

US EPA ARCHIVE DOCUMENT

February 2018
FACT SHEET (revised)
Authorization to Discharge under the
National Pollutant Discharge Elimination System
for the
Navajo Tribal Utility Authority – Shiprock Wastewater Treatment Facility
NPDES Permit No. NN0020621

Applicant address: Navajo Tribal Utility Authority (“NTUA”)
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Facility Address: NTUA Shiprock Wastewater Treatment Facility
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Shiprock, New Mexico 87420-1749

I. STATUS OF PERMIT

Pursuant to the U.S. Environmental Protection Agency (“U.S. EPA”) regulations set forth in Title 40, Code of Federal Regulations (“CFR”) Part 122.21, the NTUA was issued a National Pollutant Discharge Elimination System (“NPDES”) Permit (No. NN0020621) on October 18, 2012, for its Shiprock wastewater treatment facility in San Juan County, New Mexico. The permit was effective December 1, 2012, through midnight, November 30, 2017. NTUA applied to U.S. EPA Region 9 for reissuance on June 1, 2017. This fact sheet is based on information provided by the discharger through its application and discharge data submittal, along with the appropriate laws and regulations.

Pursuant to Section 402 of the Clean Water Act (“CWA”), the U.S. EPA is proposing issuance of the NPDES permit renewal to NTUA for the discharge of treated domestic wastewater to receiving waters named San Juan River, in Segment 2401 of the San Juan River basin, all waters of the United States.

II. SIGNIFICANT CHANGES TO PREVIOUS PERMIT

1. The proposed permit, though similar to the previous permit issued in 2012, introduces a different calculation for determining compliance with total ammonia. In addition, measurements for temperature are required to be taken concurrently with ammonia and pH measurements.

2. The proposed permit includes a new requirement for submitting DMRs electronically through EPA’s NetDMR system.

3. The proposed permit also includes a new requirement for submitting annual biosolids reports electronically using EPA's NPDES Electronic Reporting Tool ("NeT").

4. The proposed permit also includes a new requirement for developing an asset management program (AMP) to cover the treatment plant and collection system.

III. GENERAL DESCRIPTION OF FACILITY

The NTUA Shiprock wastewater treatment facility is located approximately one mile Northwest of Junction US 64 and 491 in San Juan County, New Mexico, within the north central portion of the Navajo Nation. The Shiprock WWTF, a Publicly Owned Treatment Works ("POTW") has a design flow capacity of 1.0 million gallons per day (MGD) and is considered a major discharger. The facility serves a population of approximately 5,783, receiving domestic sewage and flows from sources such as an Indian Health Services (IHS) hospital, a dental office, a college, a construction maintenance yard and several car washes and restaurants. Based on information from the 2017 permit application, the annual average flow rates were 0.63 MGD in 2015, 0.61 MGD in 2016 and 0.63 MGD in 2017. Maximum daily flow rates were 1.17 MGD, 1.62 MGD and 0.86 MGD for 2015, 2016 and 2017, respectively. The design flow capacity basis of 1.0 MGD was used in determining the permit limits in the previous permit and is being used in the proposed permit.

Treatment at the entrance includes a mechanical bar screen/comminutor, a grit chamber, and a Parshall flume with a flow meter at the influent and effluent stations of the plant. Treatment includes primary clarification, trickling filtration, secondary sedimentation, and disinfection. Primary clarification is achieved when wastewater flows by gravity to the primary clarifier where solids are separated and pumped to a digester and the liquid portion flows to a wet well. Secondary treatment is provided with wastewater flowing to a splitter box that directs to either of two (2) trickling filters then to a collection box before entering the aeration basin and secondary clarifier. The trickling filters are each equipped with a center column and distribution arms. The activated sludge is redirected back to the aeration basin. The top is skimmed and the sludge is pumped to the second (old) clarifier where it is then sent to the wet well and back to the trickling filter. The digester system consists of two anaerobic digesters with floating covers, mixing units, and a heating system. Once digested, the remaining material is placed into six sludge drying beds. Disinfection is accomplished with ultraviolet (UV) lamps that produce radiation to destroy bacteria, viruses and other microorganisms within the wastewater. In the event that the UV system is inoperable, chlorination along with dechlorination will be employed as a backup disinfection system. During major maintenance events or when no discharge is required, a backup holding pond is used to store wastewater which can be pumped back to the headworks.

