

NPDES Wastewater Lagoon Inspection Report

National Database Information	
Inspection Date: July 24, 2024	Inspection Type: CEI
Entry/Exit Time: 1400/1510	NPDES ID Number: MTU000706
NAICS Code: 221300 Sewage Treatment Facility	Inspection ID: 202407_MTU000706
Lead inspector and affiliation: Lisa-kay Prideaux / EPA Region 8 Montana Operations Office	

Facility Location Information	
Site/Facility Name & Location: Town of Reserve Wastewater Lagoons Off West Reserve Road 48.599276°N; 104.471433°W	Email Report to: Lindsay Brensdal, Director Reserve County Water and Sewer District lbrensdale@sheridancountymt.gov

Contact Information		
	Name(s)/Title	
Facility Contacts	Neil Anderson, Wastewater Operator (present)	
Person/Company meeting definition of "Operator"	Town of Reserve	
Authorized Official(s)	Lindsay Brensdal, Director, Reserve County Water and Sewer District (not present)	
Tribe Representative(s)	Bill McDonald, Assiniboine and Sioux Tribes, Office of Environmental Protection (present)	
Indian Health Service Representative(s)	None present	
Permit Information		
Is the permit on site and available? Unpermitted	Lagoon Category: N/A	Monitoring Frequency: N/A
Effective Date: Unpermitted	Expiration Date: Unpermitted	Is the Facility under a compliance schedule? No
Is correct contact information indicated on ICIS? N/A	Indicate correct contact information: Authorized Official: Lindsay Brensdal, Director, Reserve County Water and Sewer District	
Receiving Water(s): No Discharge		
Discharge point location (longitude, latitude): No Discharge		
Regulatory Inspector's source of information: Clean Water Act, NPDES regulations, Integrated Compliance Information System (ICIS), Enforcement & Compliance History Online (ECHO), previous inspection report and correspondence, facility representatives and facility observations.		

Areas Evaluated During Inspection		
Permit	Effluent/Receiving Waters	Compliance Schedule
Records/Reports	Flow Measurement	Discharge Monitoring Reports
<u>Facility Site Review</u>	Monitoring Program	Lift Station Operation and Maintenance
Collection System Review	Lagoon Self- Inspections	Preventive and Emergency Operation and Maintenance

Report Review and Signature		
Drafter Signature/Name: Lisa-kay Prideaux	Date	Address/Phone Number
Prideaux, LisaKay  Digitally signed by Prideaux, LisaKay Date: 2025.01.23 15:21:24 -07'00'	01.21.2025	U.S. EPA Region 8 Helena, Montana 406-457-5022
Reviewer Name	Date	Address/Phone Number
Jennifer Ferrando	1/22/2025	U.S. EPA Region 8 Denver, Colorado 303-312-6601
Management Signature/Name	Date	Address/Phone Number
EMILIO LLAMOZAS  Digitally signed by EMILIO LLAMOZAS Date: 2025.01.23 14:53:09 -07'00'	01/23/2025	U.S. EPA Region 8 Denver, Colorado 303-312-6407
Emilio Llamozas, NPDES and Wetlands Enforcement Section Supervisor		

Inspection Narrative and Site Description

The Town of Reserve (an unincorporated community) Wastewater Treatment Facility (“facility”) is located off West Reserve Road in Reserve, Montana, and is located within the boundaries of the Fort Peck Indian Reservation, which is home to the Assiniboiné and Sioux Tribes (“Tribes”). The Tribes were granted treatment in a manner similar to a state (TAS) on August 29, 1996, for Water Quality Standards (WQS). The U.S. Environmental Protection Agency (EPA) has not approved the Tribes to implement the Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) program in Indian Country within the state of Montana. The EPA directly implements the CWA NPDES program on Indian Country lands within the state of Montana.

On Thursday July 24, 2024, U.S. Environmental Protection Agency (EPA) inspector Lisa-kay Prideaux, along with Bill MacDonald of the Assiniboiné and Sioux Tribes Office of Environmental Protection, conducted a compliance evaluation inspection to evaluate compliance with the Clean Water Act (CWA) and EPA regulations. The facility is owned and operated by the Reserve Water and Sewer District. The EPA notified the Tribes of the inspection in a letter sent July 1, 2024, and the inspector coordinated the inspection with the wastewater operator, Neil Anderson, several weeks in advance.

