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

PERMITTEE:	Salish & Kootenai Housing Authority
FACILITY NAME AND ADDRESS:	St. Ignatius South Side Wastewater Treatment Facility P.O. Box 38 Pablo, MT 59855
PERMIT NUMBER:	MT-0029017
RESPONSIBLE OFFICIAL:	Rocki Davis, Salish & Kootenai Housing Authority Water and Sewer Operations Manager (406) 675-4491 rjdavis@skha.org
FACILITY CONTACT:	Bret Birk (406) 675-4491 bbirk@skha.org
PERMIT TYPE:	Minor, Permit Renewal, POTW
FACILITY LOCATION:	US Highway 93, St. Ignatius, MT 47.317891, -114.109619

1 INTRODUCTION

This statement of basis (SoB) is for the reissuance of a National Pollutant Discharge Elimination System (NPDES) permit (the Permit) to the Salish & Kootenai Housing Authority for the St. Ignatius South Side Wastewater Treatment Facility (Facility). The Permit establishes discharge limitations for any discharge of wastewater from the Facility through Outfall 001A to Sabine Creek. 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 Flathead Reservation, which is home to the Confederated Salish & Kootenai Tribes (CSKT or Tribes). 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:

- Clarified outfall location coordinates
- Removed fecal coliform effluent limits
- Revised ammonia limits
- Added dissolved oxygen monitoring for both effluent and ambient requirements
- Changed location of ambient monitoring in receiving stream
- Increased frequency of effluent monitoring for oil and grease
- Reduced frequency of effluent monitoring for *E. coli*
- Reduced frequency of ambient monitoring for pH and temperature
- Added asset management plan requirements
- Added Industrial Waste Survey requirements
- Reporting units for flow have been changed from million gallons per day (mgd) to gallons per day (gpd)

3 BACKGROUND INFORMATION

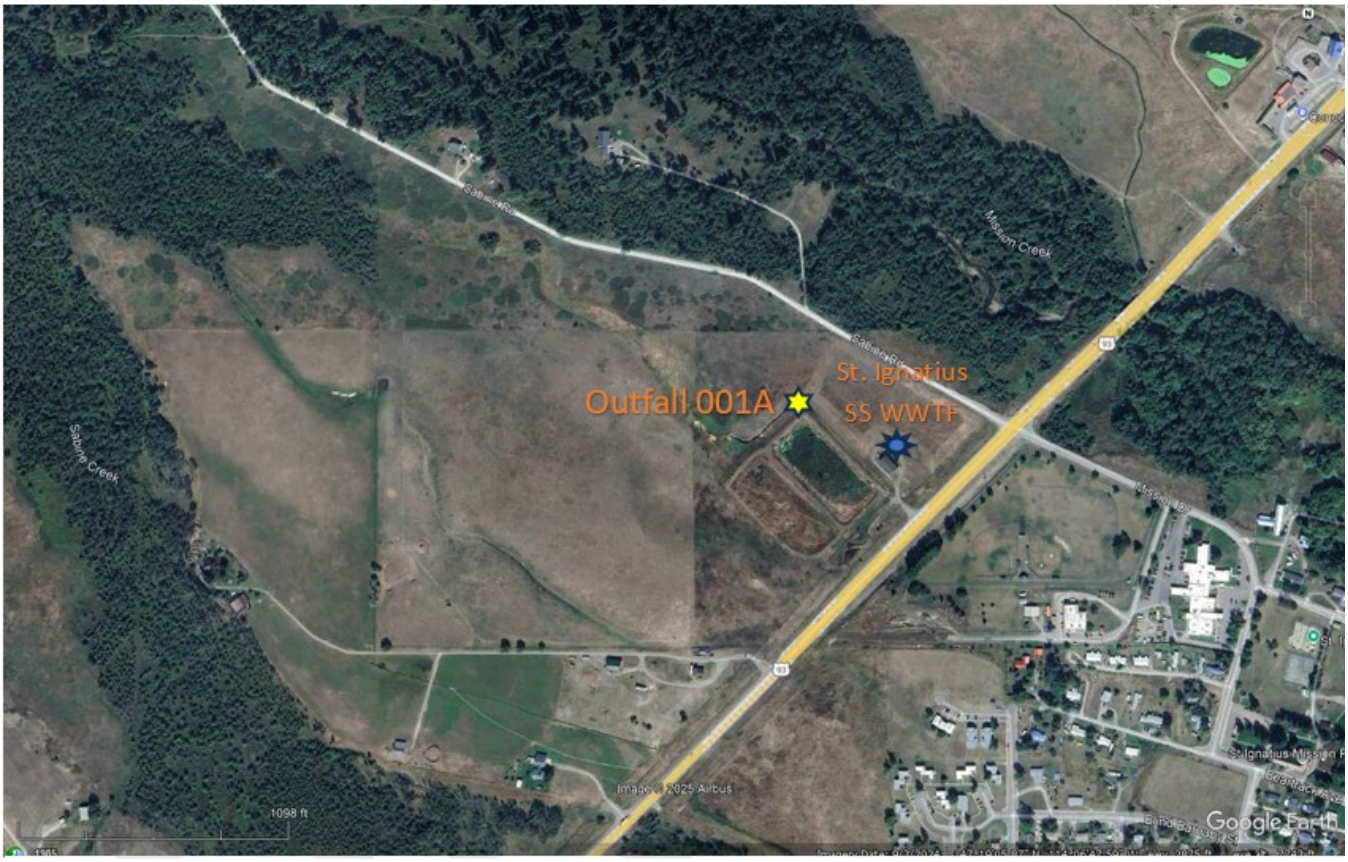
The St. Ignatius South Side Wastewater Treatment Facility is a publicly owned treatment works (POTW) owned and operated by the Salish & Kootenai Housing Authority. The Facility is located adjacent to Highway 93 between Mission Creek and Sabine Creek, approximately one-quarter mile west of the Town of St. Ignatius, in Lake County, Montana, in the northeast ¼ of the southwest ¼ of Section 14, Township 18 N, Range 20 W. It is entirely within the boundaries of the Flathead Reservation. The discharge outfall is located at latitude 47.318678 and longitude -114.111149, which is approximately 215 ft northeast of the previous outfall location. The EPA considers the outfall to be located at the point where the discharge leaves the pipe and enters a drainage (see Figure 1).

The Facility previously consisted of two, two-acre lagoon cells operated in series (Figures 1 & 2). Due to the inability to consistently meet effluent limitations, the system was replaced in 2018 with a

continuously discharging moving bed biofilm reactor package plant (MBBR). The MBBR is located between what was Cell 1 (northern cell) and Sabine Road to the north of Cell 1. Per the application, the maximum daily flow of the system over the previous two years was 40,000 gpd (equivalent to 0.04 mgd) with a design flow of 70,000 gpd (0.070 mgd).

The following background information was obtained from the Facility's application for renewal of the Permit, which EPA received on August 10, 2023.

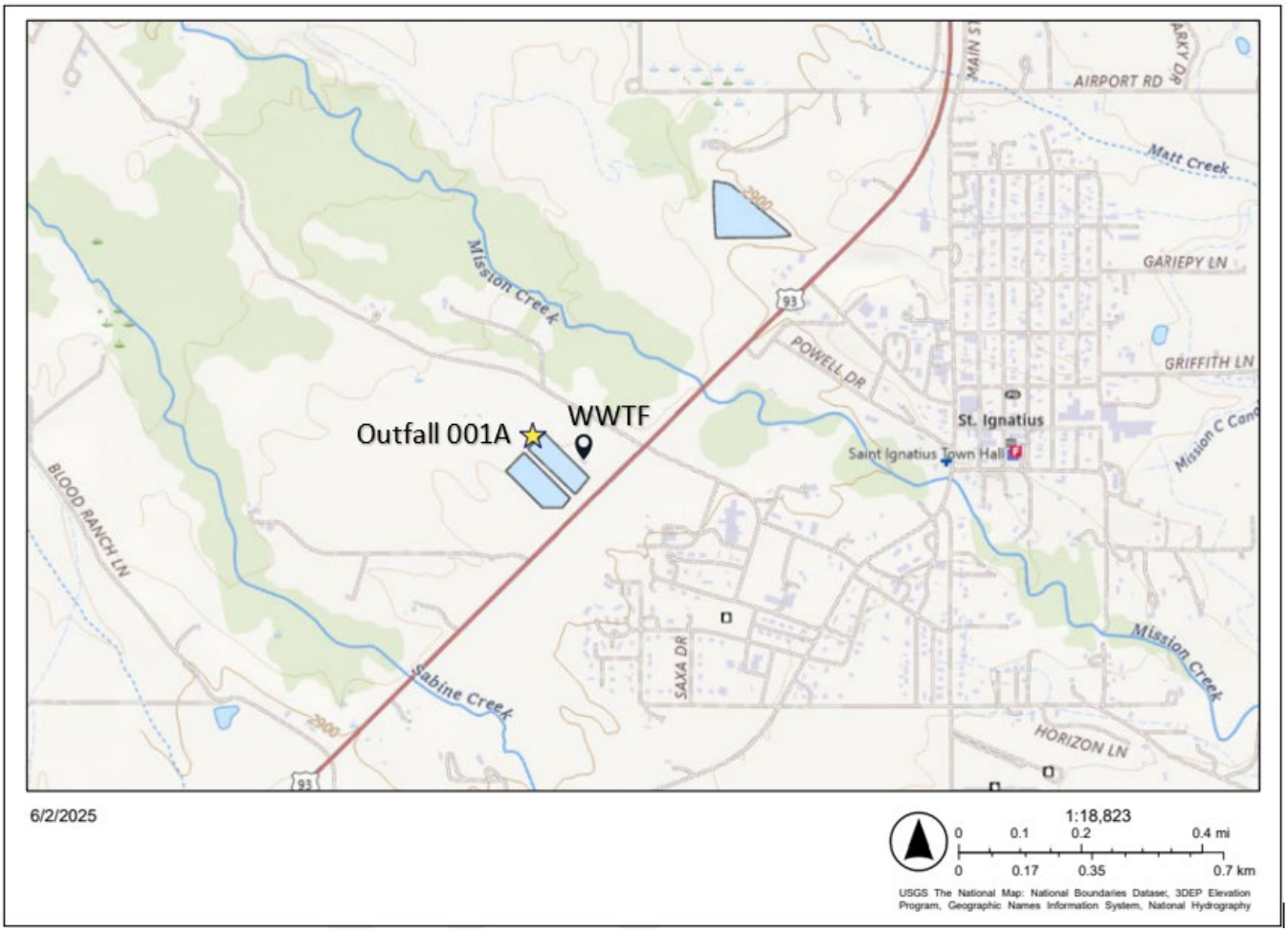
Figure 1. Aerial Image of the St. Ignatius South Side WWTF (Google Earth 9/3/2024)



