

**U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 8 NATIONAL  
POLLUTANT DISCHARGE ELIMINATION SYSTEM STATEMENT OF BASIS**

PERMITTEE: Southern Ute Indian Tribe

FACILITY NAME AND ADDRESS: Southern Ute Tribe Ignacio  
Wastewater Treatment Plant  
PO Box 1137  
Ignacio, CO 81137

PERMIT NUMBER: CO-0022853

RESPONSIBLE OFFICIAL: Julian Baker, Interim Utilities  
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Operations Foreman  
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PERMIT TYPE: Minor, POTW, Permit Renewal,  
Indian country

FACILITY LOCATION: 16364 US HWY 172  
Ignacio, CO 81337  
37.104° N, 107.631° W

## 1 INTRODUCTION

This statement of basis (SoB) is for the issuance of a National Pollutant Discharge Elimination System (NPDES) permit (the Permit) to the Southern Ute Indian Tribe (SUIT or Tribe) for the SUIT Ignacio wastewater treatment plant (Facility). The Permit establishes discharge limitations for any discharge of wastewater from the Facility through Outfall 002 to Rock Creek, a tributary of the Pine River (also referred to locally as “Los Pinos” River). The SoB explains the nature of the discharges, EPA’s decisions for limiting the pollutants in the wastewater, and the regulatory and technical basis for these decisions.

The Facility is located on the Southern Ute Indian Reservation. The EPA Region 8 is the permitting authority for facilities located in Indian country, as defined in 18 U.S.C. § 1151, located within Region 8 states and implements federal environmental laws in Indian country consistent with the [EPA Policy for the Administration of Environmental Programs on Indian Reservations](#) and the federal government’s general trust responsibility to federally recognized Indian tribes.

## 2 MAJOR CHANGES FROM PREVIOUS PERMIT

Major changes from the previous permit include the following:

- Ammonia limits have been removed.
- Monitoring requirements for temperature and dissolved oxygen (DO) have been added.
- Monitoring frequency for nutrients has been revised.
- Monitoring types for ammonia and nutrients have been revised.
- Requirements for implementing an Asset Management Plan (AMP) have been added (see section 10.2 of the SoB and section 6.3.3 of the Permit).
- Requirements for implementing an Industrial Waste Survey have been added (see section 10.3 of the SoB and section 8.9.2 of the Permit).

## 3 BACKGROUND INFORMATION

The Southern Ute Indian Tribe’s Wastewater Treatment Plant is a publicly owned treatment works (POTW) located in southwestern Colorado within the external boundaries of the Southern Ute Indian Reservation, which is home to the SUIT. The Facility services the Town of Ignacio, CO and its surroundings – i.e., it collects and treats wastewater from the Town of Ignacio, Colorado and a Tribally owned collection system located nearby. It is located at the southern end of Ignacio along Highway 172 at coordinates 37.104° N, 107.631° W. The Facility has one outfall into Rock Creek (Outfall 002) at coordinates 37.1043° N, 107.6300° W (Table 1). It is a Tribally-owned Facility – owned and operated by the Southern Ute Indian Tribe Utilities Division.

**Table 1. Description of Discharge and Monitoring Points**

Outfall Serial Number	Latitude/Longitude	Receiving Water	Description
002	37.1043 °N / 107.6300 °W	Rock Creek	Effluent discharged from the wastewater

Outfall Serial Number	Latitude/Longitude	Receiving Water	Description
			treatment plant discharge pipe
001I	Approximately 37.1043 °N / 107.6316 °W	N/A	A location representative of the influent entering the wastewater treatment plant (e.g., at the headworks)

The following background information was obtained from the Facility’s application for renewal of the permit and conversations with Facility personnel.

### 3.1 Service Area Description

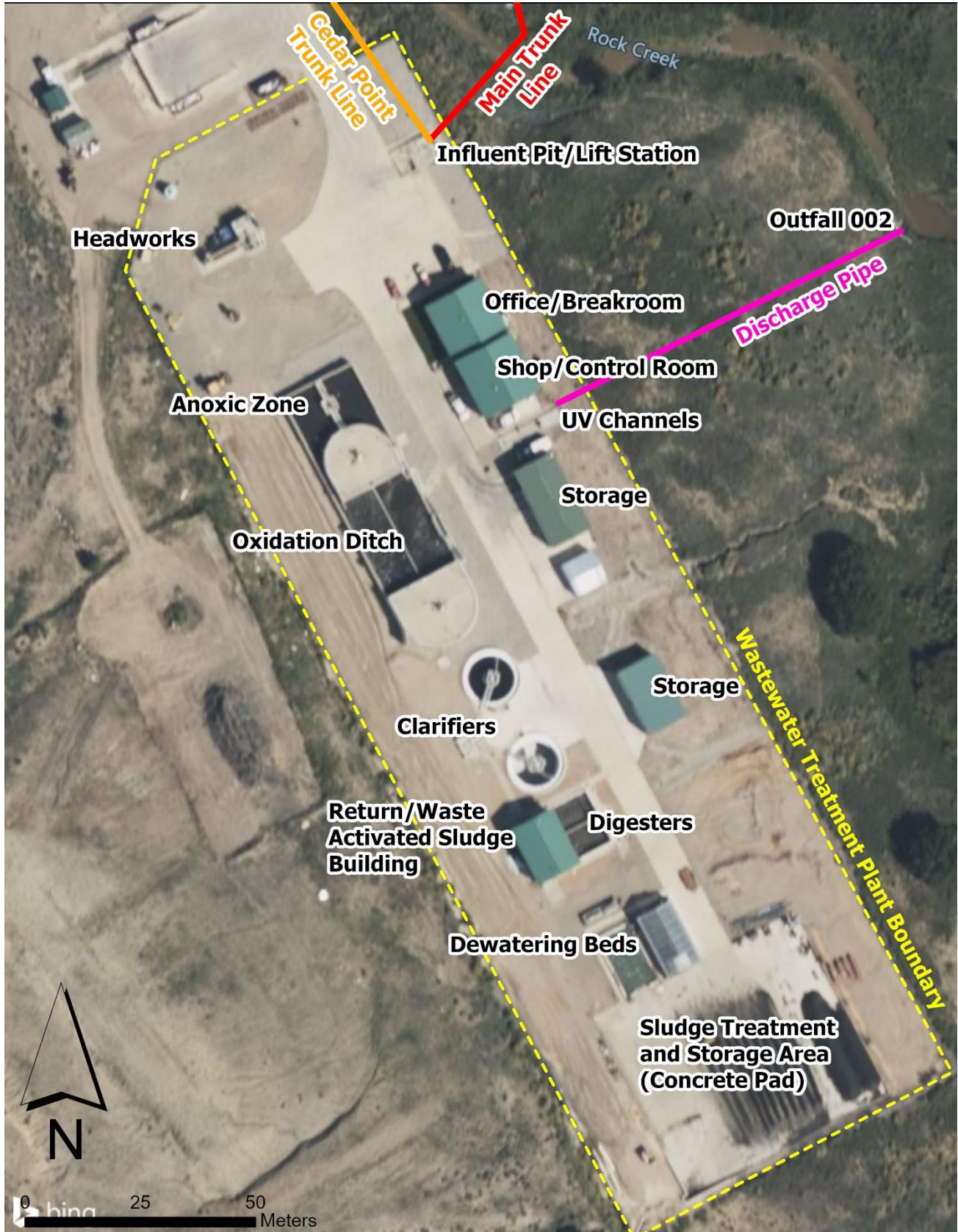
According to the permit application, the Town of Ignacio has a population of 855, and the SUIT population serviced by the Facility is 1,875 for a total service population of 2,730. This is higher than the population identified in the previous permit, which was just over 1,900 people. The collection system for the Facility consists of two separate sanitary sewers – one is a Tribally-owned sanitary sewer system (called the Cedar Point trunk line) and a sanitary sewer system owned and operated by the Town of Ignacio (called the Main trunk line) (Figure 1). Both systems are gravity flow systems until they reach the wastewater treatment plant, where there is a single lift station at the influent pit at the Facility. Neither system is a combined stormwater/sanitary sewer system.

It does not appear that the service area of the Facility contains industrial facilities that would be categorized as Significant Industrial Users under the pretreatment definitions found in 40 CFR 403.3(v). There is a small casino (Sky Ute Casino) operating in Ignacio. This casino includes an RV park that gets heavy use in the summer. The casino and RV park are all connected to the Facility’s collection system.

According to the permit application, the infiltration and inflow (I&I) into the collection system is approximately 5,000 to 15,000 gallons per day, depending on the time of year. According to Facility personnel, the collection system is in good condition and no significant improvements are needed at this time.

The Facility does experience seasonal variability in their influent – doubling from less than 0.2 million gallons per day (mgd) in the winter months to over 0.35 mgd in the summer months. According to Facility personnel, they even experience short periods of no incoming influent during the nights in the winter months. Facility personnel stated that there may be several reasons behind the seasonal variability. The casino and RV park are significantly less busy in the winter vs. the summer, and in general residents and their families are less active in winter as well. I&I into the collection system may be a factor as well, which is relatively low but generally more prevalent in the summer months.

Figure 1. Facility Map



### 3.2 Treatment Process

Wastewater enters the Facility through gravity flow from the two trunk lines into the influent pit and is pumped from there into the headworks (Figures 1 and 2). This lift station is the only one in the collection system – both trunk lines are completely gravity flow to the Facility. The headworks consists of a bar screen, a fine screen, and two grit channels. There is also an automated composite sampler at the headworks just after the fine screen and grit removal. The fine screenings are washed and collected into a dumpster for disposal in a landfill. The grit is dried and also collected into a dumpster for disposal in a landfill. Wastewater from the headworks then flows by gravity into the anoxic zone of the oxidation ditch. The ditch is a racetrack design with two vertical mixer aerators. Mixed liquors flow over an adjustable slide gate and into one of two secondary clarifiers. Each clarifier is designed to accommodate the full flow from the oxidation ditch, so only one is used at any given time. From there the activated sludge goes to a building where the return activated sludge from the secondary clarifier is pumped back to the oxidation ditch, and waste activated sludge is pumped to one of two aerobic digesters. The overflow from the clarifiers flows to one of the two ultraviolet (UV) channels that has two banks with 40 bulbs in each bank. Each channel is a standalone system such that the Facility has 100% redundancy on their disinfection system at all times. After UV disinfection, the treated wastewater effluent flows through a v-notch weir to the discharge pipe and Outfall 002 where it discharges into Rock Creek. The Facility is a continuous discharger.

The Facility accepts hauled waste from at least two companies that haul septic system and porta-potty waste. This waste is discharged into the influent pit as well.

