

NPDES Inspection Report – Wastewater Treatment Facility

National Database Information	
Inspection Date: June 30, 2021	Inspection Type: CEI – Wastewater Treatment Facility, Minor
Entry / Exit Time: 1:30pm / 3:30pm	NPDES ID Number: WYG589107
NAICS Code: 221320 (Sewage Treatment Facilities)	Inspection ID: 202106_WYG589107
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: Beaver Creek Lagoons E1/2 S15, T1S, R4E Ethete, Wyoming 82520 42.975622, -108.385794	Mail 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)
Tribal Environmental Contacts	Steve Babits / Environmental Scientist / Northern Arapaho Tribe Natural Resource Office (present for part of inspection)
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: May 6, 2019	Permit Expiration Date: December 31, 2020; Administratively Continued
Lagoon Category: Subcategory D	Monitoring Frequency: No Discharge
Is correct contact information indicated on ICIS? No, the address or latitude/longitude of the facility is incorrect.	Indicate correct contact information: 42.975622, -108.385794 (latitude/longitude)
Receiving Water(s): Unnamed tributary to 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	9/1/2021	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 11:40:21 -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 Wednesday, June 30, 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 Beaver Creek Lagoons wastewater treatment facility (WWTF; lagoon; facility; or Beaver Creek), located approximately 4 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 WYG589107.

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 Beaver Creek Lagoons are included in the attached photo log (Photos 54-78).

Opening Conference and Discussion

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 Beaver Creek Lagoon site inspection, overview of the lagoon's service area, collection system, and wastewater operation and maintenance (O&M) of the facility at 1:30pm.

Facility Description and Process Overview

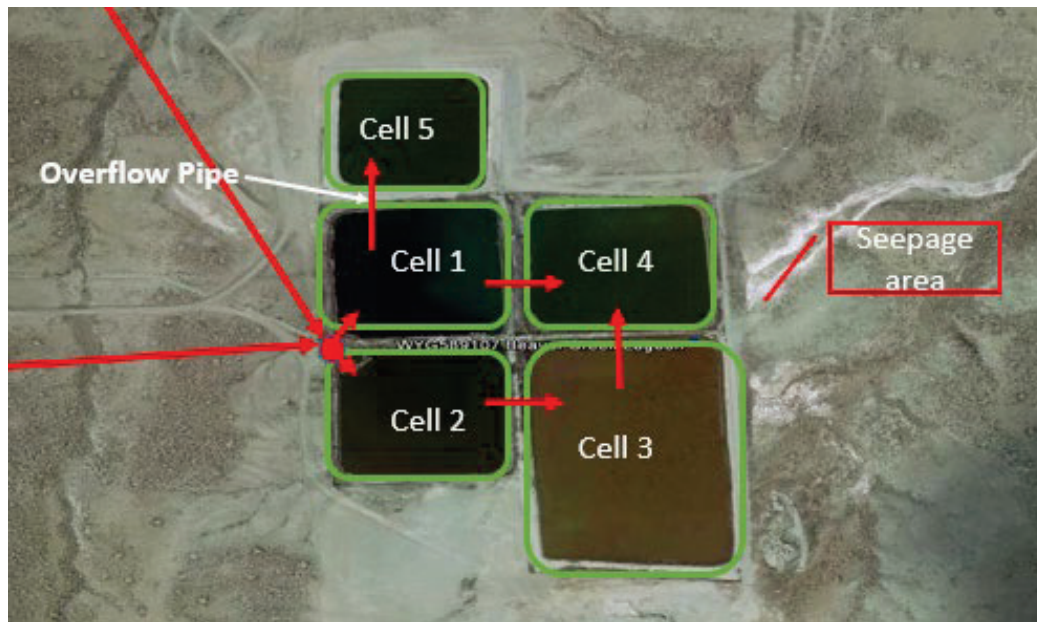
Beaver Creek Lagoons is a five (5)-cell wastewater lagoon system that serves a community of approximately 80 homes and the Wind River Hotel and Casino. The Wind River Hotel and Casino has a restaurant, and prior to the COVID-19 pandemic, a food court of about five eateries in the casino. It was unknown if all the eateries were open at the time of the inspection, but the hotel and casino were open for business. There are three lift stations; two lift stations are located at the Wind River Hotel and Casino and operated by the casino, and the third lift station is located on the west side of the Beaver Creek housing unit and is operated by NAU. Wastewater from the Wind River Hotel and Casino is lifted and directed via a force main to the collection system prior to the lagoons cells. The wastewater from the hotel and casino comingles with the wastewater from the housing unit prior to discharge into the lagoon cells.