3.1 Service Area Description

Based on the permit application, there is a population of approximately 430 served by the Facility. Commercial service area includes a health clinic and a day care. The health clinic services include dental work. According to Taylor Diggs, Clinic Director of the St. Ignatius Dental Clinic, the facility removes amalgam and has an amalgam separator. The EPA directly oversees compliance with the Dental Office Point Source Category applicable to the health clinic (see 40 CFR Part 441). The following figure shows the location of the Facility.

Figure 2. Facility Location

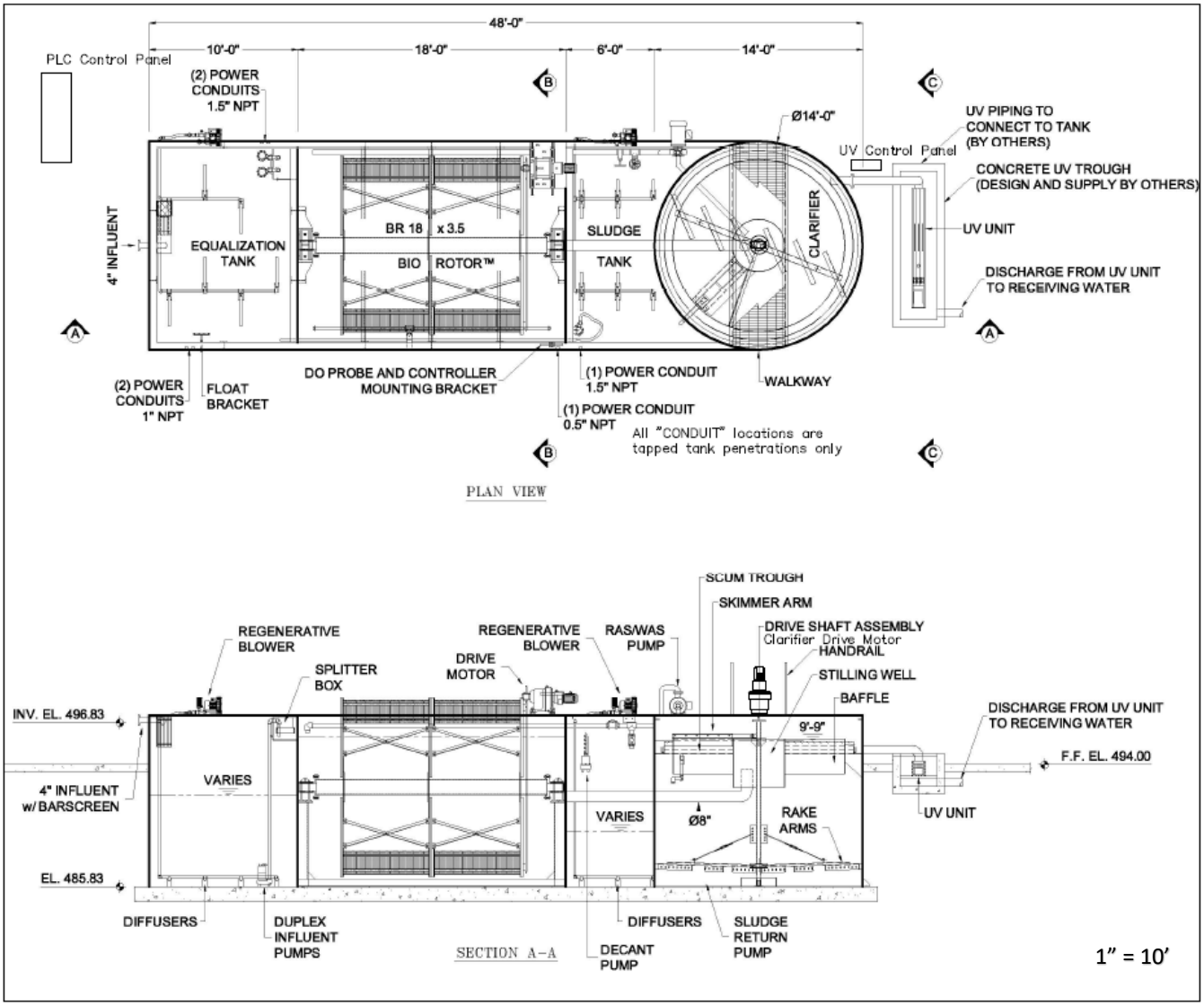


3.2 Treatment Process

The treatment system consists of a moving bed biofilm reactor package plant (MBBR), specifically a Biorotor™ Wastewater Treatment Plant, that was installed in 2018 (Figure 3). The treatment includes influent screening, an equalization tank, biological treatment, secondary clarification for sludge removal, ultraviolet disinfection (UV), and a sludge tank. In the first stage of this treatment process, the influent is screened to remove 6 mm and larger particles. The equalization tank receives the influent waste stream after screening and contains a diffused aeration grid to prevent solids from settling to the bottom of the tank. The Biorotor™ receives the equalized wastewater and is mixed with the return activated sludge (RAS) from the secondary clarifier to create the mixed liquor suspended solids (MLSS). The Biorotor™ contains media plate rows that provide a high surface area for bacteria to attach and feed on organic wastewater pollutants. The Biorotor™ media plate rows also provide aeration and mixing to the system through the rotation of a wheel, supporting the growth and activity of the biofilm. Wastewater then flows to the circular clarifier tank, and it subsequently enters the UV system tank where it flows through the UV channel for disinfection. Some sludge from the secondary clarifier is returned to the Biorotor™ process, while excess sludge is pumped with a septic pumper when needed. The treated effluent discharges continuously via gravity into a drainage that leads to an unnamed tributary to Sabine Creek. Per the application, the average discharge flow is 40,000 gpd (0.04 mgd). A conversation with Facility

personnel on 11/10/2025 indicated the Facility currently measures the flow rate at a manhole after the UV system using a 5-gallon bucket and a stopwatch. The outfall (Outfall 001A) is located at coordinates 47.318678, -114.111149.

Figure 3. Plant Process Schematic



3.3 Chemicals Used

The permit application indicates that no chemicals are added during the treatment process.

4 PERMIT HISTORY

According to EPA records maintained for the Facility, this renewal is at least the 4th issuance of this NPDES permit. The original issue date was December 1, 2004. The previous permit for the Facility became effective on December 1, 2018, and was set to expire on November 30, 2023. The Facility submitted a permit renewal application prior to the permit's expiration, which EPA received on August 10, 2023, and thus the previous permit was administratively continued.

4.1 Discharge Monitoring Report (DMR) Data

A review of the Facility's DMR data shows that the Facility has reported several exceedances of their permit limits. The EPA has summarized all available data reported in DMRs in the table below (Table 1).

