

December 2015
FACT SHEET
Authorization to Discharge under the
National Pollutant Discharge Elimination System
for the
Navajo Tribal Utility Authority – Window Rock Wastewater Treatment Lagoons
NPDES Permit No. NN0021555

Applicant address: Navajo Tribal Utility Authority (“NTUA”)
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Facility Location: NTUA Window Rock Wastewater Treatment Facility
Lagoon Road, approximately 1.5 miles SW of Window Rock Fairground
Window Rock, Arizona 86504

Facility Contact: NTUA Deputy General Manager Office
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I. STATUS OF PERMIT

The NTUA was issued a National Pollutant Discharge Elimination System (“NPDES”) Permit (No. NN0021555) on April 14, 2011, for its Window Rock wastewater treatment lagoon facility (“WWTF”), 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 permit was effective June 1, 2011, through midnight, May 31, 2016. NTUA applied to U.S. EPA Region 9 for reissuance on September 17, 2015. NTUA has constructed a new activated sludge treatment system that is scheduled to replace the current wastewater treatment lagoon facility on January 1, 2016. This draft permit will include new discharge requirements for the new plant. This fact sheet is based on information provided by the applicant through its application and other data submittals, 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 (permittee) for the discharge of treated domestic wastewater to receiving waters named Black Creek, a tributary to Puerco Rico, an eventual tributary to the Little Colorado River, all waters of the United States.

II. SIGNIFICANT CHANGES TO PREVIOUS PERMIT

- The existing treatment lagoon facility is being replaced with a new activated sludge facility, and plant design capacity is increased from 0.87 million gallons per day (MGD) to 1.2 MGD.
- Incorporation of more stringent secondary treatment limits and higher removal efficiencies for BOD₅ and TSS.
- Total residual chlorine (TRC) limit is applicable only if chlorination is used for disinfection as a backup.
- Incorporation of Ammonia Impact Ratio for reporting ammonia. In addition, measurements for temperature are required to be taken concurrently with ammonia and pH measurements.
- Option of submitting DMRs electronically through EPA's NetDMR system.

III. GENERAL DESCRIPTION OF FACILITY

The NTUA Window Rock WWTF is located approximately 1.5 miles southwest of the Window Rock Fairgrounds in Window Rock, Apache County, Arizona, in the central portion of the Navajo Nation. The facility serves a population of 6,300, receiving only domestic sewage with a maximum design flow rate of 0.87 MGD. Current influent flow rate is 0.6 MGD. The 2011 permit covers the operation and discharge of an aerated lagoon system that is being replaced by a new extended aeration biological nutrient removal ("BNR") activated sludge facility. Based on information provided in the permit application and the September 2015 DRAFT Transition Plan prepared by Smith Engineering Company, NTUA has undertaken a major plant overhaul in order to bring the facility up to secondary treatment capability.

New Facility:

The new facility is built at the same location as the old lagoon system. The capacity of the new plant is 1.2 MGD. At the end of construction, the process will be as follows:

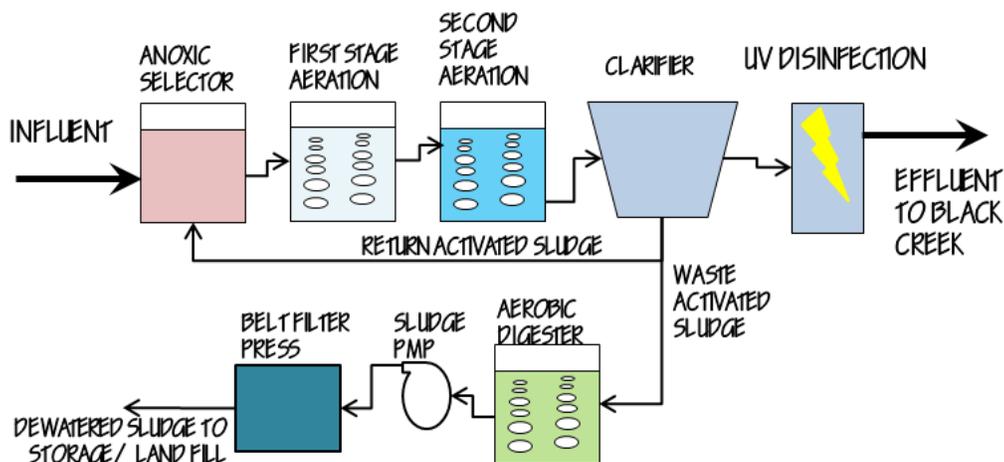


Figure 1: New Window Rock WWTP Process Diagram

The influent and effluent will be metered. Table 1 below shows the manufacturer of each process being installed.