On November 21, 2017, the Navajo Nation EPA ("NNEPA") conducted an NPDES compliance evaluation inspection ("CEI") which revealed *E. coli* exceedances in February, April, May, and June 2017. It was reported that it is a result of UV lamps being coated with algae. The previous CEI also reported many *E. coli* exceedances. The operator reported that they are cleaning the weirs, channel, UV lamps, and chamber more often. It used to be once per month but have increased to 3 times per month. In addition, in October 2017, the facility installed a canopy cover over the UV chamber to help with ballasts overheating and to help reduce algae growth. Operator will continue to monitor. The operator informed NNEPA that Indian Health Services is continuing

to add customers to the system; most recent they are planning to add 36 new homes to the NTUA system.

IV. DESCRIPTION OF RECEIVING WATER

The discharge of treated domestic wastewater is to San Juan River, a water of the United States.

V. EFFLUENT CHARACTERISTICS

Review of DMRs from October 2012 to September 2017 shows that the facility has been in compliance with effluent limits for BOD₅ and TSS. However, the facility experiences numerous exceedances of the permit limits for *E. coli* and total residual chlorine. A compilation of compliance results is provided in Section VII.B.4.

VI. BASIS OF PROPOSED PERMIT REQUIREMENTS

Section 301(a) of the Clean Water Act (“CWA”) provides that the discharge of any pollutant to waters of the United States is unlawful except in accordance with a National Pollutant Discharge Elimination System (“NPDES”) permit. Section 402 of the Act establishes the NPDES program. The program is designed to limit the discharge of pollutants into waters of the United States from point sources [40 CFR 122.1(b)(1)] through a combination of various requirements including technology-based and water quality-based effluent limitations.

Sections 402 and 301(b)(1)(C) of the CWA require that the permit contain effluent limitations to meet water quality standards. Specifically, the regulation under 40 CFR 122.44(d) states that an NPDES permit must contain:

“Water quality standards and State requirements: any requirements in addition to or more stringent than promulgated effluent limitations guidelines or standards under Sections 301, 304, 306, 307, 318 and 405 of CWA necessary to:

(1) Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality.”

Section 40 CFR 122.44(d)(i) states the following:

“Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality.”

A. Navajo Nation Surface Water Quality Standards

In accordance with 40 CFR 122.44(d), the need for discharge limitations for all pollutants that may impact applicable water quality criteria and water quality standards must be evaluated. As part of this evaluation, discharge limitations are based on applicable water quality

standards. U.S. EPA approved the 1999 Navajo Nation Surface Water Quality Standards (“NNSWQS”), on March 23, 2006. The NNSWQS were revised in 2007 and approved by U.S. EPA on March 26, 2009. A 2015 *draft* NNSWQS revision has been under review by U.S. EPA. The approved 1999 NNSWQS, the 2007 revisions and the 2015 *draft* 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.

B. Applicable Technology-Based Effluent Limitations, Water Quality-Based Effluent Limitations (“WQBELs”) and BPJ

Technology-based effluent limitations require minimum levels of treatment based on currently available treatment technologies. Section 301 of the CWA established a required performance level, referred to as “secondary treatment”, that all POTWs were required to meet by July 1, 1977. Federal secondary treatment effluent standards for POTWs are contained in Section 301(b)(1)(B) of the CWA. Implementing regulations for Section 301(b)(1)(B) are found at 40 CFR Part 133. The CWA requires POTWs to meet performance-based requirements based on available wastewater treatment technology. These technology-based effluent limits apply to all municipal wastewater treatment plants, and identify the minimum level of effluent quality attainable by secondary treatment in terms of Five-Day Biochemical Oxygen Demand (“BOD₅”) and Total Suspended Solids (“TSS”). The requirements contained in the draft permit are necessary to prevent violations of applicable treatment standards.

VII. DETERMINATION OF NUMERICAL EFFLUENT LIMITATIONS

Typical pollutants of concern in untreated and treated domestic wastewater include ammonia nitrate, oxygen demand, pathogens, temperature, pH, oil and grease, and solids. US EPA proposes the following provisions and effluent discharge limitations for flow, BOD₅, TSS, *E. coli*, total dissolved solids (“TDS”), total residual chlorine (“TRC”) and ammonia taken concurrent with temperature and pH measurements. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge by prior to entry into the receiving water.

A. Federal Secondary Treatment Effluent Discharge Limitations

The proposed permit contains discharge limitations for BOD₅, TSS and priority toxic pollutants. For both BOD₅ and TSS, the arithmetic means of values, by weight, for effluent samples collected in a period of 30 consecutive calendar days cannot exceed 15 percent of the arithmetic mean of values, by weight, for influent samples collected at approximately the same times during the same period.

