

US EPA ARCHIVE DOCUMENT

November 2017

**FACT SHEET**

**Authorization to Discharge under the  
National Pollutant Discharge Elimination System for the  
Upper Village of Moenkopi Wastewater Treatment Plant  
NPDES Permit No. AZ0024619**

Applicant address: Upper Village of Moenkopi  
P.O. Box 1229  
Tuba City, AZ 86045

Facility Address: UVM Wastewater Treatment Facility  
Mile Post 321, Highway 160  
Upper Village of Moenkopi, AZ 86045

Applicant Contact(s): William Charley, General Manager  
(928) 283-8051

**I. STATUS OF PERMIT**

Upper Village of Moenkopi (“UVM” or the “permittee”) has applied for the renewal for their National Pollutant Discharge Elimination System (“NPDES”) permit to authorize the discharge of treated domestic wastewater from the Hopi Indian Nation’s wastewater treatment facility (the “facility”) to receiving waters named Moenkopi Wash, a tributary to the Little Colorado River. UVM submitted the application to U.S. EPA Region 9 on March 9, 2016, and supplemental information on February 1, 2017. Pursuant to Section 402 of the Clean Water Act (“CWA”), the U.S. EPA is proposing issuance of the NPDES permit renewal to UVM for the discharge of treated domestic wastewater to This fact sheet is based on information provided by the applicant through its application and discharge data submittal, along with the appropriate laws and regulations.

The facility is currently discharging under NPDES permit No. AZ0024619 issued on September 21, 2011, becoming effective on October 1, 2011, through September 30, 2016. Pursuant to 40 CFR 122.21, the terms of the existing permit are administratively extended until the reissuance of a new permit.

This permittee has been classified as a minor discharger.

**II. SIGNIFICANT CHANGES TO PREVIOUS PERMIT**

1. The applicant operates an advanced secondary and tertiary treatment facility capable of achieving 96% removal efficiencies for five-day biochemical oxygen demand (BOD<sub>5</sub>) and total suspended solids (TSS). The proposed permit includes standards associated with tertiary treatment which require more stringent limitations for BOD<sub>5</sub> and TSS than the secondary treatment standards set forth in the previous permit.

2. The proposed permit 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.

3. Per stipulation of concurrence from Hopi's Water Resources Program in the issuance of the proposed permit and certification through Clean Water Act Section 401 (water quality certification), the proposed permit includes additional requirements for meeting applicable water quality standards for reclaimed water for crop irrigation and dust control instead of discharge. The proposed permit also includes a new limit and monitoring for nitrogen to demonstrate compliance with advanced secondary and tertiary treatment for reuse.

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

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

6. 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 UVM facility is located off of Highway 160, within the Moenkopi District of the Hopi Indian Reservation near Tuba City, Coconino County, Arizona. The facility serves a population of 1,800 from both Upper and Lower Village of Moenkopi in Hopi, receiving domestic sewage and from dump station with a design flow capacity of 0.185 million gallons per day (MGD).

Constructed in 2009, the facility provides advanced secondary and tertiary treatment, capable of achieving 96% removal efficiencies for BOD<sub>5</sub> and TSS. The facility includes raw screening and vortex grit removal, two (2) parallel activated sludge sequencing batch reactor (SBR) basins, an aerobic sludge digester and an effluent flow equalization basin. Secondary effluent then undergoes tertiary sand filtration and ultraviolet (UV) disinfection prior to discharge. Final treated effluent that is not discharged is kept in an effluent storage tank before being re-used for irrigation by local farmers in the Valley or off-loaded to tanker trucks for dust control in the Village.

### **IV. DESCRIPTION OF RECEIVING WATER**

The facility discharges treated effluent to Moenkopi Wash, a tributary to the Little Colorado River, which is a water of the United States. Flow from the discharge was steady and created a consistent stream in an otherwise dry wash on the side of the riverbank. Discharge outfall 001 coordinates are Latitude 36.105° 06' 30" North and Longitude 111° 14' 01" West.

#### Effluent Reuse for Crop Irrigation:

This facility also falls in the reclaimed use category as its treated effluent may be partially or fully diverted and reclaimed for direct reuse such as irrigation of food crops and dust control. Irrigation use is accomplished by setting a plug in the inlet pipe of the manhole to cause the treated

effluent to overflow in the channel adjacent to fields to be flood irrigated. The facility has six (6) reuse manholes (“RMh”) used for flood irrigation (labeled as “RMh1 thru RMh6.) Up to 100% of the 0.185 MGD flow capacity may be reused for crop irrigation seasonally during April to October, depending on weather conditions and desired crop yield. One or more reuse manholes may be used in a day, with the potential for 100% of effluent reuse at a single manhole, or that use may be split over a couple of manholes during that day. The coordinates of the reuse manholes (Outfall 002) are Latitude 36.108° 06’ 30” North and Longitude 111.23° 14’ 01” West.

