

NPDES Inspection Report – Wastewater Treatment Facility

National Database Information	
Inspection Date: August 23, 2023	Inspection Type: CEI – Wastewater Treatment Facility
Entry/Exit Time: Opening Conference: 08:30 am-10:30 am, August 22, 2023 Site Review: 10:56 am-11:19 am, August 23, 2023	NPDES ID Number: NDG589406
NAICS Code: 221320	Inspection ID: 202308 NDG5890406
Lead inspector and affiliation: Brit Rustad / EPA Region 8	
Inspector and affiliation: Akash Johnson / EPA Region 8	

Facility Location Information	
Site/Facility Name & Location: Shell Valley Wastewater Treatment Facility Lat/Long: 48° 47' 41.89" N, 99° 52' 26.29" W (lagoon) Rolette County, ND 58316	Email Report to: Kenny Azure, Director, TMPUC puckenny@utma.com

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

Permit Information		
Is the permit on site and available? Did not evaluate; EPA emailed a copy to TMPUC after the inspection	Lagoon Category: No Discharge	Monitoring Frequency: N/A
Effective Date: 11/1/2022	Expiration Date: 3/31/2027	Is the Facility under a compliance schedule? No
Is correct contact information indicated on ICIS? Yes	Indicate correct contact information: N/A	
Receiving Water(s): Immediately discharges to an open field that would eventually lead to Wolf Creek		

Regulatory Inspector's source of information: Notice of Intent for the permit, ICIS, ECHO, and facility representatives

Areas Evaluated During Inspection

<u>Permit</u>	<u>Self-Monitoring Program</u>	Pretreatment
<u>Records</u>	Compliance Schedule	Pollution Prevention
<u>Facility Site Review</u>	Laboratory	Stormwater
Effluent/Receiving Waters	<u>Operations and Maintenance</u>	Combined Sewer Overflow
Flow Measurement	Sludge Handling/Disposal	Sanitary Sewer Overflow

Report Review and Signature

Drafter Name	Draft Date	Contact Information
BRIT RUSTAD  Digitally signed by BRIT RUSTAD Date: 2023.11.27 09:50:20 -07'00'	September 11, 2023	U.S. EPA Region 8 Denver, Colorado rustad.brit@epa.gov (303) 312-6885
Reviewer Name	Draft Date	Contact Information
Akash Johnson	November 15, 2023	U.S. EPA Region 8 Denver, Colorado johnson.akash@epa.gov (303) 312-6067
Management Reviewer Name/Signature/Date		Contact Information
EMILIO LLAMOZAS  Digitally signed by EMILIO LLAMOZAS Date: 2023.11.20 12:15:04 -07'00'		U.S. EPA Region 8 Denver, Colorado llamozas.emilio@epa.gov (303) 312-6407
Emilio Llamozas, NPDES and Wetlands Enforcement Section Supervisor		

Inspection Narrative and Site Description

1.0 Introduction

The inspection was conducted at the Shell Valley wastewater treatment facility (facility; WWTF) located in Rolette County, North Dakota, to evaluate compliance with the facility's National Pollutant Discharge Elimination System (NPDES) permit. The EPA is responsible for implementing the NPDES program in Indian Country within the State of North Dakota. The inspection was announced approximately one month prior to the inspection to coordinate logistics for the inspection.

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

2.0 TMPUC Operations

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

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

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

3.0 Facility Description and Site Review

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

- The facility serves a community of roughly 396 people in the Shell Valley Housing development.
- The lagoon system was originally built in 1977 and an additional cell was added in 1980.
- The average design flow to the facility is 0.015 million gallons per day (MGD) and the peak design flow is 0.0127 MGD.
- The average design organic treatment capacity is 73 lbs BOD₅ per day and the peak design organic treatment capacity is 93 lbs BOD₅ per day.

