

U.S. EPA Region 8 NPDES Inspection Report

National Database Information	
Inspection Date: June 27, 2023	Inspection Type: Compliance Evaluation Inspection
Entry / Exit Time: Opening Conference 06/26/23: 08:30 AM/10:30 AM Site Review 06/27/23: 8:10 AM / 8:50 AM	NPDES ID: SDG589108 (EPA Region 8 Lagoon General Permit SDG589###)
Major / Non-Major Facility: Non-Major	Program Sector(s): Publicly-Owned Treatment Works (POTW)
NAICS Code: 221320 (Sewage Treatment Facilities)	Inspection ID: 202306_SDG589108
Lead inspector and affiliation: Privacy / U.S. EPA Region 8	
Inspector and affiliation: Privacy / U.S. EPA Region 8	

Facility Location Information	
Site/Facility Name & Location: Cherry Creek Wastewater Facility Ziebach County, South Dakota 44.605166, -101.494263	Email Report to: Privacy

Contact Information	
	Name(s)/Title
Facility Contacts	Privacy / Mni Wašté Water Company (present for opening conference only)
	Privacy / Mni Wašté Water Company (present for opening conference only)
	Privacy / Mni Wašté Water Company (present for entire inspection)
Indian Health Service Contacts	Privacy / Indian Health Service (not present)
Tribal Government Contacts	Privacy / Cheyenne River Sioux Tribe (not present)
Person/Company meeting definition of "Owner"	Cheyenne River Sioux Tribe
Person/Company meeting definition of "Operator"	Mni Wašté Water Company (aka Tri-County Water Association)

Responsible Official(s)	Privacy / Mni Wašté Water Company
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Permit / Facility Information	
Permit on site and available: Yes	Permit Application Date: Did not evaluate
Effective Date: December 1, 2022	Expiration Date: March 31, 2027
Latitude: 44.605166	Longitude: -101.494263
Receiving Water(s): Cheyenne River	
Weather Conditions: Partly-cloudy, warm, no precipitation	
Inspector's source of information: Facility representatives and records, EPA records and databases, Google Maps, and inspection observations	

Areas Evaluated During Inspection		
<u>Permit</u>	Self-Monitoring Program	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
Privacy Digitally signed by Privacy Date: 2023.09.08 14:18:06 -06'00'	August 22, 2023	U.S. EPA Region 8 Denver, Colorado Privacy
Reviewer Name	Review Date	Contact Information
Privacy	August 30, 2023	U.S. EPA Region 8 Denver, Colorado Privacy
Management Reviewer Name/Signature/Date		Contact Information
Privacy Digitally signed by Privacy Privacy Date: 2023.09.08 06:54:44 -06'00'		U.S. EPA Region 8 Denver, Colorado Privacy
Privacy		

Inspection Narrative and Facility Description

1.0 Introduction

On Tuesday, June 27, 2023, I, U.S. Environmental Protection Agency (EPA) inspector [Privacy], accompanied by EPA inspector [Privacy] (collectively, “we”), conducted a compliance evaluation inspection of the Cherry Creek Wastewater Treatment Facility (WWTF; facility), located in Ziebach County, South Dakota, within the exterior boundaries of the Cheyenne River Reservation (Reservation). We were accompanied by the individuals identified on pages 1-2 of this report for the respective portions of the inspection.

The facility is owned by the Cheyenne River Sioux Tribe and operated by the Mni Wašté Water Company (MWWC). The inspection was coordinated with the MWWC and Cheyenne River Sioux Tribe Department of Environmental and Natural Resources several weeks in advance, and an inspection notification letter was sent to the Cheyenne River Sioux Tribe on May 18, 2023. The purpose of the inspection was to evaluate compliance with applicable National Pollutant Discharge Elimination System (NPDES) and Clean Water Act (CWA) requirements. Throughout the inspection, we took notes on our discussions and observations in bound checklists. Enclosure 2 is a facility schematic maintained in EPA records; the accuracy of this schematic was not verified during the inspection. Enclosure 3 is a log of photographs taken during the inspection.

2.0 Background

At the time of the inspection, the facility was permitted under the “No Discharge Requirement” (NODIS) conditions of the 2022-2027 EPA Region 8 Lagoon General Permit SDG589### (Permit). The facility was assigned facility-specific NPDES ID SDG589108.