Table 1. Summary of the DMR Data from 1/1/2020 through 7/31/2025 for Outfall 001A from the EPA Integrated Compliance Information System (ICIS) database (date accessed 8/4/2025)

Parameter	Permit Limit(s)	Reported Average	Reported Range	Number of Data Points	Number of Exceedances
30-Day Avg Discharge Volume, million gallons per day (mgd)	N/A	0.04	0.001-0.11 a/	65	N/A
Effluent Temperature, Daily Max, degrees C	N/A	11.4	4.1-19.5	65	N/A
5-Day Biochemical Oxygen Demand (BOD_5), 30-Day average, mg/L	30	6.0	1-31b/	65	0
5-Day Biochemical Oxygen Demand (BOD_5), 7-Day average, mg/L	45	10.5	2-100b/	65	0
5-Day Biochemical Oxygen Demand (BOD_5), percent removal	85	97	91-100	63	0
Total Suspended Solids (TSS), 30-Day Average, mg/L	30	9.3	2.5-53.3	65	1
Total Suspended Solids (TSS), 7-Day Average, mg/L	45	19.2	3-190	65	3
Total Suspended Solids (TSS), percent removal	85	91	45-100	62	4
30-Day Avg Fecal Coliform, no./100 mL	200	91.0	0-2420	65	2
Daily Max Fecal Coliform, no./100 mL	400	229.3	0-2420	65	6
30-Day Avg *E. coli*, no./100 mL	126	33.8	1-410.5	65	4
7-Day Avg *E. coli*, no./100 mL	252	265.2	1-2420	65	10
Ammonia total [as N], 30-Day Average/Daily Max, mg/L, (April 1-October 31)c/	1.17/2.59	1.8/1.9	0.03-16.6	35/35	5/5

Parameter	Permit Limit(s)	Reported Average	Reported Range	Number of Data Points	Number of Exceedances
Ammonia total [as N], 30-Day Average/Daily Max, mg/L, (November 1-March 31) c/	2.99/3.83	2.8/3.1	0.04-18.7	27/27	5/5
Nitrogen, Daily Max, mg/L	N/A	17.6	0.99-35.4	63	N/A
Phosphorus, Daily Max, mg/L	N/A	2.5	0.5-4.3	63	N/A
Oil & Grease	10	10	0-2	60	0
pH, standard units	6.5-8.5	7.2 d/	0.51-8.6 e/	130	7

a/ The EPA verified with the Permittee that a portion of the flow data was recorded in the incorrect units; units were converted by the EPA to be consistent throughout data table.

b/ Per the previous SoB, a compliance schedule was implemented giving the Facility 18 months from the effective date of the permit (November 19, 2018) to optimize treatment for all effluent parameters; all limits came into effect on May 19, 2020. The values above the limits were reported for March of 2020, and therefore were not recorded as exceedances.

c/ Both ammonia parameters are listed in the same cell. Data associated with the 30-day average (chronic) is before the slash and data associated with the daily max (acute) is after the slash.

d/ Median value of pH.

e/ pH values of 0.51 and 4.7 appeared erroneously low; the Facility did not have an explanation, therefore they remained in the dataset.

Table 2. Summary of the DMR Data from 1/1/2020 through 7/31/2025 for Outfall 001R (receiving water) from the EPA Integrated Compliance Information System (ICIS) database (date accessed 8/4/2025)

Parameter	Permit Limit(s)	Reported Average	Reported Range	Number of Data Points	Number of Exceedances
pH, standard units	N/A	7.36 a/	6.03-8.92 b/	117	N/A
Receiving Stream Temperature, Daily Max, degrees C	N/A	9.6	1.8-19.5 c/	61	N/A

a/ Median value of pH

b/ Two reported pH values of 0 and one reported value of 14 were omitted, because they appeared to be invalid.

c/ Two reported temperature values of 0 were omitted, because they appeared to be invalid.

4.2 Other Facility History

The Facility was inspected by the EPA and CSKT on June 15, 2022. The EPA inspection report is part of the administrative record for the Permit. Some of the EPA's findings are listed below:

- The Facility incorrectly calculated the geometric means for *E. coli*;

- A current copy of the permit was not on site; and
- The Facility had effluent limit exceedances for TSS, *E. coli*, and ammonia.

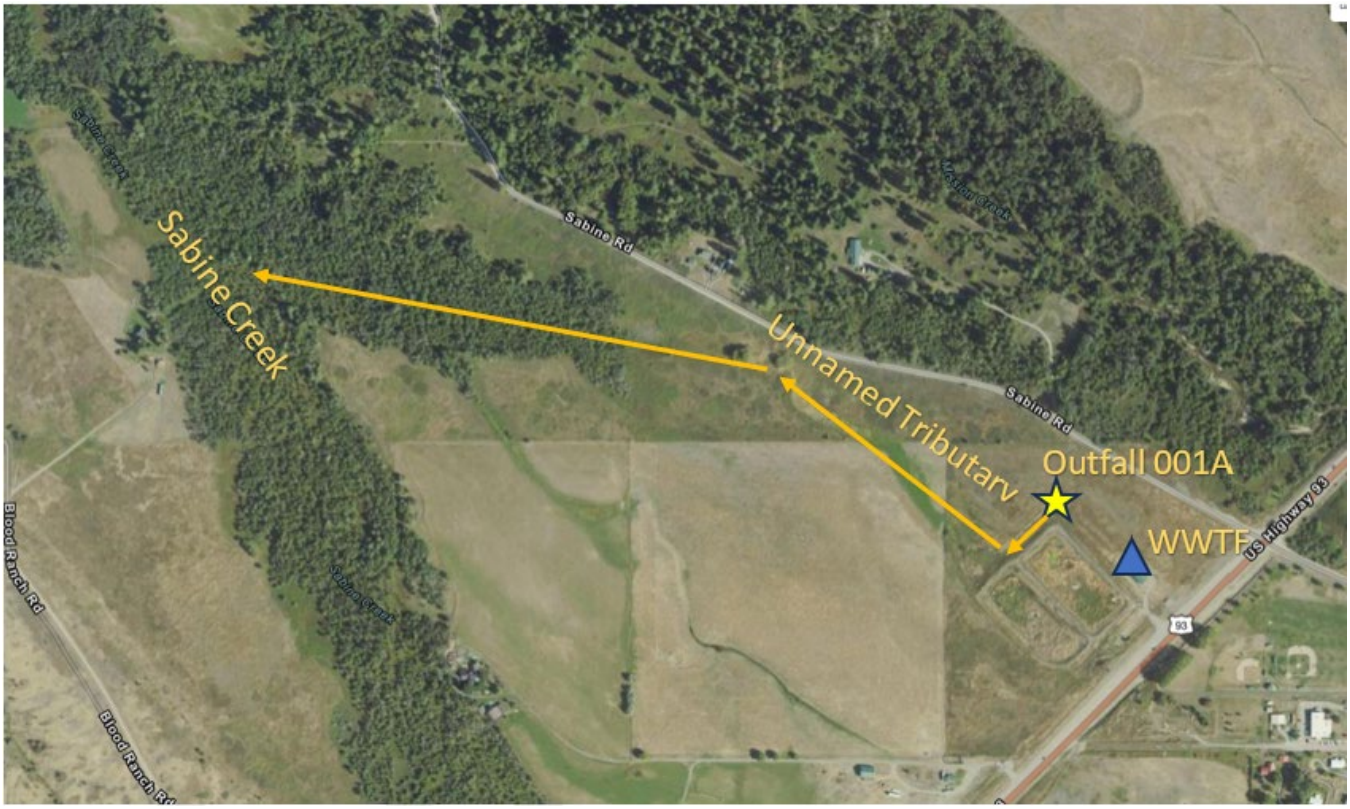
The Facility addressed the findings in the inspection report within a couple months of receiving the inspection report.

In the summer and fall of 2025, the EPA's contractor performed er- and polyfluoroalkyl substances (PFAS) sampling at multiple wastewater treatment facilities throughout Indian country in Region 8. The contractor sampled for 40 PFAS compounds using EPA Method 1633. The Facility was one of the sampled locations. The contractor sampled the Facility's effluent as well as the receiving stream (Sabine Creek) both upstream and downstream of the Facility's discharge. The one-time sampling results showed detections of two PFAS compounds above the laboratory reporting limit in the effluent (perfluoropentanoic acid (PFPeA) at 11 ng/L and perfluorohexanoic acid (PFHxA) at 8.8 ng/L). The upstream and downstream samples did not contain any hits of PFAS above the laboratory reporting limits. The Tribes have not adopted any criteria for PFAS at this time. The EPA has recommended perfluorooctanoic acid (PFOA) water quality criteria for aquatic life. The EPA has developed draft national recommended water quality criteria protective of human health for PFOA, perfluorooctane sulfonic acid (PFOS), and perfluorobutane sulfonic acid (PFBS). PFOA, PFOS, and PFBS belong to the PFAS group of chemicals. This analysis was a screening exercise only. However, this information may be used to inform future decisions regarding PFAS.

5 DESCRIPTION OF RECEIVING WATER

Per the previous permit, an examination of aerial imagery and the USGS topographic map of the area, as well as a site visit by EPA permitting staff in June 2025, treated wastewater discharges at Outfall 001A. From the outfall, treated effluent flows southwest in a drainage, and then westerly along an unnamed tributary until it joins with Sabine Creek, approximately one mile to the northwest (Figure 4). The unnamed tributary to Sabine Creek likely has no dilution flow during much of the year. Sabine Creek flows approximately four miles to Mission Creek, which joins the Flathead River near the town of Dixon, MT.

