

NPDES Inspection Report – Wastewater Treatment Facility

National Database Information	
Inspection Date: August 21, 2024	Inspection Type: CEI – Wastewater Treatment Facility
Entry/Exit Time: Opening Conference: 9:15 a.m.-1:30 p.m. on 8/19/2024 Site Review: 12:50 p.m.-1:30 p.m. on 8/21/2024	NPDES ID Number: SDG589513
NAICS Code: 221320	Inspection ID: 202408_SDG589513
Lead inspector and affiliation: Jennifer Ferrando / EPA Region 8	
Inspector and affiliation: Brit Rustad / EPA Region 8	

Facility Location Information	
Site/Facility Name & Location: Wounded Knee Creek Community Lagoon System Lat/Long: 43°9'4.96"N, 102°22'14.36"W Wounded Knee, SD 57794	Email Report to: Ernie Abold, Director, Oglala Sioux Tribe (OST) Water & Sewer h20sewer@gwtc.net

Contact Information	
	Name(s)/Title
Facility Contacts:	Ernie Abold / Director / OST Water & Sewer / present during the opening and closing conferences as well as the inspection
	James Begeman / Tribal Utility Consultant / Indian Health Service (IHS) / present during the opening and closing conferences as well as the inspection
Person/Company meeting definition of "Operator"	Oglala Sioux Tribe, Water and Sewer (OST Water & Sewer)
Authorized Official(s)	Ernie Abold / Director / OST Water & Sewer

Permit Information		
Is the permit on site and available? Yes, digitally	Lagoon Category: Potential to discharge but no discharge authorized, according to the authorization of coverage letter.	Monitoring Frequency: N/A
Effective Date: 04/05/2016	Expiration Date: 12/31/2020 (administratively continued)	Is the Facility under a compliance schedule? No
Is correct contact information indicated on ICIS? Yes	Indicate correct contact information: N/A	
Receiving Water(s): Wounded Knee Creek		
Regulatory Inspector's source of information: Notice of Intent for the permit, ICIS, ECHO and facility representatives		

Areas Evaluated During Inspection		
<u>Permit</u>	<u>Self-Monitoring Program</u>	Pretreatment
<u>Records</u>	Compliance Schedule	Pollution Prevention
<u>Facility Site Review</u>	Laboratory	Stormwater
Effluent/Receiving Waters	<u>Operations and Maintenance</u>	Combined Sewer Overflow
Flow Measurement	Sludge Handling/Disposal	Sanitary Sewer Overflow

Report Review and Signature		
Drafter Name	Draft Date	Contact Information
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Reviewer Name	Draft Date	Contact Information
Brit Rustad	10/21/2024	U.S. EPA Region 8 Denver, Colorado rustad.brit@epa.gov (303) 312-6885
Management Reviewer Name/Signature/Date		Contact Information
EMILIO LLAMOZAS  Digitally signed by EMILIO LLAMOZAS Date: 2024.11.05 14:54:43 -07'00'		U.S. EPA Region 8 Denver, Colorado llamozas.emilio@epa.gov (303) 312-6407
Emilio Llamozas, NPDES and Wetlands Enforcement Section Supervisor		

Inspection Narrative and Site Description
<u>1.0 Introduction</u> The inspection was conducted at the Wounded Knee Creek Community Lagoon System wastewater treatment facility (facility; WWTF) located in Wounded Knee, Oglala Lakota County, South Dakota, to evaluate compliance with the facility's National Pollutant Discharge Elimination System (NPDES) permit. The EPA is responsible for implementing the NPDES program in Indian Country within the State of South Dakota. The inspection was announced approximately one month prior to the inspection to coordinate logistics for the inspection. On the morning of August 19, 2024, U.S. Environmental Protection Agency (EPA) inspectors Brit Rustad and Jennifer Ferrando (collectively, "we") met with Oglala Sioux Tribe Water & Sewer (OST Water & Sewer) Director, Ernie Abold. We were also joined by Indian Health Service (IHS)

representative James Begeman, Tribal Utility Consultant. We presented our credentials and had an opening conference in the OST Water & Sewer office where we explained the purpose of the inspection and discussed the design, operation, and Clean Water Act and NPDES compliance of multiple WWTFs operated by the OST Water & Sewer, including the subject facility. After the opening conference, we proceeded to conduct site reviews of the WWTFs operated by OST Water & Sewer, including the subject facility, for the remainder of August 19, 2024, through August 22, 2024. Throughout the inspection, we noted our observations in a checklist. Photographs taken during the inspection are included in the attached photo log.

