

NPDES Inspection Report – Wastewater Treatment Facility

National Database Information	
Inspection Date: August 22, 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: 10:25 a.m. – 11:30 a.m. on 8/22/2024	NPDES ID Number: SDG589506
NAICS Code: 221320	Inspection ID: 202408_SDG589506
Lead inspector and affiliation: Jennifer Ferrando / EPA Region 8	
Inspector and affiliation: Brit Rustad / EPA Region 8	

Facility Location Information	
Site/Facility Name & Location: Oglala Community Lagoon Lat/Long: 43.182711, -102.742728 29149 Oglala Dam Rd., Oglala, SD 57764	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: 07/01/2024	Expiration Date: 03/31/2027	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): White Clay 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
<u>Effluent/Receiving Waters</u>	<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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Emilio Llamozas, NPDES and Wetlands Enforcement Section Supervisor		

Inspection Narrative and Site Description
<u>1.0 Introduction</u> The inspection was conducted at the Oglala Community Lagoon wastewater treatment facility (facility; WWTF) located in Oglala, 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 2022. According to

the facility representatives the facility serves roughly 712 people in the Oglala community, as well as a laundromat and café. The facility accepts hauled waste from portable toilets and pumped septic tanks in the surrounding communities. The hauled waste is dumped directly into Cell 2. The facility is a two-cell lagoon system. Wastewater flows to a lift station, located on the west side of the Oglala community along Highway 18, and is pumped approximately 0.5 miles southeast to a diversion manhole located at the north end of the berm between the two cells (photo 9). Waste can be directed to Cell 1 (the primary treatment cell) or to Cell 2 (the secondary cell); however, the facility representatives stated that Cell 2 is not used. Wastewater within the lagoon can flow between the two cells via a level control structure in the central berm. A single outfall is located on the south side of Cell 2, near the southwest corner of the cell. James Begeman speculated that percolation rates in the lagoon are higher than designed and that wastewater would flow to Cell 2 if the cells were properly lined.

We first inspected the lift station. The gate was closed and locked when we arrived, and warning signs were posted (photo 1). Inside the fenced area we observed the lift station panel (photo 3), wet well (photo 4), and dry well (photo 5). The facility representatives explained that the pumps were not alternating properly when the lift station panel was turned on. The panel had been calibrated recently but still was not cycling the pumps as it should. The panel indicated approximately 6,000 pump hours for pump 1 versus 5,000 hours for pump 2. The trash basket in the wet well was full. The blue receptacles used to contain waste from the trash basket prior to removal to a landfill were empty and waste from the trash basket was on the ground near the receptacles (photo 2). We left the lift station at approximately 10:45 a.m. and proceeded to the lagoon.

When we arrived at the lagoon, the gate was closed and warning signs were posted (photo 6). Approaching the gate, we observed septage on top of the berm of Cell 2, near the facility gate (photo 7). Cell 1 contained wastewater at the time of the inspection and Cell 2 was dry. Excessive vegetation, exceeding 6 inches in height, was present on the inside slopes and tops of the berms of both cells and throughout Cell 2. In addition, trees were growing on the inside slopes of both cells (photos 8 and 9). Cattails were growing throughout approximately two thirds of Cell 1 (photo 10); wastewater was visible near the center of the cell. We observed animal burrows and rodent damage on the berms throughout the lagoon. The perimeter fence was generally in good condition, with limited, minor damage.

The inspectors observed the intake pipe for the outfall near the southwest corner of Cell 2. The lagoon design plans provided by IHS indicate the outlet structure should be near the southeast corner of the lagoon. The inspectors could not locate the outlet structure for the outfall. The likely location for the outlet structure, on the outer slope of the lagoon immediately south of the intake pipe, was in an active construction site. The construction site is not related to the lagoon. Recent earth work at the construction site may have buried the outfall (photo 11).

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, a lagoon troubleshooting guide, and a lift station standard operating procedures template.

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 Permit) that the facility representatives could use to document the weekly lagoon inspections.