As mentioned above, waste activated sludge from the clarifier is pumped into one of two aerobic digesters. The total residence time in these open digesters exceeds 20 days. When supernatant can no longer be decanted from the sludge, the digested liquid solids are mixed with polymer solution as they are pumped onto one of the two perforated plastic dewatering beds. During the winter months, the solids are pumped onto the eastern dewatering bed, which is enclosed within a heated greenhouse to prevent freezing of the solids. Approximately 20,000 to 40,000 gallons of digested solids are pumped onto the dewatering bed every two weeks. The supernatant from these beds is pumped back to the influent pit of the wastewater treatment plant. When solids are dry enough, they are removed with a small tractor with a squeegee bucket and placed on the concrete drying pad. The concrete pad is approximately half an acre. The pad has a concrete curb on its east, south, and west sides and is sloped to allow liquid to collect in the southwest corner of the pad. The collected liquid is pumped back to the influent pit of the wastewater treatment plant. The dried solids are windrowed with a composter mixer and exposed to air, wind, and sunlight until dry and crumbly. The Facility uses the Air Drying Process to Significantly Reduce Pathogens (PSRP) to meet Class B pathogen requirements. The biosolids are stockpiled on the drying pad and are typically land applied every two years. The solids are land applied to Tribal agricultural land. The types of agricultural land to which the sludge has been applied includes land currently used for pasture and hay production and unimproved rangeland being converted to pasture or hay production. Crops grown include grass, alfalfa and oats. The treated sludge has also been applied at gas well reclamation sites located on Tribal land to revegetate with grasses. The SUIT provided data in the last permit

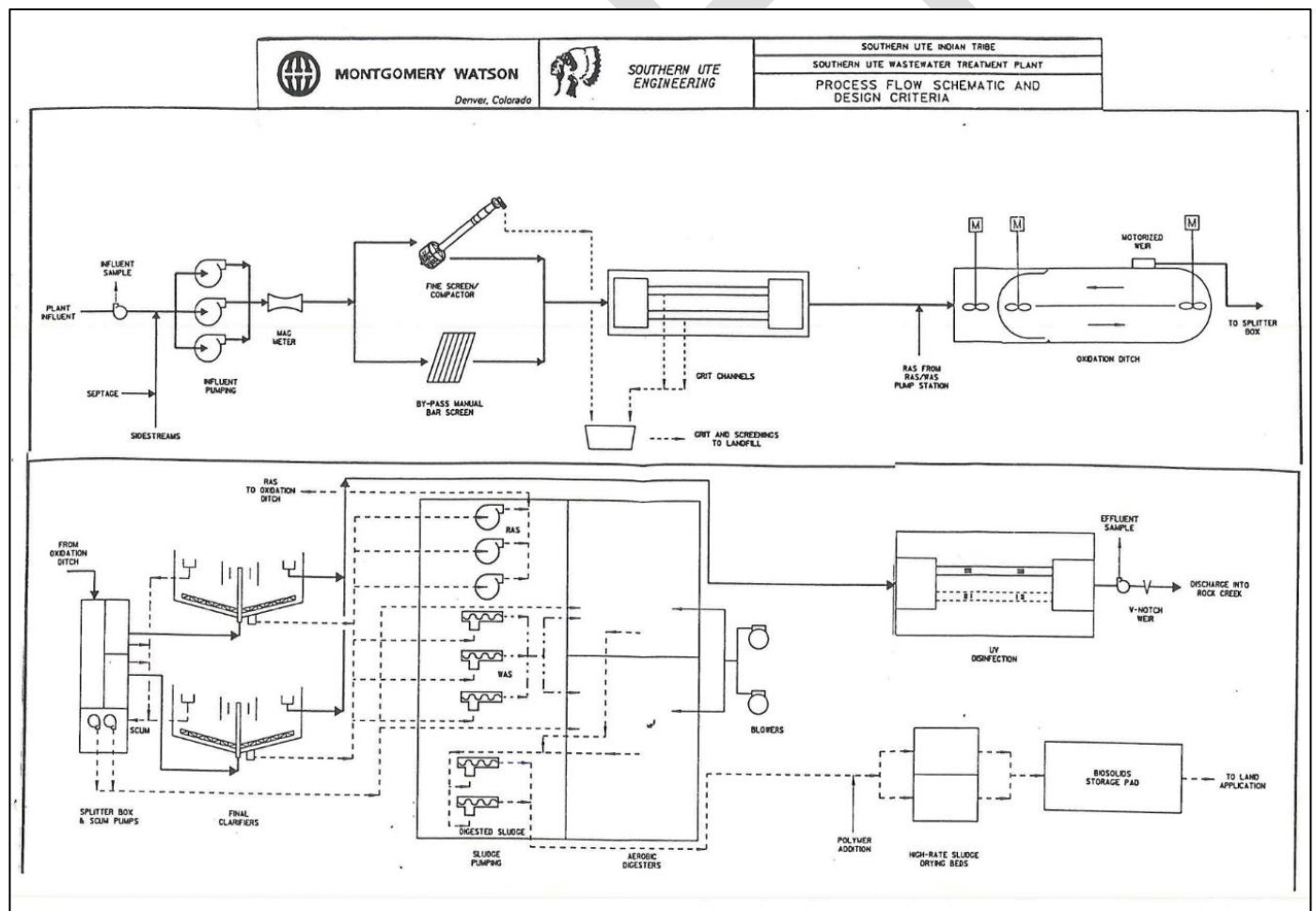


application (2014) that their biosolids were meeting all the compliance limits for land application found in 40 CFR § 503.13.

The Facility has an inline mag meter installed at the influent pit, and an inline ultrasonic flow meter installed at the outflow of their Facility. These meters record flow continuously and the effluent ultrasonic meter is calibrated or verified on an annual basis to ensure accuracy. The Facility also has two automated composite samplers installed – one at the headworks for influent, and one after the UV channel for effluent.

The Facility’s design flow is 0.8 million gallons per day (mgd). Actual flows over the past five years have ranged from 0.14 to 0.38 mgd (Table 2). Based on this, the hydraulic capacity of the Facility appears to be adequate for the wastewater received from the service area. The Facility additionally reported design removal rates of 93% for total suspended solids (TSS) and 96% for 5-day biochemical oxygen demand (BOD<sub>5</sub>) in their permit application – according to their discharge monitoring report (DMR) data, the actual removal rates achieved by the Facility are higher than the design removal rates (Table 2).

**Figure 2. Schematic Diagram of Facility Treatment Processes**



### 3.3 Chemicals Used

The Facility does not use chemicals in the wastewater treatment process. Disinfection is by ultraviolet light. They do add a cationic flocculant polymer to the digested sludge to assist with drying before land application. This polymer is called Core Shell 71300 supplied by Nalco. A review of the Safety Data Sheet (SDS) associated with this polymer indicates that it is a mixture of monostearates, alcohols, and distillates. The potential health effects under ingestion state that “health injuries are not known or expected under normal use.” This polymer could be present in the Facility’s discharge due to the sludge dewatering water being returned to the Facility treatment system.

## 4 PERMIT HISTORY

According to the EPA records maintained for the Facility, this renewal is at least the 5<sup>th</sup> issuance of this NPDES permit. The previous permit for the Facility became effective on November 1, 2017 and was set to expire on September 30, 2022. The Facility submitted a permit renewal application prior to the permit’s expiration, which EPA received on March 15, 2022 and thus the previous permit was administratively continued.

The original permit was issued to the Ignacio Sanitation District, which previously used lagoons to treat wastewater from the service area. The SUIT took control of the wastewater treatment and the collection system in 1999 and replaced the wastewater lagoon with a mechanical plant.

### 4.1 Discharge Monitoring Report (DMR) Data

The past five years of the Facility’s data for Outfall 002 is summarized below (Table 2). Outfall 002 discharges continuously. During this period, the Facility reported no violations of any permit limits. Although not shown in the table below, the Facility reported no visual observations of floating debris, oil, scum or other surface materials as well.

**Table 2. Summary of the past five years of DMR Data (April 2019 – March 2024) for Outfall 002 from EPA Integrated Compliance Information System (ICIS) database (data accessed on 4/26/24)**

Parameter	Permit Limit(s)	Reported Average	Reported Range	Number of Data Points	Number of Exceedances
Discharge Volume, million gallons per day (mgd)	N/A	0.24	0.14 – 0.38	60	N/A
5-Day Biochemical Oxygen Demand (BOD <sub>5</sub> ), 30-Day average/7-Day Average, mg/L <u>a</u> /	30/45	2.0/2.8	0.65 – 6.4 / 1.2 – 8.6	60/60	0
5-Day Biochemical Oxygen Demand (BOD <sub>5</sub> ), 30-Day percent removal, %	≥85	99.4	98.2 – 99.9	60	0

Parameter	Permit Limit(s)	Reported Average	Reported Range	Number of Data Points	Number of Exceedances
Total Suspended Solids (TSS), 30-Day Average/7-Day Average, mg/L <u>a/</u>	30/45	3.3/6.0	0.4 – 20.6 / 0.5 – 29.1	60/60	0
Total Suspended Solids (TSS), 30-Day percent removal, %	≥85	99.6	96.1 – 99.9	60	0
<i>E. coli</i> , 30-Day Average/Daily Maximum, #/100 mL	126/410	1.6/3.4	1 – 11 / 1 – 25	60/60	0
Ammonia (as N), 30-Day Average, mg/L <u>b/</u>	1.4 – 2.8 <u>c/</u>	0.05	ND – 0.18	60	0
Total Nitrogen, mg/L	N/A	5.3	2.3 – 11.4	60	N/A
Oil and grease, mg/L	10	0	0	32	0
pH, standard units	6.5-9.0	7.5	7.3 – 7.8	60	0
Total Phosphorus, mg/L	N/A	2.2	0.75 – 3.4	60	N/A
Total Dissolved Solids (TDS), mg/L	N/A	365	293 – 457	21	N/A

a/ The previous permit has two limits for this parameter. The number before the slash relates to a 30-day average limit, while the number after the slash relates to a 7-day average limit for BOD<sub>5</sub> and TSS and a daily maximum limit for *E. coli*.

b/ One ammonia value was reported as “1.” The Permittee verified that they inadvertently reported the value inaccurately, and the actual value was “<0.1”. This has been corrected for these metrics.

c/ The existing ammonia limits vary by month.

#### 4.2 Other Facility History

The EPA last conducted an on-site inspection of the Facility on May 7, 2019. The inspection included the following findings:

- The O&M daily log did not include all required information;
- Analytical methods used to analyze some parameters were not identified in quality assurance documents.

The Permittee responded to the EPA via email on June 5, 2019 and provided evidence that both of these findings had been addressed with corrections to their procedures.

#### 4.3 Biosolids

The Facility treats their biosolids on-site and land applies them every few years, typically on Tribal lands. See section 3.2 for more information on biosolids treatment.



## 5 DESCRIPTION OF RECEIVING WATER

The Facility's discharge enters Rock Creek just east of the Facility (Figures 1 and 3). From the Facility's outfall, Rock Creek flows just over 1,000 yards southeast to its confluence with the Pine River (also referred to as "Los Pinos" River) (Figure 4). The Pine River then flows approximately nine miles south to the border of New Mexico. Another four miles downstream from the border it enters the Navajo Reservoir in New Mexico and the San Juan River. The San Juan River ultimately reaches the Colorado River and the Gulf of California.