Table 1 – Window Rock WWTP Installed Manufacturers

| Treatment | Process Type | Manufacturer |
|---|---|--------------|
| Biological Nutrient Removal Activated Sludge System | Anoxic Selector, First Stage Aeration, Second Stage Aeration, Clarifier, Aerobic Digester | Aero-Mod |
| Disinfection System | Ultraviolet Disinfection | Trojan UV |
| Sludge Dewatering | Belt Filter Press | Aero-Mod |

Collection System:

- Wastewater will enter the plant through a 24-inch influent pipe (Reinforced Concrete Pipe)
- A new septage receiving facility was constructed.

Pretreatment System:

- Influent will enter a lift station comprised of 2 rehabilitated duplex screw pumps. Fiberglass covers are over the screw pumps.
- Flow will then enter a mechanical climber type bar screen with ¼-inch bar spacing (Alternatively, there is a manual wastewater train with a manual bar screen). A raking system removes solids from the screen automatically at set timed intervals. It also has a high water float that triggers an automatic raking. Solids are removed and deposited into a screenings wash press for the reduction of organic content, moisture, and volume. The washed screened material is discharged out of the washing press into a storage container pending landfill disposal.
- Flow will then enter an automatic vortex grit chamber using a cylindrical tank to create a spiral flow pattern (Alternatively, there is a manual wastewater stream with a horizontal flow grit channel with a proportional weir). Heavy solids cannot be carried with the accelerated flow near the center of the tank and are eventually thrown out of the vortex flow pattern to the tank walls where the flow is slower. The heavy solids then drop to the bottom of the tank where a grit pump deposits them into a grit classifier which separates organic and inorganic solids. The lighter organic solids are reintroduced into the flow system. The inorganic solids are washed and dewatered then discharged to a storage container pending landfill disposal.
- Flow will pass through a 12-inch Parshall flume and ultrasonic flowmeter with a totalizer (Alternatively, there is a manual wastewater train with a 9-inch Parshall flume and ultrasonic flowmeter).

Extended Aeration Biological Nutrient Removal (“BNR”):

- Flow will enter into a Selector Tank where the raw sewage is combined with returned activated sludge (“RAS”) from the clarifier.
- The mixture from the Selector Tank will flow into the continuously aerated First Stage Aeration Basins where adequate retention time is provided to achieve excellent BOD and ammonia removal (nitrification).
- Flow from the First Stage Aeration Basins will continue into the Second Stage Aeration Basins which operate in parallel. The aeration is sequenced on and off from one tank to

the other. The process alternates which basin is aerated, typically sequencing the on/off cycle on a 2 hour basis. The end result is excellent denitrification without having to turn the blowers on and off, but by controlling which tank is receiving air. The nitrate laden mixed liquor suspended solids (“MLSS”) from the First Stage is incorporated into oxygen depleted Biomass in the Second Stage. This settled Biomass becomes oxygen deprived, thus using nitrates for their oxygen source (denitrification). During re-aeration, additional BOD removal and nitrification continues. The cycle is repeated several times as the liquid mass progresses through the tank to the clarifier.

- The mixture will then enter the ClarAstor clarifier where the Biomass is settled and hydraulically returned to the Selector Tank. The clarified effluent will be withdrawn and discharged.
- At regular intervals, solids will be automatically or manually wasted to the Aerobic Digester. Supernatant is automatically decanted back to the aeration process via a fixed overflow weir.
- The stabilized sludge from the Aerobic Digesters will be dewatered with a belt filter press than stored on-site on sludge beds pending landfill disposal.
- The process will be controlled within the tanks by sequencing the air with simple timer logic.
- Lagoon #1 from the old lagoon treatment system will be retained and used for emergency purposes.

Disinfection:

- Effluent from the clarifier will enter an open channel ultraviolet (“UV”) disinfection system with a transmittance of 253.7 nanometers.

IV. DESCRIPTION OF RECEIVING WATER

The effluent will be piped to an outfall structure (Outfall No. 001) for discharge into Black Creek, a tributary to the Puerco River, an eventual tributary to the Little Colorado River. The discharge location for the new extended aeration plant is the same as for the old lagoon treatment system. The coordinates for the discharge outfall are: Longitude: 109 ° 5’ 1.719” West and Latitude: 35 ° 38’ 13.64” North.