2.0 OST Water & Sewer Operations

During the opening conference when discussing all facilities, Ernie Abold indicated that over the course of a week all WWTFs, including four lift stations, are checked. OST Water & Sewer is not keeping weekly inspection logs for these checks or any operations or maintenance logs. Only two of the four lift stations currently have Supervisory Control and Data Acquisition (SCADA) capabilities, which creates a burden for the limited staff to physically go check the two remaining lift stations several times per week to ensure they are operating properly. Ernie Abold stated that OST Water & Sewer performs jetting of the collection system for all WWTFs twice a year, in the spring and fall. Lastly, sludge has not been removed from any WWTFs; according to the tribal utility consultant, sludge accumulation has not been an issue with any of the lagoons on Pine Ridge based on previous depth testing and observations.

OST Water & Sewer operates both the water distribution as well as sewer collections systems across the Pine Ridge Reservation, which encompasses just over 2 million acres. According to Ernie Abold there are approximately 48,000 tribal members with half of these being served by the sewer collections system and the other half being primarily on septic systems. Septage from the majority of these septic systems is pumped and hauled to OST Water & Sewer's WWTFs throughout the reservation. At the time of the inspection, OST Water & Sewer employed 3 operators, in addition to the Director, and various managerial and administrative support staff. Only one of the three operators held any certifications.

OST Water & Sewer customers, rates, and finances were briefly discussed during the opening conference. Users are billed a single, monthly water and wastewater fee. Ernie Abold stated that OST Water & Sewer's budget is not supplemented by any other resources. OST Water & Sewer recently began a 5-year rate increase, as the last rate increase was in 2009. Additionally, according to the OST Water & Sewer representative, the utility is owed over \$1 million in outstanding user fees. This is in part a result of OST Water & Sewer's limited ability to discontinue service for customers who do not pay their bill.

3.0 Facility Description and Site Review

The facility is permitted as a no discharge facility under the EPA Region 8 General Permit for Wastewater Lagoon Systems in Indian Country in South Dakota (Permit) issued in 2016. A Notice of

Intent (NOI) was submitted on September 30, 2024, for coverage under the 2022 Lagoon General Permit. The NPDES Permits Section is currently processing the NOI. According to the facility representatives the facility serves roughly 382 people in the Wounded Knee Creek community. The facility accepts hauled waste from pumped septic tanks in the surrounding communities. The facility's 2016 NOI for General Permit coverage indicates that the facility does not accept hauled waste; however, the facility representatives indicated during the opening conference on August 19, 2024, that hauled waste is accepted at the lagoon.

The facility was renovated in 2020 when the collection system was expanded to include 8 houses and a 12-unit apartment building that were previously on septic systems. The lagoon renovation included expansion from two to four cells, adding an aerator to Cell 1, and lining Cells 1 – 3. Cell 4 is an unlined percolation cell. In general, wastewater flows into Cell 1 and then flows in series through Cells 2, 3, and 4. Influent waste can be directed to Cell 2 if necessary, and level control structures and transfer piping exist between Cells 1 and 2, Cells 1 and 3, Cells 2 and 3, and Cells 3 and 4 can be used to redirect flow in the system if needed.

When we arrived, the gate was closed and locked, and warning signs were posted near the gate (photo 1) and in several other locations around the perimeter fence. The perimeter fence was in good condition. We observed septage on the berms of Cell 1, near the facility gate.

All four cells were very full at the time of the inspection (photos 2 - 5). The depth indicators installed in Cells 1 and 2 were not visible; James Begeman stated that the depth indicators in those cells were likely fully submerged. Wastewater in Cell 2 was above the top of the riprap on the berm (photo 5). The facility representatives discussed whether an emergency discharge would be necessary to lower the wastewater level throughout the lagoon.

Excessive vegetation exceeding 6 inches in height and woody vegetation (small shrubs) were present on the inside slopes and tops of the berms in all four cells (photos 1 – 4), and we observed animal burrows on the berms in several locations throughout the lagoon.

At the end of our inspections of OST Water & Sewer-operated WWTFs on August 22, 2024, we held a brief closing conference with Ernie Abold and James Begeman where we discussed preliminary findings. The following week on August 29, 2024, the EPA sent an email to Ernie Abold with the preliminary findings from the inspection and resources for documenting inspections, and a lagoon troubleshooting guide.