Figure 4. Facility Receiving Water



6 PERMIT LIMITATIONS

6.1 Technology Based Effluent Limitations (TBELs)

The Facility meets the definition of a POTW as defined in 40 CFR § 403.3. 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 pH requirement in the secondary treatment standards is between 6.0 to 9.0 standard units at all times; however, as discussed in section 6.2.2 of the SoB, the water quality-based effluent limitation for pH is more restrictive and will therefore be implemented in the Permit. The applicable TBELs for 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_5	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 for oil and grease. 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 narrative "visible 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 Clean Water Act (see section 6.2.6). This consideration for oil and grease will be included in the Permit.

6.2 Water Quality Based Effluent Limitations (WQBELs)

The Facility discharges to an unnamed tributary to Sabine Creek. The receiving water is within the Flathead Reservation and thus the Tribes' 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 Section 1.3.7 of the CSKT WQS, the receiving water is classified as a B-1 stream ("Flathead River and its tributaries downstream of the highway bridge at Polson…"). Waters classified as B-1 must be "maintained suitable for drinking and culinary and food processing purposes after conventional treatment; bathing, swimming and recreation; wildlife (birds, mammals, amphibians and reptiles); the growth and propagation of salmonid fishes and associated aquatic life; and agricultural and industrial water supply purposes." The CSKT have adopted designated uses, numeric and narrative water quality criteria, and antidegradation requirements as part of their WQS.

Although the CSKT have adopted EPA-approved WQS, they have not listed water bodies as impaired, nor developed a 303(d) list to require Total Maximum Daily Loads (TMDLs) for impaired water bodies. Thus, there are no TMDLs to consider for the Permit at this time. The Permit contains a reopener provision that would allow the Permit to be reopened to include any applicable Waste Load Allocation developed and approved by the CSKT and the EPA.

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.

6.2.1 BOD_5 and TSS

The Tribes do not have any numeric WQS *directly* related to BOD_5 and TSS, but several of their narrative and numeric criteria address suspended sediments, turbidity, emulsions and sludge, etc. Implementation of the BOD_5 and TSS secondary treatment standards, considering the Facility's low BOD_5 and TSS discharge values (averaging 6.0 and 9.3 mg/L, respectively – see Table 1), will protect the Tribes' numeric criterion for turbidity (see CSKT WQS, Section 1.3.7(3)(d)), as well as their narrative criteria which states Tribal waters must be free from substances that may or will *settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines* (CSKT WQS, Section 1.3.13(1)(a)).

6.2.2 pH

The Tribal WQS for B-1 classified waters for pH is that induced variation of pH within the range of 6.5 to 8.5 must be less than 0.5 pH unit. Natural pH outside this range must be maintained without change, and natural pH above 7.0 must be maintained above 7.0. This standard is difficult to implement without detailed knowledge of the receiving water flows and pH at any given time. The

Facility's effluent pH fell well outside of this range during the last permit cycle (see Table 1), and because of the exceedances, and a lack of dilution in the receiving stream, the EPA has determined that the Facility does have reasonable potential to cause or contribute to an exceedance of the CSKT WQS for pH, and that effluent limitations are appropriate. Because of the complexities with implementation of this WQS described above, the EPA has simplified implementation by requiring the Facility to discharge within the stated range (i.e., 6.5 to 8.5) at all times. This permit limit is more protective than the associated National Secondary Standards (see section 6.1) and the CSKT general Human Health WQS of 5.0 to 9.0.

6.2.3 *E. coli*

Pathogens such as *E. coli* are present in domestic sewage. Consumption of these pathogens can cause severe illness, especially in young children, the elderly, and those with compromised immune systems. For these reasons, *E. coli* is a pollutant of concern in domestic wastewater discharges.

The relevant CSKT WQS for *E. coli* is that the geometric mean number of *E. coli* may not exceed 126 colony forming units (cfu)/100 mL, and ten percent of the total samples may not exceed 252 cfu/100 mL during any 30-day period. These standards apply year-round and per Section 1.3.14 of the CSKT WQS are based on a minimum of five samples (although less than five samples can be used to determine compliance). The Facility uses UV disinfection to help reduce bacteria in the discharge though has reported some exceedances. The EPA Region 8 does not allow for any type of mixing zone for bacteria – the relevant water quality standard is applied at the end of pipe. Based on these factors, the EPA has determined that there is reasonable potential to exceed the *E. coli* standard, and that effluent limitations are appropriate.

The previous permit contained a 30-day average limit of 126 #/100 mL (calculated as a geometric mean) and a 7-day average limit of 252 #/100 mL. The EPA has determined that the '10% may not exceed' criteria should be implemented as a daily maximum rather than as a 7-day average. This is because a 7-day average could allow exceedance rates much higher than 10% of the time. For example, 252 cfu/100 mL could be exceeded six days per week while the 7-day average could still be met (i.e., daily measurements of 253, 253, 253, 253, 253, 253, and 245), whereas that would not meet the basis of the WQS ("10% of samples may not exceed 252 during any 30-day period").

In this permit iteration, the 7-day average will be changed to a daily maximum because it is more protective as it allows for no exceedances of this value. For all practical purposes a daily maximum and '10% may not exceed' criteria are equivalent. They are equivalent because the Facility's practice has been to collect only one sample per month. Thus, any one sample that exceeds the daily maximum limit would also exceed the 10 percent threshold from the WQS, unless the Facility collects 10 samples, which it has never done in a 30-day period. This change provides consistency with how the EPA has issued other NPDES permits within the Flathead Reservation. Other than changing the 252 #/100 mL from a 7-day average effluent limitation to a daily maximum effluent limitation, the existing limits will be maintained in the reissued permit.

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).

6.2.4 Fecal coliform

Pathogens such as fecal coliform are present in domestic sewage. Fecal coliform has been used as a pollutant of concern in domestic wastewater, but scientific advancements in microbiological, statistical, and epidemiological methods have demonstrated that culturable enterococci and *E. coli* are better indicators of fecal contamination than fecal coliforms (EPA, 2012 RWQC[1]). The CSKT WQS previously contained numeric criteria for both fecal coliform and *E. coli*; however, in 2023, they revised their WQS to removal fecal coliform and rely solely on *E. coli*. This revision was approved by the EPA on April 9, 2024, because it is consistent with the EPA's currently recommended recreational water quality criteria issued pursuant to CWA Section 304(a).

Because of this change to the CSKT WQS, the Permit will remove the fecal coliform effluent limits, which triggers anti-backsliding considerations and is further discussed in section 6.5.

6.2.5 Temperature

The Tribes' temperature water quality criteria allow a slight increase or decrease in naturally occurring water temperatures. Specifically, 1.3.7(3)(e) B-1 of the Tribes' Water Quality Standards states:

> Where naturally occurring water temperatures are in the range of 32°F (0°C) to 66°F (18.89°C), a 1°F (.56°C) maximum temperature increase is allowed. Where naturally occurring water temperatures are in the range of 66°F (18.89°C) to 66.5°F (19.17°C), a 0.5°F (.278°C) maximum temperature increase is allowed. Where naturally occurring water temperatures are 66.5°F (19.17°C), a 0.5°F (.278°C) maximum temperature increase is allowed. Where naturally occurring water temperatures are 55°F (12.78°C), a 2°F (1.11°C) maximum decrease is allowed. Where naturally occurring water temperatures are within the range of 32°F (0°C) to 55°F (12.78°C), a 2°F (1.11°C) maximum decrease is allowed.

The Facility is a mechanical plant that discharges continuously to a drainage that leads to an unnamed tributary that flows for approximately one mile before reaching Sabine Creek. During the previous permit term, there were no temperature effluent limitations, though temperature was monitored weekly in the effluent and the daily maximum temperature averaged 11.4 degrees Celsius (52.5 degrees Fahrenheit). Temperature was monitored monthly in Sabine Creek downstream of the discharge at approximate latitude 47.327507, longitude -114.139496, and averaged 9.6 degrees Celsius (49.3 degrees Fahrenheit). Because the effluent flows for roughly one mile before reaching Sabine Creek, and because of the small amount of dilution in the receiving stream, the EPA made a qualitative determination that this small difference in temperature does not have reasonable potential to cause or contribute to an exceedance of this water quality standard, and temperature effluent limits will not be required. The EPA will continue to implement temperature monitoring requirements in both the effluent and the receiving stream – see section 7.1 for more information.

[1] US EPA, 2012. Recreational Water Quality Criteria, Office of Water 820-F-12-058

6.2.6 Oil and Grease

The CSKT WQS include a narrative criterion, which states Tribal waters must be free from substances that may or will create floating debris, scum, a visible oil film (or be present in concentrations at or above 10 mg/L) or globules of grease or other floating materials (CSKT WQS, Section 1.3.13(1)(b)). The EPA Region 8 has developed a protocol for limiting oil and grease (see section 6.1) that closely aligns with the CSKT WQS. The EPA's protocol incorporates frequent visual observations of the discharge looking for a visible sheen or floating oil, and when observed, a sample must be immediately taken and analyzed for oil and grease with an effluent limitation of 10 mg/L. The previous permit incorporated a 10 mg/L limit, though did not include a narrative limit.