Cells 1 and 2 are primary cells and operators can direct influent flow into either Cell 1 or Cell 2. Cells 3, 4, and 5 are evaporation cells and there are pipes that connect Cell 1 to Cell 3, Cell 4, and Cell 5, while Cell 2 only connects to Cell 3, which flows into Cell 4. The facility was designed as a total retention facility and there are no designated or constructed outfall structures. During the inspection, the operator stated that wastewater had breached or topped over and discharged from Cells 3, 4, and 5 in

Inspection Narrative and Site Description

the past when the hotel and casino were operating at full capacity and the lagoon cell volumes were completely full (~2018 and 2019). The operator also stated that Cell 1 breached in April/May 2021, coinciding with the casino and hotel reopening after COVID-19 restrictions were lifted. On the eastern edge of Cell 3 and Cell 4 there was a depression that was dry during the inspection, but is likely a flow path and appears to connect to the Little Wind River approximately 1.5 miles north of the facility in aerial images. Additionally, at the toe of the slope on the east side of Cell 3 and Cell 4 there was vegetation that indicated possible seepage although no flow was visible during the inspection.

Below is an aerial image of Beaver Creek Lagoons from a previous EPA inspection report with the cells labeled.



Facility Review

EPA inspectors began the inspection at the influent manhole on the west side of Cell 1 and Cell 2 and discussed the influent from the housing and the Wind River Hotel and Casino (Photo 56). Flow could be split between Cell 1 and Cell 2, but something was blocking the flow and wastewater was only entering Cell 1. A fence was standing on the western side of Cells 1, 2, and 5, but there were places that the fence was removed or damaged (Photo 55). The inspectors and Mr. Quiver drove along the access road and around the southern side of the lagoon cells.

Inspectors observed major erosion on the east side of the lagoon system. The eastern sides of Cell 3 and Cell 4 had been eroded and wave action in the cells had undercut the berm, causing the fence along the east side of Cell 3 to collapse (Photos 58-60). Erosion of the berms and erosion rills were also visible along the eastern sides of Cell 3 and Cell 4 (Photos 61-67). Mr. Quiver stated bentonite was used along Cell 3 and Cell 4 in an attempt to mitigate the erosion from wave action in the cells and that funds were requested to purchase riprap for similar mitigation efforts.

Inspection Narrative and Site Description

Along the toe of the slope on the east side of Cell 3 and Cell 4 inspectors observed vegetation that could be an indicator of seepage (Photos 67- 70). No visible water was flowing during the inspection, but vegetation and a small channel indicated past seepage and water flow.

On the east side of Cell 5, inspectors noted erosion in the berm and the operator indicated the wastewater had breached and overflowed Cell 5 in approximately 2018 or 2019 (Photos 71-74). Mr. Quiver said the breach occurred because the area received abundant rain and all the lagoons were at volume capacity. Erosion rills along the east berms were also noted (Photo 75).

After the tour around the lagoon cells, the inspectors and Mr. Quiver drove to the Beaver Creek Housing lift station located on the west side of the housing development (Latitude: 42.973327; Longitude: -108.398709) (Photos 76-77). The Beaver Creek Housing lift station had two pumps, but only one pump was operational during the inspection. NAU operators conduct daily visual check on the lift station level and record the information on the lift station log (Photo 78). During the June 30, 2021 EPA inspections at other NAU facilities, the one functional pump had a rag stuck in it and the high-level alarm was triggered. Northern Arapaho Facilities department used a vacuum truck to pump down the volume of wastewater in the lift station and the rag was removed from the pump. No wastewater discharge from the lift station, but operating the lift station with only one functional pump increases the chances for sanitary sewer overflows (SSO).