Flow data from Rock Creek is sparse. The United States Geological Survey (USGS) collected six flow measurements in the 1980s along Rock Creek. This older data ranges from 0.2 cubic feet per second (cfs) to 37 cfs. Additionally, the Tribe measured flows in Rock Creek at a location just downstream from the Facility's discharge for 42 consecutive days from 4/15/21 to 5/26/21. The Tribe reported stream depths ranging from about 0.1 to 2.2 feet, but all flow measurements were zero, indicating that their measurement location was a non-flowing pool. The Facility was discharging during this time which suggests that infiltration and evaporation may be important processes in this section of the stream channel.

According to Facility personnel, Rock Creek is dry much of the time – it is used for irrigation all summer, but remains pretty low the rest of the year. The flows in the Pine River primarily depend on snowpack, but usually get very low by the end of summer due to heavy irrigation use, and can stop flowing at times. The Permittee stated that the area has been in a 20-year drought. The Tribe classifies both Rock Creek and the Pine River as perennial waterways.

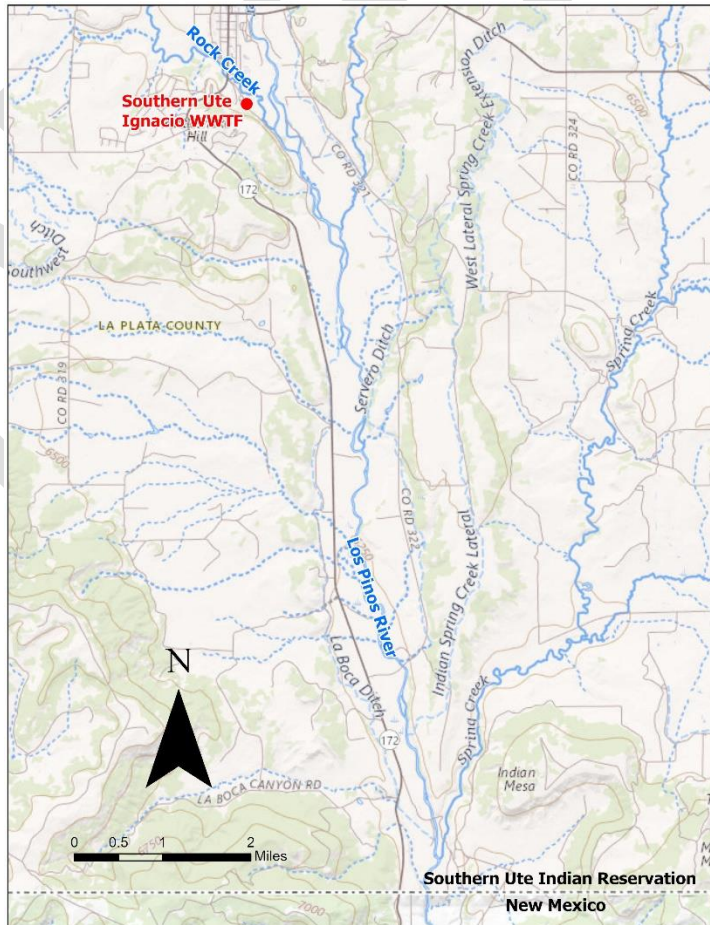
The USGS maintains a stream gage on the Pine River just upstream of the confluence with Rock Creek (USGS 09353800 Los Pinos River Near Ignacio, CO). The average daily flow in late August for this stream gage is approximately 4.5 cfs. Additionally, the stream gage shows several lengthy periods every few years where measured flows are below 0.5 cfs.

This data suggests there is likely no dilution flow in the immediate receiving water, and minimal dilution (if any) in the downstream Pine River. Thus, the immediate receiving water below the discharge is likely effluent dominated much of the year, as may be the Pine River immediately downstream of the confluence with Rock Creek. The Facility is in Hydrologic Unit Code (HUC) 14080101 (Upper San Juan).

**Figure 3. Outfall 002 to Rock Creek (Facility in background)**



**Figure 4. Facility Receiving Water Map**



## 6 PERMIT LIMITATIONS

### 6.1 Technology Based Effluent Limitations (TBELs)

The secondary treatment standards (40 CFR Part 133) have been developed by the EPA and represent the level of effluent quality attainable through the application of secondary or equivalent treatment. The regulation applies to all publicly owned treatment works (POTWs). The TBELs applicable to the Facility are listed in Table 3.

**Table 3. Secondary treatment standards**

Parameter	30-day average (mg/L)	7-day average (mg/L)	30-day average percent removal (%)
BOD <sub>5</sub>	30	45	85
TSS	30	45	85
pH	Maintained within the limits of 6.0 to 9.0		

The EPA Region 8 has also developed technology-based and water quality-based guidance on oil and grease for POTWs. It states “if a visible sheen or floating oil is detected in the discharge, a grab sample shall be taken immediately, analyzed and recorded in accordance with the requirements of 40 CFR Part 136. The concentration of oil and grease shall not exceed 10 mg/L in any sample.” The visual narrative “sheen or floating oil” requirement was developed in alignment with 40 CFR § 401.16 which lists “oil and grease” as a conventional pollutant (as related to technology-based limitations in line with 40 CFR § 125.3(h)(1)) pursuant to section 304(a)(4) of the Act, as well as the SUIT water quality standards (see section 6.3.4). This consideration for oil and grease will be included in the Permit.

### 6.2 Colorado River Basin Salinity Control Act

Salinity impacts are a major concern in the Colorado River watershed. The Colorado River flows more than 1,400 miles from its headwaters in the Rocky Mountains through portions of seven states and the Republic of Mexico before it discharges into the Gulf of California. The Colorado River provides drinking water to approximately 40 million people in both the US and Mexico, and irrigation water to 5.5 million acres. The salinity of the Colorado River increases as it flows downstream.

In 1973, the Colorado River Basin states came together and organized the Colorado River Basin Salinity Control Forum (Forum). In 1974, in coordination with the Department of the Interior and the U.S. State Department, the Forum worked with Congress to pass the Colorado River Basin Salinity Control Act (CRBSCA). The goal of the CRBSCA is to decrease salt loading in the Colorado River. Among other things, the CRBSCA establishes salinity guidelines for point sources (both municipal and industrial) discharging into the Colorado River watershed. Since implementation of the CRBSCA, measures have been put in place which significantly reduce the annual salt load of the Colorado River.

Per the CRBSCA, municipal dischargers such as the Facility area allowed an incremental increase in salinity from the flow weighted average salinity of the intake water to their discharge of 400

mg/L. There are exceptions that can be applied to these criteria, including a satisfactory demonstration by the permittee that it is not practicable to attain the 400 mg/L limit, and also a type of *de minimis* exclusion. This *de minimis* consideration will be further discussed below in section 6.3.10.

### 6.3 Water Quality Based Effluent Limitations (WQBELs)

WQBELs must be established for any parameters where TBELs are not sufficient to ensure water quality standards will be attained in the receiving water (40 CFR § 122.44(d)). The parameters that must be limited are those that are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an exceedance of water quality standards.

The Facility discharges to Rock Creek. The receiving water is within the Southern Ute Indian Reservation and thus the SUIT water quality standards (WQS) apply. The EPA has reviewed the applicable Tribal water quality standards for consideration of the development of WQBELs and evaluated whether any total maximum daily loads (TMDLs) apply.

According to page 14 of the Tribe's WQS, the applicable waterbody segment is "Pine River Segment 3 (Dry Creek to New Mexico state line, including Dry Creek, and all perennial streams, small ponds, and wetlands tributary to this segment)." Tribal personnel verified that they consider Rock Creek to be a "perennial stream" and thus included in the description above. Since the discharge on Rock Creek is only approximately 1,000 yards above the confluence with the Pine River, the EPA is also considering protections of the Pine River as well. However, since both streams have the same designated uses and applicable criteria, protections will be similar. This segment contains the following Tribal designated uses: WARM1 (April 16 – October 14), COLD1 (October 15 – April 15), REC1, PWS, and AGR. Descriptions and definitions of each of these are listed below:

- WARM1 (High Quality Warm Water Aquatic Life [Class 1]): High quality waters that support or are intended to become supportive of a typical diversity and abundance of *warm* water aquatic biota that are generally able to function at intermediate or transitional zones between temperatures representative of a stream segment, including the expected diverse aquatic community, functions, and sensitive species.
- COLD1 (High Quality Cold Water Aquatic Life [Class 1]): High quality waters that support or are intended to become supportive of a typical diversity and abundance of *cold* water aquatic biota that are generally able to function at intermediate or transitional zones between temperatures representative of a stream segment, including the expected diverse aquatic community, functions, and sensitive species.
- REC1 (Primary Contact Recreation [Class 1]): Waters suitable for recreational activities where full body immersion and/or the ingestion of small quantities of water is likely to occur. Such activities include but are not limited to swimming, rafting, kayaking, tubing, windsurfing, water-skiing, and water play by children.
- PWS (Potable Water Supply): Waters suitable or intended to become suitable, after appropriate pretreatment, for human consumption.
- AGR (Agricultural Water Supply): Waters suitable or intended to become suitable for irrigating crops and for use as drinking water for livestock.

The following pollutants were identified as pollutants of concern and were further analyzed to determine whether they would need to be limited in the Permit.

#### 6.3.1 Five-day biochemical oxygen demand (BOD<sub>5</sub>) and total suspended solids (TSS)

BOD<sub>5</sub> is a measure of the amount of oxygen consumed by bacteria to break down the organic material in the wastewater. TSS is a measure of the suspended material (including organic materials) that are present in the wastewater. Both BOD<sub>5</sub> and TSS are pollutants of concern in wastewater because technology-based effluent limits for both parameters were implemented in this permit based on national secondary standards (see section 6.1). The Tribe does not have any numeric WQS *directly* related to BOD<sub>5</sub> or TSS, but several of their narrative criteria address settleable materials that may form deposits, material that produces turbidity, and discharges that impair the capability of a water body to support a designated use (SUIT WQS, Section 6.1(1), (3), and (8)).

Additionally, the Tribe has a dissolved oxygen WQS. Dissolved oxygen levels in a stream can be negatively affected by high rates of BOD<sub>5</sub> loading (i.e., introducing an oxygen demand to a receiving stream reduces the dissolved oxygen in that stream). Dissolved oxygen considerations are further discussed in section 6.3.7.

Due to the ability of existing technology-based TSS controls to reduce TSS to a level found in natural systems and the existing technology-based BOD<sub>5</sub> controls to protect dissolved oxygen levels for aquatic life, the EPA has determined that the National Secondary Standards developed for POTWs (see section 6.1) will adequately protect several of the Tribe's narrative criteria (see Section 6.3.12), and therefore no additional limitations need to be included for these parameters.