Records pertaining to previous EPA NPDES inspections and other NPDES permitting, and compliance records are maintained in EPA files. Records pertaining to facility engineering are primarily maintained by the MWWC and the IHS.

3.0 Inspection Narrative

The inspection began when we arrived at the MWWC offices in Eagle Butte on 06/26/23 at approximately 08:30 AM. We convened with [Privacy] in a conference room, presented our inspector credentials, and conducted an opening conference. During the opening conference, we asked questions pertaining to the design, operation, and CWA and NPDES compliance of multiple wastewater treatment facilities operated by the MWWC, including the subject facility.

3.1 MWWC Wastewater Operations

The MWWC operates a regional water treatment plant and distribution system which provides water to multiple communities and users across the region. The MWWC also operates approximately fourteen Tribally-owned WWTFs on the Reservation. At the time of the inspection, the MWWC employed ten operators and various managerial and administrative support staff. The majority of MWWC operations are dedicated to the provision of potable water, but all operators perform both water and wastewater duties as needed. [Privacy] was the lead MWWC operator for wastewater issues and indicated he held a wastewater collections operator certification from the State of South Dakota. MWWC representatives indicated one additional operator was certified in wastewater collections for a total of two operators certified in collections, and no operators certified in treatment.

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Privacy stated all WWTFs operated by the MWWC were inspected at least monthly and provided an example lagoon inspection form the MWWC had been using. We reviewed completed inspection forms for several WWTFs during the opening conference. The frequency of lagoon inspections and inspection forms is discussed further in Findings 1 and 2. Privacy also stated sewer mains for all MWWC-operated WWTFs were jetted annually and manholes were routinely spot-checked for backups.

MWWC customers and finances were briefly discussed during the opening conference. Privacy indicated the MWWC was a 501(c)2 nonprofit organization. The MWWC was overseen by a board comprised of members from each of the six Tribal government districts on the Reservation, however MWWC conducts all day-to-day operations. MWWC representatives indicated the majority of MWWC revenue was derived from user fees, with flat-rate residential water and wastewater fees of approximately \$11 and \$13, respectively, assessed monthly. MWWC representatives indicated they directly served approximately 1,600 water customers and approximately 1,000 wastewater customers. Some of MWWC's customers are independent municipalities, such as incorporated towns, which may serve hundreds or thousands of additional individual users.

3.2 Facility Description

The WWTF is a gravity-flow collection system, lagoon, and lift station. The lagoon services the Cherry Creek community comprised of approximately 50 residential homes and several commercial establishments. The facility is permitted as a no discharge facility, under the Lagoon General Permit for the Cheyenne River Reservation. Any discharge from the facility is expected to be under emergency circumstances only.

We began the inspection by observing the lift station located just west of the lagoon cells off Route 12 (photos 368 and 369). All wastewater from the collection system flows to the lift station, which conveys it to the lagoon.

Lift Station Name	Latitude	Longitude
Cherry Creek	44.604722 ° N	-101.4975 ° W

At the time of the inspection, the high-level alarm was going off, the level of wastewater in the wet well was elevated above the high-level float, and the trash basket and influent inlet were submerged. Privacy stated power to the lift station had recently been disrupted, presumably due to a lightning storm in the area the prior evening. When power was restored, one of the two pumps had restarted, but the other had failed to reset. There was no back-up generator at the facility. Without power to the pumps, wastewater had backed up in the wet well and into the collection system, but no overflows were observed. The lift station did have a high-water visual alarm; however, the audible alarm was not in operation. Privacy started the back-up pump and pumped down the wet well into the force main and lagoons. The operator indicated SCADA was not installed at this location, but if available could have helped to notify operators earlier of any power outages, alarms, or pump failures. Otherwise, if the operational pump had continued to be overwhelmed, operators may not have been notified of any issues until the collection system backup affected users or overflowed from the wet well or manholes, as operators typically only visited this community once per week.

The inspectors then inspected the lagoon cells. The facility is a lagoon system consisting of three cells operating in series (photos 370-372) and outlined in the following table.