Additional observations from the facility review are included in the attached photo log. The facility review concluded at approximately 3:30pm.

Records Review and Closing

The EPA sent a letter dated December 28, 2016 to the Northern Arapaho Utilities indicating that a Notice of Intent (NOI) was received for the Lagoon General Permit (LGP). In this letter, the criteria for coverage under the LGP was explained and the Beaver Creek Lagoons was not eligible because a casino contributed wastewater to the lagoon system. The EPA sent another letter dated May 6, 2019, granting authorization of NPDES coverage under the LGP to Beaver Creek Housing WWTF. The letter including information about the fifth (5) cell being designed to support the Wind River Hotel and Casino. EPA inspectors confirmed with the NAU operator during the inspection that the wastewater from the Beaver Creek Housing, the hotel, and the casino comeingle prior to entry into Cell 1 or Cell 2. Information about the fifth cell (Cell 5) being dedicated solely to the Wind River Hotel and Casino was inaccurate.

The current LGP permit has expired and is administratively continued. The draft of the new LGP went into public notice for comments on August 25, 2021. Once the comments have been addressed and the permit is finalized, facilities will be able to submit NOIs and apply for coverage. It is recommended that once the new LGP permit is finalized, NAU review the permit coverage terms and evaluate whether the Beaver Creek Lagoons is eligible to maintain NPDES permit coverage under the LGP. Consult EPA Region 8 permitting if there are eligibility questions.

Beaver Creek Lagoons wastewater treatment facility is authorized under NPDES permit WYG589107 as a Subcategory D – No Authorization to Discharge facility, which does not authorize discharges except in accordance with the bypass provisions of the permit. Although the facility is not designed to discharge, Subcategory D facilities have record keeping requirements for weekly inspections and

Inspection Narrative and Site Description

sampling and monitoring of any unauthorized releases. There were no weekly inspection records maintained by the NAU for the facility and there were no sampling and monitoring records for the wastewater discharges or breaches from Cells 3, 4, and 5. 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: Inspectors observed major erosion and have significant concerns about the integrity of the lagoon cell berms.

The east sides of the lagoon system (Cell 3, Cell 4, and Cell 5) had been eroded and wave action in the cells had undercut the berms, causing the fence along the east side of Cell 3 to collapse (Photos 58-60). Erosion of the berms and erosion rills were also visible along the eastern sides of Cell 3 and Cell 4 (Photos 61-67) and Cell 5 (Photo 71-75). The NAU operator stated bentonite was used along Cell 3 and Cell 4 in an attempt to mitigate the erosion from wave action in the cells and that funds were requested to purchase riprap for similar mitigation efforts.

Wastewater was contained within the lagoon cells during the inspection, but NAU operators informed inspectors that wastewater had breached or topped over and discharged from Cells 3, 4, and 5 in the past when the hotel and casino were operating at full capacity and the lagoon cell volumes were completely full (~2018 and 2019).

Along the toe of the slope on the east side of Cell 3 and Cell 4 inspectors observed vegetation that could be an indicator of seepage (Photos 67- 70). No visible water was flowing during the inspection, but vegetation and a small channel indicated past seepage and water flow. Seepage at the toe of a lagoon berm raises concerns about the integrity of the lagoon cells.

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).”