#### 6.3.2 pH

pH is a measure of the acid-base equilibrium achieved by the various dissolved compounds, salts, and gases in water. It can affect the degree of dissociation of weak acids and bases, which directly affects the toxicity of many compounds to aquatic life. pH levels can also have an effect on other designated uses – such as drinking water or industrial uses.

pH is considered a pollutant of concern because technology-based effluent limits for pH are implemented in this permit based on national secondary standards (see section 6.1). The SUIT WQS apply a pH range of 6.5 to 9.0 for all segments designated as Primary Contact Recreation (REC1), Cold Water Aquatic Life (COLD1), and Warm Water Aquatic Life (WARM1). The pH criteria are more protective than the Tribe's Human Health pH criteria of 5.0 to 9.0. This standard is difficult to implement without detailed knowledge of the receiving water flows, pH, and buffering capacity at any given time. Because of this, and the fact that pH has such a major impact on many other physical and chemical processes and interactions, the EPA Region 8 generally does not grant mixing zones for pH. Thus, the Facility's discharge will be required to meet the applicable criteria at end of pipe. Therefore, the EPA will retain the permit limits from the previous permit, which require the Facility to discharge within the applicable range (i.e., 6.5 to 9.0) at all times.

### 6.3.3 *E. coli*

*E. coli* is a type of fecal coliform bacteria that is a reliable indicator of fecal contamination in water and food. Consumption of *E. coli* can cause severe illness, especially in young children, the elderly, and those with compromised immune systems. Pathogens such as *E. coli* are present in domestic sewage, and the Tribe has adopted WQS for *E. coli*. For these reasons, *E. coli* is a pollutant of concern.

For segments designated as primary contact recreation (REC1), the SUIT WQS apply a monthly maximum geometric mean (GM) of 126 cfu/100 mL, and a statistical threshold maximum value (STV) of 410 cfu/100 mL. The EPA Region 8 does not allow a mixing zone for bacteria – the relevant water quality standard must be met end of pipe.

Due to the various testing methods for bacteria approved in 40 CFR Part 136, and the variability in lab testing methods, the EPA Region 8 implements bacteria permit limits as a generic number per volume analyzed (i.e., “Number/100 mL” or “#/100 mL”), rather than as a specific method (i.e., colony forming units [cfu] per 100 mL or most probable number [mpn] per 100 mL).

The previous permit contained a 30-day average (geometric mean) limit of 126 #/100 mL and a daily maximum limit of 410 #/100 mL. The duration and frequency of the STV value in the Tribe’s WQS is “there should not be greater than a ten percent excursion frequency of the selected STV magnitude in the same 30-day interval.” The EPA has determined that the “10% may not exceed” duration and frequency is best implemented in the Permit as a daily maximum. Implementing an effluent limit requiring internal calculations is difficult in NetDMR as it is not easily set up to do this. Furthermore, the daily maximum and ‘10% may not exceed’ criteria have the same meaning if the Facility samples fewer than 10 times per month. In this case, the Facility is (and was previously) only required to sample for bacteria once per month (see section 7.1). This approach also provides consistency with how the EPA has issued other NPDES permits with considerations for similar criteria. The EPA will retain the 126 #/100 mL for 30-day average effluent limitation and the 410 #/100 mL value for the daily maximum effluent limitation.

### 6.3.4 Oil and Grease

Oil and grease can be present in wastewater from both organic wastes and mechanical sources of lubrication, etc. Not only do oil and grease present an aesthetic issue, but they can also contain compounds that may be toxic to aquatic life. The Tribe’s WQS include a narrative criterion which states Tribal waters must be free from substances attributable to human-caused point or nonpoint sources in amounts, concentrations, or combinations which may *form objectionable floating debris, scum, film, grease, oil, or other surface materials, including “floatable material” as defined by the CWA (SUIT WQS, Section 6.1(2))*. The EPA Region 8 has developed a protocol for limiting oil and grease that aligns closely with the Tribe’s WQS (see section 6.1). The protocol uses a dual approach: frequent visual observations of the discharge, looking for a visible sheen or floating oil, and when either of those is observed, a sample must



be immediately taken and analyzed for oil and grease with an effluent limitation of 10 mg/L. This same approach was taken in the previous permit and will be retained in the Permit.

Additionally, the previous permit included a narrative effluent limit stating that “there shall be no discharge of floating debris, scum, or other floating materials.” Narrative prohibitions similar to this one are commonly used to protect against pollutants that would cause or contribute to exceedances of narrative criteria such as the one discussed above. The EPA will retain this narrative prohibition (slightly reworded to align with more current language in other permits) to complement the oil and grease limits and fully ensure protection of this narrative criteria.

### 6.3.5 Ammonia

Ammonia is acutely toxic to most forms of aquatic life. In its un-ionized form ( $\text{NH}_3$ ), it can readily pass through gills to cause cellular damage within the organism. Ammonia toxicity is pH and temperature dependent – as pH and temperature in the receiving water increase, the ammonia toxicity increases. At high pH values, ammonia is much more likely to be present in its toxic (un-ionized) form, while higher temperatures are generally more stressful for many types of aquatic life.

Ammonia is a pollutant of concern in domestic wastewater discharges because it is known present in those discharges, and because it was limited in the previous permit. The previous permit had retained monthly ammonia limits that were derived from a model based on the 1999 ammonia criteria. This modeling effort and limit development was from more than two permit cycles ago. Since then, the Tribe has adopted the EPA’s 2013 ammonia criteria, which is equal to or more stringent than the 1999 criteria. The Tribe’s ammonia criteria are expressed as a function of in-stream pH and temperature.

To evaluate whether there is reasonable potential for the Facility’s ammonia discharges to cause or contribute to an exceedance of water quality standards, in-stream pH and temperature values must be reviewed. A review of data from the Water Quality Portal shows that the Tribe has been collecting pH and temperature data in the receiving streams. They have reported 79 pH measurements and 84 temperature measurements in either Rock Creek or the Pine River either just upstream or downstream of the Facility. All of this data was collected between 2005 and 2022, although over 90% of it was collected prior to 2015. While this data was collected primarily in the warmer months, there is some data for all months of the year. The EPA flagged some of the pH data – e.g., several receiving stream pH values measured in 2005 and 2006 were well above 9, and one was above 10. It is rare to see natural systems display pH values this high. However, the EPA checked with the Tribe and they did not provide any reasoning to censor these measurements from the dataset. Because of the age of the data and the questions about some of the higher pH values, the EPA believes that additional receiving stream data is needed to calculate a more robust and meaningful “final” criteria. However, for the purposes of this reasonable potential analysis, a “preliminary” criteria will be calculated based on the available data.

The SUIT WQS do not specify which “critical conditions” should be used to calculate ammonia criteria, but the EPA Region 8 typically uses the 80<sup>th</sup> percentile of receiving stream pH and temperature values to determine ammonia criteria. The SUIT WQS also do not specify whether pH and temperature data should be used as paired data or otherwise, but in this case the data was analyzed and found that much of it was not paired, and there was no correlation between pH and temperature; therefore the EPA analyzed them separately (Table 4). Finally, the datasets from the Pine River and Rock Creek were very similar in both pH and temperature, with no statistically significant difference in pH, and only a slight difference in temperature in the winter (when total samples were very low). Rather than split the dataset and come up with two sets of criteria, the EPA chose to combine all data into one dataset to calculate the preliminary criteria.

**Table 4. Stream pH and temperature conditions in Rock Creek and the Pine River, 2005-2022**

Parameter	80 <sup>th</sup> percentile of all data	Number of Samples
pH (standard units)	8.6	79
Temperature (°C)	17.9	84

The permitting authority is typically granted deference to determine if monthly, seasonal, or annual ammonia criteria are most appropriate. In this case, based on the Facility’s treatment type and the low variation in pH throughout the year in the receiving streams, the EPA decided to develop a single, annual protective ammonia criteria.

When calculated using the SUIT WQS, the pH and temperature critical conditions from Table 4 equate to criteria of 0.34 mg/L for chronic ammonia and 1.5 mg/L for acute ammonia (Table 5). For the acute values, the EPA used the formula for ‘*Oncorhynchus spp.* present’ since the stream is listed as having a Cold Water Aquatic Life use (see section 6.3). However, the EPA notes that at temperature at or above 16 °C, there is no difference in the criteria for *Oncorhynchus spp.* present or absent.

**Table 5. Calculated Preliminary Ammonia Criteria**

Parameter	Chronic	Acute
Ammonia Criteria (mg/L)	0.34	1.5

The Facility is a small mechanical plant that removes virtually all of the ammonia in the wastewater (Table 2). The highest observed ammonia value in the past five years was 0.181 mg/L, and approximately 90% of the reported samples were below the detection limit of 0.1 mg/L. Datasets with high percentile of “non-detects” can be challenging to fit into standard statistical approaches, because values like standard deviation and means are difficult to estimate. However, because the observed values were so low, the EPA used the simple mixing equation approach to estimate critical discharge concentration for ammonia (Table 6). Note that the calculated critical effluent pollutant concentration (C<sub>d</sub>) in Table 6 is below both the acute and chronic criteria values in Table 5.

**Table 6. Calculation of critical effluent pollutant concentration for ammonia**

Max (mg/L)	Number of Samples	Coefficient of Variation	Multiplier from TSD Table 3-1	C <sub>d</sub> (mg/L)
0.181	60	0.57	1.6	0.29

Since this calculated value is well below both the acute and chronic criteria, there is no need to complete a mixing equation – there is no RP to cause exceedances in ammonia water quality standards in the receiving stream and an ammonia effluent limit based on the Tribe’s WQS will not be included in the Permit. Additionally, since the previous permit had ammonia limits based on an outdated approach that are not protective of the Tribe’s WQS, the EPA is going to remove this limit. This does have some backsliding considerations, which are discussed further in section 6.6.

Because high levels of ammonia are present in the influent, and only removed by the continuing proper operation of the Facility, the Permit will retain the ammonia monitoring and reporting requirements (see section 7.1.8). If the Facility begins to discharge ammonia at a higher concentration, then effluent limitations based on protection of the Tribe’s criteria will be included when this permit is re-issued. If additional pH and temperature data are collected in the receiving streams, the preliminary criteria may be recalculated at that time as well.

#### 6.3.6 Temperature

Changes in ambient water temperature can have broad impacts on aquatic life, which have evolved to survive and reproduce at ambient stream temperatures. Water temperature is a pollutant of concern because elevated temperatures can be present in wastewater discharges, and the Tribe has adopted WQS that address temperature. The Tribe’s temperature water quality criteria for Cold Water Aquatic Life (Class 1) and Warm Water Aquatic Life (Class 1) set values for both maximum daily temperatures and maximum weekly average temperature (Table 7 in this document; taken from the SUIT WQS, Table 15). The Tribe specifies that both cold and warm criteria apply to Rock Creek and the Pine River depending on the time of year (see section 0). The Facility reported temperature ranges from 51-60 °F (11-16 °C) in the winter and 56-69 °F (13 to 21 °C) in the summer. These temperatures appear to be within the range that would not cause or contribute to a water quality exceedance. The Facility is already monitoring effluent temperature on a frequent basis, although there have been no permit requirements to monitor and report temperature prior to this. Since the receiving stream is effluent dominated much of the year – thus making it almost certain that the Facility’s temperature values have a large influence on the receiving stream’s ambient temperature conditions – the EPA will implement monitoring and reporting requirements for temperature to better ensure that the Tribe’s WQS are being met year-round. Monitoring requirements for temperature are discussed further below in section 7.1.6.