V. EFFLUENT CHARACTERISTICS

The old treatment lagoon facility has been out of compliance with the NPDES permit effluent limits for residual chlorine, E. coli, BOD₅, and TSS for a number of years. The facility is under an Administrative Order on Consent (“AOC”) [Docket No. CWA-309(a)-09-15-008, dated June 8, 2015] with USEPA to achieve compliance with the NPDES permit. This AOC supersedes a previous AOC [Docket No. CWA-309-9-0604, dated February 6, 2006] issued by USEPA. The facility is also under a separate AOC [Docket No. NNCWA-AOC-2015-001, dated May 12, 2015] issued by the Navajo Nation Environmental Protection Agency (“NNEPA”) for violations of the NPDES permit. As required by these AOCs, NTUA devised a long-term compliance plan that included construction and operation of the new wastewater treatment system. Also required by the AOCs was the submission of a Transition Plan to detail the switch from the old lagoon system to the new extended aeration BNR plant, and the development and implementation of an Operations and Maintenance Manual for the new facility. The new facility is considered a major

discharger and, therefore, will require a compliance evaluation inspection (“CEI”) every year.

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 application of the water quality standards. USEPA approved the 1999 Navajo Nation Surface Water Quality Standards (“NNSWQS”), on March 23, 2006. The NNSWQS were revised in 2007 and approved by the USEPA on March 26, 2009. A 2010 *draft* NNSWQS revision has been under review by USEPA. The approved 1999 NNSWQS, the 2007 revision and the 2010 *draft* revisions will be used on a best professional judgment (“BPJ”) basis for purposes of developing water quality based effluent limitations.

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” if chlorination is used) 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 biochemical oxygen demand (BOD₅), total suspended solids (TSS) and priority toxic pollutants. The BOD₅ concentration limits are identical to those of the previous permit. The TSS concentration limits are more stringent than those of the previous permit since the new treatment system is required to meet federal secondary treatment standards. These mass limits are different from the previous permit since the design flow rate for the old lagoon system was 0.87 MGD while the design flow rate for the new plant is 1.2 MGD. For BOD₅ and TSS, the arithmetic means of values, by weight, for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of values, by weight, for influent samples collected at approximately the same times during the same period.

| Discharge Limitations | | | | | |
|----------------------------------|--------|-----------------|----------------|-----------------|--|
| Discharge Parameter | Units | Average Monthly | Average Weekly | Maximum Daily | Monitoring Frequency |
| Flow ¹ | GPD | -- ² | n/a | -- ² | Instantaneous |
| BOD ₅ ³ | mg/l | 30 | 45 | -- | Monthly |
| | kg/day | 135 | 203 | -- | |
| TSS ⁴ | mg/l | 30 | 45 | -- | Monthly |
| | kg/day | 135 | 203 | -- | |
| Priority Pollutants ⁵ | µg/l | n/a | n/a | -- ² | Once/1 st Quarter during Year 5 |

NOTES:

1. No flow limit is set at this time but influent and effluent flows must be monitored and reported. The monitoring frequency is once/month.
2. Monitoring and reporting required. No limitation is set at this time.

3. Under 40 CFR Part 122.45(d) and Part 133.102(a), the discharge shall not exceed a monthly average of 30 mg/l and a weekly average of 45 mg/l for BOD₅ and shall achieve no less than a monthly average rate of 85% removal efficiency. The mass limits are calculated based upon the 1.20 MGD design flow.
4. Under 40 CFR Part 122.45(f) and Part 133.102(b), the discharge shall not exceed a monthly average of 30 mg/l and a weekly average of 45 mg/l for TSS and shall achieve no less than a monthly average rate of 85% removal efficiency. The mass limits are calculated based upon the 1.20 MGD design flow.
5. Priority Pollutants: During Year 5 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 2007 NNSWQS and 2010 *draft* NNSWQS revisions established water quality criteria for the following beneficial uses (Black Creek, Puerco Rico, the Little Colorado River are defined as Primary and Secondary Human Contact, Fish Consumption, Aquatic & Wildlife Habitat, and Livestock Watering (Table 205.1, page 22).

2. Dilution in the receiving water

Discharge from Outfall 001 is to Black Creek, which may have no natural flow during certain times of the year. Therefore, no dilution of the effluent has been considered in the development of 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.

4. History of compliance problems and toxic impacts

This proposed permit is for the new facility.

5. Existing data on toxic pollutants - Reasonable Potential analysis

No existing data is available on toxic pollutants.

