

NPDES Inspection Report – Wastewater Treatment Facility

National Database Information	
Inspection Date: July 1, 2021	Inspection Type: CEI – Wastewater Treatment Facility, Minor
Entry / Exit Time: 12:00pm / 1:30pm	NPDES ID Number: WYG589104
NAICS Code: 221320 (Sewage Treatment Facilities)	Inspection ID: 202107_WYG589104
Lead inspector and affiliation: Jessica Duggan / U.S. EPA Region 8	
Inspector and affiliation: Kristin Ratajczak / U.S. EPA Region 8	

Facility Location Information	
Site/Facility Name & Location: Arapaho Industrial Park Lagoon Wind River Reservation, Wyoming 42.9585, -108.484583	Email Report to: Mike Quiver, Director Northern Arapaho Utilities mike.quiver@northernarapaho.com

Contact Information	
	Name(s)/Title
Facility Contacts:	Mike Quiver / Director / Northern Arapaho Utilities (present)
	Flora Dewey / Operator / Northern Arapaho Utilities (present)
Tribal Environmental Contacts	Steve Babits / Environmental Scientist / Northern Arapaho Tribe Natural Resource Office (present)
Person/Company meeting definition of “Owner”	Northern Arapaho Tribe
Person/Company meeting definition of “Operator”	Northern Arapaho Utilities
Responsible Official(s)	Mike Quiver / Director / Northern Arapaho Utilities (present)

Permit / Facility Information	
Is the permit on site and available? Yes; On July 1, 2021, Northern Arapaho Utilities (NAU) obtained a copy of the general permit in the main office.	Is the Facility under a compliance schedule? No
Permit Effective Date: February 3, 2016	Permit Expiration Date: December 31, 2020; Administratively Continued
Lagoon Category: Subcategory D	Monitoring Frequency: No Discharge
Is correct contact information indicated on ICIS? Yes	Indicate correct contact information: N/A
Receiving Water(s): Little Wind River	
Inspector’s source of information: EPA records, permit, ICIS, aerial imagery, facility representatives, facility records, and site review.	

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	Date	Address/Phone Number
Jessica Duggan	9/2/2021	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NW Denver, Colorado 80202 303-312-6195
Reviewer Name	Date	Address/Phone Number
Kristin Ratajczak	9/3/2021	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NW Denver, Colorado 80202 303-312-6310
Management Reviewer Signature	Date	Address/Phone Number
MICHAEL BOEGLIN  Digitally signed by MICHAEL BOEGLIN Date: 2021.09.07 06:20:19 -06'00'	9/7/2021	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NW Denver, Colorado 80202 303-312-6250
Michael Boeglin, NPDES and Wetlands Enforcement Section Chief		

Inspection Narrative and Site Description

Introduction and Background

On Thursday, July 1, 2021, U.S. Environmental Protection Agency (EPA) inspectors Jessica Duggan and Kristin Ratajczak (jointly referred to as inspectors), conducted a compliance evaluation inspection at the Arapaho Industrial Park Lagoon wastewater treatment facility (WWTF; lagoon; facility; or Industrial Park), located in the town of Arapahoe which is approximately 8 miles south of Riverton, Wyoming, on the Wind River Reservation. The facility was a publicly owned treatment works (POTW) comprising of a collection system, lift station, and lagoon system owned by the Northern Arapaho Tribe (Tribe) and operated by Northern Arapaho Utilities (NAU). The purpose of the inspection was 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 Wyoming. The facility was covered under the EPA Region 8 NPDES Lagoon General Permit for Wastewater Lagoons in Indian Country (permit) with "Subcategory D – No Authorization to Discharge" authorization and facility-specific NPDES permit number WYG589104 (Permit).

The inspection was coordinated with the facility and the Northern Arapaho Tribe Resource Office, approximately two weeks in advance. The Tribe was notified of the inspection in a letter sent June 7, 2021. Throughout the inspection, inspectors noted observations and descriptions of photographs in bound checklists reflecting conditions of the permit. Photographs taken during the inspection of the Arapaho Industrial Park Lagoon are included in the attached photo log (Photos 115-124).