Parameter	Average Monthly	Average Weekly	Maximum Daily	Units	Monitoring Frequency
Flow ¹	-- ¹	n/a	-- ¹	MGD	Instantaneous
BOD ₅ ²	30	45	--	mg/l	3/Month
	114	170	341	kg/day	
TSS ²	30	45	--	mg/l	3/Month
	114	170	341	kg/day	
Priority Pollutants ³	-- ¹	n/a	-- ¹	µg/l	Once/1 st Quarter during Year 1

NOTES:

1. No limit is set at this time but influent and effluent flows must be monitored and reported. The monitoring frequency is once/month.
2. Under 40 CFR Section 122.45(f), mass limits are required for BOD₅ and TSS. The concentration limits for BOD₅ and TSS shall not exceed a monthly average of 30 mg/l and a weekly average of 45 mg/l, consistent with 40 CFR Section 133.102(a). The mass limits are calculated based upon the 1.0 MGD design flow.
3. Priority Pollutants: During Year 1 of the permit, the permittee shall monitor for the full list of priority pollutants in the Code of Federal Register (CFR) at 40 CFR Part 423, Appendix A. No limit is set at this time. 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.

B. Water Quality Based Effluent Limitations ("WQBELs")

Water quality-based effluent limitations, or 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 Enforcement and Permits, U.S. EPA, March 1991) and the *U.S. EPA NPDES Permit Writers Manual* (Office of Water, U.S. EPA, December 1996). These factors include:

1. Applicable standards, designated uses and impairments of receiving water

The 2015 draft NSWQS and established water quality criteria for San Juan River (*perennial* in Segment 2401 of the San Juan River Basin) beneficial uses as defined by the NSWQS are: domestic water supply, primary and secondary human contact, agricultural water supply, fish consumption, aquatic & wildlife habitat, and livestock watering (Table 206.1, page 36).

2. Dilution in the receiving water

Discharge from Outfall 001 is to San Juan River with natural flows throughout the year. However, given the applicable designated uses of the river listed in Section B.1 above, no dilution of the effluent has been considered in the development of water quality based effluent limits applicable to the discharge.

3. Type of industry

Typical pollutants of concern in untreated and treated domestic wastewater include ammonia nitrate, oxygen demand, pathogens, temperature, pH, oil and grease, and solids. Chlorine is of concern when using for disinfection, and therefore dechlorination is necessary to minimize impact on WQBELs.

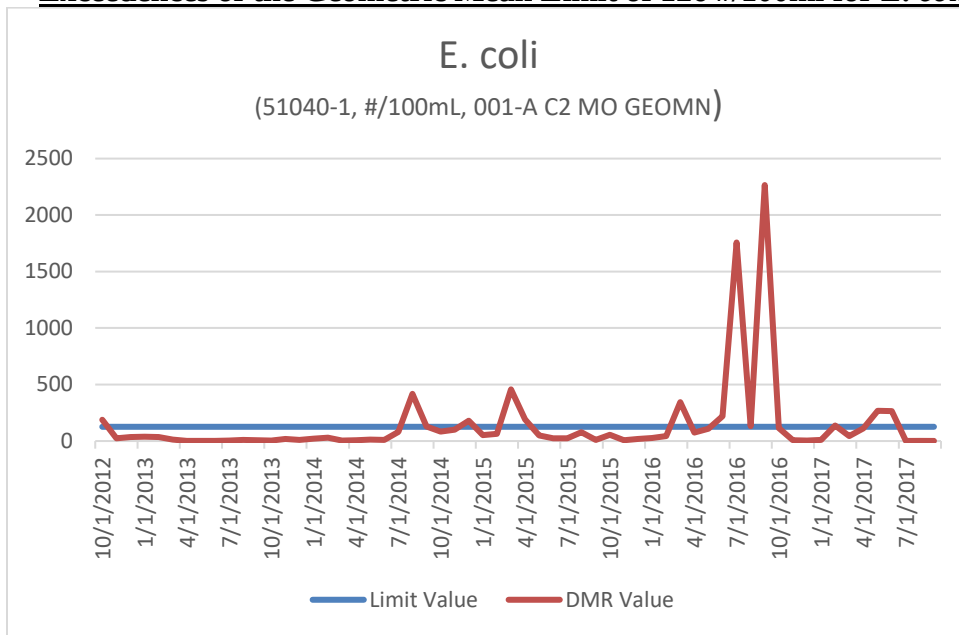
4. History of compliance problems and toxic impacts

Review of October 2012 to September 2017 DMR data showed exceedances for *E. coli* and TRC effluent limits. The permittee demonstrated consistent compliance with BOD₅ and TSS; however, reports were often submitted late, up to 56 days and more.

