in the proposed permit are necessary to prevent violations of applicable water quality standards.

The following beneficial uses are designated for the unnamed (ephemeral) tributaries to the San Juan River, as listed in Table 206.1 (page 37) of the NNSWQS:

- **ScHC** - Secondary Human Contact
- **AgWS** – Agriculture Water Supply
- **A&W** - Aquatic & Wildlife
- **LW** - Livestock Watering

The following water quality criteria from the NNSWQS are applied as effluent limitations:

E. coli:	126 MPN/100 mL (geometric mean, minimum four samples in 30 days)
	235 MPN/100 mL (single sample maximum)
pH:	6.5-9.0 (2015 NNSWQS **PrHC** beneficial use)

Ammonia: Based on Attachment D of the permit (Table 207.20 from the 2015 NNSWQS)
AIR: AIR (Ammonia Impact Ratio) ≤ 1. NNSWQS do not have AIR criteria, but the ammonia limit is expressed as AIR. An AIR of less than or equal to 1 meets the NNSWQS Ammonia criteria.

The waterbodies potentially affected by discharge from this facility are not listed as impaired according to CWA Section 303(d) List of Water Quality Limited Segments. Therefore, no TMDLs are applicable to permittee's discharge.

2. Dilution in the Receiving Water

Discharge from Outfall No. 001 is to an unnamed wash, a tributary to the San Juan River. This unnamed wash may have no natural flow most times of the year. Therefore, no dilution of the effluent has been considered in the development of water quality-based effluent limits applicable to the discharge.

3. Type of Industry

Typical pollutants of concern in treated and untreated domestic wastewater include ammonia, nitrate, oxygen demand, pathogens, temperature, pH, oil & grease, turbidity and solids. Chlorine is not a concern since the treatment plant uses UV disinfection. The SIC code for this facility is 4952 (Sewerage Systems).

4. Compliance History and Toxic Impacts

Review of DMRs from June 2017 to April 2022 showed the facility had the following effluent violations over the 59 months:

- Ammonia Impact Ratio (2 violations);
- WET tests (2 violations);
- pH minimum (4 violations);
- TSS average monthly concentration (1 violation);
- TSS % removal (4 violations);
- *E. coli* monthly average (3 violations); and,
- *E. coli* daily maximum (1 violation).

EPA and NNEPA conducted a joint NPDES compliance evaluation inspection on August 19, 2021, and identified the following areas of concern: (1) The facility exceeded several effluent limits shortly after the casino reopened from the COVID-19 pandemic closure; (2) The two UV banks were offline on day of inspection; (3) UV banks/bulbs were maintained and the frequency of cleaning was flow dependent; (4) pH exceedances could be a result of malfunctioning pH analytical equipment or failure to operate and maintain the sampling equipment; (5) Insufficient information was provided on how samples were collected during low flows; and, (6) The outfall was covered in dense vegetation.

The permittee responded to EPA's inspection findings on June 2, 2022.

5. Existing Data on Toxic Pollutants for a Reasonable Potential Analysis

For pollutants with effluent data available, EPA conducted a reasonable potential ("RP") analysis based on statistical procedures outlined in EPA's *Technical support Document for Water Quality-based Toxics Control,* herein after referred to as EPA's TSD (EPA 1991). These

statistical procedures result in the calculation of the projected maximum effluent concentrations based on monitoring data to account for effluent variability and a limited data set. The projected maximum effluent concentrations were estimated assuming an effluent coefficient of variation of 0.6 for pollutants and the confidence interval of the 99th percentile, based on an assumed lognormal distribution of daily effluent values (sections 3.3.2 and 5.5.2 of EPA's TSD). EPA calculated the projected maximum effluent concentration for each pollutant using the following equation:

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.

Table 4. Summary of Reasonable Potential Statistical Analysis

Pollutant Parameter [(1)]	Maximum Observed Effluent Concentration	*n*	RP Multiplier	Projected Maximum Effluent Concentration	Most Stringent Water Quality Criterion	Statistical Reasonable Potential?
E. Coli	770.1 MPN/100 mL	48	2.3	1,771 MPN/100 mL	126 [(2)] MPN/100 mL	Yes
Ammonia (as N)	37.1 mg/L	48	2.3	85.3 mg/L	0.3 to 4.9 mg/L for chronic [(3)] [(4)]	Yes
AIR	6.02	48	2.3	13.8	1	Yes
Antimony, total recoverable	0.92 µg/L	1	13.2	12.1	75 µg/L	No
Arsenic, total recoverable	<1.0 µg/L	1	13.2	13.2 µg/L	30 µg/L	No
Beryllium, total recoverable	< 2.0 µg/L	1	13.2	26.4 µg/L	85 µg/L	No
Cadmium, total recoverable	< 0.1 µg/L	1	13.2	1.3 µg/L	8 µg/L	No
Copper, total recoverable	27 µg/L	1	13.2	356 µg/L	17.6 µg/L [(5)]	Yes
Lead, total recoverable	< 1.0 µg/L	1	13.2	13.2 µg/L	15 µg/L [(5)]	No
Mercury, total recoverable	<0.20 µg/L	1	13.2	2.6 µg/L	10 µg/L	No
Nickel, total recoverable	< 20 µg/L	1	13.2	264 µg/L	101 µg/L [(5)]	Yes
Selenium, total recoverable	<2.0 µg/l	1	13.2	26.4 µg/L	2.0 µg/L	Yes
Silver, total recoverable	< 0.1 µg/L	1	13.2	1.3 µg/L	12.5 µg/L [(5)]	No

