

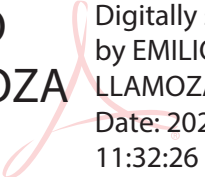
NPDES Tribal Wastewater Lagoon

National Database Information	
Inspection Date: November 16, 2023	Inspection Type: CEI-Minor POTW
Entry/Exit Time: 08:00 – 10:30	NPDES ID Number: MT0030554
SIC Code: 22132–Sewage Treatment Facility	Inspection ID: 202311_MT0030554
Lead inspector and affiliation: Lisa-kay Prideaux, U.S. EPA Region 8, Montana Office	

Facility Location Information	
Site/Facility Name & Location: Woodcock Home Addition Wastewater Treatment Facility Salish and Kootenai Housing Authority Flathead Reservation, Ronan, Montana 47.5145°N, 114.05350°W	Email Report to: Jody Perez, Director Salish and Kootenai Housing Authority 53243 US Hwy 93 P.O. Box 38 Pablo, Montana 59855

Contact Information	
	Name(s)/Title
Facility Contacts:	Lytle (Bud) Gillin, Water Sewer Operations Manager, Salish and Kootenai Housing Authority (not present)
	Raquel (Rocki) Davis, Community Systems Program Manager, Salish and Kootenai Housing Authority (present for records review and closing conference only)
	Chuck Morigeau, Water/Sewer Operator, Salish and Kootenai Housing Authority (present)
	Todd Burland, Water/Sewer Operator in Training, Salish and Kootenai Housing Authority (present)
Tribal Representative(s):	Evan Smith, Water Quality Regulatory Specialist, Confederated Salish & Kootenai Tribes (present)
Person/Company meeting definition of "Operator"	Salish and Kootenai Housing Authority
Responsible Official(s)	Lytle (Bud) Gillin, Water Sewer Operations Manager, Salish and Kootenai Housing Authority
IHS Contacts:	Richard Racine / Tribal Utility Consultant / Indian Health Service (not present)
	Bret Birk / Tribal Utility Consultant / Indian Health Service (under contract with the Salish and Kootenai Housing Authority as the Project Engineer) (present)

Permit Information	
Is the permit on site and available? Yes	Individual or General Permit: Individual
Effective Date: April 1, 2020	Expiration Date: March 31, 2025
Latitude: 47.5145°N	Longitude: 114.0535°W
Receiving Water(s): Swale draining to Middle Crow Creek	
Regulatory Inspector's source of information: Permit, Statement of Basis, previous inspection report, Integrated Compliance Information Systems (ICIS), Enforcement & Compliance History Online (ECHO), facility representatives and field observations.	

Areas Evaluated During Inspection		
<u>Permit</u>	<u>Effluent/Receiving Waters</u>	<u>Compliance Schedule</u>
<u>Records/Reports</u>	<u>Flow Measurement</u>	<u>Pollution Prevention</u>
<u>Facility Site Review</u>	<u>Self-Monitoring Program</u>	<u>Laboratory</u>
Report Review and Signature		
Drafter	Address/Phone Number	Date
 Prideaux, LisaKay Digitally signed by Prideaux, LisaKay Date: 2024.03.06 11:46:17 -07'00'	U.S. EPA Region 8, Montana Operations Office Prideaux.Lisakay@epa.gov	03/04/2024
	406-457-5022	
Reviewer Name	Address/Phone Number	Date
Akash Johnson	U.S. EPA Region 8 Johnson.Akash@epa.gov	3/4/2024
	303-312-6067	
Management Signature/Name	Address/Phone Number	Date
 EMILIO LLAMOZA S Digitally signed by EMILIO LLAMOZAS Date: 2024.03.06 11:32:26 -07'00'	U.S. EPA Region 8 Llamozas.Emilio@epa.gov	03/05/2024
	Emilio Llamozas	

Inspection Narrative and Site Description

On Thursday, November 16, 2023, U.S. Environmental Protection Agency (EPA) inspector Lisa-kay Prideaux, and the Water Quality Regulatory Specialist for the Confederated Salish Kootenai Tribes, Evan Smith, conducted an announced inspection to evaluate compliance with the Woodcock Home Additions Lagoon (facility's) National Pollutant Discharge Elimination System (NPDES) wastewater treatment permit, Permit No. MT0030554 (the Permit). The inspection commenced at approximately 08:00, when Lisa-kay and Evan arrived at the Salish and Kootenai Housing Authority (SKHA) office and presented credentials and identification to Raquel (Rocki) Davis, Community Systems Program Manager for SKHA, Chuck Morigeau, Water/Sewer Operator for SKHA, Todd Burland, Water/Sewer Operator in Training for SKHA, and Bret Birk, Tribal Utility Consultant for Indian Health Service and who is under contract with the Salish and Kootenai Housing Authority as the Project Engineer. Throughout the inspection, observations and photograph descriptions were documented. All photographs taken during the inspection are included in the attached photo log and are maintained by EPA in accordance with the Quality Assurance Field Activities Procedure and Standard Operating Procedure.