Opening Conference and Discussion

On June 30, 2021, at approximately 8:00am, EPA inspectors met Mike Quiver, NAU Director, and Steve Babits, representative from the Northern Arapaho Tribe Resource Office at Mill Creek Lagoon, another NAU wastewater treatment facility. Inspectors presented their credentials and held an opening conference to explain the purpose of the EPA inspections. Inspectors were conducting several inspections at NAU facilities and began the Industrial Park site inspection, overview of the lagoon's service area, collection system, and wastewater operation and maintenance (O&M) of the facility at 12:00pm.

Facility Description and Process Overview

Arapaho Industrial Park Lagoon is a one (1)-cell wastewater lagoon system that serves a school with a cafeteria, four (4) homes, and the septic system for approximately eight (8) trailers in the COVID camp. The temporary COVID camp was used to quarantine COVID positive people. Wastewater from the homes and school gravity flows to a lift station, which is designed to pump wastewater into the lagoon. During the inspection the two pumps in the lift station were not operational and a 2,500-gallon capacity vac truck was used to pump wastewater from the lift station on Mondays, Wednesdays, Fridays, and occasionally Sundays. The vac truck would drive approximately 0.1 miles from the lift station to the lagoon and discharge into the lagoon. A vac truck was also used to pump the septic system for the COVID camp trailers and is discharged into the lagoon. An additional source of wastewater to the Industrial Park Lagoon is the wastewater that is pumped out via vac trucked from Cell 2 at Arapaho Community Lagoon on a weekly basis. NAU has elected to pump wastewater out of Arapaho Community Lagoon and transport it to the Industrial Park Lagoon.

During the inspection NAU operators stated that there are potential infiltration and inflow (I&I) issues in the sewer system prior to the lift station. There was a health clinic that was plumbed to discharge to

Inspection Narrative and Site Description

the lagoon, but it is no longer present. The sewer line that used to connect is suspected to have infiltration but NAU operators indicated they are unable to investigate or address the I&I because the piping is located within an inaccessible wetland.

Septic haulers also discharge directly into the lagoon by pulling up to the edge and pumping into the lagoon. The septic haulers have been uncontrolled in the past and unauthorized haulers were discharging into the lagoon. NAU installed a gate that is kept locked about 4 months prior to the inspection (~March 2021).

The lagoon has valving in the center of the lagoon for the outfall (Photo 122), and a concrete structure with outfall manhole that is located approximately 50ft to the southeast of the lagoon (Photo 123). Industrial Park does not discharge, but if a discharge were to occur it would flow into the Little Wind River.

Below is an aerial image of Arapaho Industrial Lagoon and the lift station.



Facility Review

EPA inspectors began the inspection at the lift station located south of Left Hand Ditch Road in Arapahoe (Latitude: 42.960200; Longitude: -108.484197). When inspectors arrived, a vac truck was pumping wastewater from the lift station (Photos 115 – 117). NAU operators said one pump was not

Inspection Narrative and Site Description

operational and broke in January 2021. The second pump was operational but was not able to push the wastewater into the lagoon, thus the lift station was not functioning properly. Manual pumping via a vac truck on Mondays, Wednesday, Fridays, and occasionally Sundays had been implemented since January 2021. NAU operators hoped to have a new pump installed in the lift station by the end of summer 2021. NAU operators visit the Industrial Park lagoon lift station daily and check the wet well. The lift station was not equipped with an alarm system, but NAU representatives indicated no overflows have occurred.

The lagoon had abundant vegetation was observed to be growing inside the lagoon and along the berms (Photos 119-120, and 122-124). The lagoon appeared to be dry or had only minimal wastewater in the cell.

Inspectors observed evidence of erosion of the berm on the northeast corner of the lagoon (Photos 118, 121, and 124). Rock and dirt were pushed into the corner to try to remedy the erosion. NAU indicated that the erosion was caused by authorized vac truck usage including multiple weekly trips from the lift station and vac trucks from Arapaho Community Lagoon, as well as unauthorized vac truck discharges. Approximately four months prior to the inspection (~March 2021), a lock was installed on the gate to stop unauthorized dumping into the lagoon.

Inspectors observed the outfall valving in the center of lagoon (Photo 122) and the concrete structure with outfall manhole (Photo 123) from the lagoon berm. Access to the outfall structure was unclear and inspectors decided to forgo close-up photographs of the outfall given the low water volume inside the lagoon.