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Cell ID	Area (acres)
Cell 1	1.8
Cell 2	1.3
Cell 3	1.3
Total	4.4

Wastewater enters the system through the southwest corner of cell 1, located on the north side of Route 12. [REDACTED] stated wastewater is typically released from cell 1 into cell 2, which is located on the south side of Route 12, once every 2-3 months. A valve and overflow are present between cell 2 and cell 3, also located on the south side of Route 12 (see attached facility schematic), but [REDACTED] stated no wastewater had been directed into Cell 3 in over 10 years. The outfall is located on the southeast corner of cell 3. At the time of inspection, cell 3 was empty, and therefore no discharge was observed. The berms surrounding all cells had been recently mowed. Inside the empty cell 3, vegetation had reached a height greater than six inches on the inside berms, and cattails were observed throughout.

4.0 Post-Inspection Activities and Conclusion

Following the inspection, I exchanged emails with [REDACTED] and a phone call on 8/14/23 to follow-up on questions. Additionally, I conferred with the EPA Region 8 Wastewater Section regarding self-inspection requirements for the Permit.

Findings, requested corrective actions, and recommendations identified pursuant to this inspection are included in the section below.

Findings, Corrective Actions, and Recommendations

Finding #1: The MWWC had not renewed written approval to conduct inspections on a monthly basis instead of a weekly basis.

The MWWC was conducting monthly inspections per authorization granted in 2011 with an earlier edition of the general permit for wastewater lagoons.

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,”

Corrective Action:

With each new Permit, the applicant (upon submission of the NOI), is submitting for coverage under the terms of that version of the general permit. Any previously approved allowances that were applied to coverage under a previous version of the Permit would not automatically carry over. Therefore, requests for allowances (e.g., less frequent inspections) to the new Permit requirements should be made specific to that new Permit coverage. If the facility would like to conduct monthly inspections instead of weekly inspections, please submit a written request to the address shown below:

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

Please also email a copy of the written request to Region 8 Wastewater Section Supervisor **Privacy**

In a response to this report, please provide a narrative clarifying whether the MWWC intends to conduct weekly or monthly inspections.

Finding #2: Lagoon inspections were documented using outdated inspection form.

Lagoon inspections were being documented using the checklist from prior Permit. The inspectors provided the facility representatives with a lagoon inspection report template found in Appendix D of the 2022 permit to document routine 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;

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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.”

Corrective Action:

During the inspection, the EPA identified the inspection form included as Appendix D of the Permit, and the MWWC indicated they would begin using the new form immediately. In a response to the EPA, provide a copy of a recently completed inspection form for the facility.

Finding #3: Alarms indicating pump failure were not operational.

At the time of the inspection audible alarms indicating the pump failure were not operating at the lift station. Functioning audible alarms may prompt passerby to contact the MWWC and alert them of potential problems before they become more severe.

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

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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.”

Corrective Action:

Ensure that the facility lift station alarms are working properly. Provide the EPA with photos and a description of the corrective actions taken to address this finding.

Finding #4:

No SCADA functionality was installed at this lift station, and MWWC representatives had no way of being promptly and remotely alerted to power disruptions, pump failures, or other operational issues that could arise at this facility.

MWWC representatives indicated power disruptions affecting lift stations were common across the Reservation, and even when backup generators were available, lift stations often did not properly reset when switching between power sources.

As demonstrated during this inspection, MWWC operators would have had no knowledge of the recent power disruption and resulting lift station pump failure had we not been visiting this lift station for an inspection. Otherwise, due to its remote location, operators only visit this lift station approximately once per week, and the backup could have become substantially worse, posing an increased risk to human health and the environment, before the MWWC would have been notified of the issue.

Recommendation:

The EPA recommends the MWWC evaluate the feasibility of installing SCADA functionality at this and other lift stations. No response is requested pursuant to this recommendation.

Finding #5: There was vegetation and trees growing on the inside of cell 3.

Vegetation had reached greater than six inches in height on the inside berm cell 3 (photo 372).

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

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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."

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Recommendation:

Continue to mow the berms around cell 3 and monitor vegetation growth inside cell 3, removing vegetation as needed to ensure no rooted trees or shrubs begin growing in the cell and the cell remains in an operable state, should it be needed. No response to the EPA is requested pursuant to this recommendation.