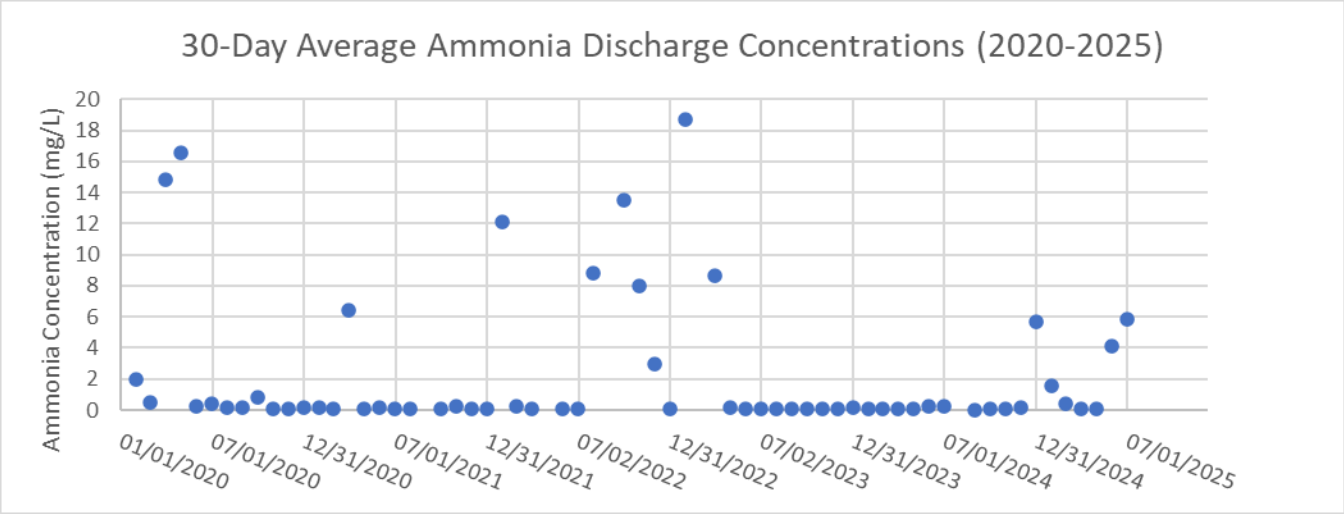
This Permit renewal will contain a narrative prohibition against a visible oil film or sheen, as well as floating debris, scum, other floating materials. This narrative prohibition (or a similar iteration) is commonly used in many NPDES permits throughout the country and Region 8 to protect against pollutants that would cause or contribute to exceedances of narrative criteria such as the one discussed above.

6.2.7 Ammonia

CSKT ammonia WQS are pH and temperature dependent. As pH and temperature in the receiving water increase, the toxicity of ammonia to aquatic life 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 such as this one. In the previous permit term, the Facility had separate limits for ammonia concentrations in the summer (April 1 – October 31) and the winter (November 1 – March 31). Summer 30-day average (chronic) and daily max limits (acute) were 1.17 mg/L and 2.59 mg/L, respectively. Winter 30-day average (chronic) and daily max (acute) limits were 2.99 mg/L and 3.83 mg/L, respectively. Over the previous permit term, summer 30-day averages and daily max concentrations of ammonia in the effluent averaged 1.8 mg/L and 1.9 mg/L, respectively. Winter 30-day averages and daily max concentrations of ammonia averaged 2.8 mg/L and 3.1 mg/L. A review of the Facility's discharge data (Figure 5) showed that there does not appear to be an obvious seasonal variability to the ammonia discharge concentrations. This is common in mechanical plants, where the treatment processes, pH, and temperature do not vary significantly throughout the year.

Figure 5. 30-Day Average Ammonia Discharge Concentrations



The CSKT adopted the 2013 ammonia criteria in 2024, and thus the ammonia criteria must be re-calculated before a reasonable potential analysis can be done. The new criteria specify a chronic ammonia criteria as well as an acute ammonia criteria, which is based on the presence or absence of trout (*Oncorhynchus*) species. Temperature and pH data has been collected by the Permittee on Sabine Creek since January 2020 and reported in the DMR, which can be used to calculate the new ammonia criteria.

While the CSKT WQS do not specify the 'critical conditions' to use when calculating ammonia criteria, the EPA has typically used the 80th percentile of pH and temperature data to implement ammonia criteria on the Flathead Reservation. Furthermore, for the acute value, the EPA used the '*Oncorhynchus* spp. Present' values, since the stream is listed as a B-1 stream, which includes the "*growth and propagation of salmonid fishes*."

The temperature and pH dataset included 62 temperature values and 59 pH values. During the QA/QC process, three data points for pH were omitted because they were reported as 0 or 14, which were unlikely to be accurate. Finally, note that the CSKT WQS do not require calculation of seasonal criteria or limits; these may be used as an optional implementation tool only. After review of the Facility and the data, the EPA chose not to implement seasonally-variable limits – the Facility is a mechanical plant that has relatively stable pH and temperature all year long, and the stream does not exhibit strong seasonal variation either. Using the 80th percentile pH and temperature values of the remaining dataset (8.1 and 12.5), the year-round chronic and acute criteria were calculated to be 1.11 mg/L and 4.79 mg/L, respectively.

Comparing the reported effluent values to the criteria, the data demonstrates that the Facility clearly has reasonable potential to cause or contribute to an exceedance of the WQS (Table 4).

Table 4. Reasonable Potential Analysis for Ammonia

Chronic Criteria	Average of 30-day Average Values Summer/ Winter	Acute Criteria	Average of Daily Maximum Values Summer/ Winter	Max Value Reported	Reasonable Potential?
1.11 mg/L	1.17/2.99 mg/L	4.79 mg/L	2.59/3.83 mg/L	18.7 mg/L	Yes

Once reasonable potential had been established, the EPA has to develop permit limits that will achieve WQS in the receiving stream. In this case, the receiving stream has no dilution, and thus end of pipe limits are appropriate. The Technical Support Document for Water Quality-based Toxics Control (TSD) (EPA 1991) provides a method for developing permit limits based on starting with a criteria in these cases. This limit depends on the confidence percentiles used and the number of predicted samples per month. However, when calculated using this method, the calculated limit was slightly higher than the chronic criteria. To be protective, in this case the EPA will simply apply the chronic and acute criteria to the Permit as final effluent limitations.

Therefore, the calculated criteria will be implemented in this permit as limits – a 30-day average limit of 1.11 mg/L, and a daily maximum limit of 4.79 mg/L. While this 30-day average limit will be more stringent than the previous permit's two seasonal 30-day average permit limits, the daily maximum limit will be *less* stringent than the previous daily maximum permit limits. As such, the daily maximum limit will be discussed further in the anti-backsliding section (see section 6.5).

6.2.8 Dissolved Oxygen (DO)

The relevant CSKT criteria for DO is that it must not be reduced below the applicable values from the *Freshwater Aquatic Life Standards for Dissolved Oxygen* table (CSKT WQS, page 65). The chart ranges in value from 4.0 mg/L to 9.5 mg/L, depending on the averaging period and the presence of early life stages of fish. It is unknown whether the receiving water is meeting the values listed in the chart. However, the receiving stream is effluent dominated much of the year, so it is likely that the Facility's DO has a large influence on the receiving stream's ambient DO conditions. Additionally, high DO in the effluent means that the effluent continues to nitrify in the receiving stream. Thus, verifying high DO in the effluent will further protect downstream uses in both the unnamed tributary to Sabine Creek and Sabine Creek.

While no numeric DO effluent limitations are being added at this time, DO monitoring requirements will be added, and is discussed further below in section 7.1. If the Facility's discharge is found to have reasonable potential to cause or contribute to an exceedance of the applicable WQS in the receiving stream, numeric DO effluent limitations will be added in the next permit cycle.

6.2.9 Metals

Metals are present in small quantities in domestic sewage, but the primary source of metals in a municipal wastewater system are industrial sources. The town of St. Ignatius is small with limited industrial users. The Facility operator did not know of any other industrial users in town besides the two commercial sources mentioned in section 3.1. Another common source of metals in small towns is a drinking water treatment plant – backwash from filters and settling basins can contain concentrated amounts of metals. However, the community public water system in St. Ignatius is a groundwater source that does not require any filtering. The health clinic in the service area includes dental services and has an amalgam seperator to reduce mercury discharges to the collection system. For these reasons, the EPA does not consider metals to be a pollutant of concern at the Facility.

6.2.10 Whole Effluent Toxicity (WET)

The CSKT WQS include a narrative criterion, which states Tribal waters must be free from substances that may or will *create concentrations or combinations of materials that are toxic or harmful to human, animal or plant life* (CSKT WQS, Section 1.3.13(1)(d)). 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.

Discharge data from the Facility indicates that the effluent is chemically consistent, and the Facility uses no chemicals at any point during the treatment process. The Facility is a POTW that treats domestic wastewater from a small community without any known industrial users. For these reasons, the EPA believes 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.