Effluent Reuse for Dust Control:

Up to 50,000 gallons of effluent in the reuse holding tank may be used daily for dust control or construction use, depending on the demand and work in the area, and the number and volumes of hauler trucks capable of collecting the reuse water. Approximately 12 to 13 loads take place per day, with individual water hauler truck volumes estimated at 4,000 gallons. This would be a year-round option. The coordinates of the holding tank (Outfall 003) are Latitude 36.108° 06’ 30” North and Longitude 111.233° 14’ 01” West.

**V. EFFLUENT CHARACTERISTICS**

Review of Discharge Monitoring Reports (“DMR”) from October 2011 through March 2017 showed that the facility had experienced exceedances of limits for BOD<sub>5</sub>, TSS, dissolved oxygen and *E. coli*. The review is detailed 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.”*

As the treated effluent is partially diverted for direct reuse, it is EPA’s best professional judgment (“BPJ”) that these diversions may be subject to additional reclaimed water quality requirements needed to protect public health and the environment for specific type of reuse applications.

**A. Hopi 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. EPA approved the 1997 Hopi Tribe water quality standards (“WQS”) on July 8, 2008. The Hopi revised WQS in November 2010 which was adopted by the Hopi Tribal Council on March 21, 2011, and approved by EPA on August 24, 2011. The Tribe does not currently have approved water quality standards for reclaimed water in place. In the interim, applicable Arizona Administrative Code (A.A.C) “Title 18, Chapter 11” reclaimed water quality standards for direct reuse will be used as a basis for applicable water quality based limits until tribal standards are developed. Applicable minimum requirements for direct reuse are Class A reclaimed water quality requirement for irrigation of food crops, and Class B reclaimed water quality requirement for dust control. These WQS will be used on a 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.

The permittee operates an advanced secondary/tertiary treatment facility which includes chemically-assisted filtration. Standards associated with tertiary treatment are 10 mg/L based on a monthly average and 15 mg/L based on a weekly average for both BOD<sub>5</sub> and 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, BOD<sub>5</sub>, TSS, *E. coli*, dissolved oxygen 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 Technology-Based Effluent Limitations**

The proposed permit contains discharge limitations BOD<sub>5</sub>, TSS and priority toxic pollutants. For both BOD<sub>5</sub> 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. These limits are required as shown in Table 1.

**Table 1 – Conventional and Toxic Pollutants**

Discharge Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Monitoring Frequency
Flow <sup>1</sup>	GPD	-- <sup>2</sup>	n/a	-- <sup>2</sup>	Instantaneous
BOD <sub>5</sub> <sup>3</sup>	mg/l	10	15	--	Monthly
	kg/day	7	10	--	
TSS <sup>3</sup>	mg/l	10	15	--	Monthly
	kg/day	7	10	--	
Nitrogen <sup>4</sup>	mg/l	10	10	--	Monthly
Priority Pollutants <sup>5</sup>	µg/l	-- <sup>2</sup>	n/a	-- <sup>2</sup>	Once/1 <sup>st</sup> Quarter during Year 1

Footnotes:

1. No flow limit is set at this time but influent and effluent flows must be monitored and reported.
2. Monitoring and reporting required. No limitation is set at this time.
3. Under 40 CFR Section 122.45(f), the discharge limits for BOD<sub>5</sub> and TSS shall not exceed a monthly average of 10 mg/l and a weekly average of 15 mg/l. The mass limits are calculated based upon the 0.185 MGD design flow.
4. Based on advanced secondary and tertiary treatment capability.
5. 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 Hopi's 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 designated uses of the receiving waters as defined by the 2010 Hopi Tribe water quality standards for Moenkopi Wash (a tributary to the Little Colorado River) are aquatic and wildlife (warm water habitat) A&Ww, full body contact (FBC), partial body contact (PBC), agricultural livestock watering (AgL), agricultural irrigation (AgI) and groundwater recharge (GWR). (Page 15).

2. Dilution in the receiving water

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

3. Type of industry

Typical pollutants of concern in untreated and treated domestic wastewater include ammonia, nitrate, oxygen demand, pathogens, temperature, pH, oil and grease, and solids. Chlorine and turbidity may also be of concern due to treatment plant operations. UV is used for effluent disinfection and chlorine is no longer a concern.