The inspection commenced at approximately 1400, when the inspector and tribal representative met with Mr. Anderson. The inspector presented credentials to Mr. Anderson and held an opening conference to explain the purpose of the inspection. The inspector then proceeded to ask questions to evaluate the facility’s discharge status, and to obtain facility information. Throughout the inspection, observations were noted in a bound notebook and checklist, and photograph descriptions were documented. All photographs taken during the inspection are included in the attached photo log and are maintained by EPA in accordance with the Quality Assurance Field Activities Procedure and Standard Operating Procedure.

The facility is an unpermitted two-cell facultative lagoon that is located southwest of the town proper. The facility receives wastewater from the Town of Reserve, which has a population of approximately 36 people (2020 census). Mr. Anderson explained the facility was originally constructed in 1989 and became operational in 1990. The facility treatment system starts with individual septic tanks which discharge to a gravity collection system that conveys wastewater to a lift station located in town (photo 73). Wastewater is then pumped uphill approximately 0.95 miles to the treatment lagoons. Wastewater enters a splitter box located in a manhole which can direct water into one or both cells (photo 69). The facility typically runs in series where influent enters cell 1 (approximately 0.48 acres) in the eastern corner of the cell, then overflows to cell 2 (approximately 1.57 acres, see diagram below). There are two overflow pipes between cells 1 and 2 to transfer wastewater via gravity. Mr. Anderson stated that sludge has never been removed from the facility. The facility receives domestic waste only and does not receive trucked in septage or dumped RV waste. The facility currently maintains minimal records. Mr. Anderson stated the Water and Sewer District is responsible for maintaining the individual septic tanks, which are on a three-year cleaning cycle. He also stated that pump runtimes from the lift station are recorded and maintained. There are no written operating or safety procedures. Mr. Anderson stated they had updated both lift station pumps and the control board in the spring of 2024.

Mr. Anderson, Mr. MacDonald and the inspector then drove to wastewater lagoons. The site visit included walking around the system. We started at the northeast point of cell 1 where the influent manhole and splitter box (photo 69) are located. The splitter box was deteriorating, and Mr. Anderson stated the valves are rusted to a point that the facility has to run in series, as the valves can no longer be changed. We observed lagoon cell 1 (photos 66, 67, and 71) and cell 2 (photos 67, 68, 71, and 72). The inspector observed vegetation in the form of cattails and sedges starting to grow within the slopes and inside of each of the lagoon cell dike walls (noted in the photos). The inspector noted the lagoon depth gauge on northeast side of lagoon cell 2 (photo 70). On the southeast portion of lagoon cell 2 is a coulee; however, no discharge pipe between cell 2 and the coulee was observed. We then drove to the lift station in town (photo 73). The lift station is equipped with light and sound alarms.



A closing conference was held at the lift station with Mr. Anderson, during which the inspector discussed preliminary findings, as well as the process for completing and providing the inspection report. The inspection concluded at approximately 1510.

Findings and Recommendations

Finding #1: The facility did not have coverage under the EPA 2022 Lagoon General Permit.

The facility had not submitted a Notice of Intent (NOI) to obtain coverage as a "No-Discharge" facility under EPA Region 8's General Permit for Wastewater Lagoon Systems in Indian Country, Permit No. MTG589### (the permit).

Permit Requirements:

Section 1.2 of the permit ("Introduction") states: "This Region 8 General Permit for Wastewater Lagoon Systems in Indian Country (Permit) is intended for the permitting of wastewater lagoon systems that treat primarily domestic sewage (an average total influent flow consisting of ~80% or greater domestic sewage) and are located within the boundaries of the specified Region 8 Indian Reservations or otherwise in Indian Country as defined in Section 1.1 Definitions of this permit."

Section 1.5 of the permit (Categories and Subcategories of Coverage) indicates authorization for coverage under this permit will be limited to one of the following two categories of wastewater lagoon systems:

DISCHARGE (DIS) - Authorization to Discharge. This category is used for wastewater treatment lagoon facilities that either discharge on a continuous, periodic, seasonal or other intermittent basis. No prior notification to EPA is required before starting to discharge once notification of Permit coverage from EPA is received, however discharges may require Tribal Environmental Office notifications (specified in the Tribal Environmental Office Notification information in Section 1.6 of the Permit).

POTENTIAL TO DISCHARGE (NODIS) - This category is for those wastewater treatment lagoon facilities that do not anticipate discharge to occur but still have the potential to discharge (e.g. upset or bypass discharges). These wastewater treatment facilities do not have authorization to discharge under regular operating conditions and are required to have no discharge except in accordance with the upset or bypass provisions of the Permit. A discharge may include, but is not limited to, discharge of water from the lower end of the treatment or containment system through a release structure or over or through retention dikes. Should a facility in this category anticipate the need to perform discharges on a regular, periodic or other intermittent basis, or discharges beyond authorized bypasses or upset conditions begin to occur during the Permit terms, EPA may determine that the facility's Permit category and coverage requirements should be changed to "discharge (DIS)".