Pollutant Parameter [(1)]	Maximum Observed Effluent Concentration	*n*	RP Multiplier	Projected Maximum Effluent Concentration	Most Stringent Water Quality Criterion	Statistical Reasonable Potential?
Thallium, total recoverable	<0.5 µg/L	1	13.2	6.6 µg/L	1.0 µg/L	No
Zinc, total recoverable	22 µg/L	1	13.2	290 µg/L	229 µg/L [(5)]	Yes
Whole Effluent Toxicity	1 (Fail)	10	3.0	1 (Fail)	0 (Pass)	Yes

(1) For purposes of RP analysis, parameters measured as Non-Detect are considered to be zero. Only detected pollutants are included in this analysis.
(2) Geometric mean of samples collected for *E. Coli.*
(3) Based on Attachment D of the permit (Table 207.20 from the 2015 NNSWQS).
(4) EPA's Guidance for *Aquatic Life Ambient Water Quality Criteria for Ammonia – Freshwater 2013* recommends using acute and chronic criteria dependent on pH and temperature.
(5) The applicable NNSWQS for hardness-dependent metals are based on an assumed hardness value of 220 mg/L.

C. Rationale for Numeric Effluent Limits and Monitoring

EPA evaluated pollutants expected to be present in the effluent and selected the most stringent of applicable technology-based effluent limits 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. Effluent limits are explained below and summarized in Table 5.

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:

EPA retains the more stringent effluent limits for BOD_5 and TSS, which are based on the technical capability of the secondary treatment process as defined by 40 CFR § 133.105(a) and (b). Mass limits are also required for BOD_5 and TSS under 40 CFR § 122.45(f). Based on the 0.03 MGD design flow, the mass-based limits are included in the permit. Monitoring is required monthly.

E. coli:

Presence of pathogens in untreated and treated domestic wastewater indicates a reasonable potential for *E. coli* bacteria levels in the effluent to cause or contribute to an excursion above the NNSWQS. The limits will continue to maintain protection of water quality and are based on the NNSWQS for protection of **PrHC** (page 20). 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. The monitoring frequency is once per month, consistent with the previous permit.

Total Residual Chorine ("TRC"):

No reasonable potential exists for TRC as UV light is being used for effluent disinfection purposes and chlorine/chlorination is no longer being used as an option. Therefore, regulating TRC is superfluous, and EPA is removing the previous TRC effluent limit consistent with the anti-backsliding exception related to material and substantial alternations or additions to the permitted facility. See section D below.

Total Dissolved Solids ("TDS"):

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 quarterly, consistent with the previous 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 using the AIR are carried over from the previous permit.

AIR is determined by the concurrent measurement of ammonia concentration, pH and temperature. AIR is calculated by dividing the ammonia concentration in the effluent by the applicable ammonia criteria as described in Attachment D in the permit. The NNSWQS for Ammonia in freshwater for protection of **A&W** are listed in Table 207.21 (page 68) of the 2015 NNSWQS. The ammonia criteria are pH and temperature-dependent. Therefore, pH, temperature, and ammonia sampling must be concurrent. See Attachment E of the permit for a sample log to help calculate and record the AIR values. The AIR effluent limitation value is 1.0, carried over from the previous permit.

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, with consideration of dilution. If the reported value exceeds the AIR limitation, then the effluent ammonia-N concentration exceeded the ammonia water quality criterion. Any AIR value in excess of 1.0 will indicate an exceedance of the permit limit.

pH:

Untreated and treated domestic wastewater could be contaminated with substances that affect pH, which indicates reasonable potential for pH levels in the effluent to cause or contribute to an excursion above the WQS. To ensure adequate protection of beneficial uses of the receiving water, a minimum pH limit of 6.5 and a maximum limit of 9.0 S.U. are established in Section 207.C of the 2015 NNSWQS (page 20). The permit limit is carried over

from the previous permit, and the monitoring frequency is once per month. Measurements for pH are required to be taken concurrently with ammonia and temperature measurements.

Temperature:

To support the Navajo Nation's established Ammonia standards and their dependence on temperature, monthly temperature monitoring is to be performed concurrently with ammonia and pH measurements.

Table 5. Discharge Limitations—Outfall Number 001

Effluent Parameter	Units	Monthly Average	Weekly Average	Daily Maximum	Monitoring Frequency (2)	Sample Type
Flow	MGD	--(1)	--	--(1)	Monthly	Instantaneous
BOD_5 (3)	mg/L	30	45	--	Monthly	Composite
	lbs/day	7.5	11.3	--		
	%	≥ 85 percent removal efficiency				
TSS (3)	mg/L	30	45	--	Monthly	Composite
	lbs/day	7.5	11.3	--		
	% Removal	≥ 85 percent removal efficiency				
E. coli	CFU/100 ml	126 (4)	--	235 (5)	Monthly	Grab
Solids, total dissolved (6)	mg/L	--(1)	--	--(1)	Quarterly	Grab
Copper, total recoverable	µg/L	--	--	17.6	Annually	Grab
Nickel, total recoverable	µg/L	--	--	101	Annually	Grab
Selenium, total recoverable	µg/L	--	--	2.0	Annually	Grab
Zinc, total recoverable	µg/L	--	--	229	Annually	Grab
Hardness, total (as $CaCO_3$)	µg/L	--(1)	--	--(1)	Annually	Grab
Ammonia, total (7)	mg/L	--(8)	--	--(8)	Monthly	Grab
AIR (7)	--	1.0	--	--	Monthly	Grab
pH (7)	std. units	between 6.5 to 9.0			Monthly	Grab
Temperature (7)	deg ºC	--	--	--	Monthly	Grab
Priority Pollutant Scan (8)	µg/L	--	--	--(1)	Years 1, 3 and 5	24-hr Composite

'MGD' indicates units of Million Gallons per Day; 'CFU' is Colony Forming Units.

(1) No effluent limits are set at this time but monitoring and reporting is required.

(2) At minimum, at least one sample per year must be taken concurrent with annual whole effluent toxicity monitoring.