**Table 7. Southern Ute Water Quality Standards for Temperature and Dissolved Oxygen**

Temperature Class	Dissolved Oxygen (min value)	Max Daily Temp	Maximum Weekly Average Temp
Cold Water	6 mg/L	20° C (68° F)	17° C (63° F)
Warm Water	5 mg/L	30° C (86° F)	27° C (81° F)

### 6.3.7 Dissolved Oxygen (DO)

The Tribe's dissolved oxygen water quality criteria for Cold Water Aquatic Life (Class 1) and Warm Water Aquatic Life (Class 1) set values for the minimum dissolved oxygen levels (Table 7 in this document; from the SUIT WQS, Table 15). The Facility reported an average value of 6.2 mg/L DO in their NPDES permit application. These DO levels appear to be within the range that would not cause or contribute to a water quality exceedance. The Facility is already voluntarily monitoring effluent DO on a frequent basis, although there have been no permit requirements to monitor and report DO prior to this. Since the receiving stream is effluent dominated much of the year – thus making it likely that the Facility's DO concentrations have a large influence on the receiving stream's ambient DO conditions – and the Facility does discharge BOD<sub>5</sub> to the receiving stream, the EPA will implement monitoring and reporting requirements for DO to better ensure that the Tribe's WQS are being met year-round. Monitoring requirements for DO are discussed further below in section 7.1.7.

### 6.3.8 Metals

Most metals can be toxic to aquatic life at higher concentrations. This toxicity often depends on other stream parameters such as hardness. Metals are present in small quantities in domestic sewage, but the primary source of metals in a municipal wastewater system are industrial sources. The Facility is a minor POTW, and Ignacio is a small community with limited industrial users. Another common source of metals in small towns can be a drinking water treatment plant – backwash from filters and settling basins and the use of alum may all contribute to concentrated amounts of metals. However, according to Facility personnel, the Ignacio drinking water treatment plant does not discharge to the town's sanitary sewer system – the drinking water treatment plant installed a total retention/recycle system to handle their backwash and cleaning water over a decade ago. For these reasons, the EPA does not consider metals to be a pollutant of concern at the Facility.

The EPA is requiring the Facility to complete an Industrial Waste Survey (IWS) (see section 10.3) within one year of the Permit effective date. The IWS will ensure the Facility knows the sources and types of pollutants that may be introduced to the system and will provide the EPA with more qualitative data to reassess metals concerns in the future.

### 6.3.9 Whole Effluent Toxicity (WET)

Many toxic pollutants have cumulative effects on aquatic organisms that cannot be detected by individual chemical testing. However, laboratory tests can measure toxicity directly by

exposing living organisms to the wastewater and measuring their responses. Because these tests measure the aggregate toxicity of the whole effluent, this approach is called whole effluent toxicity (WET) testing. Some WET tests measure acute toxicity and other WET tests measure chronic toxicity.

The SUIT WQS include a narrative criterion, which states Tribal waters must be free from substances attributable to human-caused point or nonpoint sources in amounts, concentrations, or combinations which may *cause injury to or are toxic to humans or aquatic or terrestrial animals or plants* (SUIT WQS, Section 6.1(6)). The Facility uses no chemicals during the wastewater treatment process (they do add a polymer to the sludge drying beds). The Facility is a POTW that treats domestic wastewater from a small community without any known significant industrial users. For these reasons, the chemical-specific effluent limitations are sufficient to attain and maintain any applicable water quality criteria and prevent toxicity in the receiving water. Therefore, WET effluent limitations and monitoring will not be required. The Permit contains a reopener provision if the need for WET effluent limitations or monitoring is determined at a future date.

#### 6.3.10 Total Dissolved Solids (TDS) and Specific Conductance (SC)

Specific conductance (SC) is a measure of the ability of water to conduct electricity – corrected to 25 °C (conductance is temperature-dependent) – and is an in-situ measurement of the amount of dissolved salts in water. In this way, it is strongly correlated to total dissolved solids (TDS), which is a mass-based measurement of the total amount of dissolved salts in water. Most natural waters display a relatively constant relationship between SC and TDS, with a very general rule of thumb that the SC is equivalent to about 1.5 times the TDS. In fact, the USGS published a study in 2024 where they collected over 450,000 paired SC-TDS samples from the Upper Colorado River basin<sup>1</sup>. The interquartile range for the ratio of SC/TDS in this dataset ranged from 1.47 to 1.63, with a median value of 1.54, suggesting that this approximation is generally appropriate in this situation.

Salt load is a pollutant of concern due to the Colorado River Basin Salinity Control Act (CRBSCA) requirements. The Tribe has not adopted any WQS for TDS, but they do have a WQS for specific conductance. The SUIT have adopted a range for SC between 200 and 1,600  $\mu\text{S}/\text{cm}$  (SUIT WQS, Table 15). Furthermore, a footnote to this Table states that “*The objective of the specific conductance criterion, provided as a range, is to prevent excessive increases in dissolved solids that could result in changes in community structure.*” The Facility has been collecting TDS as part of their required monitoring. The TDS reported by the Facility in their discharge ranges from approximately 300 mg/L to 450 mg/L (Table 2). This suggests that the equivalent specific conductance of their discharge is likely within the 450-700  $\mu\text{S}/\text{cm}$  range – well within the 200  $\mu\text{S}/\text{cm}$  to 1,600  $\mu\text{S}/\text{cm}$  range adopted in the Tribe’s WQS. Based on this, the EPA has determined that the Facility’s discharge does not have the reasonable potential to cause or contribute to an exceedance of the Tribe’s SC criteria.

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<sup>1</sup> Wise, D.R., 2024. Compilation of total dissolved solids concentrations and specific conductance measurements in the Upper Colorado River Basin, 1894-2022. U.S. Geological Survey data release, <https://doi.org/10.5066/P9B0SJYS>

An additional consideration is that per the CRBSCA, and Section II of the *Policy for Implementation of Colorado River Salinity Standards Through the NPDES Permit Program* (Policy)<sup>2</sup>, municipal discharges shall be allowed a reasonable increase in salinity. This reasonable increase has been set at 400 mg/L or less as compared to the flow weighted average salinity of the intake water supply. The EPA notes that the previous fact sheet determined that the flow-weighted average increase in TDS was approximately 261 mg/L. Furthermore, the available data indicate that this requirement is most likely currently being met – i.e., a limited dataset of USGS data collected on the Pine River near the source water intake shows a TDS value of about 150 mg/L; whereas the effluent ranges from 300 mg/L to 450 mg/L – a total increase of less than 300 mg/L.

Regardless, this requirement may be waived in those cases where the incremental salt load reaching the mainstem of the Colorado River is less than one ton per day or 350 tons per year, whichever is less (Policy, Section II(E)). A review of the Facility's flow data and TDS data from their DMR shows that their salt load ranges from approximately 0.19 tons/day to 0.66 tons/day, with an average flow weighted value of 0.39 tons of salt per day. The annual salt totals range from approximately 110 to 162 tons per year. Both of these metrics are well below the thresholds for waiving the requirements, so this municipal net increase limit (and associated monitoring requirements) will not be included in the Permit.

Because of the ongoing monitoring of TDS, the strong relationship between TDS and SC, the levels of TDS in the effluent, and the guidance in the Policy, the EPA has determined that there is no reasonable potential for this discharge to cause or contribute to an exceedance of the Tribe's SC criteria, and therefore, no effluent limitations will be implemented in the permit. See section 7.1.9 for further discussion of monitoring requirements associated with dissolved solids.

#### 6.3.11 Total Residual Chlorine (TRC)

The Facility does not use chlorine in the treatment process, and thus chlorine is not a pollutant of concern at the Facility and no effluent limitations or monitoring requirements for chlorine are included in the Permit.

#### 6.3.12 Narrative Criteria

The SUI WQS (SUI WQS, Section 6.1) include narrative criteria applicable to all Tribal waters. Several of these narrative criteria are protected by existing permit limits already discussed (see sections 6.3.1 and 6.3.4).

The SUI WQS also include several more general narrative criteria such as imparting undesirable taste, causing injury or toxicity to animals or plants, and include a narrative criterion which states Tribal waters must be free from substances attributable to human-

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<sup>2</sup> Colorado River Basin Salinity Control Forum, 1977. Policy for Implementation of Colorado River Salinity Standards Through the NPDES Permit Program.



caused point or nonpoint sources in amounts, concentrations, or combinations which may: *cause eutrophication resulting in the objectionable growth of aquatic vegetation or algae or other impairments from excessive nutrients to the extent that it threatens public health or welfare or impairs present or future beneficial uses* (SUIT WQS, Section 6.1(4)). The SUIT have not developed a numeric translator for implementing this narrative criterion at this time. However, a primary driver of undesirable aquatic life is nutrient enrichment (i.e., nitrogen and phosphorus enrichment) of streams, and discharges from POTWs are typically high in nutrients. Based on the EPA’s multiple site visits, ongoing work on developing narrative translators, and the limited number of nutrient sampling results available from the prior permit term, nutrient limits will not be included in the Permit at this time. The EPA has worked with the Tribe to include Reservation-specific monitoring requirements for nutrients in the Permit (see section 7.1.10) and continues to work with the Tribe on their narrative translators. If future monitoring data shows that the discharge has reasonable potential to cause or contribute to an exceedance of the narrative criteria in the receiving stream or other downstream waters, nutrient controls will be included in the next permit cycle.

There is no evidence that any of the narrative criteria are not being attained. Due to the source of the water, the type of facility, its treatment processes and discharge type, and the rationale described in this section, the EPA finds that there is not reasonable potential to cause or contribute to an exceedance of any of these narrative WQS, and no additional effluent limitations will be included in the Permit.

The Tribe will be provided a copy of the draft Permit and draft SoB for review during the Clean Water Act Section 401 certification process. If the Tribe does not agree that the draft Permit conditions ensure compliance with applicable numeric or narrative criteria, they may provide additional Permit conditions in their 401 certification.

6.4 Final Effluent Limitations

Applicable TBELs and WQBELs were compared, and the most stringent of the two was selected for the following effluent limits (Table 8).