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

Cell ID	Area (acres)	Operating Volume (MG)
Cell 1	2.43	2.375
Cell 2	0.53	0.518
Cell 3	0.5	0.489
Cell 4	0.33	0.323
Total	3.79	3.705

Between the opening conference and inspection of the subject facility, we inspected several other WWTFs operated by the TMPUC. Upon arriving at the facility, we proceeded to walk around the lagoon to evaluate berm integrity. Vegetation and cattails had reached a height greater than six inches on the inside of the berms as well as inside of the cells (photos 502-505). Cells 3 and 4 had little to no water in them at the time of inspection which may have been due to the transfer piping between cells 2 and 3 sticking out of the water in cell 2 (photo 503). After leaving the cells we visited the Shell Valley lift station which is in the process of being built and will divert wastewater flows toward the newly redesigned Ojibwa Millennium School lagoon. Once the lift station is operational the Shell Valley lagoon system will no longer be utilized.

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

Findings, Corrective Actions and Recommendations

Finding #1: Weekly lagoon inspections were not being conducted.

Weekly lagoon inspections were not being conducted. The inspectors provided the facility representatives with a lagoon inspection report template form (Appendix D of the Permit) that the facility representatives could use to document the weekly lagoon inspections.

Permit requirement:

Part 6.5.1 of the Permit states, “On at least a weekly basis, unless otherwise modified by written approval from EPA, the Permittee shall inspect its wastewater treatment facility. Permission for less frequent inspections must be requested in writing by the Permittee and may be granted on a case-by-case basis where appropriate (e.g. a lagoon located in a remote area where access is a problem during

the winter and compliance issues are not present), at the discretion of EPA. The Permittee shall maintain a notebook/logbook recording all information obtained during the inspection using indelible ink pens (or inspection logs may be kept in electronic format in accordance with proper record-keeping procedures) and in sufficient detail so that decision logic may be traced back, once reviewed. At a minimum, the notebook/logbook shall include the following (see Appendix D of this Permit for an Example Lagoon Inspection Form):

6.5.1.1. Name of facility and permit number;

6.5.1.2. Date and time of the inspection;

6.5.1.3. Name of the inspector(s);

6.5.1.4. The facility's discharge status;

6.5.1.5. The flow rate of the discharge, if occurring;

6.5.1.6. Determine if a discharge is occurring, has occurred since the previous inspection, and/or if a discharge is likely to occur before the next inspection. (Note: If a discharge has occurred or is likely to occur before the next inspection, perform the appropriate monitoring and reporting requirements in Sections 3 and 5.4 of this Permit if not already done.);

6.5.1.7. If there is any leakage through the dikes;

6.5.1.8. If there are any animal burrows in the dike;

6.5.1.9. If there is any erosion of the dikes (e.g., rills, cracks or other structural indications of erosion);

6.5.1.10. If there are any rooted plants, including weeds or trees growing in the water;

6.5.1.11. If the vegetative growth on the dikes need mowing (i.e. no greater than 6" tall or any height that may interfere with monitoring, operation and maintenance of the system);

6.5.1.12. Visual observation for visible sheen, floating oil, floating solids and foam;

6.5.1.13. Visual observation to check for evidence of illicit septic dumping;

6.5.1.14. List the date scheduled for operation and maintenance procedures to be undertaken at the wastewater treatment facility;

6.5.1.15. Identification of operational and/or maintenance problems, and a determination of whether proper operation and maintenance procedures are being undertaken at the frequency necessary to maintain working operations and the overall treatment and collection systems of the wastewater treatment lagoon system;

6.5.1.16. Recommendations, as appropriate, to remedy identified problems;

6.5.1.17. A brief description of any actions taken with regard to problems identified;

6.5.1.18. Overall visual observations to identify potential concerns with the "health" of the lagoon system (e.g., water is cloudy, water coloration concerns (e.g. red, black, grey, dark blue-green and cloudy), etc.); and

6.5.1.19. Other information, problems identified, or observations, as appropriate.

The Permittee shall maintain the notebook/logbook in accordance with required record-keeping items listed above and shall make the log available for inspection, upon request, by authorized representatives of the U.S. Environmental Protection Agency or the applicable Tribe(s) (see Appendix A for list of Tribes).