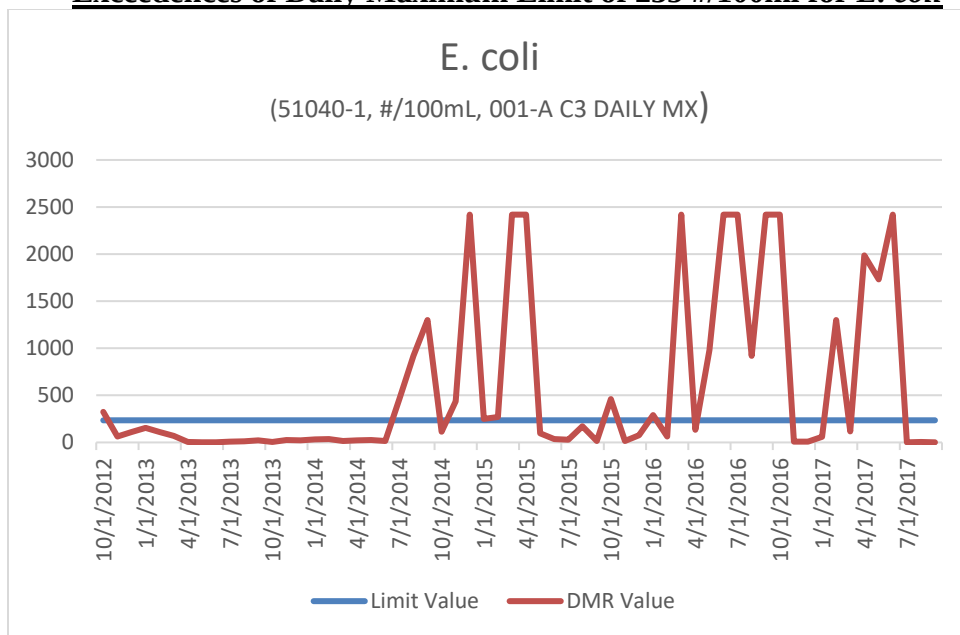
DATE	PARAMETER	LIMIT	RESULT	UNIT
10/31/2012	<i>E. coli</i> , geometric mean	126	189	#/100ml
10/31/2012	<i>E. coli</i> , daily maximum	235	326	#/100ml
12/31/2012	WET, ceriodaphnia dubia, monthly	1.0	1.78 (Fail)	TUc
12/31/2012	WET, ceriodaphnia dubia, daily max	1.0	2.0 (Fail)	TUc
7/31/2014	<i>E. coli</i> , daily maximum	235	461.1	#/100ml
8/31/2014	<i>E. coli</i> , geometric mean	126	417.8	#/100ml
8/31/2014	<i>E. coli</i> , daily maximum	235	920.8	#/100ml
8/31/2014	Chlorine, total residual	11	786.8	µg/l
9/30/2014	<i>E. coli</i> , geometric mean	126	129.2	#/100ml
9/30/2014	<i>E. coli</i> , daily maximum	235	1,299.7	#/100ml
11/30/2014	<i>E. coli</i> , daily maximum	235	435.2	#/100ml
12/31/2014	<i>E. coli</i> , geometric mean	126	179.0	#/100ml
12/31/2014	<i>E. coli</i> , daily maximum	235	2,419.6	#/100ml