**Table 8. Final Effluent Limitations for Outfall 002**

<b>Effluent Characteristic</b>	<b>30-Day Average Effluent Limitations <u>a/</u></b>	<b>7-Day Average Effluent Limitations <u>a/</u></b>	<b>Daily Maximum Effluent Limitations <u>a/</u></b>	<b>Limit Basis <u>b/</u></b>
Flow, mgd	report only	N/A	report only	N/A
Five-Day Biochemical Oxygen Demand (BOD <sub>5</sub> ), mg/L	30	45	N/A	TBEL
Five-Day Biochemical Oxygen Demand (BOD <sub>5</sub> ) percent removal, % <u>c/</u>	≥85	N/A	N/A	TBEL

Effluent Characteristic	30-Day Average Effluent Limitations <u>a/</u>	7-Day Average Effluent Limitations <u>a/</u>	Daily Maximum Effluent Limitations <u>a/</u>	Limit Basis <u>b/</u>
Total Suspended Solids (TSS), mg/L	30	45	N/A	TBEL
Total Suspended Solids (TSS) percent removal, % <u>c/</u>	≥85	N/A	N/A	TBEL
<i>Escherichia coli</i> ( <i>E. coli</i> ), number/100 mL <u>d/</u>	126	N/A	410	WQBEL
Oil and Grease (O&G), mg/L	N/A	N/A	10	TBEL/WQBEL
Temperature, °C <u>e/</u>	N/A	report only	report only	N/A
Dissolved Oxygen (DO), mg/L <u>f/</u>	N/A	N/A	report only	N/A
Total Ammonia Nitrogen (as N), mg/L	report only	N/A	report only	N/A
Total Kjeldahl Nitrogen (TKN) (as N), mg/L	report only	N/A	N/A	N/A
Nitrate+Nitrite (as N), mg/L	report only	N/A	N/A	N/A
Total Nitrogen (as N), mg/L	report only	N/A	N/A	N/A
Total Phosphorus, mg/L	report only	N/A	N/A	N/A
Total Dissolved Solids (TDS), mg/L	report only	N/A	N/A	N/A
pH, standard units	Must remain in the range of 6.5 to 9.0 <i>at all times</i>			WQBEL
Narrative Limitation	The discharge shall not cause a visible oil film or sheen in the receiving water or adjoining shoreline, nor shall there be any discharge of floating debris, scum, or other surface materials.			TBEL/WQBEL

a/ See section 1 of the Permit for definition of terms.

b/ WQBEL = Limitation based on water quality-based effluent limit; TBEL = Limitation based on technology based effluent limit

c/ The arithmetic mean of the concentration for effluent samples collected in a 30-day consecutive period shall not exceed 15 percent of the arithmetic mean of the concentration for influent samples collected at during the same period (i.e., a minimum 85 percent removal). To calculate percent removal, use the following equation (replacing X with either BOD<sub>5</sub> or TSS):

$$\text{Percent Removal} = (X_{30\text{-day average, influent}} - X_{30\text{-day average, effluent}}) / (X_{30\text{-day average, influent}}) * 100 \%$$

d/ The 30-day average limit for *E. coli* is calculated as a geometric mean.

e/ The Facility must report the maximum weekly average temperature and the max daily temperature (see Table 9 for more information).

f/ The Facility must report the minimum value of dissolved oxygen (see Table 9 for more information).

## 6.5 Antidegradation

The Tribe's WQS include antidegradation provisions (SUIT WQS, Section 13, Appendices A & B). Antidegradation refers to actions taken to maintain existing uses and water quality, and is applicable to all surface waters of the Tribe. At a minimum, all surface waters within the Southern Ute Indian Reservation are subject to Tier 1 (existing use) protection, while some Tribal surface waters are also subject to Tier 2 (high quality water) protection as well. Tier 3 protection is reserved for waters that have been classified as an outstanding Tribal resource water (OTRW). All Tribal waters are subject to Tier 1 protection at a minimum. The EPA typically assumes that all Tribal surface waters may also be subject to Tier 2 (high quality water) protection, unless otherwise noted by the Tribe (the SUIT WQS, Section Appendix A(3)(a)(ii) states that "In general, it is presumed that a majority of tribal waters qualify for Tier 2 protection"). The EPA believes this receiving stream is not subject to Tier 3 protection.

This NPDES permit renewal is not a new or expanded discharge – discharges from the Facility are existing and are not expanded. Even though the service population has increased substantially since the previous permit application was reviewed (see section 3.1), the monthly average discharge rates have actually decreased since the previous permit term (0.28 mgd 2011-2016 vs. 0.24 mgd 2019-2024). Additionally, no degradation of existing effluent quality or increases in discharge flows are proposed. No exceedances of numeric or narrative criteria will be allowed in the Permit. For these reasons, the EPA believes renewal of the Permit satisfies SUIT antidegradation requirements for both Tier 1 and Tier 2 protection. The SUIT Environmental program will review the Permit during the Clean Water Act Section 401 certification process and may provide feedback on the EPA's antidegradation determination at that time.

## 6.6 Anti-Backsliding

Federal regulations at 40 CFR § 122.44(l)(1) require that when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit unless the circumstances on which the previous permit were based have materially and substantially changed since the time the Permit was issued and would constitute cause for permit modification or revocation and reissuance under 40 CFR § 122.62.

This permit renewal complies with anti-backsliding regulatory requirements. With the exception of ammonia, all effluent limitations, standards, and conditions in the Permit are either equal to or more stringent than those in the previous permit. The effluent limit for ammonia is less stringent in the Permit than in the previous permit. However, the SUIT adopted WQS in 2022 that included the EPA's 2013 recommended ammonia criteria. This is a different criteria than the one the previous permit limits are based on. The adopted criteria, and the permit limits that the EPA would derive from them if it were appropriate to do so, are more stringent than the previous permit limits. The deciding factor in this instance is that the reasonable potential analysis for ammonia (see section 6.3.5) shows there is no reasonable potential for this discharge to cause or contribute to an exceedance of this standard. Section 303(d)(4)(b) of the Clean Water Act allows a permit to be renewed, reissued, or modified that contains a less stringent effluent limitation for a pollutant if those effluent limitations are based on state

[Tribal] water quality standards and the revision is consistent with both the standards and the antidegradation policy in place. In this situation, there is not reasonable potential to cause or contribute to an exceedance of the new ammonia standard (see section 6.3.5), and all antidegradation requirements are being met (see section 6.5). Therefore, there are no backsliding concerns associated with the removal of the ammonia limitation.

## 7 MONITORING REQUIREMENTS

### 7.1 Self-Monitoring Discussion

In this section, the EPA lays out the basis for assigning monitoring frequencies and types to the various pollutants in the Permit. The monitoring frequency should be sufficient to characterize the effluent quality and to detect events of noncompliance, considering the need for data and, as appropriate, the potential cost to the Permittee. All monitoring requirements are further discussed below.

In general, the EPA Region 8 has determined that for parameters with effluent limitations in the Permit, a more frequent monitoring frequency such as weekly or monthly will typically apply, while parameters without effluent limits (i.e., “monitoring only” to better characterize the effluent) will be assigned a less frequent monitoring frequency such as quarterly or semi-annually. This is generally in line with the NPDES Permit Writer’s Manual and other EPA guidance. Some of the factors considered in this decision include the predicted frequency and volume of discharge (continuous, minor discharger), variability of the effluent, nature of the effluent (municipal wastewater), location of the discharge (no municipal water intakes immediately downstream), compliance history, and treatment processes/chemicals used (minimal). If these or other factors change, the EPA may change the frequency of monitoring for some or all parameters at a future reissuance.

#### 7.1.1 Flow monitoring

The Facility currently monitors flow using an ultrasonic meter that collects flow data continuously and summarizes it daily and monthly. The previous permit required the Facility to monitor effluent flow on a daily frequency using a continuous method. For the renewal, the EPA will require a daily frequency using a grab sample (which is equivalent to an instantaneous measurement and EPA’s preferred terminology – see section 1 of the Permit for definitions). While only daily observations are required in the Permit, the EPA encourages the Facility to continue to collect flow data continuously – more flow measurements result in more accurate reporting of 30-day averages and daily maximum flows.

#### 7.1.2 BOD<sub>5</sub> and TSS

The previous permit required the Facility to monitor effluent BOD<sub>5</sub> and TSS on a weekly frequency using a composite sample. This weekly frequency and sample type will be retained in the Permit. Composite samples provide a more representative measure of the discharge of variable pollutants over a given period than grab samples. Note that the Facility must also

collect influent BOD<sub>5</sub> and TSS, and calculate the BOD<sub>5</sub> and TSS percent removal on a weekly frequency.

Influent sampling for both BOD<sub>5</sub> and TSS should occur at or near the same time as the effluent sampling. Influent samples shall be taken at a location prior to entering the Facility's treatment process, such as the headworks, if possible. Influent samples shall be taken on a weekly frequency as a composite sample for the same reasons discussed above.

#### 7.1.3 pH

The previous permit required the Facility to monitor effluent pH on a weekly frequency using a "field measurement." This monthly frequency and a grab sample type (which is equivalent to a field measurement) will be retained in the Permit. Note that pH samples must be analyzed within 15 minutes of collection and are not amenable to compositing. For this reason, most facilities use an *in situ* meter, such as a pH meter, to measure it directly in the field.

#### 7.1.4 *E. coli*

The previous permit required the Facility to monitor effluent *E. coli* on a monthly frequency using a grab sample. This monthly frequency and a grab sample type will be retained in the Permit. Note that *E. coli* samples have relatively short holding times and are not amenable to compositing.

#### 7.1.5 Oil and Grease

The previous permit required the Facility to monitor effluent oil and grease on a daily frequency using a visual inspection, followed by an immediate grab sample if any oil and grease were observed. This protocol is being retained in the Permit. A visual inspection is part of basic operation and maintenance of a Facility such as this (see sections 6.2 and 6.3 of the Permit), and a daily visual assessment is in line with other permits issued by the EPA in Region 8. A grab sample is required because oil and grease is not amenable to compositing unless composited in the lab.

#### 7.1.6 Temperature

As discussed in section 6.3.6, temperature monitoring is being added to the Permit. Because the temperature WQS are seasonal, and because the Tribe has adopted a weekly criteria (maximum weekly average temperature), weekly monitoring will be required using a grab sample. The Facility must report both maximum daily value and maximum weekly average temperature (which will be the same if only one measurement per week is taken). Although the Facility will be required to monitor weekly, they will only report a monthly value for both the maximum daily value and the maximum weekly average temperature (see Table 3 of the Permit and its footnotes for more information). Note that temperature samples must be analyzed within 15 minutes of collection and are not amenable to compositing. For this reason, most facilities use an *in situ* meter, such as a calibrated thermometer, to measure it directly in the field.

#### 7.1.7 Dissolved Oxygen (DO)

As discussed in section 6.3.7, dissolved oxygen monitoring is being added to the Permit. Because the dissolved oxygen WQS are seasonal, monthly monitoring will be required using a grab sample. Note that dissolved oxygen samples must be analyzed within 15 minutes of collection and are not amenable to compositing. For this reason, most facilities use an *in situ* meter to measure it directly in the field.

#### 7.1.8 Ammonia

The previous permit required the Facility to monitor effluent ammonia on a monthly frequency using a grab sample. This monthly frequency will be retained in the Permit; however, composite sampling will now be required instead of grab sampling. Monthly sampling is appropriate for this special situation where the parameter was limited but is currently not, and composite samples are more appropriate when the average concentration over a longer period of time is needed, and the particular pollutant is amenable to composite sampling.