Problems identified during the inspection (including, but not limited to, those associated with this section of the Permit) shall be corrected at the time of inspection, if possible. If they cannot be corrected at the time of the inspection, the inspector must identify a corrective action to remedy the problem(s), as well as a timeline for completion of the remedy. Corrective actions to remedy problem(s) shall be in line with (and addressed through) proper operation and maintenance (Section 6.6 of this Permit.). All problems identified during inspections, as well as associated corrective actions and timelines, shall be documented in the inspection log."

Part 5.9 of the permit states, “The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the application for the Permit, for a period of at least three years from the date of the sample, measurement, report or application. Records of monitoring required by the Permit related to sludge use and disposal activities must be kept at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the EPA at any time. Data collected on site, data used to prepare the DMR, copies of DMRs, and a copy of this NPDES Permit must be maintained on site.”

Corrective Action:

Ensure that inspections are conducted on a weekly basis and documented in accordance with the permit. Ensure that inspection reports are kept in accordance with the recordkeeping requirements of the permit. Provide the EPA and IHS with a description of the corrective actions taken to address this finding. Additionally, if the lagoon system is going to no longer be utilized once the new Shell Valley lift station is operational, recommend decommissioning the lagoon system properly once it is no longer necessary.

Finding #2: No O&M manuals were available.

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

Permit requirement:

Part 6.6.1 of the Permit states, “For Permittees not previously covered under the Region 8 General Permit for Wastewater Lagoon Systems in Indian Country, the Permittee shall, as soon as reasonable and practicable, but no later than six (6) months after the effective date of this Permit, do the following as part of the operation and maintenance program for the wastewater treatment facility:

- 6.6.1.1. Have a current O & M Manual(s) that describes the proper operational procedures and maintenance requirements of the wastewater treatment facility;
- 6.6.1.2. Have the O & M Manual(s) readily available to the operator of the wastewater treatment facility and require that the operator become familiar with the manual(s) and any updates;
- 6.6.1.3. Have a schedule(s) for routine operation and maintenance activities at the wastewater treatment facility; and,
- 6.6.1.4. Require the operator to perform the routine operation and maintenance requirements in accordance with the schedule(s).

For Permittees renewing coverage under this Permit, the Permittee is expected to have the above listed items (Sections 6.6.1.1. thru 6.6.1.4., which were part of the requirements under the previous Region 8 General Permit for Wastewater Lagoon Systems in Indian Country) completed prior to the coverage date under this Permit. These Permittees shall ensure that each of the items listed above are updated and maintained as part of the operation and maintenance program for the wastewater treatment facility.

In addition to the operation and maintenance items in the manual for the lagoon system, ALL Permittees shall do the following maintenance, at a minimum:

The Permittee shall maintain a log in either paper (e.g. bound notebook) or electronic format containing a summary record of any daily operation and maintenance activities at the wastewater treatment lagoon facility and collection system, that is to be updated on each day operation and maintenance activities are performed. At a minimum, the log shall include the following information:

- 6.6.1.5. Date and time;

- 6.6.1.6. Name and title of person(s) making the log entry;
- 6.6.1.7. Name of the persons(s) performing the activity;
- 6.6.1.8. A brief description of any operations and maintenance activity performed on the wastewater treatment lagoon system;
- 6.6.1.9. The Permittee shall ensure that necessary action to promptly correct the problem of leakage through the dikes is taken and documented in the maintenance log;
- 6.6.1.10. The Permittee shall ensure that necessary action to promptly remove burrowing animals from the dikes is taken and documented in the maintenance log;
- 6.6.1.11. The Permittee shall ensure prompt repair of damage to dikes caused by burrowing animals and/or erosion and documentation of all actions in the maintenance log;
- 6.6.1.12. The Permittee shall ensure removal of rooted plants, including weeds and trees, from the water on a regular basis or as needed and documentation of all actions in the maintenance log; and
- 6.6.1.13. The Permittee shall ensure that the dikes are kept mowed on a regular basis during the growing season or as needed (i.e., vegetation not greater than 6" tall or any height that may interfere with monitoring, operation and maintenance of the system) and that documentation of all actions taken are recorded in the maintenance log.
- 6.6.1.14. Other information, as appropriate."