DATE	PARAMETER	LIMIT	RESULT	UNIT
1/31/2015	<i>E. coli</i> , daily maximum	235	248.1	#/100ml
8/31/2014	Chlorine, total residual	11	500	µg/l
2/28/2015	<i>E. coli</i> , daily maximum	235	271.6	#/100ml
3/31/2015	<i>E. coli</i> , geometric mean	126	458.49	#/100ml
3/31/2015	<i>E. coli</i> , daily maximum	235	2,419.6	#/100ml
4/30/2015	<i>E. coli</i> , geometric mean	126	192.82	#/100ml
4/30/2015	<i>E. coli</i> , daily maximum	235	2,419.6	#/100ml
4/30/2015	Chlorine, total residual	11	80	µg/l
5/31/2015	Chlorine, total residual	11	110	µg/l
6/30/2015	Chlorine, total residual	11	40	µg/l
7/31/2015	Chlorine, total residual	11	30	µg/l
8/31/2015	Chlorine, total residual	11	100	µg/l
9/31/2015	Chlorine, total residual	11	2200	µg/l
10/31/2015	<i>E. coli</i> , daily maximum	235	461.1	#/100ml
1/31/2016	<i>E. coli</i> , daily maximum	235	290.9	#/100ml
3/31/2016	<i>E. coli</i> , geometric mean	126	344.7	#/100ml
3/31/2016	<i>E. coli</i> , daily maximum	235	2,419.6	#/100ml
5/31/2016	<i>E. coli</i> , daily maximum	235	980.4	#/100ml
6/30/2016	<i>E. coli</i> , geometric mean	126	218.14	#/100ml
6/30/2016	<i>E. coli</i> , daily maximum	235	2,419.6	#/100ml
7/31/2016	<i>E. coli</i> , geometric mean	126	1,756.2	#/100ml
7/31/2016	<i>E. coli</i> , daily maximum	235	2,419.6	#/100ml
8/31/2016	<i>E. coli</i> , geometric mean	126	131.8	#/100ml
8/31/2016	<i>E. coli</i> , daily maximum	235	920.8	#/100ml
9/30/2016	<i>E. coli</i> , geometric mean	126	2,265.5	#/100ml
9/30/2016	<i>E. coli</i> , daily maximum	235	2,419.6	#/100ml
10/31/2016	<i>E. coli</i> , daily maximum	235	2,419.6	#/100ml
2/28/2017	<i>E. coli</i> , geometric mean	126	137.41	#/100ml
2/28/2017	<i>E. coli</i> , daily maximum	235	1,299.1	#/100ml
4/30/2017	<i>E. coli</i> , daily maximum	235	1,986.3	#/100ml
5/31/2017	<i>E. coli</i> , geometric mean	126	268.48	#/100ml
5/31/2017	<i>E. coli</i> , daily maximum	235	1,732.9	#/100ml
6/30/2017	<i>E. coli</i> , geometric mean	126	263.96	#/100ml
6/30/2017	<i>E. coli</i> , daily maximum	235	2,419.6	#/100ml

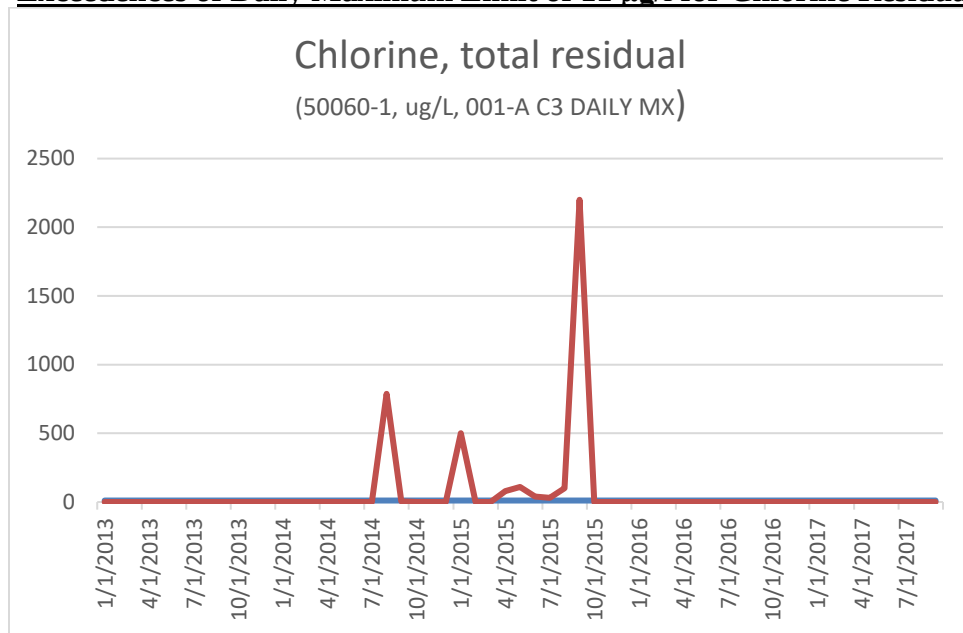
Exceedences of the Geometric Mean Limit of 126 #/100ml for *E. coli*



Exceedences of Daily Maximum Limit of 235 #/100ml for *E. coli*



Exceedences of Daily Maximum Limit of 11 µg/l for Chlorine Residual



5. Existing data on toxic pollutants - Reasonable Potential analysis

The permittee did not provide expanded effluent testing data for the facility's treated wastewater discharge as part of the application for permit renewal. However, the permittee performed a priority pollutant scan in the first quarter of 2017 calendar year. The permit will continue requirements for monitoring, including WET testing, and EPA will continue to evaluate monitoring results to determine if additional effluent limitations are required in the future.