On 10/2/2024, EPA received a lab report with monitoring results from samples taken from the lagoon; James Begeman stated that OST Water & Sewer did not plan to discharge from Wounded Knee Creek lagoon at that time but would consider a discharge later if the lagoon total suspended solids (TSS) levels dropped with colder weather. James Begeman stated that OST Water & Sewer would notify EPA if and when they planned to discharge.

Findings, Corrective Actions and Recommendations

Finding #1: The Permittee was not documenting weekly lagoon inspections.

The facility representative stated that OST Water & Sewer staff visit each lagoon and lift station weekly but did not maintain records of the inspections. The inspectors provided the facility representatives with a lagoon inspection report template form (Appendix D of the 2022 Lagoon General Permit) that the facility representatives could use to document the weekly lagoon inspections.

Permit Requirement:

Section 3.3.1 of the Permit states, "On at least a weekly basis, unless otherwise modified by written approval from the EPA, the permittee shall inspect its wastewater treatment facility. The permittee shall maintain a notebook recording all information obtained during the inspection. At a minimum, the notebook shall include the following:

- 3.3.1.1. Name of facility and permit number;
- 3.3.1.2. Date and time of the inspection;
- 3.3.1.3. Name of the inspector(s);
- 3.3.1.4. The facility's discharge status;
- 3.3.1.5. The flow rate of the discharge if occurring;
- 3.3.1.6. If a discharge is occurring, has occurred since the previous inspection, and/or if a discharge is likely to occur before the next inspection. (Note: If a discharge has occurred or is likely to occur before the next inspection, perform the appropriate monitoring and reporting requirements in Parts 3.2 and 5.4 of this permit if not already done.);
- 3.3.1.7. Is there is any leakage through the dikes;
- 3.3.1.8. Are there are any animal burrows in the dike;
- 3.3.1.9. Is there any erosion of the dikes (e.g., rills, cracks or other structural indications of erosion);
- 3.3.1.10. Are there are any rooted plants, including weeds growing in the water;
- 3.3.1.11. Does the vegetation growth on the dikes needs mowing (e.g. greater than 6" tall);
- 3.3.1.12. List the date scheduled for operation and maintenance procedures to be undertaken at the wastewater treatment facility.
- 3.3.1.13. Identification of operational problems and/or maintenance problems;
- 3.3.1.14. Recommendations, as appropriate, to remedy identified problems;
- 3.3.1.15. A brief description of any actions taken with regard to problems identified; and,
- 3.3.1.16. Other information, as appropriate.

The permittee shall maintain the notebook in accordance with required record-keeping items listed above and shall make the log available for inspection, upon request, by authorized representatives of the U.S. Environmental Protection Agency or the applicable Tribe (see Part 5.10 of this permit)."

Section 3.3.3 of the Permit states, “Problems identified during the inspection shall be listed with corrective action and a time frame to correct the issue. Example: repair cracks in North berm, remove animal and repair burrow, within 7 days. (See Part 6.5 of this permit.)”

Section 5.7 of the Permit states, “The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, inspection records, notifications to the EPA per this permit, and DMRs, for a period of at least five years from the date of the sample, measurement, report, application or submittal. Records of monitoring required by this permit related to sludge use and disposal activities must be kept at least five years (or longer as required by 40 C.F.R. Part 503). This period may be extended by request of the Director at any time. Data collected on site, data used to prepare the DMR, copies of DMRs, a copy of this NPDES permit, and the notice of intent for permit coverage, must be maintained on site.”

Corrective Action:

Ensure that lagoon inspections are conducted weekly and documented in accordance with the Permit. Ensure that weekly lagoon inspection reports are retained in accordance with the recordkeeping requirements of the Permit. Provide the EPA and the Oglala Sioux Tribe Environmental Department with 1 month’s worth of weekly inspection reports.

Finding #2: Excessive vegetation was present throughout the lagoon and animal burrows were observed in several locations.

Excessive vegetation exceeding 6 inches in height and woody vegetation (small shrubs) were present on the inside slopes and tops of the berms in all four cells (photos 1 – 4), and we observed animal burrows on the berms in several locations throughout the lagoon.

Permit Requirement:

Section 6.5 of the Permit states, “The permittee shall at all times properly operate and maintain 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. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. However, the permittee shall operate, at a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.