(3) Both the influent and the effluent shall be monitored and reported. The average monthly effluent concentration of BOD_5 and TSS must not exceed 15 percent of the average monthly influent concentration collected at the same time. The mass limits are calculated based upon the 0.03 MGD design flow.

(4) Geometric mean of samples collected during the calendar month.

(5) Single sample maximum.

(6) Both the plant influent and effluent flows (Outfall Number 001) shall be sampled and reported. The incremental increase is the difference between the two sample analyses. Salinity ("TDS") is determined by the "calculation method" (sum of constituents) as described in the latest edition of "Techniques of Water Resources Investigations of the United States Geological Survey-Methods for Collection and Analysis of Water Samples for Dissolved Minerals and Gases."

(7) Table 207.21 in the NNSWQS defines water quality standards for total ammonia (in mg-N/liter). (See Attachment C in this permit). The criteria for ammonia are pH- and temperature-dependent; therefore, field measurements for ammonia, pH, and temperature shall be taken concurrently and reported on the Ammonia Impact Ratio ("AIR") worksheet. (See Attachment D of the permit).

(8) Priority Pollutants: During Years 2 and 4 in the permit cycle, the permittee must monitor for the full list of priority pollutants set forth in 40 CFR Part 423, Appendix A. See Attachment E of the permit for the list. No limit is set at this time, other than for those parameters identified in this table. Should the results reveal levels below the Navajo Nation Surface Water Quality Standards and EPA's National Water Quality Criteria for priority pollutants, monitoring will no longer be required for the remainder of the permit cycle.

Copper, Nickel, Selenium, and Zinc:

To conduct the reasonable potential analysis, EPA compared the most stringent, applicable water quality standard to the projected maximum expected value in the discharge in accordance with EPA's TSD. As shown in Table 4 above, there is reasonable potential for copper, nickel, selenium and zinc in the effluent to cause or contribute to exceedances above the applicable water quality criteria. (See pages 56-65 of the NNSWQS).

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

$$CMC = [e^{(0.8473\ [\ln(220)] + 0.884)}] \times 0.978 = 229\ \mu g/L$$

$$CCC = [e^{(0.8473\ [\ln(220)] + 0.884)}] \times 0.986 = 230\ \mu g/L$$

Monitoring of copper, nickel, selenium, and zinc has been included in the priority pollutant scan. However, because monitoring for these toxic metals was conducted by the permittee only once during the previous permit cycle, there was not sufficient data to calculate representative geometric means from multiple data points to evaluate compliance with the applicable water quality standards. Therefore, the draft permit establishes new effluent limits and annual monitoring requirements for copper, nickel, selenium, and zinc.

Hardness (as $CaCO_3$):

The CTR includes hardness-dependent criteria for the protection of freshwater aquatic life for metals. In order to have sufficient effluent hardness data to calculate hardness-dependent metals criteria, this draft permit includes a requirement for annual monitoring for hardness.

Whole Effluent Toxicity (WET) Testing:

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..." The Northern Edge facility experienced several exceedances of the WET limit during the previous 5 years.

To evaluate the secondary effects of discharged nutrients, and to comply with the NNSWQS for a designated use of **A&WHbt**, a minimum standard for chronic toxicity (a value of 0, "Pass" of the Test of Significant Toxicity (TST) null hypothesis (H_o) for the WET test) has been incorporated into the permit. Due to past toxicity and the detection of toxic pollutants, EPA finds that there is reasonable potential to exceed the narrative toxicity standard and is retaining the WET requirement.

To ensure continued compliance with the narrative objective for toxicity, the draft permit includes **effluent limit** and monitoring requirements for chronic WET to be conducted semiannually using a 24-hour composite sample of the treated effluent for Fathead minnow *(Pimephales promelas).* Testing for chronic WET must be completed in accordance with Part II, Section C of the permit. WET testing was required in the previous permit, but the previous permit incorporates changes to testing and reporting consistent with the EPA TST (EPA 2010a). Testing must also be conducted concurrent with the priority pollutant scan.

Priority Pollutant Scan:

The requirement for a priority pollutant scan is carried over from the previous permit, but the frequency has been increased from once to twice during the permit cycle, which will assist in confirming the likelihood of reasonable potential for continued exceedance of limits. Monitoring must be performed at least once during the **second and fourth years** of the permit cycle and concurrently with WET testing.

D. Anti-Backsliding

CWA § 402(o) and § 303(d)(4) and 40 CFR § 122.44(l)(1) 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 permit limits are equal to or more stringent than those in the previous permit.

The permit removes the effluent limit for total residual chlorine (TRC) as neither chlorine nor chlorination is in use at the facility. Ultraviolet (UV) is the primary use for effluent disinfection with no backup. All other effluent limits are retained from the prior permit to this permit.

The permit establishes less stringent technology-based effluent limitations for TRC. This is based on new information (effluent monitoring results) gathered over the course of the prior permit timeframe and analysis shows there is no reasonable potential for TRC; this is consistent with CWA Section 303(d)(4) so there is no backsliding.

E. Antidegradation Policy

EPA's antidegradation policy under CWA § 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. Permit limits are equal or more stringent than those in the previous permit; accordingly, the discharge is not expected to adversely affect receiving waterbodies or result in any degradation of water quality. The receiving water is not listed as an impaired waterbody under CWA § 303(d)(4) and 40 CFR § 131.12.

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, so these limits will apply at the end of pipe without consideration of dilution in the receiving water. A priority pollutant scan has been conducted of the effluent, demonstrating that most pollutants will be discharged below detection levels. While the permit only establishes limits for copper, nickel, selenium, and zinc and does not establish limits for the remaining parameters in the priority pollutant scan, the permittee is required to monitor for the full list of priority pollutants as listed at 40 CFR Part 423, Appendix A. Thus, due to the low levels of toxic pollutants present in the effluent, and inclusion of water quality-based effluent limitations where needed, the discharge is not expected to adversely affect receiving water bodies or result in any degradation of water quality.