Permit Requirement:

Section 6.5.1 of the Permit states, "On at least a weekly basis, unless otherwise modified by written approval from EPA, the Permittee shall inspect its wastewater treatment facility. Permission for less frequent inspections must be requested in writing by the Permittee and may be granted on a case-by-case basis where appropriate (e.g. a lagoon located in a remote area where access is a problem during the winter and compliance issues are not present), at the discretion of EPA. The Permittee shall maintain a notebook/logbook recording all information obtained during the inspection using indelible ink pens (or inspection logs may be kept in electronic format in accordance with proper record-keeping procedures) and in sufficient detail so that decision logic may be traced back, once reviewed. At a minimum, the notebook/logbook shall include the following (see Appendix D of this Permit for an Example Lagoon Inspection Form):

- 6.5.1.1. Name of facility and permit number;
- 6.5.1.2. Date and time of the inspection;
- 6.5.1.3. Name of the inspector(s);
- 6.5.1.4. The facility's discharge status;
- 6.5.1.5. The flow rate of the discharge, if occurring;
- 6.5.1.6. Determine 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 Sections 3 and 5.4 of this Permit if not already done.);
- 6.5.1.7. If there is any leakage through the dikes;
- 6.5.1.8. If there are any animal burrows in the dike;
- 6.5.1.9. If there is any erosion of the dikes (e.g., rills, cracks or other structural indications of erosion);
- 6.5.1.10. If there are any rooted plants, including weeds or trees growing in the water;
- 6.5.1.11. If the vegetative growth on the dikes need mowing (i.e. no greater than 6" tall or any height that may interfere with monitoring, operation and maintenance of the system);
- 6.5.1.12. Visual observation for visible sheen, floating oil, floating solids and foam;
- 6.5.1.13. Visual observation to check for evidence of illicit septic dumping;
- 6.5.1.14. List the date scheduled for operation and maintenance procedures to be undertaken at the wastewater treatment facility;
- 6.5.1.15. Identification of operational and/or maintenance problems, and a determination of whether proper operation and maintenance procedures are being undertaken at the frequency

necessary to maintain working operations and the overall treatment and collection systems of the wastewater treatment lagoon system;

6.5.1.16. Recommendations, as appropriate, to remedy identified problems;

6.5.1.17. A brief description of any actions taken with regard to problems identified;

6.5.1.18. Overall visual observations to identify potential concerns with the “health” of the lagoon system (e.g., water is cloudy, water coloration concerns (e.g. red, black, grey, dark blue-green and cloudy), etc.); and

6.5.1.19. Other information, problems identified, or observations, as appropriate.

The Permittee shall maintain the notebook/logbook 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(s) (see Appendix A for list of Tribes).

Problems identified during the inspection (including, but not limited to, those associated with this section of the Permit) shall be corrected at the time of inspection, if possible. If they cannot be corrected at the time of the inspection, the inspector must identify a corrective action to remedy the problem(s), as well as a timeline for completion of the remedy. Corrective actions to remedy problem(s) shall be in line with (and addressed through) proper operation and maintenance (Section 6.6 of this Permit.). All problems identified during inspections, as well as associated corrective actions and timelines, shall be documented in the inspection log.”

Section 5.9 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 the Permit, for a period of at least three years from the date of the sample, measurement, report or application. Records of monitoring required by the Permit related to sludge use and disposal activities must be kept at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the EPA at any time. Data collected on site, data used to prepare the DMR, copies of DMRs, and a copy of this NPDES Permit 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: No O&M manuals or logs were available.

The Permittee did not have copies of operations and maintenance (O&M) manuals for the lagoon and were not properly tracking O&M activities.

Permit Requirement:

Section 6.6.1 of the Permit states, “For Permittees not previously covered under the Region 8 General Permit for Wastewater Lagoon Systems in Indian Country, the Permittee shall, as soon as

reasonable and practicable, but no later than six (6) months after the effective date of this Permit, do the following as part of the operation and maintenance program for the wastewater treatment facility:

- 6.6.1.1. Have a current O & M Manual(s) that describes the proper operational procedures and maintenance requirements of the wastewater treatment facility;
- 6.6.1.2. Have the O & M Manual(s) readily available to the operator of the wastewater treatment facility and require that the operator become familiar with the manual(s) and any updates;
- 6.6.1.3. Have a schedule(s) for routine operation and maintenance activities at the wastewater treatment facility; and,
- 6.6.1.4. Require the operator to perform the routine operation and maintenance requirements in accordance with the schedule(s).

For Permittees renewing coverage under this Permit, the Permittee is expected to have the above listed items (Sections 6.6.1.1. thru 6.6.1.4., which were part of the requirements under the previous Region 8 General Permit for Wastewater Lagoon Systems in Indian Country) completed prior to the coverage date under this Permit. These Permittees shall ensure that each of the items listed above are updated and maintained as part of the operation and maintenance program for the wastewater treatment facility.