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 in Chapter 9 (Operation and Maintenance), on page 9-18 states,

Findings, Corrective Actions, and Recommendations

“9.4.5.4 Dike Erosion Dike erosion from wave action can be prevented by using riprap in the form of rocks 8 - 48 cm laid along the water’s edge. One unusual method employed was to sink 5 by 15 cm uprights into the pond floor extending above the water surface to dissipate the waves. In another case, the pond operator filled bags with a dry mix of sand, gravel and cement. These were laid side by side and stacked to form a system of riprap protection. Riprap should extend 0.3 m above and below extreme operating levels. Other forms of riprap or bank stabilization include cribbing (snow fence) laid on the bank and reed canary grass. Canary grass is effective in ponds that are deep, have steep slopes and a stable water level. If sod is used it should be at least 7.5 cm (3 in) square and placed not more than 1 m apart.”

Corrective Action:

Properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this permit. Identify and implement solution(s) to address the erosion from wave action in Cell 3 and Cell 4. Promptly repair damage to berms caused by erosion (Cell 3, 4, and 5) and reinstall fencing. Promptly correct the problem causing seepage along the toe of the berm slope on the east side of Cell 3 and Cell 4. Provide the EPA with photos and a description of the corrective actions taken to address this finding.

Please note, Part 7.1 of the permit requires the permittee to notify EPA of any planned physical alterations or additions to the permitted facility when the alterations could significantly change the nature or increase the quantity of pollutants discharged. Refer to the permit for the specific requirement.

Finding 2: Unauthorized release from Cell 3, Cell 4, and Cell 5 occurred in approximately 2018 and 2019.

Beaver Creek Lagoon systems was designed as a total retention facility and there are no designated or constructed outfall structures. During the inspection, the NAU operator stated that wastewater had breached or topped over and discharged from Cells 3, 4, and 5 in the past when the hotel and casino were operating at full capacity and the lagoon cell volumes were completely full (~2018 and 2019). The operator also stated that Cell 1 breached in April/May 2021, coinciding with the casino and hotel reopening after COVID-19 restrictions were lifted. It is not known if wastewater from Cell 1 discharged off-site or discharged into the cell to the east (Cell 4). On the eastern edge of Cell 3 and Cell 4 there was an unnamed drainage conveyance that was dry during the inspection and connects to the Little Wind River approximately 1.5 miles north of the facility.

On the east side of Cell 5, inspectors noted erosion in the berm and the operator indicated the wastewater had breached and overflowed Cell 5 in approximately 2018 or 2019 (Photos 71-74). NAU operator said the breach occurred because the area received abundant rain and all the lagoons were at full volume capacity.

Permit Requirements:

Part 4.1 of the permit states, “No Discharge Requirement: Effective immediately and lasting through the life of this permit, there shall be no discharge except in accordance with the bypass provisions of this permit. If an unauthorized release occurs or is expected to occur, the permittee shall take the appropriate measures to minimize the discharge of pollutants (see Part 6.7).”

Findings, Corrective Actions, and Recommendations

Corrective Action:

Comply with permit requirement that the facility shall have no discharge, except in accordance with the bypass provision of the permit. Provide the EPA with a description of the corrective actions taken to address this finding.

Finding 3: Failure to sample, report, and notify EPA of unauthorized release of wastewater from Cell 3, Cell 4, and Cell 5 that occurred in approximately 2018 and 2019.

No notifications, phone calls, or reports were provided to EPA when wastewater was released from Cell 3, Cell 4, and Cell 5 (reference Finding 2). The twenty-four (24) hour notice of noncompliance report and five (5)-day written submission were not submitted to EPA. No samples were collected during the unauthorized release events and self-monitoring data was not reported to EPA.

Permit Requirements:

Part 4.1 of the permit states, “No Discharge Requirement: Effective immediately and lasting through the life of this permit, there shall be no discharge except in accordance with the bypass provisions of this permit. If an unauthorized release occurs or is expected to occur, the permittee shall take the appropriate measures to minimize the discharge of pollutants (see Part 6.7).”

