

NPDES Inspection Report – Wastewater Treatment Facility

National Database Information	
Inspection Date: August 22, 2023	Inspection Type: CEI – Wastewater Treatment Facility
Entry/Exit Time: Opening Conference: 08:30 am-10:30 am Site Review: 1:56 pm-2:15 pm	NPDES ID Number: NDG589407
NAICS Code: 221320	Inspection ID: 202308_NDG5890407
Lead inspector and affiliation: Akash Johnson / EPA Region 8	
Inspector and affiliation: Brit Rustad / EPA Region 8	

Facility Location Information	
Site/Facility Name & Location: St. Marys Wastewater Treatment Facility Lat/Long: 48° 51' 57.87" N, 100° 1' 27.38" W (lagoon) Rolette County, ND 58329	Email Report to: Kenny Azure, Director, TMPUC (b) (6)

Contact Information	
	Name(s)/Title
Facility Contacts:	Kenny Azure / Director / TMPUC / present for part of opening conference
	Eric Thomas / Operator / TMPUC / present during opening and closing conferences as well as the inspections
	Harold Bruce / Operator / TMPUC / present during opening and closing conferences as well as the inspections
	Tyler Timmons / Tribal Utility Consultant / IHS / present during the opening and closing conferences as well as the inspections
Person/Company meeting definition of "Operator"	Turtle Mountain Public Utilities Commission (TMPUC)
Authorized Official(s) (Per NOI?)	Kenny Azure / Director / TMPUC / present for part of opening conference

Permit Information		
Is the permit on site and available? Did not evaluate; EPA emailed a copy to TMPUC after the inspection	Lagoon Category: No Discharge	Monitoring Frequency: N/A
Effective Date: 11/1/2022	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): Smith Lake		
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
BRIT RUSTAD  Digitally signed by BRIT RUSTAD Date: 2023.11.27 09:41:41 -07'00'	September 15, 2023	U.S. EPA Region 8 Denver, Colorado rustad.brit@epa.gov (303) 312-6885
Reviewer Name	Draft Date	Contact Information
Akash Johnson	November 15, 2023	U.S. EPA Region 8 Denver, Colorado johnson.akash@epa.gov (303) 312-6067
Management Reviewer Name/Signature/Date		Contact Information
EMILIO LLAMOZAS  Digitally signed by EMILIO LLAMOZAS Date: 2023.11.20 12:02:12 -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

1.0 Introduction

The inspection was conducted at the St. Marys wastewater treatment facility (facility; WWTF) located in Rolette County, North 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 North Dakota. The inspection was announced approximately one month prior to the inspection to coordinate logistics for the inspection.

On the morning of August 22, 2023, U.S Environmental Protection Agency (EPA) inspectors Brit Rustad and Akash Johnson (collectively, "we") met with Turtle Mountain Public Utilities Commission (TMPUC) representatives Kenny Azure, Director, and with Harold Bruce and Eric Thomas, Operators. We were also joined by Indian Health Service (IHS) representative Tyler Timmons, Tribal Utility Consultant. We presented our credentials and had an opening conference in the TMPUC office where we explained the purpose of the inspection and discussed the design, operation, and CWA and NPDES compliance of multiple WWTFs operated by the TMPUC, including the subject facility. After the opening conference, we proceeded to conduct site reviews of the WWTFs operating by the TMPUC, including the subject facility, for the remainder of August 22, 2023 and part of August 23, 2023. Throughout the inspection, we noted our observations in bound checklists. Photographs taken during the inspection are included in the attached photo log.

2.0 TMPUC Operations

During the opening conference when discussing all facilities, representatives indicated that daily checks on all lift stations are performed but that lagoon cells were not inspected on at least a weekly basis. They also stated that weekly inspection logs are not being kept. Facility representatives stated that jetting of lines is done on an as needed basis rather than per a set schedule. Lastly, there has not been any sludge removal or depth testing done recently at any of the lagoons operated by TMPUC.

The TMPUC operates a regional water treatment plant and distribution system which provides water to multiple communities and users across the region. At the time of the inspection, the TMPUC employed eight operators and various managerial and administrative support staff. The majority of TMPUC operations are dedicated to the provision of potable water, but all operators perform both water and wastewater duties as needed.