Additional observations from the facility review are included in the attached photo log. The facility review conclude at approximately 1:30pm.

Records Review and Closing

Industrial Park Lagoon is authorized under NPDES permit WYG589104 as a Subcategory D – No Authorization to Discharge facility. Although the facility is not designed to discharge, Subcategory D facilities have record keeping requirements for weekly inspections. There were no weekly inspection records maintained by the NAU for the facility. A copy of the current permit was not maintained with the records, but EPA inspectors showed NAU operators how to access the current version of the permit online. Additionally, no O&M manual was available for the facility or collection system.

EPA inspectors conducted a closing conference and discuss preliminary observations of all six NAU operated facilities at the end of the day on July 1, 2021.

Follow-Up

On July 17, 2021, EPA sent an email Mr. Mike Quiver, Mr. Harold Little Bear, Ms. Flora Dewey, Mr. Steve Babits, and Mr. Dean Goggles, with the preliminary findings from all the NAU facility inspections.

Findings identified during the inspection are included in the Findings, Corrective Actions, and Recommendations section, below.

Findings, Corrective Actions, and Recommendations

Finding 1: The lift station was not operating properly and manual pumping via vac truck was required multiple days per week.

The lift station for Industrial Park Lagoon located at 42.960200 N, 108.484197 W, contained two pumps. NAU operators said one pump was not operational and broke in January 2021. The second pump was operational but was not able to push the wastewater into the lagoon, thus the lift station was not functioning properly. Manual pumping via a vac truck on Mondays, Wednesday, Fridays, and occasionally Sundays had been implemented since January 2021. During the inspection, a vac truck was pumping wastewater from the lift station (Photos 115 – 117) for discharge into the lagoon system. NAU operators hoped to have a new pump installed in the lift station by the end of summer 2021. NAU operators visit the Industrial Park lagoon lift station daily to check the wet well. The lift station was not equipped with an alarm system, but NAU representatives indicated no overflows have occurred.

Lift stations without proper functioning pumps increases the chances for sanitary sewer overflows (SSO). Proper operation and maintenance of lift stations include adequate backup equipment in case of failure.

Permit Requirements:

Part 6.5 of the permit states, “Proper Operation and Maintenance: 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 the permit. However, the permittee shall operate, at a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.”

Corrective Action:

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, including adequate back-up systems, such as pumps for lift stations. Provide the EPA with a description of the corrective actions taken to address this finding.

Finding 2: There was evidence of erosion of the berm on the northeast corner of the lagoon.

Inspectors observed evidence of erosion of the berm on the northeast corner of the lagoon (Photos 118, 121, and 124). Rock and dirt were pushed into the corner to try to remedy the erosion. NAU indicated that the erosion was caused by authorized vac truck usage including multiple weekly trips from the lift station and vac trucks from Arapaho Community Lagoon, as well as unauthorized vac truck discharges. Approximately four months prior to the inspection (~March 2021), a lock was installed on the gate to stop unauthorized dumping into the lagoon.

Permit Requirements:

Part 6.5 of the permit states, “Proper Operation and Maintenance: 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

Findings, Corrective Actions, and Recommendations

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 the permit. However, the permittee shall operate, at a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.

In addition to the operation and maintenance items in the manual for the lagoon system, the permittee shall do the following maintenance:

- 6.5.1. Take necessary action to promptly correct the problem of leakage through the dikes;
- 6.5.2. Take necessary action to promptly remove burrowing animals from the dikes;
- 6.5.3. Promptly repair damage to dikes caused by burrowing animals and/or erosion;
- 6.5.4. Remove rooted plants, including weeds, from the water on a regular basis or as needed; and
- 6.5.5. Keep the dikes mowed on a regular basis during the growing season or as needed (e.g., keep growth below 6" in height)."

Corrective Action:

Repair damage to berms caused by erosion from vac truck disposal. Provide the EPA with a description of the corrective actions taken to address this finding.

Finding 3: Abundant vegetation was present in the lagoon cell and on the dikes.

Though the lagoon appeared dry, abundant vegetation and cattails were growing inside the cell. (Photos 118-120, and 122-124). Additionally, vegetation on the lagoon dikes was greater than 6 inches tall and in need of mowing.

Permit Requirements:

Part 6.5 of the permit states, "Proper Operation and Maintenance: 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 the permit. However, the permittee shall operate, at a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve permit effluent compliance.