6.2.11 Other CSKT Criteria

The CSKT WQS include several additional numeric or narrative criteria applicable to B-1 streams that are related to: odors, colors, and other conditions (CSKT WQS, Section 1.3.13(1)(c)), color (CSKT WQS, Section 1.3.7(3)(g)), toxic or deleterious substances (CSKT WQS, Section 1.3.7(3)(h) and Tribal Numeric Chart for Priority Pollutants), and total dissolved gas pressures (CSKT WQS, Section 1.3.13(5)). Due to the source of the water, the type of facility, its treatment processes and discharge type, and the existing effluent limitations in the Permit (including the narrative prohibition against floating solids and visible foam), the EPA finds that there is not reasonable potential to cause or contribute to an exceedance of any of these narrative or numeric WQS, and therefore they will not be addressed further in the Permit.

The CSKT WQS also include a narrative criterion which states Tribal waters must be free from substances that may or will *create conditions that produce undesirable aquatic life* (CSKT WQS,

Section 1.3.13(1)(e)). Undesirable aquatic life typically refers to algal blooms, which tend to happen during summer months in Montana. During the development of the Permit, the EPA met with the operator and conducted a field visit to the Facility and the sampling location in Sabine Creek. The EPA is working with the Tribes to continue developing a translator for this narrative criterion, but at this time, no translator has been developed. Therefore, nutrient limits will not be included in the Permit at this time. The EPA will continue to require nutrient monitoring to continue characterizing the effluent concentrations (see section 7.1).

The CSKT 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 CSKT do not agree the draft Permit conditions assure compliance with applicable numeric or narrative criteria, the Tribes may provide additional Permit conditions in their 401 certification.

6.3 Final Effluent Limitations

Applicable TBELs and WQBELs were compared, and the most stringent of the two was selected for the following effluent limits (Table 5).

Table 5. Final Effluent Limitations for Outfall 001A

Effluent Characteristic	**30-Day Average Effluent Limitations a/**	**7-Day Average Effluent Limitations a/**	**Daily Maximum Effluent Limitations a/**	**Limit Basis b/**
Flow, gpd	report only	N/A	report only	N/A
Five-Day Biochemical Oxygen Demand (BOD_5), mg/L	30	45	N/A	TBEL
Five-Day Biochemical Oxygen Demand (BOD_5) percent removal, % c/	≥85	N/A	N/A	TBEL
Total Suspended Solids (TSS), mg/L	30	45	N/A	TBEL
Total Suspended Solids (TSS) percent removal, % c/	≥85	N/A	N/A	TBEL
Escherichia coli (*E. coli*), number/100 mL d/	126	N/A	252	WQBEL
Dissolved Oxygen (DO), mg/L	N/A	report only	report only e/	N/A
Total Ammonia Nitrogen (as N), mg/L	1.11	N/A	4.79	WQBEL
Total Kjeldahl Nitrogen (TKN), mg/L	report only	N/A	report only	N/A
Nitrate+Nitrite (as N), mg/L	report only	N/A	report only	N/A
Total Nitrogen, mg/L	report only	N/A	report only	N/A
Total Phosphorus, mg/L	report only	N/A	report only	N/A
Temperature, °C	report only	N/A	report only	N/A
BOD_5, influent, mg/L f/	use for % removal calculation	N/A	N/A	N/A

Effluent Characteristic	**30-Day Average Effluent Limitations a/**	**7-Day Average Effluent Limitations a/**	**Daily Maximum Effluent Limitations a/**	**Limit Basis b/**
TSS, influent, mg/L f/	use for % removal calculation	N/A	N/A	N/A
pH	Must remain in the range of 6.5 to 8.5 *at all times*			WQBEL
Oil and Grease (O&G)	The concentration of oil and grease in any single sample sho not exceed 10 mg/L, nor should the discharge contain a visible oil film or sheen, nor should there be any discharge of floating debris, scum, or other floating 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 during the same period (i.e., a minimum 85 percent removal). To calculate percent removal, use the following equation (replacing X with either BOD_5 or TSS):
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/ Report minimum value.

f/ These are ***influent*** samples collected at Outfall 001-I (Influent Monitoring location, see Table 6) that are used to calculate the percent removal for Outfall 001A (see footnote c).

6.4 Antidegradation

CSKT WQS include antidegradation provisions (CSKT WQS, Section 1.4). All surface waters within the Flathead Reservation are subject to Tier 1 (existing use) protection, and the EPA typically assumes that all Tribal surface waters are subject to Tier 2 (high quality water) protection as well, unless otherwise noted by the Tribes. Tier 3 (outstanding tribal resource) protection is reserved for waters of exceptional quality, or waters of ecological, recreational, or cultural significance. The EPA believes this receiving stream is not subject to Tier 3 protection.

This permit renewal does not authorize a new or expanded discharge – discharges from the Facility are existing and do not show any increasing trends in either flow or pollutant loading. Furthermore, no degradation of existing effluent quality is proposed. No exceedances of numeric or narrative criteria will be authorized by the Permit. Therefore, the EPA believes renewal of the Permit satisfies CSKT antidegradation requirements for both Tier 1 and Tier 2 protection. The CSKT will have an opportunity to 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.

6.5 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 and fecal coliform, all effluent limitations, standards, and conditions in the Permit are either equal to or more stringent than those in the previous permit. The changes to the ammonia and fecal coliform WQBELs are discussed further below.

The EPA has consistently interpreted CWA section 402(o)(1) to allow relaxation of WQBELs and effluent limitations based on state or Tribal standards if the relaxation is consistent with the provisions of CWA section 303(d)(4) *or* if one of the exceptions in CWA section 402(o)(2) is met. These two provisions constitute independent exceptions to the prohibition against relaxation of effluent limitations, and if either is met, relaxation is permissible. CWA Section 303(d)(4) has two parts that apply to both attainment and non-attainment waters. The receiving water in this case is an attainment water, and the relevant section simply states that relaxation of a limitation is allowed where the action is consistent with the state's WQS and antidegradation policy.

The effluent limits for ammonia have been recalculated based on CSKT's adoption of the 2013 ammonia criteria (see section 6.2.7), and the acute limit will be less stringent in the permit renewal than in the previous permit. The revised effluent limit is based on a state [Tribal] standard and in accordance with CWA section 402(o)(1) and CWA section 303(d)(4), the revision complies with (and is based on) the revised water quality standards. Regarding the Tribes' antidegradation requirements, the long-term loading of ammonia is driven by the chronic limits, which are more stringent in the Permit than in the previous permit. Thus, assimilative capacity of the stream will be protected. Additionally, because the Facility only samples monthly, there is little meaningful difference between a daily maximum limit and a 30-day average limit, and the more stringent of the two would drive permit compliance. For these reasons, the re-calculation of ammonia limits satisfies any anti-backsliding concerns and is therefore consistent with CWA Section 303(d)(4)(B).

The effluent limits for fecal coliform have been removed, based on a change to the CSKT WQS (see section 6.2.4). The EPA approved a revision to the CSKT WQS in 2024 to remove fecal coliform and rely solely on *E. coli*. This revision is consistent with the EPA's currently recommended recreational water quality criteria issued pursuant to CWA Section 304(a). In this case, the WQS is being met (i.e., there is no WQS for fecal coliform), and the removal of these limits will have no impact on antidegradation requirements. Additionally, the Facility is still treating for *E. coli* using UV disinfection (which is the same treatment process as for fecal coliform), so there should be no change to in-stream concentrations of any coliform bacteria. For these reasons, removal of this limit satisfies any anti-backsliding concerns and is therefore consistent with CWA Section 303(d)(4)(B).

The CSKT 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 CSKT do not agree the draft Permit conditions

assure compliance with applicable numeric or narrative criteria, the Tribes may provide additional Permit conditions in their 401 certification.

7 MONITORING REQUIREMENTS

7.1 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.

As discussed in section 3.2, the Facility discharges treated effluent continuously throughout the year. Monitoring requirements are discussed below and listed in Tables 6 and 7.

7.1.1 Flow Monitoring

The previous permit required the Facility to monitor effluent flow on a weekly frequency using an instantaneous measurement. For the renewal, the EPA will require the Facility to continue monitoring effluent flow on a weekly frequency using an instantaneous/grab measurement. 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 units of the reported rates will be changed from million gallons per day (mgd) to gallons per day (gpd) due to the low flow rates and operator preference. The average flow rate (in gpd) during the reporting period and the maximum flow rate observed (in gpd) shall be reported. Weekly flow measurements using an instantaneous/grab samples are appropriate for a small wastewater treatment facility that has relatively constant flow rates that do not fluctuate greatly over short periods of time.

7.1.2 BOD_5 and TSS

The previous permit required the Facility to monitor effluent BOD_5 and TSS on a weekly frequency using a grab sample. This weekly frequency and grab sample type will be retained in the Permit. Note that the Facility will also be required to continue collecting influent BOD_5 and TSS and calculate the percent removal of each on a monthly frequency. Monthly influent sampling for both BOD_5 and TSS shall occur at or near the same time as the effluent sampling in order to accurately assess treatment plant performance and compliance with regulations. Influent samples shall be taken at any accessible influent structure or location that contains representative flow from the entire service area and is situated prior to any treatment. Typically, composite samples are required for parameters such as BOD_5 and TSS. However, 40 CFR 122.21(g)(7)(i) allows a minimum of four grab samples as representative of the effluent being discharged when the use of an automatic sampler is infeasible. Four weekly grab samples over the course of a month is generally equivalent to taking a monthly composite sample comprised of four grab samples, and is more representative of the typical discharges over this time frame. Because the service area primarily includes domestic sources, influent concentrations are also expected to be relatively constant making a grab sample representative of the influent.