Corrective Action:

Implement an operations and maintenance program in accordance with the permit. Ensure that maintenance logs are kept in accordance with the recordkeeping requirements of the permit. Provide the EPA and IHS with a description of the corrective actions taken to address this finding as well as relevant O&M documents from sections 6.6.1.1. thru 6.6.1.4. Additionally, if the lagoon system is going to no longer be utilized once the new Shell Valley lift station is operational, recommend decommissioning the lagoon system properly once it is no longer necessary.

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

Vegetation and cattails had reached greater than six inches in height on the inside berms as well as within several of the cells (photos 502-505).

Permit requirement:

Part 6.6 of the Permit states, "The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this Permit.

The Permittee shall do the following as part of the operation and maintenance program for the wastewater treatment facility...

- 6.6.1.12. The Permittee shall ensure removal of rooted plants, including weeds and trees, from the water on a regular basis or as needed and documentation of all actions in the maintenance log; and
- 6.6.1.13. The Permittee shall ensure that the dikes are kept mowed on a regular basis during the growing season or as needed (i.e., vegetation not greater than 6" tall or any height that may interfere with monitoring, operation and maintenance of the system) and that documentation of all actions taken are recorded in the maintenance log..."

Corrective Action:

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

Finding #4: Transfer piping between cells 2 and 3 did not appear to function.

Cells 3 and 4 had little to no water in them at the time of inspection which may have been due to the transfer piping between cells 2 and 3 sticking out of the water in cell 2 (photo 503).

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 six (6) months after the effective date of this Permit, do the following as part of the operation and maintenance program for the wastewater treatment facility:

6.6.1.1. Have a current O & M Manual(s) that describes the proper operational procedures and maintenance requirements of the wastewater treatment facility;

6.6.1.2. Have the O & M Manual(s) readily available to the operator of the wastewater treatment facility and require that the operator become familiar with the manual(s) and any updates;

6.6.1.3. Have a schedule(s) for routine operation and maintenance activities at the wastewater treatment facility; and,

6.6.1.4. Require the operator to perform the routine operation and maintenance requirements in accordance with the schedule(s).

For Permittees renewing coverage under this Permit, the Permittee is expected to have the above listed items (Sections 6.6.1.1. thru 6.6.1.4., which were part of the requirements under the previous Region 8 General Permit for Wastewater Lagoon Systems in Indian Country) completed prior to the coverage date under this Permit. These Permittees shall ensure that each of the items listed above are updated and maintained as part of the operation and maintenance program for the wastewater treatment facility.

In addition to the operation and maintenance items in the manual for the lagoon system, ALL Permittees shall do the following maintenance, at a minimum:

The Permittee shall maintain a log in either paper (e.g. bound notebook) or electronic format containing a summary record of any daily operation and maintenance activities at the wastewater treatment lagoon facility and collection system, that is to be updated on each day operation and maintenance activities are performed. At a minimum, the log shall include the following information:

6.6.1.5. Date and time;

6.6.1.6. Name and title of person(s) making the log entry;

6.6.1.7. Name of the persons(s) performing the activity;

- 6.6.1.8. A brief description of any operations and maintenance activity performed on the wastewater treatment lagoon system;
- 6.6.1.9. The Permittee shall ensure that necessary action to promptly correct the problem of leakage through the dikes is taken and documented in the maintenance log;
- 6.6.1.10. The Permittee shall ensure that necessary action to promptly remove burrowing animals from the dikes is taken and documented in the maintenance log;
- 6.6.1.11. The Permittee shall ensure prompt repair of damage to dikes caused by burrowing animals and/or erosion and documentation of all actions in the maintenance log;
- 6.6.1.12. The Permittee shall ensure removal of rooted plants, including weeds and trees, from the water on a regular basis or as needed and documentation of all actions in the maintenance log; and
- 6.6.1.13. The Permittee shall ensure that the dikes are kept mowed on a regular basis during the growing season or as needed (i.e., vegetation not greater than 6" tall or any height that may interfere with monitoring, operation and maintenance of the system) and that documentation of all actions taken are recorded in the maintenance log.
- 6.6.1.14. Other information, as appropriate."

Corrective Action:

Evaluate whether the transfer piping between cell 2 and cell 3 needs to be lowered to prevent an overflow from cell 2 and ensure that it is functioning as designed. Provide the EPA and IHS with a description of corrective actions taken to address this finding as well as photos showing the lowered piping.