In addition to the operation and maintenance items in the manual for the lagoon system, ALL Permittees shall do the following maintenance, at a minimum:

The Permittee shall maintain a log in either paper (e.g. bound notebook) or electronic format containing a summary record of any daily operation and maintenance activities at the wastewater treatment lagoon facility and collection system, that is to be updated on each day operation and maintenance activities are performed. At a minimum, the log shall include the following information:

- 6.6.1.5. Date and time;
- 6.6.1.6. Name and title of person(s) making the log entry;
- 6.6.1.7. Name of the persons(s) performing the activity;
- 6.6.1.8. A brief description of any operations and maintenance activity performed on the wastewater treatment lagoon system;
- 6.6.1.9. The Permittee shall ensure that necessary action to promptly correct the problem of leakage through the dikes is taken and documented in the maintenance log;
- 6.6.1.10. The Permittee shall ensure that necessary action to promptly remove burrowing animals from the dikes is taken and documented in the maintenance log;
- 6.6.1.11. The Permittee shall ensure prompt repair of damage to dikes caused by burrowing animals and/or erosion and documentation of all actions in the maintenance log;
- 6.6.1.12. The Permittee shall ensure removal of rooted plants, including weeds and trees, from the water on a regular basis or as needed and documentation of all actions in the maintenance log; and
- 6.6.1.13. The Permittee shall ensure that the dikes are kept mowed on a regular basis during the growing season or as needed (i.e., vegetation not greater than 6" tall or any height that may interfere with monitoring, operation and maintenance of the system) and that documentation of all actions taken are recorded in the maintenance log.
- 6.6.1.14. Other information, as appropriate."

Corrective Action:

Implement an operations and maintenance program including developing an O&M manual in accordance with the permit. Maintain maintenance logs in accordance with the recordkeeping requirements of the permit. Provide the EPA and the Oglala Sioux Tribe Environmental Department with a description of the corrective actions taken to address this finding as well as relevant O&M documents from sections 6.6.1.1. through 6.6.1.4.

Finding #3: Excessive vegetation was present throughout the lagoon and trees were growing on the inside slopes.

Excessive vegetation, exceeding 6 inches in height, was present on the inside slopes and tops of the berms of both cells and throughout Cell 2. In addition, trees were growing on the inside slopes of both cells (photos 8 and 9). Cattails were growing throughout approximately two thirds of Cell 1 (photo 10).

Permit Requirement:

Section 6.6 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 this Permit.

The Permittee shall do the following as part of the operation and maintenance program for the wastewater treatment facility...

6.6.1.12. The Permittee shall ensure removal of rooted plants, including weeds and trees, from the water on a regular basis or as needed and documentation of all actions in the maintenance log; and

6.6.1.13. The Permittee shall ensure that the dikes are kept mowed on a regular basis during the growing season or as needed (i.e., vegetation not greater than 6" tall or any height that may interfere with monitoring, operation and maintenance of the system) and that documentation of all actions taken are recorded in the maintenance log..."

Corrective Action:

Remove the overgrown vegetation and trees on the inside and around the berms in both cells in accordance with section 6.6 and relevant subparts of the Permit. Submit to the EPA and the Oglala Sioux Tribe Environmental Department photos once the vegetation and trees have been removed.

Finding #4: Animal burrows and rodent holes were evident throughout the lagoon.

The inspectors observed rodent holes and animal burrows, possibly from prairie dogs that were present in the area, on the berms throughout the lagoon.

Permit Requirement:

Section 6.6 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 this Permit.

The Permittee shall do the following as part of the operation and maintenance program for the wastewater treatment facility...

6.6.1.10. The Permittee shall ensure that necessary action to promptly remove burrowing animals from the dikes is taken and documented in the maintenance log;

6.6.1.11. The Permittee shall ensure prompt repair of damage to dikes caused by burrowing animals and/or erosion and documentation of all actions in the maintenance log..."

Corrective Action:

Remove burrowing animals and make repairs where burrowing animals have damaged berms, in accordance with section 6.6 and relevant subparts of the Permit. Submit to the EPA and the Oglala Sioux Tribe Environmental Department a plan which address the removal of burrowing animals, repair of damage, and efforts that will be taken to keep burrowing animals out of the lagoon. In addition to the plan, provide photos showing the repairs of the current burrows.

Finding #5: 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 6.6.2 of the Permit states, "Staffing and Funding: The Permittee shall provide adequate staff and funding to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this Permit. The level of staffing needed, in numbers, training and experience, shall be determined taking into account the work involved in operating the system, conducting maintenance, and complying with this Permit."

Corrective Action:

Develop 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. The plan should include deadlines for accomplishing each of the items listed in the plan. Provide the EPA and the Oglala Sioux Tribe Environmental Department with a copy of the plan.

Finding #6: Septage was being hauled to Cell 2.