7.1.3 pH

The previous permit required the Facility to monitor effluent pH on a monthly frequency using a grab sample. This monthly frequency and grab sample type will be retained in the Permit. Note

that per 40 CFR Part 136, pH samples must be analyzed within 15 minutes of collection and are not amenable to compositing. Therefore, grab samples are appropriate for pH. 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 Facility was previously required to sample for *E. coli* five times per month using a grab sample. With this permit renewal, the Facility will be required to monitor for *E. coli* on a monthly frequency using a grab sample. This frequency is appropriate for a facility that reports DMRs on a monthly basis because it allows for regular characterization of the effluent and detection of events of noncompliance. This is in line with the monthly sampling frequency for other parameters. Grab samples are appropriate for *E. coli*, due to the short holding time requirements which are not amenable to extended periods of composite sampling.

7.1.5 Oil and Grease

The Facility was previously required to sample for oil and grease on a monthly frequency using a grab sample. For this permit renewal, the Facility will be required to monitor effluent oil and grease on a weekly frequency using a visual inspection, followed by an immediate grab sample if any oil and grease are observed. A weekly visual inspection also aligns with the inspection requirements in section 6.2 of the permit. If sampling is required, a grab sample is appropriate because oil and grease are not amenable to compositing in the field due to their tendency to separate from the liquid, leading to an uneven distribution in a composite sample.

7.1.6 Dissolved Oxygen (DO)

The previous permit did not require the Facility to monitor for DO. For this permit renewal, the Facility will be required to sample for DO on a monthly frequency using a grab sample. A grab sample is the preferred sampling method for DO due to short holding times, i.e. 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. The Permit will require reporting of 7-day average concentrations and minimum concentrations to evaluate compliance with the CSKT WQS for B-1 streams with early life stages present.

7.1.7 Ammonia

The previous permit required the Facility to monitor the effluent for ammonia on a monthly frequency using a grab sample, and this requirement will continue in this permit renewal. The permit will require reporting of 30-day average concentrations and daily maximum concentrations to evaluate compliance with the CSKT WQS. The Facility discharges continuously; therefore, a grab sample is appropriate because the flow and characteristics of the wastestream being sampled are relatively constant.

7.1.8 Temperature

The previous permit required weekly temperature monitoring in the effluent using an instantaneous sample; this permit renewal will retain this requirement. The Permit will require reporting of 30-day average values and daily maximum values to evaluate compliance with the

CSKT WQS. 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.

7.1.9 Nutrients

The previous permit required the Facility to monitor the effluent for nutrients (including total nitrogen and total phosphorus) on a monthly frequency using a grab sample. This requirement will be retained in the permit renewal, though will be required only between the months of June through September (i.e. four total samples per year). The summer season is the most likely to exhibit algal growth 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, it is common throughout Region 8 to consider these months as the baseline summer season. A grab sample is appropriate because the flow and characteristics of the wastestream being sampled are expected to be relatively constant for these pollutants. Monthly grab samples for nutrients are in alignment with other permits issued by Region 8.

The total nitrogen sample 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 Tribes' WQS. As the CSKT further develop their nutrient implementation strategy, the monitoring time period may be adjusted.

7.1.10 Ambient Monitoring

The previous permit required ambient monitoring for pH and temperature on a monthly basis at Monitoring Point 001R, located in Sabine Creek at the crossing of Old Freight Road over Sabine Creek. This permit renewal will continue ambient monitoring for pH and temperature, and it will also add ambient monitoring for dissolved oxygen; monitoring for all three of these parameters will be required on a quarterly basis using a grab sample. However, the monitoring point will change to a location upstream of the Facility's discharge, though will remain in Sabine Creek, at approximate latitude 47.312569, longitude -114.114917. Monitoring upstream of the discharge point will assist in determining baseline water quality data without being impacted by the outflow of the Facility, or an irrigation ditch that flows through and mixes at the previous sampling location. This reduced frequency is acceptable because it is more cost-effective, and the monthly data previously collected was sufficient to calculate the ammonia WQS.

7.1.11 Per- and Polyfluoroalkyl Substances (PFAS)

Per- and polyfluoroalkyl substances (PFAS) are a group of widely used synthetic chemicals that are also known as "forever chemicals" because they don't break down easily. Exposure to PFAS may be harmful to human health. 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 process 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.

Table 6. Monitoring Requirements for Outfall 001A

Effluent Characteristic	**Monitoring Frequency**	**Sample Type a/**	**Data Value Reported on DMR b/**
Flow, gpd c/	Weekly	Grab	Daily Max. 30-Day Avg.
BOD_5, mg/L d/	Weekly	Grab	7-Day Avg. 30-Day Avg. 30-Day Avg. % removal
TSS, mg/L d/	Weekly	Grab	7-Day Avg. 30-Day Avg. 30-Day Avg. % removal
Escherichia coli (*E. coli*), number/100 mL	Monthly	Grab	Daily Max. 30-Day Avg.
O&G, visual	Weekly	Visual	Narrative
O&G, mg/L	Immediately if visual sheen detected e/	Grab	Daily Max.
Dissolved Oxygen (DO), mg/L f/	Monthly	Grab	Minimum 7-Day Avg.
pH, standard units f/	Monthly	Grab	Minimum Maximum
Temperature, °C f/	Weekly	Grab	Daily Max. 30-Day Avg.

Effluent Characteristic	Monitoring Frequency	Sample Type a/	Data Value Reported on DMR b/
Total Ammonia Nitrogen (as N), mg/L g/	Monthly	Grab	Daily Max. 30-Day Avg.
Total Kjeldahl Nitrogen (TKN), mg/L h/	Monthly	Grab	Average Value
Nitrate+Nitrite (as N), mg/L h/	Monthly	Grab	Average Value
Total Nitrogen, mg/L	Monthly	Calculated j/	Average Value
Total Phosphorus, mg/L h/	Monthly	Grab	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 in gallons per day (gpd) during the reporting period and the maximum flow rate observed, in gpd, shall be reported.
d/ Samples shall be collected for these characteristics at Outfall 001A and the influent monitoring location on the same day.
e/ 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.
f/ This sample must be analyzed within 15 minutes of collection per 40 CFR Part 136.
g/ Receiving water temperature and pH at Outfall 001R must be taken on the same day and as close in time as feasible with the effluent ammonia sample at Outfall 001A.
h/ Sampling is only required during the months of June – September.
i/ 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 7. Monitoring Requirements for Outfall 001-I (Influent)

Effluent Characteristic	Monitoring Frequency	Sample Type a/	Data Value Reported on DMR b/
BOD_5, mg/L c/	Monthly	Grab	30-Day Avg. (use for % removal calculation at Outfall 001)
TSS, mg/L c/	Monthly	Grab	30-Day Avg. (use for % removal calculation at Outfall 001)

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 and shall be taken at or near the same time as the effluent sampling, and shall be taken at a location representative of the total service area influent flow prior to treatment that enters the wastewater treatment facility, such as the bar screen or wet well at the lift station/headworks.

Table 8. Ambient Monitoring and Reporting Requirements for Outfall 001-R

Receiving Water Characteristic	Monitoring Frequency	Sample Type a/	Data Reported on DMR b/
Dissolved Oxygen (DO), mg/L	Quarterly	Grab c/	Average Value
pH, standard units	Quarterly	Grab c/,d/	Average Value
Temperature, °C	Quarterly	Grab c/,d/	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/ This sample must be analyzed within 15 minutes of collection per 40 CFR Part 136.
d/ Receiving water temperature and pH at Outfall 001R must be taken on the same day and as close in time as feasible with the effluent ammonia sample at Outfall 001A.

8 SPECIAL CONDITIONS

N/A

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 monthly was chosen, because the Facility typically discharges continuously.

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 its treatment facility. The Permittee shall document the inspection, as required by the Permit (see section 6.2 of the Permit). Inspections are required to regularly identify and resolve any issues that might interfere with proper operation and maintenance per 40 CFR § 122.41(e).

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 sections 6.3.3 and 6.3.4 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) and (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 can quickly identify and troubleshoot issues arising from pollutants entering the Facility from the collection system.

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 September 15, 2025, 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 three square miles, which includes the entire Facility area acreage, as well as encompasses the unnamed tributary to Sabine Creek, Sabine Creek, and the convergence of Sabine Creek and Mission Creek approximately four miles downstream.