TMPUC customers, rates, and finances were briefly discussed during the opening conference. Water and wastewater fees were collected separately, and different flat fees were assessed for regular residential, Tribal elder residential, and commercial users. Kenny indicated a portion of TMPUC's annual budget was subsidized by federal and/or Tribal sources.

3.0 Facility Description and Site Review

The facility is permitted as a no discharge facility, under the EPA Region 8 Lagoon General Permit (Permit) for North Dakota. According to the Notice of Intent (NOI) for Permit coverage:

- The facility serves a community of roughly 230 people in the St. Marys Housing development.
- The lagoon system was originally built in 1977 and no additional work has occurred since.
- The average design flow to the facility is 4,285 gallons per day and the peak design flow is 5,360 gallons per day.
- The average design organic treatment capacity is 30 lbs BOD₅ per day and the peak design organic treatment capacity is 38 lbs BOD₅ per day.

The lagoon is a three-cell system. The table below has the operating volume for all three cells as indicated in the NOI.

Cell ID	Area (acres)	Operating Volume (MG)
Cell 1	1.0	0.977
Cell 2	0.3	0.293
Cell 3	0.3	0.293
Total	1.6	1.563

Between the opening conference and inspection of the subject facility, we inspected several other WWTFs operated by the TMPUC. Upon arriving at the facility, we noted that the gate was missing and that the sign had faded to where it was no longer legible (photo 467). We proceeded to drive around the lagoon to evaluate berm integrity and the status of the cells. Cells 2 and 3 were both empty at the time of the inspection. Cell 2 had exposed sludge visible throughout the bottom of the cell (photo 463). Vegetation and cattails had reached a height greater than six inches in and on the berms of all three cells (photos 463-465). Cell 1 appeared to be reaching its hydraulic capacity as it had very little freeboard left (photo 465). TMPUC operators said they would release some water from cell 1 into cell 2 by the end of the week. At the Northeast corner of cell 1 the secondary gate as well as a large section of fence was missing (photo 466).

At the end of our inspections on August 23, 2023, we held a brief closing conference with Eric Thomas, Harold Bruce and Tyler Timmons where preliminary findings were discussed. Later in the day on August 23, 2023, the EPA sent an email to Kenny Azure with the preliminary findings from the inspection and some resources for using NetDMR.

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 (Appendix D of the Permit) 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 lagoon 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: No O&M manuals were available.

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

Permit requirement:

Part 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. Ensure that maintenance logs 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 as well as relevant O&M documents from sections 6.6.1.1. through 6.6.1.4.

Finding #3: There was vegetation growing inside and around the cells.

Vegetation and cattails had reached greater than six inches in height in all three cells which needed to be cut (photos 463-465).

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...

- 6.6.1.12. 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 on the inside and around the berms in all cells in accordance with Part 6.6 and relevant subparts of the Permit. Submit to the EPA and IHS a description of corrective actions taken as well as photos of the cells after the vegetation has been removed.

Finding #4: The gates were missing, the warning sign was illegible and parts of the perimeter fence were down.

Portions of the fence were damaged around the perimeter of the cells. The gates were both missing (photos 466-467). Lastly, the sign posted at the entrance was no longer legible (467).

EPA Guidance:

EPA has developed guidance manuals on the proper operation and maintenance of lagoons. One of the guidance materials is called “Principles of Design and Operations of Wastewater Treatment Pond Systems for Plant Operators, Engineers, and Managers” (August 2011, EPA/600/R-11/088).

<https://www.epa.gov/sites/production/files/2014-09/documents/lagoon-pond-treatment-2011.pdf>

This guidance manual indicates on page 9-20 that:

“To discourage use of the ponds for recreation, the entire area should be fenced and warning signs displayed.”

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.”

Recommendation:

Ensure that fences, gates and signs are maintained to prevent unauthorized access and entrance.

Finding #5: Cell 1 was nearing its hydraulic capacity.

Cell 1 was nearing its hydraulic capacity as there was very little freeboard left (photo 465). TMPUC operators said they would release some water from cell 1 into cell 2 by the end of the week.

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...”

- 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).”

Corrective Action:

Evaluate if cell 1 needs to be released into cell 2 to prevent overtopping. Provide EPA and IHS with a description of corrective actions taken to address this finding.