VII. NARRATIVE WATER QUALITY-BASED EFFLUENT LIMITS

The approved 2015 NNSWQS revisions contain narrative water quality standards for pollutants applicable to the receiving water. Thus, the permit incorporates applicable narrative water quality standards. Pursuant to the narrative surface water quality standards (Section 203 of the 2015 NNSWQS), the discharge shall be free from pollutants in amounts or combinations that cause solids, oil, grease, foam, scum, or any other form of objectionable floating debris on the surface of the water body; may cause a film or iridescent appearance on the surface of the water body; or that may cause a deposit on a shoreline, on a bank, or on aquatic vegetation.

VIII. MONITORING AND REPORTING REQUIREMENTS

The permit requires the permittee to conduct monitoring for all pollutants or parameters in Table 5, at the minimum frequency specified. Additionally, where effluent concentrations of pollutant parameters are unknown or where data are insufficient to determine reasonable potential, monitoring may be required for pollutant parameters where effluent limits have not been established.

A. Influent and Effluent Monitoring and Reporting

The permit requires influent and 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 Discharge Monitoring Reports ("DMRs") monthly, as specified in the permit, using the electronic reporting tools (NetDMR) provided by EPA Region 9.

B. Priority Toxic Pollutants Scan

A priority toxic pollutants scan must be conducted at least once during Years 2 and 4 of the permit cycle to ensure that the discharge does not contain toxic pollutants in concentrations that may cause a violation of water quality standards. The permittee must conduct the priority pollutants scan concurrent with a quarterly whole effluent toxicity testing. Permit Attachment E provides a complete list of Priority Toxic Pollutants, including identifying the volatile compounds that should be collected via grab sample procedures. 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. This is consistent with Priority pollutants listed in 40 CFR § 131.36.

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 aquatic toxicity test results are used to determine if the NPDES 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 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 test organism can show a difference in biological response; some will be undesirable differences. Examples of undesirable biological responses include, but are not limited to, eggs not fertilized, early life stages that grow too slowly or abnormally, or death. 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) chosen by the permitting authority and specified in the NPDES permit. The chosen statistical approach is compatible with both the experimental design of the 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, in relation to the permit's toxicity level for the effluent, which is set to protect the quality of surface waters receiving the NPDES discharge. 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 *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.

In accordance with 40 CFR § 122.44(d)(1), reasonable potential for chronic toxicity has been established. This is because at least one chronic toxicity test result was Fail (1), indicating unacceptable toxicity is present in the effluent, or at least one associated PE (Percent (%) Effect) value is ≥ 10, indicating toxicity at a level higher than acceptable is present in the effluent (see Section 1.4 in TST Technical Document). Thus, chronic toxicity WQBELs are required for the permitted discharge (40 CFR § 122.44(d)(1)). 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 2 in NPDES permit).

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 beneficial uses in receiving waters (CWA §§ 101(a)(3), 301(b)(1)(C)). The median monthly WQBEL—no more than one of a maximum of three 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—one 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 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).

For POTWs, it is not practicable (40 CFR § 122.45(d)) for EPA to set an average (median) weekly effluent limit, in lieu of a maximum daily effluent limit. This is because discharges of unacceptable toxicity—true chronic toxicity ≥ 25 PE, the TST's chronic toxicity RMD—are not adequately restricted by two effluent limits (median weekly and median monthly) each using a median of up to three toxicity test results. Under such limits, a highly toxic discharge could occur with no restriction. Using two such median limits further decreases the

probability that an effluent with unacceptable toxicity will be caught, resulting in a permitted discharge which under-protects the aquatic life from unacceptable chronic toxicity.

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 permitting authority to exercise, particularly when the quality of the permitted discharge has changed, or is expected to change, during the permit term.

IX. SPECIAL CONDITIONS

A. Biosolids

Standard requirements for the monitoring, reporting, recordkeeping, and handling of biosolids in accordance with 40 CFR Part 503 are incorporated into the permit. The permit includes, for dischargers who are required to submit biosolids annual reports, which include major POTWs that prepare sewage sludge and other facilities designated as "Class 1 sludge management facilities," electronic reporting requirements. The permittee shall submit a biosolids annual program report on EPA's Central Data Exchange (CDX) by February 19th of the following year. The permit includes a requirement for submitting a report 120 days prior to disposal of biosolids. Electronic submittals should be copied to R9NPDES@epa.gov. Biosolids reports should be submitted through CDX. (For more information, see Compliance and Annual Biosolids Reporting.)

B. Capacity Attainment and Planning

The permit requires that a written report be filed within ninety (90) days if the average dry-weather wastewater treatment flow for any month that exceeds 90 percent of the annual dry-weather design capacity of the waste treatment and/or disposal facilities.

C. Development and Implementation of Best Management Practices

The permittee shall develop and implement BMPs for pollution prevention. Pursuant to 40 CFR § 122.44(k)(4), EPA may impose Best Management Practices ("BMPs") "reasonably necessary…to carry out the purposes of the Act." The pollution prevention requirements or BMPs in the permit operate as technology-based limitations on effluent discharges that reflect the application of Best Available Technology and Best Control Technology. Thus, the permit requires that the permittee develop (or update) and implement a Pollution Prevention Plan with appropriate pollution prevention measures or BMPs designed to prevent pollutants from entering the receiving water while performing normal processing operations at the facility.

D. Asset Management

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

X. OTHER CONSIDERATIONS UNDER FEDERAL LAW

A. Consideration of Environmental Justice

EPA conducted a screening level evaluation of environmental justice ("EJ") vulnerabilities in the community posed to residents in the vicinity of the permitted facility using EPA'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 near the discharge when drafting permit conditions.