C. Rationale for WQBELs

Pursuant to the narrative surface water quality standards (Section 202 of 2007 NNSWQS and *draft* 2010 NNSWQS 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.

| Discharge Limitations | | | | | |
|---|------------|--------------------|----------------|---------------|--|
| Discharge Parameter | Units | Average Monthly | Average Weekly | Maximum Daily | Monitoring Frequency |
| <i>E. Coli</i> | CFU/100 ml | 126 | -- | 235 | Once/month |
| TRC | µg/l | -- | -- | 11.0 | Once/month, if chlorination is used for disinfection |
| Total Ammonia (as N) | mg/l | -- | -- | -- | Once/month |
| Ammonia Impact Ratio (AIR) ⁸ | -- | 1.0 | -- | -- | Once/month |
| TDS | mg/l | -- | -- | -- | Once/quarter |
| pH | std unit | between 6.5 to 9.0 | | | Once/month |
| Temperature | deg F | -- | -- | -- | Once/month |
| Whole Effluent Toxicity Testing | -- | -- | -- | -- | Once/month |

1. *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 WQS. In the proposed permit, the monthly geometric mean of *E. coli* bacteria 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 primary human contact (p. 14). The monitoring frequency is once 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 quarter, consistent with the previous permit.

3. Total Residual Chlorine (TRC)

Not applicable with UV disinfection of the effluent. If chlorination is used for disinfection, dechlorination is also necessary prior to discharge and 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 once per month, consistent with the previous permit.

4. Ammonia 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 WQS. 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 206.3 (page 37) of 2007 NNSWQS and *draft* 2010 NNSWQS revisions. They are also provided in Appendix A 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 Appendix B 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 concentrations in addition to an average monthly AIR. The monitoring frequency is once per month.

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 WQS. In order to ensure adequate protection of beneficial uses of the receiving water, a maximum pH limit of 9.0 and a minimum limit of 6.5 S.U. are established in Section 206.C. of 2007 NNSWQS and *draft* 2010 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 monitoring.

6. Temperature

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

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 **monthly** 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 identical to the requirement in the previous permit. During the previous permit cycle, EPA initially required that the facility conduct monthly WET testing with fish, invertebrate and algae which NTUA did over a period of a year. Based on a review of the monthly toxicity data collected and a toxicity identification evaluation which identified the potential source of toxicity to be elevated ammonia levels, the monitoring frequency for WET was reduced by EPA in April 2013 to twice per year with the most sensitive species, i.e. the fathead minnow.

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. 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 requires a report to U.S. EPA and NNEPA within 90 days of permit issuance with an estimate of the quantity of sewage sludge currently on site in lagoons, and any removed and in drying beds or stockpiles (in dry metric tons), and a projection of when sewage sludge shall next be removed. Ninety (90) 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 EPA is a Federal action, consideration of a permitted discharge and its effect on any federally-listed species is appropriate. The proposed NPDES permit authorizes the discharge of treated domestic wastewater into Black Creek, a tributary to Puerco Rico, an eventual tributary to the Little Colorado River.

The information below is listed in the Navajo Nation's Department of Fish & Wildlife Natural Heritage Program (NHP) database. <http://www.ndfw.org/> The FWS has deferred all of its survey and information collection in the Navajo Nation to the Navajo Nation NHP. Based on review of the NHP database, EPA found that NHP had identified no federally-listed threatened or endangered species in the 7.5 quadrangle of Window Rock, AZ containing the project boundary.

2. EPA's Finding:

This permit authorizes the discharge of treated wastewater in conformance with the federal secondary treatment regulations and the Navajo Nation Surface Water Quality Standards. 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.

EPA believes that effluent released in compliance with this permit 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. Therefore, no requirements specific to the protection of endangered species are proposed in the permit.

D. Consideration of Environmental Justice (EJ) Impact

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 EPA's EJSCREEN tool. Specifically, EPA used EJSCREEN to identify facilities near the NTUA Window Rock facility that could pose risk to local residents through discharge of environmental contaminants. EPA has also evaluated whether demographic characteristics of the population living in the vicinity of the NTUA 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 December 15, 2015, the area in which the Window Rock facility is located was above the 90th percentile nationally for ozone, 78th percentile nationally for PM_{2.5} and 88th percentile for proximity to a major direct discharger. 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.

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 Window Rock facility is unlikely to discharge any noticeable ozone. EPA finds no evidence to indicate the wastewater facility discharge poses a significant risk to local residents. 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.

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

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.