#### 7.1.9 Total Dissolved Solids (TDS)

TDS monitoring can help better characterize a facility's effluent, identify any potential impacts on designated uses of receiving waters (such as agriculture), and identify other issues that may be affecting a facility, such as influent from industrial users having a detrimental effect on biological activity within the wastewater treatment plant.

The previous permit required the Facility to monitor effluent TDS on a quarterly frequency using a composite sample. This quarterly frequency and composite sample type will be retained in the Permit. A quarterly frequency is appropriate for a non-limited parameter such as TDS, and composite samples are appropriate for a pollutant that may be used to demonstrate a measure of mass loading or relative increase in load such as TDS.

#### 7.1.10 Nutrients

The previous permit required the Facility to monitor the effluent for nutrients (including total nitrogen and total phosphorus) on a quarterly frequency using a grab sample. The quarterly requirement will be increased to monthly between May and October only (thus, the total sampling requirements will increase from four to six samples per year). This change is implemented because the "summer" season is the most likely to exhibit eutrophication conditions in the receiving stream due to warm temperatures, abundant sunlight, clear water, and shallow, slow flowing conditions. While the definition of "summer" or times of year that characterize these conditions can vary, the EPA worked with the Tribe to define a baseline summer season for the Permit. Six samples per year is generally appropriate for non-limited parameters.

The sample type will also be changed from grab to composite. Composite samples are more appropriate when the average concentration over a longer period of time is needed, when a mass loading value may be required, and/or the particular pollutant is amenable to composite sampling.



This renewal will specify that total nitrogen must be calculated by collecting both a Nitrate+Nitrite sample and a Total Kjeldahl Nitrogen (TKN) sample, and summing the two measurements. This data will be used to provide future evaluation of the need for WQBELs and to assure attainment of narrative criteria from the Tribe's WQS.

## 7.2 Self-Monitoring Requirements

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, as required in 40 CFR § 122.41(j), unless another method is required under 40 CFR subchapters N or O.

**Table 9. Monitoring and Reporting Requirements for Outfall 002**

<b>Effluent Characteristic</b>	<b>Monitoring Frequency</b>	<b>Sample Type <u>a/</u></b>	<b>Data Value Reported on DMR <u>b/</u></b>
Flow, mgd <u>c/</u>	Daily	Grab	Daily Max. 30-Day Avg.
O&G, visual <u>d/</u>	Daily	Visual	Narrative
O&G, mg/L	Immediately if visual sheen detected	Grab	Maximum
Five-Day Biochemical Oxygen Demand (BOD <sub>5</sub> ), mg/L <u>e/</u>	Weekly	Composite	30-Day Avg. 7-Day Avg. 30-Day Avg. % removal
Total Suspended Solids (TSS), mg/L <u>e/</u>	Weekly	Composite	30-Day Avg. 7-Day Avg. 30-Day Avg. % removal
pH, standard units <u>f/</u>	Weekly	Grab	Minimum Maximum
Temperature, °C <u>f/</u>	Weekly	Grab	Daily Max. Max. Weekly Avg.
Dissolved Oxygen, mg/L <u>f/</u>	Monthly	Grab	Minimum
<i>Escherichia coli</i> ( <i>E. coli</i> ), number/100 mL	Monthly	Grab	Daily Max. 30-Day Avg.
Total Ammonia Nitrogen (as N), mg/L	Monthly	Composite	Daily Max. 30-Day Avg.
Total Kjeldahl Nitrogen (TKN) (as N), mg/L <u>g/</u>	Monthly	Composite	30-Day Avg.
Nitrate+Nitrite (as N), mg/L <u>g/</u>	Monthly	Composite	30-Day Avg.
Total Nitrogen, mg/L <u>h/</u>	Monthly	Calculation	30-Day Avg.
Total Phosphorus, mg/L <u>g/</u>	Monthly	Composite	30-Day Avg.

Effluent Characteristic	Monitoring Frequency	Sample Type <u>a/</u>	Data Value Reported on DMR <u>b/</u>
Total Dissolved Solids, mg/L	Quarterly	Composite	Average Value

- a/ See section 1 of the Permit for definition of terms.
- b/ Refer to the Permit for requirements regarding how to report data on the DMR.
- c/ Flow measurements of effluent volume shall be made in such a manner that the Permittee can affirmatively demonstrate that representative values are being obtained. The average flow rate and the maximum flow rate observed, in million gallons per day (mgd), shall be reported.
- d/ If a visible sheen or floating oil is observed in the discharge, a grab sample shall be taken immediately, analyzed and recorded in accordance with the requirements of 40 CFR Part 136. The concentration of oil and grease shall not exceed 10 mg/L in any sample (see Table 8).
- e/ These samples shall be collected on the same day as the BOD<sub>5</sub> and TSS samples at Outfall 001I.
- f/ This sample must be analyzed within 15 minutes of collection per 40 CFR Part 136.
- g/ Monthly sampling is only required from May through October (i.e., six samples per year).
- h/ For the purposes of the Permit, the term "Total Nitrogen" is defined as the calculated sum of analytical results from "Total Kjeldahl Nitrogen (TKN)" plus "Nitrate+Nitrite."

**Table 10. Monitoring and Reporting Requirements for Outfall 001I (Influent)**

Effluent Characteristic	Monitoring Frequency	Sample Type <u>a/</u>	Data Value Reported on DMR <u>b/</u>
BOD <sub>5</sub> , mg/L <u>c/</u>	Weekly	Composite	30-Day Avg. (also use for % removal calculation at Outfall 002)
TSS, mg/L <u>c/</u>	Weekly	Composite	30-Day Avg. (also use for % removal calculation at Outfall 002)

- a/ See section 1 of the Permit for definition of terms.
- b/ Refer to the Permit for requirements regarding how to report data on the DMR.
- c/ These are influent samples (see Table 1 for a description of Monitoring Location 001I), and shall be collected on the same day as the BOD<sub>5</sub> and TSS samples at Outfall 002.

## 8 SPECIAL CONDITIONS

There are no special conditions in the Permit. However, an Asset Management Plan requirement (see section 6.3.3 of the Permit) and an Industrial Waste Survey requirement (see section 8.9.2 of the Permit) have been added to the Permit. Both must be completed within one year after the Permit effective date and maintained thereafter.

## 9 REPORTING REQUIREMENTS

Reporting requirements are based on requirements in 40 CFR §§ 122.44, 122.48, and Parts 3 and 127. A discharge monitoring report (DMR) frequency of quarterly was chosen, because the Facility typically discharges continuously and has been using a quarterly reporting frequency for many years, and it has worked well for them.

## 10 COMPLIANCE RESPONSIBILITIES AND GENERAL REQUIREMENTS

### 10.1 Inspection Requirements

On a weekly basis, unless otherwise modified in writing by the EPA, the Permittee shall inspect the Facility. The permittee shall document the inspection, as required by the Permit. Inspections are required due to regularly identify and resolve any issues that might interfere with proper operation and maintenance in accordance with 40 CFR § 122.41(e). The EPA requires a weekly inspection for most POTWs in Region 8.

### 10.2 Operation and Maintenance

40 CFR § 122.41(e) requires permittees to properly operate and maintain at all times, all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. In addition to an operation and maintenance plan, regular facility inspections, an asset management plan (AMP), and consideration of staff and funding resources are important aspects of proper operation and maintenance. Asset management planning provides a framework for setting and operating quality assurance procedures and helps to ensure the permittee has sufficient financial and technical resources to continually maintain a targeted level of service. Consideration of staff and funding provide the permittee with the necessary resources to operate and maintain a well-functioning facility.

An AMP can be used to forecast relevant needs and costs associated with long-term compliance concerns, particularly in communities that could be impacted by emerging or increased flooding risk, risk of wildfires, or drought risk. While flooding and wildfires can lead to damage to critical infrastructure, droughts could reduce flows in receiving waters resulting in more stringent permit limits in the future. Long-term construction, additional operation and maintenance, and funding plans for upgrading or relocating critical infrastructure may be necessary to mitigate these concerns. Facilities may also consider optimizing their energy efficiency, which can yield substantial economic benefits and help cut down on associated emissions.

Operation and maintenance requirements have been established in section 6.3 of the Permit to help ensure compliance with the provisions of 40 CFR § 122.41(e).

### 10.3 Industrial Waste Management

The Facility is a Publicly Owned Treatment Works (POTW) as defined in 40 CFR § 403.3(q). The Permit contains requirements for the Permittee to protect the POTW from pollutants which

would inhibit, interfere with, or otherwise be incompatible with operation of the treatment works including interference with the use or disposal of municipal sludge. Pass through and interference are defined in 40 CFR §§ 403.3(p), (k), respectively.

The Facility is required to conduct an Industrial Waste Survey (IWS), as described in the Permit, within one year of the Permit effective date. An IWS is required to ensure the POTW is able to identify potential pollutants and potential pollutant sources in the collection system so as to proactively manage their wastewater treatment plant.

#### 10.4 Per- and Polyfluoroalkyl Substances (PFAS) Notification and Plan

The EPA's PFAS Strategic Roadmap directs the Office of Water to leverage NPDES permits to reduce PFAS discharges to waterways "at the source and obtain more comprehensive information through monitoring on the sources of PFAS and quantity of PFAS discharged by these sources." The December 5, 2022 EPA memorandum, "Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs" suggests quarterly sampling is appropriate for many POTWs and industries. These include industry categories such as the following: organic chemicals, plastics & synthetic fibers (OCPSF); metal finishing; electroplating; electric and electronic components; landfills; pulp, paper and paperboard; leather tanning & finishing; plastics molding & forming; textile mills; paint formulating, and airports. Additionally, the memorandum indicates PFAS monitoring and/or BMPs could be appropriate for remediation sites, chemical manufacturing not covered by OCPSF, military bases, and PFAS-containing firefighting foams for stormwater permits. The Facility is not identified as one of the aforementioned industries, is not known to receive wastes from the aforementioned industries, and is not known to use PFAS-containing firefighting foams. Therefore, no PFAS monitoring or PFAS-related BMP implementation has been included in this Permit.

If sources of PFAS or PFAS containing chemicals are identified in the Facility's collection system or the Facility's discharge, the Permit may be reopened (per section 9.15.5, Reopener Provision, of the Permit) to include PFAS monitoring and/or BMPs to confirm and/or address PFAS discharge concerns in alignment with the recommendations in the EPA's December 5, 2022 guidance memorandum.

#### 11 ENDANGERED SPECIES CONSIDERATIONS

The Endangered Species Act of 1973 requires all Federal Agencies to ensure, in consultation with the U.S. Fish and Wildlife Service (FWS), that any Federal action carried out by the Agency is not likely to jeopardize the continued existence of any endangered species or threatened species (together, "listed" species), or result in the adverse modification or destruction of habitat of such species that is designated by the FWS as critical ("critical habitat"). See 16 U.S.C. § 1536(a)(2), 50 CFR Part 402. When a Federal agency's action "may affect" a protected species, that agency is required to consult with the FWS (formal or informal) (50 CFR § 402.14(a)).