C. Rationale for WQBELs

Pursuant to the narrative surface water quality standards (Section 202 of 2007 NNSWQS and Section 203 of 2015 NNSWQS *draft* revisions), 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.

1. Determination of Effluent Limitation for *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 water quality standards. In the proposed permit, the monthly geometric mean shall 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 secondary human contact (p. 20). The monitoring frequency is three times per month, consistent with the previous permit.

2. Total Dissolved Solids (TDS)

Presence of solids in untreated and treated domestic wastewater indicates that there is a reasonable potential for TDS levels in the effluent to cause or contribute to an excursion above the WQS. The regulations at 40 CFR 122.44(i) allow requirements for monitoring as determined to be necessary. The monitoring frequency is once per month, consistent with the previous permit.

3. Total Residual Chlorine (TRC)

The facility operates a UV disinfection system and chlorine is used as a backup disinfection system. When chlorination is used for disinfection purposes, there is reasonable potential for TRC levels in the effluent to cause or contribute to an excursion above the WQS. Therefore, a TRC limit of 11 µg/l has been established in the proposed permit to protect the beneficial uses of the receiving waters. The monitoring frequency is three times per month, consistent with the previous permit.

4. Ammonia (as N) and Ammonia Impact Ratio ("AIR")

Presence of ammonia in untreated and treated domestic wastewater indicates that there is a reasonable potential for levels in the effluent to cause or contribute to an excursion above the water quality standards. In accordance with the NNSWQS for protection of aquatic and wildlife habitat, the proposed permit contains effluent limitations for total ammonia. The ammonia limits are temperature and pH dependent and are listed in Table 207.20 and Table 207.21 (pages 67-68) of the *draft* 2015 NNSWQS revisions. They are also provided as Attachments B and C of the permit. The monitoring frequency is once per month, consistent with the previous permit.

Because ammonia criteria are pH and temperature-dependent, the permittee is required to calculate an AIR. The AIR is calculated as the ratio of the ammonia value in the effluent and the applicable ammonia standards as determined by using pH data to derive an appropriate value from the ammonia criteria table in Attachment D of the permit. The AIR limitation has been established as a monthly average of 1.0, equivalent to the standard. The permittee is required to report maximum daily and average monthly ammonia (as N) concentrations in addition to an average monthly AIR.

5. 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 water quality standards. 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 Section 207 of the *draft* 2015 NNSWQS revisions. The monitoring frequency is once per month, consistent with the previous permit. In order to support the Navajo Nation's established Ammonia standards, which vary with the pH of the effluent, pH monitoring is to be performed concurrently with ammonia and temperature measurements.

6. 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.

7. Whole Effluent Toxicity (WET)

It is U.S. EPA Region 9's policy that all continuous dischargers be required to perform WET testing. WET testing is intended to demonstrate that there are no unexpected toxic components of the discharge escaping to the receiving water undetected, and to prompt a response if they are present. The proposed permit therefore requires chronic toxicity testing to be conducted **quarterly** using a 24-hour composite sample of the treated effluent for fathead minnow (*Pimephales promela*), daphnid (*Ceriodaphnia dubia*) and an alga species (*Selenastrum capricornutum*). This requirement is representative of the previous permit.

VIII. REPORTING

The proposed permit requires discharge data obtained during the previous three months to be summarized on monthly DMR forms and reported quarterly. If there is no discharge for the month, report "C" in the No Discharge box on the DMR form for that month. The proposed permit includes a new requirement for electronically submitting compliance monitoring data by July 28, 2016, using the electronic reporting tools (NetDMR) provided by EPA Region 9. These reports are due January 28, April 28, July 28, and October 28 of each year. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the U.S. EPA and the Navajo Nation EPA.

IX. GENERAL STANDARDS

The proposed permit sets general standards that are narrative water quality standards contained in the Navajo Nation Water Quality Standards, Section 203. These general standards are set forth in Section B. General Discharge Specifications of the permit.

X. PERMIT REOPENERS

A. At this time, there is no reasonable potential to establish any other water quality-based limits. Should any monitoring indicate that the discharge causes, has the reasonable potential to cause, or contributes to excursion above a water quality criterion, the permit may be reopened for the imposition of water quality-based limits and/or whole effluent toxicity limits. The proposed permit may be modified, in accordance with 40 CFR 122 and 124, to include appropriate conditions or effluent limits, monitoring, or other conditions to implement new regulations, including U.S. EPA-approved new Tribal 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 exceedences of water quality standards.

B. In accordance with 40 CFR 122.44(c), EPA may promptly modify or revoke and reissue any permit issued to a treatment works treating domestic sewage (including "sludge only

facilities”) to incorporate any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the CWA, if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or controls a pollutant or practice not limited in the permit.

XI. SEWAGE SLUDGE REQUIREMENTS

The proposed permit includes a requirement for submitting a report 120 days prior to disposal of sewage sludge. The proposed permit also includes a new requirement that goes into effect December 21, 2016, for submitting reports electronically using EPA’s NPDES Electronic Reporting Tool (“NeT”). The report shall discuss an estimate of the quantity of sewage sludge currently on site, and a projection of when sewage sludge will next be removed. One hundred twenty (120) days prior to removing sewage sludge for use or disposal, the permittee is required to submit a plan describing the quantity of sewage sludge to be removed, mechanisms for removing, and a proposed sampling plan for pollutants regulated under the use or disposal option being selected. Upon approval of this plan by U.S. EPA and NNEPA, the permittee will have the sewage sludge removed as described. The permit also requires compliance with all applicable requirements of Section 405(d) of the CWA, and 40 CFR 258 (for sewage sludge sent to a municipal landfill) and 503 (for sewage sludge placed in a sludge-only surface disposal site, land applied as fertilizer, used in land reclamation, or incinerated).

XII. OTHER CONSIDERATIONS UNDER FEDERAL LAW

A. Anti-Degradation

USEPA’s antidegradation policy at 40 CFR Section 131.12 and the NNSWQS require that existing water uses and level of water quality necessary to protect the existing uses be maintained. As described in this fact sheet, 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 the pipe without consideration of dilution in the receiving water. Therefore, due to the low levels of toxic pollutants present in the effluent, the high level of treatment being obtained, and water quality-based effluent limitations, it is not expected that the discharge will adversely affect receiving water bodies.

B. Anti-Backsliding

Section 402(o) of the CWA prohibits the renewal or reissuance of an NPDES permit that contains effluent limits less stringent than those established in the previous permit, except as provided in the statute. The proposed permit is a renewal and therefore does not allow backsliding.

C. Threatened and Endangered Species and Critical Habitat

1. Background:

Section 7 of the Endangered Species Act (ESA) of 1973 requires Federal agencies such as EPA to ensure, in consultation with the U.S. Fish and Wildlife Service (FWS),

that any actions authorized, funded or carried out by the Agency are not likely to jeopardize the continued existence of any Federally-listed endangered or threatened species or adversely modify or destroy critical habitat of such species.

Since the issuance of NPDES permits by U.S. EPA is a Federal action, consideration of a permitted discharge and its effect on any listed species is appropriate. The proposed NPDES permit authorizes the discharge of treated domestic wastewater into San Juan River, a water of the United States. The information below is listed in the Navajo Nation's Department of Fish & Wildlife Natural Heritage Program ("NHP") database, <http://www.nndfw.org>. The FWS has deferred all of its survey and information collection in the Navajo Nation to the Navajo Nation NHP. NHP identified two (2) federally-listed species known to occur on or near the project site as Mesa Verde Cactus (*Sclerocactus mesae-verdae*), ESA threatened and Southwestern Willow Flycatcher (*Empidonax traillii extimus*), ESA endangered.

For species of concern with potential to occur on the 7.5 minute Shiprock, New Mexico quadrangle containing the project boundary, NHP has identified federally-listed species as follows:

Names (common and scientific)	Status
Mountain Plover (<i>Charadrius montanus</i>)	T
Black-footed Ferret (<i>Mustela nigripes</i>)	E
Roundtail Chub (<i>Gila robusta</i>)	T
Colorado Pikeminnow (<i>Ptychocheilus lucius</i>)	E
Razorback Sucker (<i>Xyrauchen texanus</i>)	E

2. EPA's Finding:

This permit authorizes the discharge of treated wastewater in conformance with the federal secondary treatment regulations and the NNSWQS. These standards are applied in the permit both as numeric and narrative limits. The standards are designed to protect aquatic species, including threatened and endangered species, and any discharge in compliance with these standards should not adversely impact any threatened and endangered species.