NPDES Inspection Report – Septage Treatment Facility

National Database Information		
Inspection Date: 11/2/2023	Inspection Type: Wastewater	
Entry/Exit Time: 7:50 am / 10:50 am	NPDES ID Number: COU000002	
SIC Code: 4952	Inspection ID: 202311_COU000002	
Lead Inspector and affiliation: Stephanie Meyers / EPA Region 8		
Inspector and affiliation: Stephanie Passarelli / EPA Region 8		
Inspector and affiliation: Ellen Henrichs / Colorado Department of Public Health and Environment		
Inspector and affiliation: David Kurz / Colorado Department of Public Health and Environment		
Site/Facility Name and Location: Shirley Septic Pumping 14803 S Wandcrest Drive Pine, CO 80470		
Permit Information		
Is the permit on site and available? Unpermitted facility	Date Application Submitted: Unpermitted facility	
Latitude: 39.441410°N	Longitude: -105.402687°W	
Receiving Water(s): Unnamed, unclassified ditch thence to Wisp Creek	Acreage: approximately 310 acres	
Regulatory Inspector's source of information: Facility observations		
Areas Evaluated During Inspection		
Permit	Self-Monitoring Program	Pollution Prevention
Records	Compliance Schedule	Stormwater
<u>Facility Site Review</u>	Laboratory	No Exposure
<u>Effluent/Receiving Waters</u>	Operations and Maintenance	Other:
Flow Measurement	Sludge Handling/Disposal	Other:
Contact Information		
	Name(s)/Title	
Facility Contacts: Primary lead and present during inspection	Adam Shirley / Owner / Shirley Septic Pumping / Primary lead during the opening conference	
Person/Company meeting definition of "Operator"	Shirley Septic Pumping	
Authorized Official(s) (Per NOI)	N/A, since there is currently no permit for this facility	
Report Review and Signature		
Drafter Name	Address/Phone Number	Date
Stephanie Meyers	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NW Denver, Colorado 80202	11/16/2023

NPDES Inspection Report – Septage Treatment Facility

	303-312-6938	
Reviewer Name	Address/Phone Number	Date
Stephanie Passarelli	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NW Denver, Colorado 80202	11/21/2023
	303-312-6803	
Supervisor Signature/Name	Address/Phone Number	Date
EMILIO LLAMOZAS  Digitally signed by EMILIO LLAMOZAS Date: 2023.12.18 15:13:10 -07'00'	U.S. EPA Region 8 1595 Wynkoop Street 8ENF-W-NW Denver, Colorado 80202	12/18/2023
	Emilio Llamozas	
	303-312-6407	

Inspection Narrative and Site Description

On November 2, 2023, U.S. Environmental Protection Agency (EPA) inspectors Stephanie Meyers and Stephanie Passarelli along with Colorado Department of Public Health and Environment (CDPHE) inspectors Ellen Henrichs and David Kurz arrived at Shirley Septic Pumping (facility or company) at 7:50 am to follow-up on several citizen complaints and evaluate the facility's discharge status. The EPA led the inspection at this facility. The inspection was announced one week prior to the inspection, to coordinate logistics for the inspection and to ensure that appropriate personnel would be available. The EPA inspectors along with CDPHE met with Adam Shirley, Owner of Shirley Septic Pumping. EPA inspector, Stephanie Meyers, presented her credentials and had an opening conference to explain the purpose of the inspection. The inspectors began by going through a series of questions with Mr. Shirley. Once complete, the inspectors proceeded to inspect the facility and asked questions to Mr. Shirley to help the inspectors evaluate the facility's processes and discharge status. Throughout the inspection, the inspectors noted their observations in a notebook. Photographs taken during the inspection are included in the attached photo log.