Septage was observed on the top of the berm of Cell 2, near the gate (photo 7). It appeared that septage haulers were not getting close enough to the lagoon before dumping. This may have been due to the excess vegetation near the edge of the lagoon, preventing trucks from getting closer. However, because Cell 2 is always dry, as reported by the facility representatives, any septage discharged to Cell 2 will not receive treatment. Furthermore, even if the lagoon were operating with both cells as designed, septage should be discharged to the primary treatment cell (Cell 1). Discharging high strength waste to the secondary cell has the potential to disrupt or inhibit the treatment process. Finally, the current septage disposal practices of placing the septage in a dry cell may constitute a violation of the biosolids regulations at 40 CFR Part 503.

Permit Requirement:

Section 6.11 of the Permit states, “6.11.1. Wastewater treatment facilities covered under the Permit either meet the definition of a publicly owned treatment works (POTW) as defined in 40 CFR § 403.3 or, if the facility does not meet the definition of a POTW (e.g. because of ownership; not owned by a State, Tribe or other type of “municipality” as defined in 40 CFR § 122.2), the waste treated and type of treatment have been determined to be significantly similar to that of a POTW. The Permittees have the responsibility to protect the permitted wastewater treatment lagoon facility from pollutants which would inhibit, interfere, or otherwise be incompatible with operation of the treatment works including interference with the use or disposal of sewage sludge.

6.11.2. General and Specific Prohibitions: Pretreatment Standards (40 CFR § 403.5) developed pursuant to Section 307 of the Act require that the Permittee shall not allow, under any circumstances, the introduction of the following pollutants to the wastewater treatment lagoon system from any source of non-domestic discharge:

6.11.2.1. Any other pollutant which may cause Pass Through or Interference.

...

6.11.2.5. Any pollutant, including oxygen demanding pollutants (e.g., BOD5), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with any treatment process of the wastewater treatment lagoon system;

...

6.11.2.9. Any trucked or hauled pollutants, except at discharge points designated by the wastewater treatment lagoon system...”

Corrective Action:

Establish a dedicated discharge location for hauled septage that will result in the septage being discharged to Cell 1 (e.g., an upstream manhole or a receiving pad or similar structure or location that is properly maintained to ensure septage can be dumped directly into Cell 1). Educate septage haulers on appropriate and expected procedures for off-loading septage to the lagoon. Alternatively, discontinue accepting hauled waste at this lagoon. In a response to the EPA and the Oglala Sioux Tribe Environmental Department, describe how this corrective action will be addressed. If hauled waste will continue to be accepted at the lagoon, identify in the response the dedicated discharge

location and describe the procedures that will be implemented to ensure haulers do not dump septage into Cell 2.

Finding #7: The outfall pipe was buried.

The outfall from Cell 2 was buried under soil in the adjacent construction site (photo 11).

Permit Requirement:

Section 6.6 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 this Permit..."

Corrective Action:

Locate the outfall, clear it of soil, and educate the construction site operators to implement procedures that ensure the outfall will not be obstructed. In a response to the EPA and the Oglala Sioux Tribe Environmental Department, provide photos showing the location of the outfall cleared of obstructions and the measures that will be taken to ensure the outfall remains clear.

Finding #8: The outfall pipe was not in the location shown in the facility design.

The inspectors observed the intake pipe for the outfall near the southwest corner of Cell 2. The lagoon design plans provided by IHS indicate the outlet structure should be near the southeast corner of the lagoon. Based on the inlet locations for Cell 2 (in the northwest portion of the cell for the inlet from the diversion manhole or in the southwest portion of the cell for the inlet from the level control structure), it appears that treatment in Cell 2, if used in the future and operated as a discharging lagoon, could be short-circuited.

Permit Requirement:

Section 6.6 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 this Permit..."

Recommendation:

If OST Water & Sewer plans in the future to rehabilitate the lagoon to use both cells and operate as a discharging lagoon, EPA recommends evaluating the location of the outfall and moving it if necessary to ensure proper treatment of discharged wastewater.

Finding #9: Cattails were growing across most of Cell 1.

Extensive cattail growth in Cell 1 (photo 10) indicates a continual wastewater depth of less than 2 feet throughout most of the cell. Shallow wastewater and extensive vegetation growth likely inhibit wastewater circulation in the pond and prevent effective treatment. If wastewater depths are low in the lagoon due to excessive percolation, the residence time in the lagoon may also be insufficient to effectively treat the wastewater.

Permit Requirement:

Section 6.6 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 this Permit...”

Corrective Action:

Evaluate whether it is necessary to remove sludge from Cell 1 or reline the lagoon to maintain an effective treatment volume. In a response to the EPA and the Oglala Sioux Tribe Environmental Department, provide a describe the results of the evaluation and the actions necessary, if any, to ensure effective treatment.