On June 20, 2022, EPA conducted an EJSCREEN analysis of the community in a 10-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 7. EJSCREEN Analysis – Northern Edge Casino WWTP

Selected Variables	Percentile in State	Percentile in EPA Region	Percentile in USA
EJ Indexes			
EJ Index for Particulate Matter (PM 2.5)	50	55	69
EJ Index for Ozone	47	65	77
EJ Index for NATA* Diesel PM	51	55	67
EJ Index for NATA* Air Toxics Cancer Risk	49	54	68
EJ Index for NATA* Respiratory Hazard Index	56	57	70
EJ Index for Traffic Proximity	58	65	73
EJ Index for Lead Paint Indicator	53	67	72
EJ Index for Superfund Proximity	67	76	80
EJ Index for RMP Facility Proximity	59	53	66
EJ Index for Hazardous Waste Proximity	75	71	73
EJ Index for Underground Storage Tanks	80	76	81
EJ Index for Wastewater Discharge Indicator	64	80	85

*NATA = National Scale Air Toxics Assessment

The 10-mile radius covers the community of Upper Fruitland and outlying areas. The results, summarized in Table 7, suggest that many indicators have lower risks than the general population, but the indicator values are assigned in combination with demographic factors. For example, the population is almost entirely people of color, and many are considered low income. Air quality indices are influenced by the presence of both state and federal highways near or adjacent to Upper Fruitland. It is also possible that the presence of a former uranium mine outside of the community influences the indices.

As a result of the EJSCREEN analysis, EPA is aware of the environmental burdens facing the community. EPA 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. EPA found no evidence to indicate the treatment facility discharge poses a significant risk to residents; the facility will not contribute additional degradation to the risk factors that were identified. Furthermore, EPA 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. EPA is soliciting public comments on this draft permit and will consider any additional information that is provided during the public comment period.

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 Information for Planning and Conservation ("IPaC") website for the U.S. Fish and Wildlife Service ("USFWS") New Mexico office (see https://ipac.ecosphere.fws.gov/) generated an Official Species list on January 13, 2022, which identifies all proposed (P), candidate (C), threatened (T) and endangered (E) species and critical habitat that may occur in the vicinity of the Northern Edge Navajo Casino WWTF discharge and the unnamed receiving water, a tributary to San Juan River. The listed species are provided in Table 8.

Table 8. Listed Species, Designated under the U.S. Endangered Species Act

Type	Common Name	Scientific Name	Status	Critical Habitat
Mammals	Canada Lynx	*Lynx canadensis*	T	No*
	New Mexico Meadow Jumping Mouse	*Zapus hudsonius luteus*	E	No*
Birds	Southwestern Willow Flycatcher	*Empidonax traillii extimus*	E	No*
	Yellow-billed Cuckoo	*Coccyzus americanus*	T	No*
Fish	Colorado Pikeminnow	*Ptychocheilus lucius*	E	No*
	Razorback Sucker	*Xyrauchen texanus*	E	No*
Insect	Monarch Butterfly	*Danaus plexippus*	C	No
Flowering Plants	Knowlton's Cactus	*Pediocactus knowltonii*	E	No
	Mancos Milk-vetch	*Astragalus humillimus*	E	No
	Mesa Verde Cactus	*Sclerocactus mesae-verdae*	T	No

*These species have designated, proposed or final critical habitats but outside of the Action Area.

Action Area

The federal action is EPA's renewal of an existing NPDES permit. The Northern Edge Navajo Casino WWTP and its discharge outfall are established and there are no plans for new construction to expand the WWTP, nor new pipelines or hydrology alterations that will cause disruption of land or removal of habitat. The action area is defined as the wastewater treatment facility itself and includes the discharge area surrounding the outfall to an unnamed wash tributary to the San Juan River. Streamflow in the unnamed wash is ephemeral and does not reach the San Juan River, so the action area does not include the San Juan River. If, in the rare instance that the effluent is to be discharged during a precipitation event large enough to result in continuous flow from the outfall, it would be so heavily diluted during such times of high flow that it would have no effect on the waters of the San Juan River.

Listed Species Near the Action Area

Mammals

Canada Lynx *(Lynx canadensis)* (https://ecos.fws.gov/ecp/species/3652) is a medium-sized cat with long legs, large, well-furred paws, long tufts on the ears, and a short, black-tipped tail. The winter pelage of the lynx is dense and has a grizzled appearance with grayish-brown mixed with buff or pale brown fur on the back, and grayish-white or buff-white fur on the belly, legs and feet. Summer pelage of the lynx is more reddish to gray-brown. Adult males average 10 kilograms (22 pounds) in weight and 85 centimeters (33.5 inches) in length (head to tail), and females average 8.5 kilograms (19 pounds) and 82 centimeters (32 inches). The lynx's long legs and large feet make it highly adapted for hunting in deep snow. The distribution of lynx in North America is closely associated with the distribution of North American boreal forest. In Canada and Alaska, lynx inhabit the classic boreal forest ecosystem known as the taiga. The range of lynx populations extends south from the classic boreal forest zone into the subalpine forest of the western United States, and the boreal/hardwood forest ecotone in the eastern United States. Forests with boreal features extend south into the contiguous United States along the North Cascade and Rocky Mountain Ranges in the west, the western Great Lakes Region, and northern Maine. Within these general forest types, lynxes are most likely to persist in areas that receive deep snow and have high-density populations of snowshoe hares, the principal prey of lynx. This leads to a prey-predator cycle. The Canada lynx population increases with an increasing hare population; if the hare population decreases in a given area, it moves to areas with more hares and has fewer offspring. Snowshoe hares are restricted to the Sangre de Cristo and San Juan ranges in a narrow band of elevations corresponding to subalpine coniferous forest outside of the action area for this permit. The action area is at lower elevation near the San Juan River. Because the action area contains no suitable habitat for Canada lynx, EPA has determined that the action will not affect this species. There is no critical habitat for this species in the action area and therefore the action will not affect Canada lynx critical habitat.