Lisa-kay explained the purpose of the inspection and asked for personnel to explain the current wastewater operations, monitoring procedures, operations and maintenance program, and the collection system. The facility is tribally owned and tribally operated, that was originally constructed around 1972. The facility serves approximately 36 homes in the Woodcock Home Addition housing development. The facility's collection system is 100% PVC piping and does not receive any wastewater from commercial or industrial activities. The collection system is entirely gravity fed. The current facility consists of two aerated lagoons followed by a submerged attached growth reactor (SAGR) and UV disinfection. Effluent is discharged to a swale flowing to Middle Crow Creek. Middle Crow Creek flows into the Flathead River downstream of Flathead Lake. The facility discharges for approximately two to six weeks at a time, twice per year (typically April and November). The facility's design flow is 0.01 million gallons per day (mgd). During active discharge the facility discharges continuously using a pump rated for 90 gallons per minute (equivalent to 0.13 mgd).

I then asked to review records including the following:

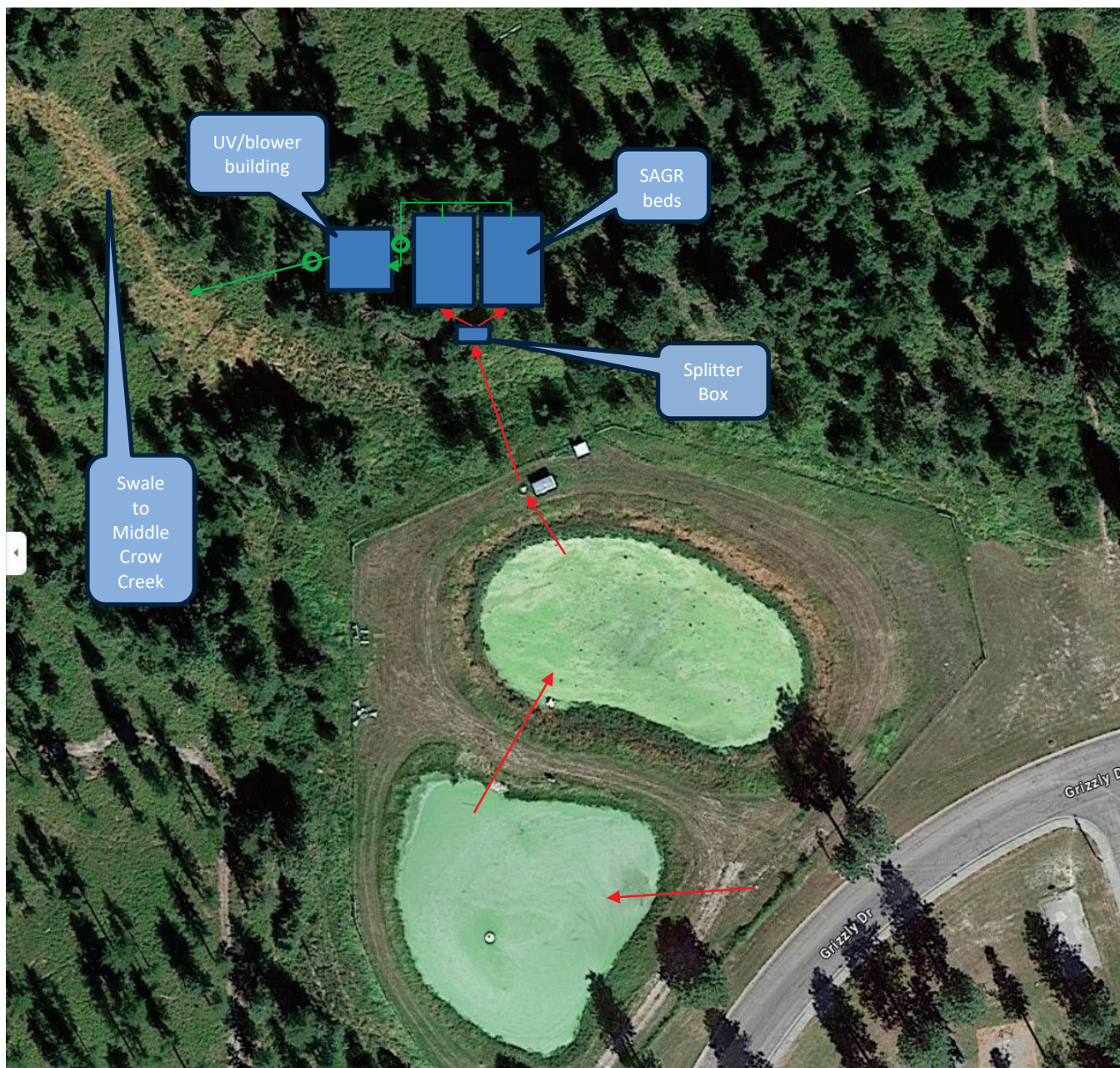
- Copy of the National Pollutant Discharge Elimination System (NPDES) Permit MT0030554.
- Monitoring records for the last three discharge events, including Discharge Monitoring Reports (DMRs), daily operational logs, in-house bench sheets, including flow records and sheets used for completing calculations, laboratory analytical reports, chain of custody forms, and any quality assurance records for process control monitoring.
- Records of Laboratory Equipment and Controls including calibration records and maintenance records.
- Treatment plant records including Operations and Maintenance manual (O&M), standard operating procedures (SOPs) for facility operations and self-monitoring, and as built engineering drawings.