Section 2.1 of the permit "Obtaining Authorization for Coverage Under this Permit" states:

2.1.1 To obtain authorization under this permit, a facility must:

Submit a complete and accurate NOI using an EPA notice of intent form for coverage under this Permit. The "NPDES 2020 Lagoon General Permit Notice of Intent Form" is located electronically at: <https://www.epa.gov/npdes-permits/region-8-npdes-lagoon-general-permit>

Facilities may also contact EPA's Region 8 Office (EPA contact information is available at the

website provided in the following paragraph) and request a hardcopy NOI be mailed to them. Once completed, the form can be submitted to EPA as indicated in Section 2.4 of this Permit.

The NPDES Lagoon General Permit Notice of Intent Form can also be requested from EPA's Region 8 Office. Contacts for Region 8 are listed at the following website: <https://www.epa.gov/npdes-permits/forms/contact-us-about-npdes-permits-around-nation>

Once completed, the form can be printed out, signed, and submitted to the EPA at the address given in Section 2.4 of the permit:

Unless otherwise authorized by EPA, the signed Notice of Intent form (hardcopy) must be sent to the address listed below:

U.S. Environmental Protection Agency, Region 8
Wastewater Section (8WD-CWW)
1595 Wynkoop Street Denver, CO 80202-1129

In addition to submitting the signed hardcopy, a copy may be submitted electronically as provided in the submission instructions at: <https://www.epa.gov/npdes-permits/region-8-npdes-lagoon-general-permit>

A relevant EPA contact to address questions regarding submittal of the NOI is Kenley Stone, reachable at stone.kenley@epa.gov or (406) 457-5035, or Alysia Tien at tien.alysia@epa.gov or (303) 312-7021.

Recommendation:

EPA strongly recommends that the facility submit the required notice of intent (NOI) form and documentation to obtain coverage under the Region 8 General Permit for Wastewater Lagoon Systems in Indian Country.

Finding #2: Unmaintained vegetation within lagoon cells.

The facility's lagoon dike walls had sporadic unmaintained vegetation on the inside slopes and beginning to take root within the cells (photos 66, 68, 70, and 72). Heavy thick roots can compromise the integrity of the lagoon liner and degrade the dike walls, creating leaks and potential erosion issues under the liner. Planting grasses or other shallow-rooted vegetation on top and outside the dikes for ground cover is encouraged for stability, with a recommended maintenance schedule of at least annual cutting, along with regular visual inspections to ensure the assessment of potential erosion, leaks, slumps, and burrowing animal damage.

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>

Part 9.4.2.3 of this guidance manual indicates the following:

- To maintain wave action, a pond should be free of weeds in the water or tall weeds on the banks.

- Dikes should be well seeded with grasses above the water line. Grass should be mowed regularly to prevent soil erosion and insect problems.

Recommendation:

EPA recommends the vegetation in and around the lagoon cells be reduced and maintained below 6 inches in height such that the berms can be inspected for leakage, animal burrows, and erosion. Proper vegetation height also allows for the wind to naturally generate wave action to mix and aerate the lagoon contents for effective treatment of the wastewater. EPA also recommends removing all heavy thick vegetation growing within the lagoon cells, as this is a source to create leaks and erosion and can be a food source for rodents.

Finding #3: Deteriorated splitter box.

The splitter box is concrete and was starting to crumble. The splitter box was also showing signs of excessive corrosion of the valves to direct influent water (photo 69). Should the splitter box crumble and impede influent flow, a sewer overflow out of the splitter box or at the lift station is possible.

EPA Guidance:

40 CFR § 122.41(e) requires, at all times, the proper operation and maintenance of all facilities and systems of treatment and control (and related appurtenances) which are installed or used...

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>

Part 9.4.2.3 of this guidance manual indicated the following:

- Inlet and outlet structures should be cleaned regularly to remove any floating debris, caked scum, or other trash that might produce odors or be unsightly.
- Mechanical equipment should be maintained according to a regular schedule. Maintenance records should be kept and be readily accessible.

Recommendation:

EPA recommends that the facility take the following actions immediately to repair the inlet splitter box to prevent sanitary sewer overflows:

1. Clean the manhole and splitter valves on a routine basis;
2. Repair/replace inlet components and valves that are inoperable due to severe corrosion; and
3. Implement a regular inspection and maintenance program of the inlet manhole and related mechanical equipment.