4. History of compliance problems and toxic impacts

No monitoring reports were submitted to EPA from October 2011 to June 30, 2013 to determine the compliance evaluation. A flow value of 67,490 MGD were reported on the discharge monitoring report for the period ending January 31, 2014. Based on the plant's design capacity and average historic flow data, EPA suspected the report might be in error and the actual recorded value was 67,490 gallons per day (GPD).

**Table 2 - NPDES Permit Effluent Limitation Exceedances  
 October 1, 2011 to March 2017**

Date	Parameter	Limit	Result	Unit
January 2014	BOD <sub>5</sub>	30	67	mg/L
January 2014	BOD <sub>5</sub>	45	67	mg/L
January 2014	E. coli-Daily Max	580	2419	#100 mg/L
January 2014	TSS Mo Avg	21	42	kg/day
January 2014	TSS Hi Wk avg	31	42	kg/day
January 2014	TSS Mo avg	30	170	mg/l
January 2014	TSS Hi Wk avg	45	170	mg/l
January 2014	BOD removal	85	67	%
January 2014	TSS removal	85	35	%
June 2016	Dissolved Oxygen Minimum	5	3	mg/l

5. Existing data on toxic pollutants - Reasonable Potential analysis

As part of the application for permit renewal, the permittee provided data from an analysis of the facility's treated wastewater discharge, shown in Table 3. Some of the parameters that were reported in the application were not limited in the previous permit (including total dissolved solids, and priority pollutants).

**Table 3 - Toxic Discharge Data**

Parameter	Unit	Discharge Data <sup>(1),(2)</sup>	
		Maximum Daily Discharge	Average Daily Discharge
Cyanide	µg/l	<10	--
Arsenic	µg/l	<1.7	--
Nickel	µg/l	<20	--
Copper	µg/l	< 10	--
Zinc	µg/l	40	--
Acrolein	µg/l	<50	--
Acrylonitrile	µg/l	<10	--
Anthracene	µg/l	<5	--
Phenol	µg/l	<5	--

(1) Based on permittee's NPDES renewal application and supplemental data.

(2) Data submitted on all other priority pollutants were reported as below the detection limits used for analysis.

**C. Rationale for WQBELs**

**Table 4 – Water Quality Based Effluent Limitations**

Effluent Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Monitoring Frequency	2010 Hopi Water Quality Standards
<i>E. coli</i>	CFU/100 ml	130	--	580	Weekly	Section 4.102 and Table A-1 for FBC, PBC, GWR
Dissolved Oxygen (DO)	mg/l	--	--	≥ 5.0	Monthly	Section 4.102 and Table A-1 for A&W <sub>w</sub>
Total Ammonia <sup>1</sup> (as N)	mg/l	-- <sup>1</sup>	--	-- <sup>1</sup>	Monthly	Section 4.102 and Table A-1 for A&W <sub>w</sub>
Ammonia Impact Ratio <sup>2</sup>	--	1.0	--	--	Monthly	EPA Region 9's policy
pH <sup>3</sup>	std unit	between 6.5 to 9.0			Monthly	Section 4.102 and Table A-1 for FBC, PBC, AgL
Temperature <sup>3</sup>	deg °C	--	--	≤32.2°C (or 90°F)	Monthly	Section 4.102 and Table A-1 for A&W <sub>w</sub>
Turbidity	NTU <sup>4</sup>	--	--	25	Monthly	Section 4.102 and Table A-1 for FBC, GWR
Whole Effluent Toxicity Testing <sup>5</sup>	TUc	--	--	--	Semiannual (January, July)	EPA Region 9's policy

**Footnotes:**

- Total Ammonia (as N)** - Consistent with the previous permit and with EPA's 2004 criteria guidance, the proposed permit establishes monitoring and reporting requirements for total ammonia (as N). The 2011 Hopi WQS for total ammonia are included in the permit attachment A. The criteria for ammonia are pH and temperature dependent, and pH and temperature field measurements must be taken at the same time and location as the water samples destined for the laboratory analysis of ammonia. Composite samples will be required for total ammonia and the monitoring frequency in this permit has been changed to monthly to allow for proper characterization of the plant's effluent.
- Ammonia Impact Ratio ("AIR")** - 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 C 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
- pH and Temperature** - In order to support the 2011 Hopi's established ammonia standards, which vary with the pH and temperature of the effluent, pH and temperature monitoring is to be performed concurrently with ammonia monitoring.
- NTU - Nephelometric Turbidity Units
- 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 **semiannually**, in January and July, using a 24-hour composite sample of the treated effluent for fathead minnow (*Pimephales promela*), daphnid (*Ceriodaphnia dubia*) and an alga species (*Selenastrum capricornutum*).