Part 4.2 of the permit states, “Self-Monitoring Requirements: If an unauthorized release is discovered or expected to occur, the discharge shall be monitored as shown below:

Effluent Characteristic	Frequency	Sample Type a/
Flow, gpm c/	b/	Instantaneous
5-day Biochemical Oxygen Demand (BOD5), mg/L	b/	Grab
pH, standard units	b/	Grab
Total Suspended Solids (TSS), mg/L	b/	Grab
Total Ammonia Nitrogen (as N) d/	b/	Grab
Total Nitrogen (N), mg/L	b/	Grab
Total Phosphorus (P), mg/L	b/	Grab
Oil and Grease, Visual d/	b/	Observation
Oil and Grease, mg/L d/	d/	Grab

a/ See Definitions, Part 8, for definition of terms.

b/ The discharge shall be monitored three times per week for the first week of discharge (sample taken and flow rate measured), including once as soon as practical after the unauthorized release is discovered or when an expected unauthorized release begins, and at weekly intervals thereafter until the unauthorized release stops. If the discharge lasts less than one week in duration, monitoring shall be performed at the beginning, middle, and end of the discharge event. The permittee shall report the monitoring results using the format on the last page of this permit in accordance with the instructions in Part 5.4.2. A photocopy of the page of Part 9 may be used.

c/ If it is not possible to measure the rate of discharge, the rate of discharge shall be estimated. In addition, the permittee shall monitor the duration and approximate volume of each discharge.

d/ In the event that an oil sheen or floating oil is observed in the discharge, a grab sample shall be taken immediately and analyzed in accordance with the requirements of 40 C.F.R. Part 136. If no grab sample was taken because no visible sheen was observed, enter “No Visible sheen observed, so no grab sample required.” or similar verbiage when reporting the monitoring data.

Findings, Corrective Actions, and Recommendations

Part 5.8 of the permit states, “Twenty-four Hour Notice of Noncompliance Reporting.

5.8.1. The permittee shall report any noncompliance which may endanger health or the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the EPA, Region 8, Preparedness, Assessment and Response Program at (303) 293-1788 and the applicable Tribe (see Appendix A for list of Tribes and telephone numbers).

5.8.2. The following occurrences of noncompliance shall be reported by telephone to the EPA, Region 8, NPDES Enforcement Unit at (800) 227-8917 (8:00 a.m. - 4:30 p.m. Mountain Time) and the applicable Tribe (see Appendix A for list of Tribes and telephone numbers) (8:00 a.m. - 4:30 p.m. local time) by the first workday following the day the permittee became aware of the circumstances:

5.8.2.1. Any unanticipated bypass which exceeds any effluent limitation in the permit (See Part 6.7, Bypass of Treatment Facilities.);

5.8.2.2. Any unauthorized release, including sanitary sewer overflows;

5.8.2.3. Any upset which exceeds any effluent limitation in the permit (See Part 6.8, Upset Conditions.); or,

5.8.2.4. Any violation of a discharge limitation for any of the pollutants listed in the permit to be reported within 24 hours.

5.8.3. A written submission shall also be provided to the EPA and to the applicable Tribe within five days of the time that the permittee becomes aware of the circumstances. The written submission shall contain:

5.8.3.1. A description of the noncompliance and its cause;

5.8.3.2. The period of noncompliance, including exact dates and times;

5.8.3.3. The estimated time noncompliance is expected to continue if it has not been corrected; and,

5.8.3.4. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.”

Corrective Action:

Ensure that all required self-monitoring is conducted during unauthorized release events and reported to EPA. Ensure the twenty-four (24) hour notice of noncompliance and five (5)-day written submission are reported and sent to EPA. Provide the EPA with a description of the corrective actions taken to address this finding.

Finding 4: The Beaver Creek Lagoon cells do not have adequate capacity to retain wastewater.

The Beaver Creek Lagoon system was designed as a total retention facility and there are no designated or constructed outfall structures. During the inspection, the NAU operator stated that wastewater had breached or topped over and discharged from Cells 3, 4, and 5 in the past when the hotel and casino were operating at full capacity and the lagoon cell volumes were completely full (~2018 and 2019). The operator also stated that Cell 1 breached in April/May 2021, coinciding with the casino and hotel reopening after COVID-19 restrictions were lifted.