Table 9. IPaC Federally listed Threatened and Endangered Species

Species	Scientific Name	Species Status	Designated Critical Habitat
Canada Lynx	*Lynx canadensis*	Threatened	"There is final critical habitat for this species (published in the Federal Register on

Species	Scientific Name	Species Status	Designated Critical Habitat
			September 12, 2014). Your location does not overlap the critical habitat."
Grizzly Bear	*Ursus arctos horribilis*	Threatened	"There is proposed critical habitat for this species (published in the Federal Register on November 5, 1976." This location is outside of any critical habitat for this species.
North American Wolverine	*Gulo gulo luscus*	Threatened	"No critical habitat has been designated for this species."
Yellow-billed Cuckoo	*Coccyzus americanus*	Threatened	"There is final critical habitat for this species (published in the Federal Register on April 21, 2021). Your location does not overlap the critical habitat."
Bull Trout	*Salvelinus confluentus*	Threatened	"There is final critical habitat for this species (published in the Federal Register on October 18, 2010). Your location does not overlap the critical habitat."
Monarch Butterfly	*Danaus plexippus*	Proposed Threatened	"There is proposed critical habitat for this species (published in the Federal Register on December 12, 2024). Your location does not overlap the critical habitat."
Suckley's Cuckoo Bumble Bee	*Bombus suckleyi*	Proposed Endangered	"No critical habitat has been designated for this species."
Spalding's Catchfly	*Silene spaldingii*	Threatened	"There is proposed critical habitat for this species (published in the Federal Register on April 24, 2000)." This location is outside of any critical habitat for this species.

11.1 Biological Evaluation

Based on the IPaC information generated, the Facility location and downstream areas described above are outside of the critical habitat for any of the species listed in Table 9. The listed species are

both terrestrial and aquatic, as well as one plant species. The Facility's treated water discharges into an unnamed tributary of Sabine Creek. If these species are present, they may use these waters for a short period of time during the year. However, the pollutants in the discharge are not expected to impact the species. See further discussion below for each individual species.

Canada lynx, *Lynx canadensis* – This species inhabits subalpine forests of the western United States, specifically locations that receive deep snow and have high populations of snowshoe hares, which are their principal prey. The 'action area' for the proposed action (renewal of an NPDES discharge permit) is comprised mainly of lower elevation pasture, rural homesteads, and agricultural fields, and is likely not primary habitat for this species. Regardless of whether Canada lynx are found in this area, reissuance of the Permit will not authorize new ground disturbance or substantial changes in flows or pollutant loadings, and permit limits are protective of all water quality standards. Therefore, the EPA finds that this proposed permit action will have *no effect* on this species.

Grizzly bear, *Ursus arctos horribilis* – This species can be found throughout the Northern Continental Divide Ecosystem of north-central Montana, although they typically avoid areas with high human population. The 'action area' for the proposed action (renewal of an NPDES discharge permit) is comprised mainly of lower elevation pasture, rural homesteads, and agricultural fields, and is likely not primary habitat for this species. Regardless of whether grizzly bear are found in this area, reissuance of the Permit will not authorize new ground disturbance or substantial changes in flows or pollutant loadings, and permit limits are protective of all water quality standards. Therefore, the EPA finds that this proposed permit action will have *no effect* on this species.

North American Wolverine, *Gulo gulo luscus* – This species can be found in cold, higher elevation alpine and boreal forests throughout the Northern Continental Divide Ecosystem of north-central Montana, and they typically avoid areas with high human population. The 'action area' for the proposed action (renewal of an NPDES discharge permit) is comprised mainly of lower elevation pasture, rural homesteads, and agricultural fields, and is likely not primary habitat for this species. Regardless of whether wolverine are found in this area, reissuance of the Permit will not authorize new ground disturbance or substantial changes in flows or pollutant loadings, and permit limits are protective of all water quality standards. Therefore, the EPA finds that this proposed permit action will have *no effect* on this species.

Yellow-billed Cuckoo, *Coccyzus americanus* – This species inhabits wooded areas with dense cover and water nearby, including woodlands with low, scrubby vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes. Even though there is no overlap of the project area with critical habitat, it is possible that this species is found in the vicinity of the Facility, which means an effect of the discharge on this species is possible. However, the permit reissuance will not authorize new ground disturbance or substantial changes in flows or pollutant loadings, and permit limits are protective of all water quality standards. For these reasons, the EPA finds that this proposed permit action *may affect, but is not likely to adversely affect* this species.

Bull Trout, *Salvelinus confluentus* – This native species is listed as threatened, and the action area for this permit is outside critical habitat for this species. Bull trout have specific habitat requirements that affect their distribution. They need cold water to survive and low sediment levels in their spawning streams. They also require stable stream channels, clean spawning and rearing

gravel, complex and diverse cover, and unblocked migratory corridors allowing them to go upstream for spawning. The EPA cannot find any documentation of bull trout presence in Sabine Creek, but they could be present at least seasonally, which means an effect of the discharge on this species is possible.

The permit reissuance will not authorize new ground disturbance or substantial changes in flows or pollutant loadings, and permit limits are protective of all water quality standards. For these reasons, the EPA finds that this proposed permit action *may affect, but is not likely to adversely affect* this species.

Monarch butterfly, *Danaus plexippus* – This species is currently listed as proposed threatened. No critical habitat has been designated for this species. Monarch butterflies are typically present in Montana in the summer months. This species prefers native prairie habitat and has specific obligate host plants (milkweed) that it needs for reproduction, and relies on floral resources for feeding. The 'action area' for the proposed action (renewal of an NPDES discharge permit) is comprised mainly of lower elevation pasture, rural homesteads, and agricultural fields, and is likely not primary habitat for this species. The Montana Heritage Program Predicted Suitable Habitat Model shows that this portion of Lake County (on a broad scale) is categorized as "low to moderate suitability." Low suitability means that the landscape may contain suitable habitat but it is often less continuous, scattered, or patchy. Moderate suitability means that suitable habitat is found in the general area, and may be fairly continuous. Regardless of whether monarch butterflies are found in this area, reissuance of the Permit will not authorize new ground disturbance or substantial changes in flows or pollutant loadings. Therefore, the EPA finds that this proposed permit action will have *no effect* on this species.

Suckley's Cuckoo Bumble Bee, *Bombus suckleyi* – This species is currently listed as proposed endangered. No critical habitat has been designated for this species. This species prefers native meadows and forages on a wide range of flowers, and is present year-round. The 'action area' for the proposed action (renewal of an NPDES discharge permit) is comprised mainly of lower elevation pasture, rural homesteads, and agricultural fields, and is likely not primary habitat for this species. The Montana Heritage Program Predicted Suitable Habitat Model shows that this portion of Lake County (on a broad scale) is categorized as "low to moderate suitability." Low suitability means that the landscape may contain suitable habitat but it is often less continuous, scattered, or patchy. Moderate suitability means that suitable habitat is found in the general area, and may be fairly continuous. Regardless of whether Suckley's Cuckoo Bumble Bee are found in this area, reissuance of the Permit will not authorize new ground disturbance or substantial changes in flows or pollutant loadings. Therefore, the EPA finds that this proposed permit action will have *no effect* on this species.

Spalding's Catchfly, *Silene spaldingii* – This species is an herbaceous perennial that is found primarily in grasslands and sagebrush-steppe, and occasionally in open-canopy pine stands. Based on the preferred habitat for this species, it is unlikely to be found in the action area, which consists of riparian areas along Sabine Creek and Mission Creek. Regardless of whether this species is found in the action area, the permit reissuance will not authorize new ground disturbance or substantial changes in flows or pollutant loadings, and permit limits are protective of all water quality standards. Therefore, the EPA finds that this proposed permit action will have *no effect* on this species.

Based on the IPaC information, the EPA determined the permitting action is either *no effect*, or *may affect, but is not likely to adversely affect* the species listed above for which the EPA does not find *no effect*.

Before going to public notice, a copy of the draft Permit and this Statement of Basis was sent to the FWS requesting concurrence with the EPA's finding that reissuance of this NPDES Permit *may affect, but is not likely to adversely affect* some of 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 Confederated Salish and Kootenai Tribes are 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 Kenley Stone U.S. EPA, (406) 457-5035 (September 2025)

ADDENDUM

AGENCY CONSULTATIONS

On December 4, 2025, the FWS concurred with the EPA's preliminary conclusion that the Permit reissuance is not likely to adversely affect some of the listed species.

The Tribes' Tribal Historic Preservation Office was notified during the public comment period but did not comment on the EPA's preliminary determination that the Permit reissuance will not impact any historic properties.

On December 3, 2025, the EPA sent a CWA Section 401 certification request to the CSKT. On January 8, 2026, the CSKT certified without Section 401 requirements.

NEIGHBORING JURISDICTION

The EPA conducted a neighboring jurisdiction analysis of water resources located downstream from the Facility and outside the external boundaries of the Flathead Indian Reservation, in accordance with 40 CFR § 121.13. On January 15, 2026, the EPA permit signatory made a negative "may affect" determination for the authorized discharges from the Facility in the neighboring jurisdiction of Montana. The EPA documented the factors considered in this determination in the administrative record for this Permit.

15 PUBLIC NOTICE AND RESPONSE TO COMMENTS

The Permit and statement of basis were public noticed on EPA's website on November 25, 2025. No comments were received.

ERRATA

During the public comment period, it was identified that various tables and references to these tables throughout the statement of basis were numbered incorrectly. These tables and references to the tables were updated to reflect the correct numbering.

Additionally, section 6.2.5 of the statement of basis had an incorrect citation to CSKT's Tribal Water Quality Standards. The citation was updated to reflect the correct section – from section 1.3.8(3)(2) B-2 to section 1.3.7(3)(e) B-1.