New Mexico Meadow Jumping Mouse *(Zapus hudsonius luteus)* is a rare subspecies found primarily near streams and wetlands in parts of New Mexico, eastern Arizona, and southern Colorado. Threats to the jumping mouse and its habitat include grazing pressure, water management and use, lack of water due to drought/climate change, wildfires, and certain recreation activities. https://ecos.fws.gov/ecp/species/7965) The jumping mouse is grayish-brown on the back, yellowish-brown on the sides, and white underneath and is about 7. 4 to 10 inches in total length, with elongated feet (1.2 inches) and an extremely long, bicolored tail (5.1 inches). It nests in dry soils, but uses moist, streamside, dense riparian/wetland vegetation up to an elevation of about 8,000 feet. The jumping mouse appears to only utilize two riparian community types: 1) persistent emergent herbaceous wetlands (i.e., beaked sedge and reed canarygrass alliances); and 2) scrub-shrub wetlands (i.e., riparian areas along perennial streams that are composed of willows and alders). Such habitat is not found in the action area. Because the jumping mouse is found primarily near streams and wetlands outside of the action, and the action area contains no suitable habitat for the jumping mouse, EPA has determined that the action will not affect this species. There is no critical habitat for this species in the action area and therefore the action will not affect New Mexico Meadow Jumping Mouse critical habitat.

Birds

Southwestern Willow Flycatcher *(Empidonax traillii extimus)* is a small insectivorous bird species (https://ecos.fws.gov/ecp/species/6749) found in the Southwestern United States, including New Mexico, that requires dense riparian habitats often consisting of willow, buttonbush, cottonwood, box elder, Russian olive etc. as well as saturated soils, standing water, streams, pools, for nesting. Such habitat is not found in the action area. EPA has determined that occasional short-term discharges from the treatment plant would thus have no effect on the species, nor would it create conditions for establishment of conditions for typical flycatcher habitat. While the Southwestern Willow Flycatcher is present in San Juan County in New Mexico, in which the action area for this permit is located, there is no critical habitat located in that county, therefore the action will not affect Southwestern Willow Flycatcher critical habitat.

The **Yellow-billed Cuckoo** *(Coccyzus americanus*) is 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 (https://ecos.fws.gov/ecp/species/3911). Habitat conditions through most of the Yellow-billed Cuckoo's range are dynamic and may change 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). There is no dense cover or overgrown orchards in the action area. Because the action area contains no suitable habitat for Yellow-billed Cuckoo, EPA has determined that the action will not affect this species.

In February 2020, USFWS proposed 72 units of critical habitat for the Western Yellow-billed Cuckoo in the arid southwest. (See page 11477 of the following Federal Register notice: https://www.govinfo.gov/content/pkg/FR-2020-02-27/pdf/2020-02642.pdf). The action area does not fall into any of the 72 identified units proposed to be designated as critical habitat by the USFWS. EPA has thus determined that its action will not affect proposed critical habitat for the Yellow-billed Cuckoo.

Fish

Colorado Pikeminnow *(Ptychocheilus lucius)* is endemic to the Colorado River basin and historically found in major tributaries such as the San Juan River. Such species spawn in groups over the summer where cobble and gravel streambeds are recently cleaned by spring peak flows (https://ecos.fws.gov/ecp/species/3531), and they mature where snowmelt flows decrease to stable summer flows with periodic flash floods (USFWS 2020c). The San Juan River subbasin consists of adult fish resulting from augmentation efforts after the wild population of Colorado pikeminnow was nearly extirpated in the late 1990s. Adult abundance has only recently been estimated; estimates indicate a relatively small adult population comprised of stocked individuals, which appears to be increasing in the last few years. Reproduction has been documented annually since 2013, with increasing catch rates of larval fish, but recruitment of

wild fish beyond their first year appears to be limited. Currently, the available data suggest persistence of Colorado pikeminnow in the San Juan River is reliant on stocking. And long-term resiliency of the San Juan River subbasin has been low based on a continued reliance on stocking to maintain that population. (Source: Colorado Pikeminnow 5-Year Status Review: Summary and Evaluation, USFWS, August 2020)

Although annual restocking occurs in the San Juan River, suitable habitat does not occur in the vicinity of the action area nor in any of the washes leading to the San Juan River. Streamflow in the unnamed wash is ephemeral and does not reach the San Juan River, so the action area does not include the San Juan River. No standing ponds or water exist at the facility or nearby property and thus the species is not believed to be present in the dry wash tributary, beyond speculative incidental contact. EPA has determined that the action will have no effect on the Colorado pikeminnow. And although final critical habitat for the Colorado pikeminnow includes portions of the San Juan River, the action area is dry for part of the year and does not reach these sections of the River. EPA has therefore determined that its action will not affect critical habitat for Colorado pikeminnow.

Razorback suckers *(Xyrauchen texanus)* (https://ecos.fws.gov/ecp/species/530) are endemic to the warm-water portions of the Colorado River basin of the southwestern United States and in San Juan River subbasin. They are found throughout the basin in both lotic and lentic habitats but are most common in low-velocity habitats such as backwaters, floodplains, flatwater river reaches and reservoirs. Razorback suckers prefer cobble or rocky substrate for spawning but have been documented to clear sediment away from cobble when conditions are unacceptable and even spawn successfully over clay beds. Depending on the subbasin, juveniles and adults frequently have access to appropriate habitat throughout the system ranging from backwaters and floodplains to deep and slow-moving pools, however nonnative fishes are frequently found in such habitats as well. (https://ecos.fws.gov/ServCat/DownloadFile/166375)

Stocking and reintroduction programs have allowed the species to persist despite a chronic lack of wild recruitment to the adult life stage in most populations. Stocking programs have succeeded in reintroducing adults that survive current ecological conditions and fulfill their ecological role. Although restocking occurs in the San Juan River, suitable habitat does not occur in the vicinity of the action area nor in any of the washes leading to the San Juan River. Streamflow in the unnamed wash is ephemeral and does not reach the San Juan River, so the action area does not include the San Juan River. EPA has therefore determined that the action will not affect Razorback suckers. The action area does not fall into any designated final critical habitat by the USFWS thus EPA has determined that its action will not affect critical habitat for Razorback suckers.