In addition to the operation and maintenance items in the manual for the lagoon system, the permittee shall do the following maintenance:

- 6.5.1. Take necessary action to promptly correct the problem of leakage through the dikes;
- 6.5.2. Take necessary action to promptly remove burrowing animals from the dikes;
- 6.5.3. Promptly repair damage to dikes caused by burrowing animals and/or erosion;
- 6.5.4. Remove rooted plants, including weeds, from the water on a regular basis or as needed; and
- 6.5.5. Keep the dikes mowed on a regular basis during the growing season or as needed (e.g., keep growth below 6" in height)."

Findings, Corrective Actions, and Recommendations

Corrective Action:

Remove rooted plants, including weeds, from the water on a regular basis and keep dikes mowed on a regular basis during the growing season (keep growth below 6" in height). Provide the EPA with photos and a description of the corrective actions taken to address this finding.

Finding 4: NAU had not performed weekly lagoon self-inspection or maintained inspection logs.

NAU Director, Mike Quiver, indicated that NAU operators had not performed inspections of the wastewater treatment facility and did not maintain inspection records.

Permit Requirements:

Part 4.3.1 of the permit states, "On at least a weekly basis, unless otherwise modified by written approval from the EPA, the permittee shall inspect its wastewater treatment facility. The permittee shall maintain a notebook recording all information obtained during the inspection. At a minimum, the notebook shall include the following: (see Appendix D for Example Lagoon Inspection Form)

- 4.3.1.1. Name of facility and permit number;
 - 4.3.1.2. Date and time of the inspection;
 - 4.3.1.3. Name of the inspector(s);
 - 4.3.1.4. The facility's discharge status;
 - 4.3.1.5. The flow rate of the discharge if occurring;
 - 4.3.1.6. 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 Parts 4.2 and 5.4.3 of this permit if not already done.);
 - 4.3.1.7. Is there is any leakage through the dikes;
 - 4.3.1.8. Are there are any animal burrows in the dike;
 - 4.3.1.9. Is there any erosion of the dikes;
 - 4.3.1.10. Are there are any rooted plants, including weeds growing in the water;
 - 4.3.1.11. Does the vegetation growth on the dikes needs mowing (e.g. greater than 6" tall);
 - 4.3.1.12. List the date scheduled for operation and maintenance procedures to be undertaken at the wastewater treatment facility.
 - 4.3.1.13. Identification of operational problems and/or maintenance problems;
 - 4.3.1.14. Recommendations, as appropriate, to remedy identified problems;
 - 4.3.1.15. A brief description of any actions taken with regard to problems identified; and,
 - 4.3.1.16. Other information, as appropriate.
- 4.3.2. The permittee shall maintain the notebook 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 (see Part 5.10 of this permit)."

Corrective Action:

Inspect the wastewater treatment facility on at least a weekly basis, unless otherwise modified by written approval from the EPA. Provide the EPA with a description of the corrective actions taken to address this finding and submit a copy of a recent inspection report.

Findings, Corrective Actions, and Recommendations

Finding 5: A copy of the current permit was not available.

During this inspection, EPA inspectors showed NAU operators how to access the current version of the permit online (<https://www.epa.gov/npdes-permits/about-region-8s-npdes-permit-program>).

Permit Requirements:

Part 5.7 of the permit states, “Retention of Records: 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 this permit, inspection records, notifications to the EPA per this permit, and DMRs, for a period of at least five years from the date of the sample, measurement, report, application or submittal. Records of monitoring required by this permit related to sludge use and disposal activities must be kept at least five years (or longer as required by 40 C.F.R. Part 503). This period may be extended by request of the Director at any time. Data collected on site, data used to prepare the DMR, copies of DMRs, a copy of this NPDES permit, and the notice of intent for permit coverage, must be maintained on site.”

Corrective Action:

Ensure a copy of the permit is maintained on site. This corrective action is complete. No response is requested pursuant to this corrective action.

Finding 6: There was an Operation & Maintenance (O&M) manual for the lift station but no O&M manual or records were maintained for the lagoon system.

EPA Guidance:

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

Recommendation:

The EPA recommends an operation and maintenance manual be developed for the facility. No response to the EPA is requested pursuant to this recommendation.