The U.S. Fish and Wildlife Information for Planning and Conservation (IPaC) website (<https://ecos.fws.gov/ipac/>) was accessed on August 7, 2024 to determine federally-listed

Endangered, Threatened, Proposed and Candidate Species for the area near the Facility. The IPaC Trust Resource Report findings are provided below. The designated area utilized was identified in the IPaC search and covers the entire Facility plus the receiving stream river corridor for approximately 10 miles downstream.

**Table 11. IPaC Federally listed Threatened and Endangered Species**

Species	Scientific Name	Species Status	Designated Critical Habitat
Gray Wolf	<i>Canis lupus</i>	Experimental	There are no critical habitats at this location.
New Mexico Meadow Jumping Mouse	<i>Zapus hudsonius luteus</i>	Endangered	There are no critical habitats at this location.
Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	Threatened	There are no critical habitats at this location.
Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	Endangered	There are no critical habitats at this location.
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Threatened	There are no critical habitats at this location.
Colorado Pikeminnow	<i>Ptychocheilus lucius</i>	Endangered	There are no critical habitats at this location.
Razorback Sucker	<i>Xyrauchen texanus</i>	Endangered	There are no critical habitats at this location.
Monarch Butterfly	<i>Danaus plexippus</i>	Candidate	There are no critical habitats at this location.
Silverspot (Great Basin Silverspot Butterfly)	<i>Speyeria nokomis nokomis</i>	Threatened	There are no critical habitats at this location.
Knowlton's Cactus	<i>Pediocactus knowltoni</i>	Endangered	There are no critical habitats at this location.
Mesa Verde Cactus	<i>Sclerocactus mesae-verdae</i>	Threatened	There are no critical habitats at this location.

### 11.1 Biological Evaluation

Biological evaluations of the potential effects of the proposed action on the ten listed species and their critical habitat are provided below. These biological evaluations are based on information obtained from the IPaC site and knowledge regarding the proposed action.

The proposed action is the renewal of an existing NPDES permit, which authorizes discharge to Rock Creek, which is a tributary of the Pine River. No significant ground disturbances or changes to habitat are planned or expected due to the issuance of this Permit. Since this is municipal wastewater treatment plant, there is no consumptive use of surface water; thus, neither water depletions nor incidental take will result from reissuance of the Permit. Permit effluent limitations have been written to comply with the Southern Ute Indian Tribe water quality

standards and are protective of both receiving water quality and designated uses such as aquatic life.

Gray Wolf, *Canis lupus* – This species is currently listed as experimental, non-essential. The action area is outside the critical habitat for this species. The project area is located on private and public lands outside of national wildlife refuges or national parks. For the purposes of consultation, non-essential experimental populations are treated as a proposed species in this situation, although Federal agencies must not jeopardize their existence. The EPA believes issuance of the Permit will have an insignificant impact on this species for the same reasons provided for other terrestrial species in this section.

New Mexico Meadow Jumping Mouse, *Zapus hudsonius luteus* – This species is currently listed as endangered. The action area is outside the critical habitat for this species. The New Mexico Meadow Jumping Mouse typically inhabits dense riparian/wetland vegetation such as herbaceous and scrub-shrub wetlands. The Facility is located near a stream and may be near riparian areas. While it is possible that this species may inhabit the area, the Permit does not authorize changes to habitat that supports this species, nor are discharges from the Facility anticipated to affect this species. Based on this information, the EPA has determined that the issuance of the Permit is **not likely to adversely affect** this species.

Mexican spotted owl, *Strix occidentalis lucida* – This species is currently listed as threatened. The action area is outside the critical habitat for this species. Mexican spotted owls typically inhabit mature, old growth mixed forests and rocky canyonlands with minimal human disturbance. The Facility is generally located outside of these types of areas. While it is possible that this species may inhabit the area, the Permit does not authorize changes to habitat that supports this species, nor are discharges from the Facility anticipated to affect this species. Based on this information, the EPA has determined that the issuance of the Permit is **not likely to adversely affect** this species.

Southwestern Willow Flycatcher, *Empidonax traillii extimus* – This species is currently listed as endangered. The action area is outside the critical habitat for this species. Southwestern willow flycatchers are summer breeders in the United States, heading south to Central America by September. They require dense riparian habitat for nesting. The Facility is generally located outside of these types of areas. While it is possible that this species may inhabit the area during parts of the year, the Permit does not authorize changes to habitat that supports this species, nor are discharges from the Facility anticipated to affect this species. Based on this information, the EPA has determined that the issuance of the Permit is **not likely to adversely affect** this species.

Yellow-billed cuckoo, *Coccyzus americanus* – This species is currently listed as threatened. The action area is outside the critical habitat for this species. Yellow-billed cuckoos typically inhabit riparian areas, wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes. The Facility is generally located outside of these types of areas. While it is possible that this species may inhabit the area, the Permit does not authorize changes to habitat that supports this species, nor are discharges from the Facility anticipated to affect this species.



Based on this information, the EPA has determined that the issuance of the Permit is **not likely to adversely affect** this species.

Colorado pikeminnow, *Ptychocheilus lucius* – This species is currently listed as endangered. The action area is outside the critical habitat for this species. Colorado pikeminnow spend their whole lives in medium to large rivers and can be found in the Colorado River watershed.

While it is possible that the Colorado pikeminnow may inhabit the Pine River downstream of this discharge, the Permit does not authorize direct discharges to the Pine River nor alterations to habitat that supports this species. There is no consumptive use of water so no water depletions occur due to this Permit. The only discharges authorized by the Permit are of treated municipal water, and pollutant concentrations allowed in the effluent – such as suspended solids and pH – will meet all water quality standards designed to protect aquatic life. Based on this information, the EPA has determined that the issuance of the Permit is **not likely to adversely affect** this species.

Razorback sucker, *Xyrauchen texanus* – This species is currently listed as endangered. The action area is outside the critical habitat for this species. The razorback sucker can be found in the Colorado River watershed. Razorback suckers prefer to live over sand, mud, or gravel bottoms. They inhabit a diversity of habitats from mainstream channels to the backwaters of medium and large streams or rivers.

While it is possible that the razorback sucker may inhabit the Pine River downstream of this discharge, the Permit does not authorize direct discharges to the Pine River nor alterations to habitat that supports this species. There is no consumptive use of water so no water depletions occur due to this Permit. The only discharges authorized by the Permit are of treated municipal water, and pollutant concentrations allowed in the effluent – such as suspended solids and pH – will meet all water quality standards designed to protect aquatic life. Based on this information, the EPA has determined that the issuance of the Permit is **not likely to adversely affect** this species.

Monarch butterfly, *Danaus plexippus* – This species is currently listed as a candidate species. There are generally no section 7 requirements for candidate species. However, the EPA believes issuance of the Permit will have an insignificant impact on this species for the same reasons provided for other terrestrial species in this section.

Silverspot (Great Basin Silverspot Butterfly), *Speyeria nokomis nokomis* – This species is currently listed as threatened. No critical habitat has been designated for this species. The Silverspot is a relatively large butterfly with up to a 3-inch wingspan that has silvery-white spots on the underside of their wings. It typically inhabits moist, open meadows with vegetation and herbaceous plants readily available. Its range is currently documented at elevations ranging from 5,200 to 8,300 feet. While it is possible that this species may be found in the area, the Permit does not authorize changes to habitat that supports this species, nor are discharges from the Facility anticipated to affect it. Based on this information, the EPA has determined that the issuance of the Permit is **not likely to adversely affect** this species.

Knowlton's Cactus, *Pediocactus knowltonii* – This species is currently listed as endangered. No critical habitat has been designated for this species. The Knowlton's Cactus is a small, short cactus that is typically found in rolling, gravelly hills in a pinion-juniper-sagebrush community at about 6,200 to 6,300 feet in elevation. It is only found in northern New Mexico very close to the Colorado border (although no documented specimens from Colorado exist). While it is possible that this species may be found in the area, the Permit does not authorize changes to habitat that supports this species, nor are discharges from the Facility anticipated to affect it. Based on this information, the EPA has determined that the issuance of the Permit is **not likely to adversely affect** this species.

Mesa Verde Cactus, *Sclerocactus mesae-verdae* – This species is currently listed as threatened. No critical habitat has been designated for this species. The Mesa Verde Cactus is a small, spherical cactus that grows in small clusters. It is found in a few isolated populations in southwestern Colorado and northwestern New Mexico. It typically grows on the tops or upper slopes of badlands at 5,300 to 6,500 feet in elevation. While it is possible that this species may be found in the area, the Permit does not authorize changes to habitat that supports this species, nor are discharges from the Facility anticipated to affect it. Based on this information, the EPA has determined that the issuance of the Permit is **not likely to adversely affect** this species.

Based on the IPaC information and the discussions above, the EPA determined the permitting action "may affect, but is not likely to adversely affect" the species listed above.

Before going to public notice, a copy of the draft Permit and this Statement of Basis was sent to the FWS requesting concurrence with EPA's finding that reissuance of this NPDES Permit "may affect, but is not likely to adversely affect" the species listed as threatened or endangered in the action area by the FWS under the Endangered Species Act nor their critical habitat.

## **12 NATIONAL HISTORIC PRESERVATION ACT REQUIREMENTS**

Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470(f) requires that federal agencies consider the effects of federal undertakings on historic properties. The first step in this analysis is to consider whether the undertaking has the potential to affect historic properties, if any are present. See 36 CFR § 800.3(a)(1). Permit renewals where there is no new construction are generally not the type of action with the potential to cause effects on historic properties.

## **13 401 CERTIFICATION CONDITIONS**

The Southern Ute Indian Tribe is the Clean Water Act (CWA) Section 401 certifying authority for the Permit, and a CWA Section 401 certification will be requested prior to Permit finalization.

**14 MISCELLANEOUS**

The effective date of the Permit and the Permit expiration date will be determined upon issuance of the Permit. The intention is to issue the Permit for a period not to exceed 5 years.

Permit drafted by Erik Makus, U.S. EPA, (406) 457-5017 (August 2024)

DRAFT

## ADDENDUM

### AGENCY CONSULTATIONS

On [Month Day, Year], the FWS [concurring/disagreeing] with EPA's preliminary conclusion that the Permit reissuance [is not likely to adversely affect listed species].

On [Month Day, Year], the Tribe's Tribal Historic Preservation Office [agreed with/disagreed with/did not comment on] EPA's preliminary determination that the Permit reissuance will not impact any historic properties.

On [Month Day, Year], EPA sent a CWA Section 401 certification request to the Southern Ute Indian Tribe. The Tribe [certified without Section 401 requirements/certified with the following Section 401 certification requirements/waived Section 401 certification. Any review or appeal of these conditions must be made through [State/Tribal] procedures pursuant to 40 CFR § 124.55(e).]

- [List any 401 certification requirements.]

### PUBLIC NOTICE AND RESPONSE TO COMMENTS

The Permit and statement of basis were public noticed on EPA's website on [Month Day, Year]. The comment(s) received and the response(s) are provided below/No comments were received.

#### Comment:

The commenter noted that ...

#### Response:

The following language was added to the final Permit./No changes were made to the final Permit: