

NPDES Inspection Report – Wastewater Treatment Facility

National Database Information	
Inspection Date: May 16, 2023	Inspection Type: CEI – Wastewater Treatment Facility
Entry/Exit Time: 9:00 am / 3:30 pm	NPDES ID Number: NDG589201
NAICS Code: 221320	Inspection ID: 202305 NDG589201
Lead inspector and affiliation: Stephanie Meyers / EPA Region 8	
Inspector and affiliation: Brit Rustad / EPA Region 8	

Facility Location Information (Name/Location/ Mailing Address)	
Site/Facility Name & Location: West Acres Wastewater Treatment Lagoon P.O. Box 100 Fort Totten, ND 58335	Email Report to: Alfred Thompson Jr. (b) (6) Robert Thompson sltwr-dir@spiritlakenation.com

Contact Information						
Facility Contacts: <i>(indicate primary lead and present during inspection)</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left; padding: 5px;">Name(s)/Title</th> </tr> <tr> <td style="padding: 5px;">Alfred Thompson Jr. / Facility Manager / Sioux Utilities / primary during the inspections</td> </tr> <tr> <td style="padding: 5px;">Robert Thompson / Director of Water Resources / Sioux Utilities / present during opening and closing conferences</td> </tr> <tr> <td style="padding: 5px;">Lynnia Bustos / Environmental Technician / Spirit Lake EPA / present during inspections</td> </tr> <tr> <td style="padding: 5px;">Tyler Timmons / Tribal Utility Consultant / IHS / present during the inspections</td> </tr> </table>	Name(s)/Title	Alfred Thompson Jr. / Facility Manager / Sioux Utilities / primary during the inspections	Robert Thompson / Director of Water Resources / Sioux Utilities / present during opening and closing conferences	Lynnia Bustos / Environmental Technician / Spirit Lake EPA / present during inspections	Tyler Timmons / Tribal Utility Consultant / IHS / present during the inspections
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Tyler Timmons / Tribal Utility Consultant / IHS / present during the inspections						
Person/Company meeting definition of “Operator”	Spirit Lake Sioux Tribe					
Authorized Official(s) (Per NOI?)	Alfred Thompson Jr. / Facility Manager / Sioux Utilities / primary during the inspections					

Permit Information		
Is the permit on site and available? Yes	Lagoon Category: No Discharge	Monitoring Frequency: N/A
Effective Date: 4/1/2022	Expiration Date: 3/31/2027	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): Devils Lake		
Regulatory Inspector’s source of information: Notice of Intent for the permit, ICIS		

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	<u>Sanitary Sewer Overflow</u>

Report Review and Signature		
Drafter Name	Address/Phone Number	Date
BRIT RUSTAD Digitally signed by BRIT RUSTAD Date: 2023.07.06 12:08:34 -06'00' Brit Rustad	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NW Denver, Colorado 80202 303-312-6885	6/5/2023
Reviewer Name	Address/Phone Number	Date
Stephanie Meyers	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NW Denver, Colorado 80202 303-312-6938	7/3/2023
Supervisor Signature/Name	Address/Phone Number	Date
COLLEEN RATHBONE Digitally signed by COLLEEN RATHBONE Date: 2023.07.06 11:59:13 -06'00' Colleen Rathbone	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NW Denver, Colorado 80202 303-312-6133	7/6/2023

Inspection Narrative and Site Description

The inspection was conducted at the West Acres wastewater treatment lagoon located in Fort Totten, North Dakota to evaluate compliance with their National Pollutant Discharge Elimination System (NPDES) permit. The EPA is responsible for implementing the NPDES program in Indian Country within the State of North Dakota. The inspection was announced approximately one month prior to the inspection to coordinate logistics for the inspection. On May 16, 2023, U.S Environmental Protection Agency (EPA) inspectors Brit Rustad and Stephanie Meyers met with operator Alfred Thompson Jr. with Sioux Utilities, Robert Thompson with Sioux Utilities, and Lynnia Bustos with the Spirit Lake EPA. The EPA inspectors presented their credentials and had an opening conference to explain the purpose of the inspection. The inspectors proceeded to review records on site, inspect the facility, and asked questions to the facility representatives to help the inspectors evaluate compliance with the facilities' permit. Throughout the inspection, the inspectors noted their observations in a checklist. Photographs taken during the inspection are included in the attached photo log.

The West Acres Lagoon system serves the Fort Totten community of roughly 1,300 people in the Spirit Lake Tribe Reservation. The facility is permitted as a no discharge facility, under the Lagoon General Permit for the Spirit Lake Reservation. Any discharge from the facility is expected to be under emergency circumstances only. The lagoon system was originally built in 1987 and the wetland cells were added in 1995. The average design flow to the facility is 0.12 million gallons per day (MGD) and the peak design flow is 0.15 MGD. The average design organic treatment capacity is 200 lbs BOD₅ per day and the peak design organic treatment capacity is 250 lbs BOD₅ per day. The facility does accept hauled septic waste.

The WWTF receives domestic wastewater as well as waste from 2 community food establishments and one industrial waste facility. The industrial waste comes from Sioux Manufacturing which produces military grade armor such as Kevlar. The estimated average daily wastewater flow from all non-domestic sources is 0.010 MGD. The facility has 5 lift stations which are listed in the table below. According to an IHS representative, wastewater from the community north of Highway 57 off of Streifel Road flows in the Siaka lift station, then is pumped southeast to the BIA lift station, which then flows into the lagoon. The Alberts lift station receives wastewater from the surrounding community, which then gravity flows into the BIA lift station, then to the lagoon. The Sherman lift station receives wastewater from the surrounding community, which then ties into the collection line coming off of the BIA lift station which then flows into the lagoon. The West Acres lift station receives wastewater from the surrounding community, and then flows into the lagoon system.