**D. Rationale for WQBELs for Reclaimed water**

**Table 5. Effluent Limits and Monitoring Requirements for Reclaimed Water  
 Crop irrigation (Class A)**

Effluent Parameter	Units	24-hour Average	Daily Maximum	Monitoring Frequency	Sample Type
Turbidity <sup>1</sup>	NTU	2	5	Monthly	Continuous
Fecal coliform <sup>2</sup>	CFU/100 ml	--	23	Daily <sup>3</sup>	Discrete

**Footnotes:**

1. Turbidity limit (in NTU-Nephelometric Turbidity Units) based on Arizona Administrative Code Title 18, Chapter 11 for Class A reclaimed water.
2. Fecal coliform (in CFU/100ml) based on Arizona Administrative Code Title 18, Chapter 11 for Class A reclaimed water. There shall be no detectable levels in four of the last seven daily samples of reclaimed water.
3. Monitoring is required daily during the beginning of each irrigation season for one month. If daily samples show no detectable levels in four of the last seven daily samples, this requirement can be reduced from daily to weekly basis.

**Table 6. Effluent Limits and Monitoring Requirements for Reclaimed Water  
 Dust control (Class B)**

Effluent Parameter	Units	7-day Mean	Daily Maximum	Monitoring Frequency	Sample Type
Fecal coliform <sup>1</sup>	CFU/100 ml	200	800	Daily <sup>2</sup>	Discrete

**Footnotes:**

1. Fecal coliform (in CFU/100ml) based on Arizona Administrative Code Title 18, Chapter 11 for Class B reclaimed water. The concentration shall be less than 200/100ml in four of the last seven daily samples of reclaimed water. Monitoring is required daily for this reclaimed use category.
2. If the daily samples show no exceedances of 200 CFU/100ml in four of the last seven daily samples, this requirement can be reduced from daily to weekly basis.

**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. Signed copies of these, and all other reports required herein, shall be submitted to the U.S. EPA.

**IX. GENERAL STANDARDS**

The proposed permit sets general standards that are narrative water quality standards contained in the 2011 Hopi Water Quality Standards. These general standards are set forth in Part I. “Effluents discharge and monitoring requirements.”

## **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 biosolids 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. BIOSOLIDS REQUIREMENTS**

The proposed permit includes a requirement for submitting a report 60 days prior to disposal of biosolids. 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”). For example, the annual report for calendar year 2016, which is due by February 19, 2017, must be submitted electronically. The report shall discuss an estimate of the quantity of biosolids currently on site, and a projection of when biosolids will next be removed. Ninety (90) days prior to removing biosolids for use or disposal, the permittee is required to submit a plan describing the quantity of biosolids 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 biosolids removed as described. The permit also requires compliance with all applicable requirements of Section 405(d) of the CWA, and 40 CFR 258 (for biosolids sent to a municipal landfill) and 503 (for biosolids placed in a biosolids-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 Hopi water quality standards 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 (E) or threatened (T) 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 Moenkopi Wash, a tributary to the Little Colorado River, a water of the United States.

In September 2016, EPA sent a formal request for species listing information to the FWS as well as to the adjacent Navajo Nation's Department of Fish & Wildlife Natural Heritage Program (NHP) database. A review of the FWS database for Coconino County Species lists yields a broad list of species of concern as follows:

Names (common and scientific)	Status
Apache (Arizona) trout ( <i>Oncorhynchus gilae apache</i> )	T
Black-footed ferret ( <i>Mustela nigripes</i> )	E
California condor ( <i>Gymnogyps californianus</i> )	E
Chiricahua leopard frog ( <i>Lithobates [Rana] chiricahuensis</i> )	T
Humpback chub ( <i>Gila cypha</i> )	E
Little Colorado spinedace ( <i>Lepidomeda vittata</i> )	T
Mexican spotted owl ( <i>Strix occidentalis lucida</i> )	T
Razorback sucker ( <i>Xyrauchen texanus</i> )	E
Southwestern willow flycatcher ( <i>Empidonax traillii extimus</i> )	E

2. EPA's Finding:

The proposed NPDES permit issuance authorizes the discharge of treated wastewater in conformance with the federal secondary treatment regulations and the Hopi 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. EPA may decide that changes to the permit may be warranted based on receipt of new information. A re-opener clause has been included should new information become available to indicate that the requirements of the permit need to be changed.

**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), EPA is making a determination that issuing this proposed 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.

**E. 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 Moenkopi facility that could pose risk to local residents through discharge of environmental contaminants. USEPA has also evaluated whether demographic characteristics of the population living in the vicinity of the 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 September 22, 2016, the area in which the Moenkopi facility is located was above the 92<sup>nd</sup> 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.

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 Moenkopi 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. 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 Office (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.