Insects

Monarch Butterfly *(Danaus plexippus)* (https://ecos.fws.gov/ecp/species/9743) is a candidate species and not yet listed or proposed for listing, (Endangered and Threatened Wildlife and Plants; 12-Month Finding for the Monarch Butterfly, December 17, 2020). Candidate species do not have statutory protection under the ESA, although USFWS encourages cooperative conservation efforts for these species. No critical habitat has been designated for this species by the USFWS.

Flowering Plants

Knowlton's cactus *(Pediocactus knowltonii)* (https://ecos.fws.gov/ecp/species/1590) is listed as endangered. It is a rare, endemic cactus that is presently known to occur on a single 10-hectare hill in San Juan County, New Mexico just south of the Colorado/New Mexico border above Navajo Lake. According to USFWS's 2012 Summary Report on the species, Knowlton's cactus habitat occurs on Tertiary alluvial deposits overlying the San Jose Formation. These deposits form rolling, gravelly hills covered with piñon pine *(Pinus edulis)*, Rocky Mountain juniper *(Juniperus scopulorum)* and black sagebrush *(Artemisia nova).* A relatively dense soil cover of foliose lichen (*Parmelia* sp.) is an unusual aspect of the habitat. This cactus grows in full sun or partial shade between cobbles in the understory of sagebrush and conifers.

The only known natural habitat is the top and slopes of a single small hill within the TNC Sabo Preserve. Knowlton's cactus density is variable at this location, but can be surprisingly high in some areas with up to13 cacti per square meter. The total population in 1992 was estimated to be 12,000 plants by using a series of belt transects across the hill where this species occurs.- These habitats are not found in the vicinity of the action area and would not be affected by discharge of the facility. Accordingly, EPA has determined that the action will not affect the Knowlton's cactus. No critical habitat has been designated for this species by the USFWS.

Mancos Milk-vetch *(Astragalus humillimus)* (https://ecos.fws.gov/ecp/species/7483) is listed as endangered. It is a perennial that grows in scattered populations on remote rimrock ledges and mesa tops in the Four Corners area of Colorado and New Mexico. Its habitat is very specific. It only occurs in shallow pockets of soil in the tan-colored units of Point Lookout sandstone, particularly at the bases of gentle inclines of slickrock, in cracks, and along the margins of bowl-like depressions in the otherwise flat rock. Mancos Milk-vetch grows in tufted mats close to the ground. Twelve to eighteen inches across, the mats are crowned with spiny leaf stalks. The stems, which are crowded with leaves, are up to 1 cm long. The leaves are composed of seven to eleven oval, light green, and softly hairy leaflets. After the leaves wither, the spiny leaf stalks persist on the plant. (Source: https://www.nps.gov/articles/mancos-milkvetch.htm)

Suitable habitat does not occur in the vicinity of the action area nor in any of the washes leading to the San Juan River. Therefore, EPA has determined that the action will have no effect on the Mancos Milk-vetch. No critical habitat has been designated for this species by the USFWS.

Mesa Verde Cactus *(Sclerocactus mesae-verdae)*(https://ecos.fws.gov/ecp/species/6005) is listed as threatened. Mesa Verde cactus is a species of cactus native to northwestern New Mexico and southwestern Colorado. It is known only from Montezuma County and San Juan County, and much of the New Mexico part of the range lies inside land controlled by the Navajo Nation. (Source: https://www.nps.gov/articles/mesa-verde-cactus.htm) It usually grows on the tops or the slopes of these sparsely vegetated badlands. These habitats are at 1980 to 1600 meters (5250 to 6500 ft) in elevation and receive 8 to 20 cm (3 to 8 in) of annual precipitation. Biologists estimate that a total of 5,000-10,000 plants exist. Mesa Verde cactus usually has one spherical stem that is pale green in color, but it can form clusters of up to 15 stems. The stems are only 3.8 to 7.6 cm (1.5 to 3 in) tall, and they retract into the soil during drought. The stems

have eight to eleven radial spines that are straw-colored and a quarter-inch to a half-inch long. Usually, there is no central spine.

The known populations are restricted to the Mancos and Fruitland Shale formations at the eastern edge of the Navajoan Desert. These formations erode to form badlands with soils that are highly alkaline, gypsum-rich, and prone to swelling upon exposure to water. The action area is not located at an elevation where the Mesa Verde cactus is found. The action area is comprised of gently sloping topography with soil that is not suitable for this species. Therefore, EPA has determined that the action will not affect the Mesa Verde cactus. No critical habitat has been designated for the Mesa Verde cactus by the USFWS.

Conclusion

Considering 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 the listed species within the action area. A copy of the draft fact sheet and permit will be forwarded to the New Mexico 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. Migratory Bird Treaty Act and Bald Eagle Protection Act

The Migratory Bird Treaty Act ("MBT") (16 USC 703-712) protects migratory birds. Bald Eagle nests would be protected under the Bald Eagle Protection Act (Eagle Act) (16 USC 668 et seq.), which are not expected to be found near the facility.

D. 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 §307(c)(1) through (3)). CZMA §307(c) and implementing regulations at 40 CFR §930 prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State (or Territory) Coastal Zone Management program, and the State (or Territory) or its designated agency concurs with the certification.