The inspectors observed all 5 lift stations (photos 307-312, 315-318 and 327-329). The operators were keeping track of the lift station pump hours via the control panels (photos 308, 311, 316, 317, 328). At the time of the inspection one pump at the Sherman lift station had failed (photo 317). Inspectors also observed the liner inside of the West Acres wet well falling apart (photo 327). Below are the coordinates for the lift stations.

Lift Station Name	Latitude	Longitude
West Acres	47.981097° N	-99.025261° W
Alberts	47.980385° N	-99.002693° W
Siaka	47.986598° N	-98.996336° W

Sherman	47.981210° N	-99.011588° W
BIA	47.982045° N	-98.991448° W

The inspectors also inspected the lagoon cells. The facility is a four-cell lagoon system. The first two are regular cells followed by two constructed wetland cells. The table below has the operating volume for all four cells.

Cell ID	Area (acres)	Operating Volume (MG)	Operating Depth (ft)
Cell 1	8.75	14.25	5
Cell 2	8.75	14.25	5
Wetland Cell 3	3	2	2
Wetland Cell 4	3	2	2
Total	23.5	32.5	14

Wastewater enters the system through the southeast corner of cell 1 (photo 320) which then flows into cell 2 (photo 321). Wastewater then flows into wetland cell 3 (photo 322) via a pipe (photo 323). Lastly, wastewater then flows into wetland cell 4 (photo 324). The gate valve (photo 326) from wetland cell 4 to the outfall was closed at the time of inspection.

The inspectors and facility representatives drove around the lagoon to evaluate berm integrity and the facility's discharge status. Vegetation had reached a height greater than six inches on the inside berms of cell 1 and cell 2. There were also small trees growing on the inside berms of cells 1 and 2 (photo 321). As stated above, the gate valve from wetland cell 4 to the outfall was closed at the time of the inspection and the facility was not discharging.

At the end of the day on May 16, 2023, the inspectors returned to the main office and held a closing conference with Alfred Thompson Jr., Robert Thompson, Lynnina Bustos, and Tyler Timmons where preliminary findings were discussed. On May 30, 2023, the EPA sent an email to Alfred Thompson Jr. and Robert Thompson with the preliminary findings from the inspection.

Findings, Corrective Actions and Recommendations

Finding #1: Weekly lagoon inspections were not being conducted.

Weekly lagoon inspections were not being conducted. The inspectors provided the facility representatives with a lagoon inspection report template form that the facility representatives could use to document the weekly lagoon inspections.

Permit requirement:

Part 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.”

Part 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 inspections are conducted on a weekly basis and documented in accordance with the Permit. Ensure that inspection reports are kept in accordance with the recordkeeping requirements of the Permit. Provide the EPA and IHS with a description of the corrective actions taken to address this finding.

Finding #2: There was vegetation and trees growing on the inside berms of cells 1 and 2

Vegetation had reached greater than six inches in height on the inside berms of cells 1 and 2 that needed to be cut (photos 319-321). There were also small trees growing on the inside berms of cells 1 and 2 that needed to be cut.

Permit requirement:

Part 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. 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:

Remove the overgrown vegetation and trees growing on the inside berms of cells 1 and 2. Submit to the EPA and IHS photos of the cells after the vegetation and trees have been removed.

Finding #3: One of the pumps at the Sherman lift station had failed.

At the time of the inspection one of the pumps at the Sherman lift station had failed.

Permit requirement:

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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;

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Corrective Action:

Ensure that the facility lift station pumps are working properly and diagnose the reason for the pump failure. Provide the EPA and IHS with photos and a description of the corrective actions taken to address this finding.

Finding #4: The outfall location was unknown and could not be verified in the field.

The site map provided with the NOI indicated the outfall, but it could not be verified in the field. Site representatives did not know where the outfall was.

Permit requirement:

Appendix F of the Permit states,

- “• A map and/or diagram showing the location of the lagoon system, existing or potential discharge points, and the receiving waterway. Label discharge points by outfall number. All maps and diagrams should be submitted on 8.5" by 11" paper. It is acceptable to use a

photocopy of the appropriate part of a 7.5 minute USGS quadrangle map with the necessary information added as appropriate, or satellite or aerial internet images.

...

- A line drawing (flow diagram) of the current treatment system. Show all treatment units and existing or potential discharge points. Label the discharge points with outfall numbers;”

Corrective action:

Locate the outfall and ensure that it functions properly. Also, ensure that maps, NOI and O&M documents reflect the exact location of the outfall. Provide the EPA and IHS with photos of the outfall once located, as well as an updated site map if the location is somewhere other than indicated on the current map.

Finding #5: The gate valve between the wetland cells was stuck open.

The gate valve was stuck open between wetland cell 3 and wetland cell 4 due to dirt being compacted over the valve.

Permit requirement:

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Corrective Action:

Remove dirt and debris from gate valve. Also, make any necessary repairs to allow for proper operation

of the valve. Provide the EPA and IHS with photos and a description of the corrective actions taken to address this finding.

Finding #6: The lining in the West Acres lift station wet well was eroding and deteriorating.

During the inspection it was noted that the lining on the wet well was deteriorating and beginning to come free from the wall.

Permit requirement:

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Corrective Action:

Repair or replac the liner on the West Acres wet well. Provide the EPA and IHS photos of the repaired or replaced liner.