In addition to the operation and maintenance items in the manual for the lagoon system, the permittee shall do the following maintenance:

...

- 6.5.2. Take necessary action to promptly remove burrowing animals from the dikes;
- 6.5.3. Promptly repair damage to dikes caused by burrowing animals and/or erosion;
- 6.5.4. Remove rooted plants, including weeds, from the water on a regular basis or as needed; and

6.5.5. Keep the dikes mowed on a regular basis during the growing season or as needed (e.g., keep growth below 6" in height)."

Corrective Action:

Remove the overgrown vegetation from inside and around the berms and make repairs where animal burrows have damaged the liner or compromised the structural integrity of the berms in accordance with Section 6.5 and relevant subparts of the Permit. Submit to the EPA and the Oglala Sioux Tribe Environmental Department photos of all four cells once the vegetation has been removed and any needed repairs have been made to address animal burrows.

Finding #3: The lagoon was very full and potentially in need of an emergency discharge.

All four cells were very full at the time of the inspection (photos 2 - 5). The depth indicators installed in Cells 1 and 2 were not visible and may have been submerged. Wastewater in Cell 2 was above the top of the riprap on the berm (photo 5). The facility representatives discussed whether an emergency discharge would be necessary to lower the wastewater level throughout the lagoon. As of 10/2/2024, OST Water & Sewer were planning to delay an emergency discharge pending a drop in TSS levels in the lagoon.

Permit Requirement:

Section 4.1 of the Permit states, "No Discharge Requirement: Effective immediately and lasting through the life of this permit, there shall be no discharge except in accordance with the bypass provisions of this permit. If an unauthorized release occurs or is expected to occur, the permittee shall take the appropriate measures to minimize the discharge of pollutants (see Part 6.7)."

Section 4.2 of the Permit states, "Self-Monitoring Requirements: If an unauthorized release is discovered or expected to occur, the discharge shall be monitored as shown below:

Effluent Characteristic	Frequency	Sample Type a/
Total Flow, gpm c/	b/	Instantaneous
5-day Biochemical Oxygen Demand (BOD5), mg/L	b/	Grab
pH, standard units	b/	Grab
Total Suspended Solids (TSS), mg/L	b/	Grab
Total Ammonia Nitrogen (as N), mg/L	b/	Grab
Total Nitrogen (N), mg/L	b/	Grab
Total Phosphorus (P), mg/L	b/	Grab
Oil and grease, Visual d/	b/	Observation
Oil and Grease, mg/L d/	d/	Grab

a/ See Definitions, Part 8, for definition of terms.

b/ The discharge shall be monitored three times per week for the first week of discharge (sample taken and flow rate measured), including once as soon as practical after the unauthorized release is discovered or when an expected unauthorized release begins, and at weekly intervals thereafter until the unauthorized release stops. If the discharge lasts less than one week in duration, monitoring

shall be performed at the beginning, middle, and end of the discharge event. The permittee shall report the monitoring results using the format on the last page of this permit in accordance with the instructions in Part 5.4.2. A photocopy of the page of Part 9 may be used.

c/ If it is not possible to measure the rate of discharge, the rate of discharge shall be estimated. In addition, the permittee shall monitor the duration and approximate volume of each discharge.

d/ In the event that an oil sheen or floating oil is observed in the discharge, a grab sample shall be taken immediately and analyzed in accordance with the requirements of 40 C.F.R. Part 136. If no grab sample was taken because no visible sheen was observed, enter "No Visible sheen observed, so no grab sample required." or similar verbiage when reporting the monitoring data."

Section 5.8 of the Permit states, "Twenty-four Hour Notice of Noncompliance Reporting.

5.8.1. The permittee shall report any noncompliance which may endanger health or the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the EPA, Region 8, Preparedness, Assessment and Response Program at (303) 293-1788 and the applicable Tribe (see Appendix A for list of Tribes and telephone numbers).

5.8.2. The following occurrences of noncompliance shall be reported by telephone to the EPA, Region 8, NPDES Enforcement Unit at (800) 227-8917 (8:00 a.m. - 4:30 p.m. Mountain Time) and the applicable Tribe (see Appendix A for list of Tribes and telephone numbers) (8:00 a.m. - 4:30 p.m. local time) by the first workday following the day the permittee became aware of the circumstances:

5.8.2.1. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part 6.7, Bypass of Treatment Facilities.);

5.8.2.2. Any unauthorized release, including sanitary sewer overflows;

5.8.2.3. Any upset which exceeds any effluent limitation in the permit (See Part 6.8, Upset Conditions.); or,

5.8.2.4. Any violation of a discharge limitation for any of the pollutants listed in the permit to be reported within 24 hours.