Shirley Septic Pumping is located at 14803 South Wandcrest Drive in Pine, Colorado. The company was established in 1972, and in May 2022 operations began at South Wandcrest Drive. Mr. Shirley stated operations ceased at the South Wandcrest Drive location around early June 2023. EPA requested records documenting the last date septage was accepted, but to date those records have not been provided (See finding 4 below). The facility has provided domestic septage treatment for residential systems. Shirley Septic Pumping services approximately 3,000-3,500 individual homes in Park, Clear Creek, and Jefferson Counties. The facility operated at the Wandcrest Drive location from approximately April 2022 to October 2022 and April 2023 to June 2023 according to Mr. Shirley. Also on site are several horses, along with a small cow/calf pair operation where up to 180 cattle are kept in pens and pastures from approximately November to April each year.

NPDES Inspection Report – Septage Treatment Facility

Inspection Narrative and Site Description

On March 27, 2023, Park County Development and Services Department issued a notice of violation to Shirley Septic Pumping due to operation of a wastewater transfer station on residential zoned property, requiring the facility to cease and desist all operations immediately, including the removal of all equipment, storage tanks, and other machinery. To date, EPA is not aware of any further letters or written communications issued by Park County regarding this matter.

On June 27, 2023, a group of citizens sent a complaint letter to EPA Region 8 citing concerns with the septage operation and flow of wastewater onto neighboring properties.

After the opening conference, inspectors proceeded to walk the facility to observe the cattle and horse operations. Photos from the citizen complaint consisted of images of the cattle pens, showing a runoff path flowing from the pens to the northeast corner of the property. When inspectors asked Mr. Shirley about this and shared the photos, he had stated the runoff was due to animals kicking loose the water pipe connection which continually feeds from the ponds to their water trough (photo 573), leaving water flowing to the northeast corner of the property (photo 576). Inspectors walked to the northeast corner of the pen, where they observed one of a series of spring fed ponds, which is where the trough water is pulled from (photo 574). Mr. Shirley stated these ponds have only overflowed once in the time he has had the property. A containment area was built to prevent any stormwater runoff from the pens flowing into these ponds (photo 575).

Inspectors then observed the septage treatment system. At the time of the inspection, the facility was not in operation and septage was not observed being hauled to the site. Based on the description provided by Mr. Shirley, when the facility was in operation, septage hauling trucks would arrive on site and back into an area adjacent to the treatment system (photo 578). The trucks would hook up to a tank where lime would be deposited and mixed inside the trucks to raise the pH of the septage to above 12 for at least 30 minutes. A 4-inch hose is then hooked up to the trucks and allows septage to flow into the solids shaker screen (photo 579). The shaker screen separates debris from the septage, and any debris larger than 3/8 inch is deposited into a bin (photo 584). Debris collected in this bin is picked up by a rear load trash truck and then sent to Tower Landfill located in Commerce City, Colorado or Foothills Landfill located in Golden, Colorado, however this could not be verified due to lack of records. Septage that is separated at the bottom of the shaker screen is then pumped to the primary frac tank (photo 580) and then a secondary frac tank (photo 581) for storage. pH is tested for in the secondary frac tank. From the secondary frac tank, approximately 8,000-10,000 gallons of septage is pumped into a dewatering tank on a roll-off truck (photo 582). In the cylinder-shaped dewatering unit, is a screen that separates solids and liquids. Flocculant (photo 587) is also added to the dewatering unit via pump to further assist with the separation of solids and liquids. The dewatering unit rotates for approximately 12 hours until solids are dried and separated. Solids are then emptied from the dewatering unit to the ground adjacent to the unit (photos 589, 591, and 592). According to Mr. Shirley, solids have been stored in this location since operations began at the South Wandcrest Drive site and have never been land applied or hauled elsewhere. Liquids were pumped into a storage tank and land applied via a 980-foot hose and perforated pipe, to a 185-acre

NPDES Inspection Report – Septage Treatment Facility

Inspection Narrative and Site Description

parcel of land located northwest of the treatment system (photo 599). Transfer hose and perforated pipe were not observed by inspectors at the time of the inspection.