U.S. EPA believes that effluent released in compliance with this permit renewal will have no effect on any federally-listed threatened or endangered species or its critical habitat that may be present in the vicinity of the discharge. The treatment facility has been in existence for some time, and no new construction or modifications will be made to it due to the proposed NPDES permit renewal. Therefore, no requirements specific to the protection of endangered species are proposed in the permit.

D. Impact to National Historic Properties

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effect of their undertakings on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. Pursuant to activity authorized by this NPDES permit no new construction or disturbance of land is anticipated. Therefore,

pursuant to the NHPA and 36 CFR §800.3(a)(1), U.S. EPA is making a determination that issuing this proposed NPDES permit renewal does not have the potential to affect any historic properties or cultural properties. As a result, Section 106 does not require U.S. EPA to undertake additional consulting on this permit issuance.

E. Consideration of Environmental Justice (EJ) Impact

U.S. EPA has conducted a screening level evaluation of the potential impact of this facility and other permitted facilities within the immediate area on local residents through use of USEPA's EJSCREEN tool. Specifically, U.S. EPA used EJSCREEN to identify facilities near the NTUA Shiprock facility that could pose risk to local residents through discharge of environmental contaminants. U.S. EPA has also evaluated whether demographic characteristics of the population living in the vicinity of the Shiprock facility indicate that the local population might be particularly susceptible to such environmental risks. The results show that, at the time of this analysis conducted on November 20, 2017, the area in which the Shiprock facility is located was above the 92nd percentile nationally for 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 and population with less than high school education.

U.S. EPA also considers the characteristics of the wastewater treatment facility operation and discharges, and whether those discharges, in combination with discharges from local ozone sources, pose exposure risks that the NPDES permit needs to further address. The NTUA Shiprock facility is unlikely to discharge any noticeable ozone. USEPA finds no evidence to indicate the wastewater facility discharge poses a significant risk to local residents. U.S. EPA concludes that the facility is unlikely to contribute to any EJ issues. 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 health, the permit is sufficient to ensure the facility discharges to not cause or contribute to human health risk in the vicinity of the wastewater facility.

F. 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. The proposed NPDES permit establishes asset management requirements to ensure compliance with the provisions of 40 CFR 122.41(e).

XIII. ADMINISTRATIVE INFORMATION – PUBLIC NOTICE, PUBLIC COMMENTS AND REQUESTS FOR PUBLIC HEARINGS

A. In accordance with 40 CFR 124.10, public notice shall be given by the U.S. EPA Director that a draft NPDES permit has been prepared by mailing a copy of the notice to the permit applicant and other Federal and State agencies, and through EPA Region 9 website at:

<http://www.epa.gov/region09/water/npdes/pubnotices.html>. The public notice shall allow at least 30 days for public comment on the draft permit.

In accordance with 40 CFR 124.11 and 12, during the public comment period, any interested person may submit written comments on the draft permit, and may request a public hearing if no hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. In accordance with 40 CFR 124.13, all persons must raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position within thirty (30) days from the date of the public notice. Comments may be received either in person or mailed to:

U.S. Environmental Protection Agency, Region 9
NPDES Permits Section (WTR-2-3)
Attn: Linh Tran
75 Hawthorne Street
San Francisco, CA 94105
Telephone: (415) 972-3511

Interested persons may obtain further information, including copies of the draft permit, fact sheet/statement of basis, and the permit application, by contacting Linh Tran at the U.S. EPA address, above. Copies of the administrative record (other than those which U.S. EPA maintains as confidential) are available for public inspection between 8:00 a.m. and 4:30 p.m., Monday through Friday (excluding federal holidays).

In accordance with 40 CFR 124.12, the U.S. EPA Director shall hold a public hearing when, on the basis of requests, a significant degree of public interest in the draft permit exists. The Director may also hold a public hearing when, for instance, such a hearing might clarify one or more issues involved in the permit decision. Public notice of such hearing shall be given as specified in 40 CFR 124.10.

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

For States, Territories, or Tribes with EPA approval water quality standards, EPA is requesting certification from the affected State, Territory, or Tribe that the proposed permit will meet all applicable water quality standards. Certification under Section 401 of the CWA shall be in writing and shall include the conditions necessary to assure compliance with referenced applicable provisions of Sections 208(e), 301, 302, 303, 306 and 307 of the CWA and appropriate requirements of State, Territory or Tribal law.