Inspectors have concerns about Beaver Creek Lagoon capacity and whether the lagoon system could adequately treat and retain the volume of wastewater from the hotel, casino, and residential contributions. Increased wastewater contributions to the lagoon system could cause additional discharges or breaches in the future. Additionally, the erosion mitigation efforts of adding bentonite may have reduced the volume capacity in Cell 3 and Cell 4.

Findings, Corrective Actions, and Recommendations

Permit Requirements:

Part 4.1 of the permit states, “No Discharge Requirement: Effective immediately and lasting through the life of this permit, there shall be no discharge except in accordance with the bypass provisions of this permit. If an unauthorized release occurs or is expected to occur, the permittee shall take the appropriate measures to minimize the discharge of pollutants (see Part 6.7).”

Part 6.9.5. of the permit states, “The Permittee must notify the Approval Authority of any new introductions by new or existing industrial users or any substantial change in pollutants from any industrial user within sixty (60) days following the introduction or change. Such notice must identify:...

6.9.5.2. Any substantial change in the volume or character of pollutants being introduced into the POTW by any industrial user;”

Corrective Action:

Evaluate the current influent flow contributions from the various sources. Notify EPA of any substantial changes in the volume of wastewater begin introduced to the lagoon system by any industrial users. Determine whether operation and maintenance activities, such as sludge removal or addressing infiltration and inflow (I&I), are appropriate to restore cell volume capacity. Determine if other infrastructure projects, such as installing an outfall structure, are necessary. If appropriate, consult with Indian Health Services (IHS) representatives. Provide the EPA with a response describing the evaluation of influent flow and the corrective actions the permittee has taken, or plans to take, to address this finding.

Please note, Part 7.1 of the permit requires the permittee to notify EPA of any planned physical alterations or additions to the permitted facility when the alterations could significantly change the nature or increase the quantity of pollutants discharged. Refer to the permit for the specific requirement.

Finding 5: Beaver Creek Housing lift station had one functional pump and it went out of operation on June 30, 2021 triggering the high-level alarm.

The lift station for the Beaver Creek housing had two pumps, but only one pump was operational during the inspection (Photos 76-77). NAU operators conduct daily visual check on the lift station level and record the information on the lift station log (Photo 78). During the June 30, 2021 EPA inspections at other NAU facilities, the one functional pump had a rag stuck in it and the high-level alarm was triggered. Northern Arapaho Facilities department used a vacuum truck to pump down the volume of wastewater in the lift station and the rag was removed from the pump. No wastewater discharged from the lift station, but operating the lift station with only one functional pump increases the chances for SSOs. 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

Findings, Corrective Actions, and Recommendations

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 6: Failure to perform weekly lagoon self-inspection and maintain 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).”

Findings, Corrective Actions, and Recommendations

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.

Finding 7: Perimeter fence was not intact and did not surround the entire lagoon system. No visible signs were posted on the fence to warn the public.

Inspectors noted the perimeter fence was not intact and did not surround the entire lagoon system. A fence was standing on the western side of Cells 1, 2, and 5, but there were places that the fence was removed or damaged (Photo 55). Wave action and erosion in the cells had undercut the berms, causing the fence along the east side of Cell 3 to collapse (Photos 58-60). There appeared to be an inflatable raft in Cell 3 (Photo 63). No visible signs were posted on the fence or around the lagoon to warn the public.

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.”

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 in Chapter 9 (Operation and Maintenance), on page 9-20 that: “To discourage use of the ponds for recreation, the entire area should be fenced and warning signs displayed.”

Recommendation:

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. EPA recommends the posting of warning signs at the lagoon and ensuring the fences are maintained to prevent unauthorized access and entrance by wildlife. Provide the EPA with a response on whether the recommended action has been or will be implemented.

Finding 8: A copy of the current permit was not available on site.

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>).

Findings, Corrective Actions, and Recommendations

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 9: 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.