5.8.3. A written submission shall also be provided to the EPA and to the applicable Tribe within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

5.8.3.1. A description of the noncompliance and its cause;

5.8.3.2. The period of noncompliance, including exact dates and times;

5.8.3.3. The estimated time noncompliance is expected to continue if it has not been corrected; and,

5.8.3.4. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The written submission shall be submitted to the following addresses:

Original to: U.S. EPA, Region 8

Policy, Information Management & Environmental Justice Program (8ENF-PJ)

Attention: Director

1595 Wynkoop Street

Denver, Colorado 80202-1129

Copy to: Applicable Tribe (see Appendix A for list of Tribes)"

Section 6.7 of the Permit states, "6.7. Bypass of Treatment Facilities.

6.7.1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts 6.7.2 and 6.7.3.

6.7.2. Notice:

6.7.2.1. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass to the EPA Region 8 Technical Enforcement Program and to the applicable Tribe (see Part 5.8.3 for addresses).

6.7.2.2. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required under Part 5.8, Twenty-four Hour Notice of Noncompliance Reporting, to the EPA Region 8 Technical Enforcement Program and to the applicable Tribe.

6.7.3. Prohibition of bypass.

6.7.3.1. Bypass is prohibited and the Director may take enforcement action against a permittee for a bypass, unless:

6.7.3.1.1. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

6.7.3.1.2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and,

6.7.3.1.3. The permittee submitted notices as required under Part 6.7.2.

6.7.3.2. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in Part 6.7.3.1."

Corrective Action:

If OST Water & Sewer determines that an emergency discharge is necessary, ensure that the discharge meets the requirements for an anticipated bypass as set out in the permit. In addition, ensure all applicable Permit requirements for advance notification, monitoring, and reporting are followed. In addition, conduct an evaluation or review of lagoon design documents to determine whether Cell 4 is properly sized to percolate the volume of wastewater received in the lagoon. In addition, evaluate the collection system to identify any potential sources of inflow and infiltration to

the lagoon. Submit to the EPA and the Oglala Sioux Tribe Environmental Department the results of the evaluations, including a description of any actions needed to ensure adequate waste treatment capacity in the lagoon.

Finding #4: The facility does not have enough staff or funding.

During the opening conference, staffing and funding resources were discussed. The facility representatives estimated that six operators would be needed, in addition to the Director, to operate the WWTFs in compliance with the permit requirements; however, at the time of the inspection, only three operators were employed by OST Water & Sewer. In addition, the utility does not have sufficient revenue and is not able to collect unpaid user fees to fund necessary operation and maintenance activities. It is apparent based on that conversation as well as field observations that this facility does not have adequate staff or funding to fully comply with the permit.

Permit Requirement:

Section 6.1 of the Permit states, "The permittee must comply with all conditions of this permit. Any failure to comply with the permit may constitute a violation of the Clean Water Act and may be grounds for enforcement action, including, but not limited to permit termination, revocation and reissuance, modification, or denial of a permit renewal application. The permittee shall give the director advance notice of any planned changes at the permitted facility that will change any discharge from the facility, or of any activity that may result in failure to comply with permit conditions."

Recommendation:

EPA recommends developing a staffing and funding plan (plan) that includes the number of staff needed to comply with the permit, staff retention plan (competitive pay and proper training), SOPs for collection of outstanding fees, and evaluation of alternative funding sources. EPA also recommends that the plan include deadlines for accomplishing each of the items listed in the plan.

Finding #5: Septage haulers were not backing up to the lagoon.

Septage was observed on the berm of Cell 1, near the gate. It appeared that septage haulers were not getting close enough to the lagoon before dumping.

Permit Requirement:

Section 6.5 of the Permit states, "The permittee shall at all times properly operate and maintain 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..."

Recommendation:

Ensure vegetation growth is controlled at the septage dumping location so that trucks can get close enough to dump septage into the lagoon. Additionally, ensure that dumping is not causing erosion at the edge of the berm or consider constructing a concrete receiving pad or similar structure where septage can be dumped into the lagoon without damaging the berms. Educate septage haulers on appropriate and expected procedures for off-loading septage to the lagoon.