Some records were housed at the SKHA office, others were housed in the UV/blower building at the treatment site. Copies of monitoring records for discharges occurring on April 7, 2022, April 19, 2023, and

October 17, 2023, were provided to me for off-site review (occurred on February 26, 2024).

Following the records review, we traveled to the wastewater treatment site. The current wastewater treatment consists of a 2-celled bentonite-lined lagoon that operates in series. Wastewater flows through the collection system to the inlet manhole, where it enters Cell 1 (photo 808). Cell 1, the southern lagoon, has a surface aerator/mixer that both aerates and circulates the wastewater within the cell; the surface aerator/mixer is typically used in the few months prior to discharge (the facility was discharging at the time of the inspection). Cell 1 is approximately 0.75 acres in size and approximately 15-feet deep. Wastewater then gravity flows to Cell 2 (photo 809), the northern lagoon, which has two aerators operating continuously and is approximately 0.5-acres in size and approximately 15-feet deep. Both cells use aerobic digestion to treat the wastewater. At the time of the inspection, there was only one aerator operating in cell 2, and there was significant duckweed on the top of both lagoon cells. During discharge, the wastewater flows to the old effluent manhole (photo 810), where it is pumped to the SAGR post-lagoon cold-water nitrification treatment system (photos 811-813). Partially treated wastewater is pumped to a splitter box where water is split 50/50 into the two SAGR beds. The SAGR system provides supplemental treatment to the current lagoon system to address the facility's ammonia limits. The SAGR process is that wastewater enters, and gravity flows horizontally through an aerated coarse gravel layer. Biological growth occurs on the gravel surfaces and as the wastewater flows through, intended to enhance treatment. The facility added a layer of wood chips on top of the gravel surface to help insulate the system during the winter months. Treated wastewater is collected at the downgradient side of the SAGR beds and flows through a manhole (photo 814) and into the UV/blower building. Treated wastewater flows through two ultraviolet units which have 2 banks of 2 bulbs each (photo 815). The facility runs both units during discharge events. Once disinfected, treated wastewater is discharged out a pipe (photo 816), through a manhole (photo 817) and out the outfall pipe to a swale flowing approximately 225 meters to Middle Crow Creek (photo 818). This swale is the same discharge swale from before the SAGR upgrade. The current treatment process does not add any chemicals to the wastewater; however, some biological enzymes are added to the lagoon cells in the spring over a six-week timeframe to help with sludge build-up and odor during the spring turnover. The facility was last sludge-judged in October of 2023.

After a review of the facility, we reviewed the on-site laboratory. The facility only analyzes samples for temperature, pH, and dissolved oxygen, all other samples collected are sent to an outside laboratory for analysis. I reviewed the equipment used as well as the buffers and calibration logs. The facility also showed the operations and maintenance manuals (including for the new SAGR system). A closing conference was held on-site with Mr. Morigeau, Mr. Birk and Mr. Burland, during which I discussed preliminary findings, as well as the process for completing and providing the inspection report. The inspection concluded at approximately 10:30.



Findings, Corrective Actions and Recommendations

Finding #1: Sample equipment is not being maintained in accordance with Title 40 of the Code of Federal Regulations (40 CFR), Part 136.

Specifically, the facility is only using one buffer solution (pH 7.0) to calibrate the pH meter prior to self-monitoring sample analysis.

Permit Requirement:

Laboratory equipment is required to be calibrated by Standard Methods or 40 CFR, Part 136 method as

per 40 CFR, Part 122.41(j)(2) & (3), and Parts 4.0, 5.2, and 5.8 of NPDES permit MT0030554.

Corrective Action:

A minimum of a 2-point calibration must be conducted to ensure the accuracy of the meter. Calibration must be performed prior to each use on the day of sample analysis. The manufacturer's instruction manual should be consulted for specific procedures regarding the calibration. However, if the manual is not available, the basic guidelines for calibration states: if the final pH of your typical discharge sample falls between pH 7.0 and 10.0, use the pH 7.0 and 10.0 buffers for calibration. If the final pH of your typical discharge sample falls between pH 4.0 and 7.0, use the pH 4.0 and 7.0 buffers for calibration. Calibration records must be maintained to include the date, time, buffers used, and result of the calibration. In the response to this report, provide EPA with a description of the corrective actions taken to address this finding.