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

E. 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 determination whether Federal actions 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. Accordingly, EPA determined that the permit will not adversely affect EFH.

F. Impact to National Historic Properties

The National Historic Preservation Act ("NHPA") Section 106 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 has determined that issuing this NPDES permit does not have the potential to affect any historic properties or cultural properties. As a result, Section 106 does not require EPA to undertake additional consulting on this permit issuance.

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

EPA can only issue the permit after the certifying Tribe has granted certification under 40 CFR § 124.55 or waived its right to certify. For this permit, the permittee is required to seek water quality certification (including paying applicable fees) that this permit will meet applicable water quality standards obtained water quality certification from the Navajo Nation EPA that this Permit will meet applicable water quality standards. Certification under section 401 of the CWA must be in writing and include 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 Navajo Nation law. EPA cannot issue the permit until the NNEPA has granted certification under 40 CFR § 124.53 or waived its right to certify. NNEPA issued certification under CWA section 401 on July 27, 2022.

XI. STANDARD CONDITIONS

A. Reopener Provision

In accordance with 40 CFR Parts 122 and 124, this permit may be modified by EPA to include effluent limits, monitoring, or other conditions to implement new regulations, including EPA-approved water quality standards; or to address new information indicating the presence of effluent toxicity or the reasonable potential for the discharge to cause or contribute to exceedances of water quality standards; or new permit conditions for species pursuant to ESA requirements.

B. Standard Provisions

The permit requires the permittee to comply with EPA Region 9 Standard Federal NPDES Permit Conditions.

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 public of the contents of a draft NPDES permit or other significant action with respect to an NPDES permit or application.

B. Public Comment Period (40 CFR § 124.10)

Notice of the draft permit and fact sheet was posted on the EPA website from August 3 to September 6, 2022, for a minimum of 30 days to allow interested parties to respond in writing to EPA. After the closing of the public comment period, EPA is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is issued. Comments may be submitted until the close of the public comment period to Tran.Linh@epa.gov. There were no comments received during the comment period.

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

A public hearing may be requested in writing by any interested party during the public comment period. 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.

XIII. CONTACT INFORMATION

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

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

XIV. REFERENCES

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

EPA. 2010a. *National Pollutant Discharge Elimination System Test of Significant Toxicity Technical Document.* Office of Wastewater Management, EPA. EPA-833-R-10-004. June.

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

EPA. 2013. *National Recommended Water Quality Criteria.* Office of Water, EPA. Aquatic Life Criteria Table. https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table#table

EPA. 2015. *National Recommended Water Quality Criteria.* Office of Water, EPA. Human Health Criteria Table. https://www.epa.gov/wqc/national-recommended-water-quality-criteria-human-health-criteria-table

Navajo Nation Environmental Protection Agency (NNEPA). 2015. *Navajo Nation Surface Water Quality Standards 2015*. Passed by Navajo Nation Council Resources and Development Committee May 23, 2017. Partially approved by U.S. EPA, effective March 17, 2021. Approved 2015 Surface Water Quality Standards and Revisions

USFWS. 2022. IPaC Report for Endangered and Threatened Species List in the Vicinity/Action Area of NTUA Northern Edge Casino WWTP and Discharge

USFWS. 2005. 5-Year Review of Lesser Long-nosed Bat, Black-capped Vireo, Yuma Clapper Rail, Pima Pineapple Cactus, Gypsum Wild-Buckwheat, MESA VERDE CACTUS, and Zuni Fleabane February 2005. Endangered and Threatened Species: Initiation of 5-Year Status Reviews of 35 Species in the Southwest. February 2022. https://ecos.fws.gov/ecp/species/6005

USFWS. 2011. Southwest Region (Region 2). MANCOS MILK-VETCH (Astragalus humillimus) 5-Year Review. August 2011. Endangered and Threatened Species: Initiation of 5-Year Status Reviews of 35 Species in the Southwest February 2022. https://ecos.fws.gov/ecp/species/7483

USFWS. 2013. Southwest Region (Region 2). Designation of Critical Habitat for SOUTHWESTERN WILLOW FLYCATCHER: Final rule. January 2013. https://ecos.fws.gov/ecp/species/6749

USFWS. 2017. Mountain-Prairie Region 6. Species Status Assessment for the CANADA LYNX *(Lynx canadensis)* Contiguous United States Distinct Population Segment. Final, October 2017. https://ecos.fws.gov/ecp/species/3652

USFWS. 2018. Mountain-Prairie Region 6. Species Status Assessment Report for the RAZORBACK SUCKER (*Xyrauchen texanus*). Final, August 2018. https://ecos.fws.gov/ecp/species/530

USFWS. 2020. Upper Colorado Basin, Region 7. 2020c. Species Status Assessment Report for the COLORADO PIKEMINNOW *(Ptychocheilus lucius)*. Final, March 2020. https://ecos.fws.gov/ecp/species/3531

USFWS. 2020. New Mexico Ecological Services Field Office, Southwest Region (Region 2). Species status assessment report for the NEW MEXICO MEADOW JUMPING MOUSE *(Zapus hudsonius luteus)*. First Revision. January 2020. https://ecos.fws.gov/ecp/species/7965

USFWS. 2020. Midwest Region (Region 3). Monarch Butterfly (Danaus plexippus) Species Status Assessment Report, version 2.1. September 2020. https://ecos.fws.gov/ecp/species/9743

USFWS. 2021. New Mexico Ecological Services Field Office, Southwest Region (Region 2). Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Western Distinct Population Segment of the YELLOW- BILLED CUCKOO. April 2021. https://ecos.fws.gov/ecp/species/3911

USFWS. 2021. Southwest Region (Region 2). Knowlton's Cactus Five Year Status Review. August 2021. https://ecos.fws.gov/ecp/species/1590