Inspectors also walked the hill immediately south of the treatment system to evaluate the facility's discharge status. In the aerial photos provided by citizens in one of the complaints submitted to EPA, there appeared to be a leak from the primary frac tank, flowing down the southern hill. When inspectors shared the photos, Mr. Shirley had told inspectors that the aerial photos were taken during a large storm event and that the tank has never leaked. Inspectors first walked the primary frac tank and did not observe any leaks from the tank (photo 594). Inspectors then walked the southern hill and did not observe an active discharge of pollutants. It appeared the area shown in the aerial photos provided by the citizens had been covered by livestock manure (photos 593, 596, and 598). There was also a carcass of a dead calf disposed of on top of the manure (photo 598). Inspectors observed a natural channel (photo 597) on the southeast side of the hill. The aerial images provided by the citizens also showed dead trees in the area where there appeared to be a leak and inside the cattle pen. Inspectors looked closely at the trees and observed indicators of pine beetles (photo 595).

After the inspection of the facility, the inspectors held a closing conference with Mr. Shirley where they discussed observations and future plans for the facility. Mr. Shirley stated operations will not be resuming at the South Wandcrest Drive location, and currently collected septage from residential systems is being loaded into frac tanks on trucks and sent to McDonald Farms Enterprises, a waste hauling and treatment corporation. Mr. Shirley also let inspectors know that a septage and trash waste transfer station was proposed to be constructed near Highway 285 and Wandcrest Park Road, and there are meetings occurring in December 2023 for planning and zoning for this project. Mr. Shirley had mentioned this transfer station could potentially allow for a connection to the Will-O-Wisp Metro District wastewater treatment facility.

After leaving the facility, inspectors drove southeast down Brookside Drive, which is the road to the south and southwest of the facility, to observe Wisp Creek. Wisp Creek flows from north to south and then west to southeast to the North Fork South Platte River. Wisp Creek is also located approximately 0.35 miles downhill from the facility.

Findings, Corrective Actions, and Recommendations

Finding 1: Some of the stored treated septage solids were not contained at the facility and will reach the 2 year storage limit in April 2024.

Inspectors observed a pile of treated septage solids adjacent to the dewatering unit, that were not contained by the concrete jersey barrier surrounding the pile (photos 589, 591, and 592). There is a concern that the treated septage solids that are not contained by the concrete jersey barrier could runoff down the hill during precipitation events. Mr. Shirley had also informed inspectors that this pile was a total accumulation of solids since April 2022.

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Findings, Corrective Actions, and Recommendations

If sewage sludge remains on land for longer than 2 years, this land is considered an active sewage sludge unit and the surface disposal requirements in 40 C.F.R. 503 have to be met. An active sewage sludge unit is the area, trench, waste pile, or lagoon where sewage sludge is currently being placed. Please note, however, that sewage sludge can remain on the land for longer than 2 years, but the person who prepares the sewage sludge must demonstrate that the site is not an active sewage sludge unit. The demonstration must include the following information:

- the name and address of the person who prepares the sewage sludge;
- the name and address of the person who either owns the land or leases the land;
- the location, by either street address or latitude and longitude, of the land;
- an explanation of why sewage sludge needs to remain on the land for longer than 2 years prior to final use or disposal, or why a site is used for longer than 2 years to store batches of sewage sludge for less than 2 years (e.g., storage of individual batches of sewage sludge for several months during a given 2-year period before final use or disposal); and
- the approximate time when sewage sludge will be transferred from storage to their final use or disposal destination.

This demonstration information must be retained by the person who prepares the sewage sludge for the period that the sewage sludge remains on the land.

Regulatory Information:

40 C.F.R. 503.9(y) *Store or storage of sewage sludge* is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

40 C.F.R. 503.20 Applicability. (a) This subpart applies to any person who prepares sewage sludge that is placed on a surface disposal site, to the owner/operator of a surface disposal site, to sewage sludge placed on a surface disposal site, and to a surface disposal site.

(b) This subpart does not apply to sewage sludge stored on the land or to the land on which sewage sludge is stored. It also does not apply to sewage sludge that remains on the land for longer than two years when the person who prepares the sewage sludge demonstrates that the land on which the sewage sludge remains is not an active sewage sludge unit. The demonstration shall include the following information, which shall be retained by the person who prepares the sewage sludge for the period that the sewage sludge remains on the land:

- (1) The name and address of the person who prepares the sewage sludge.
- (2) The name and address of the person who either owns the land or leases the land.
- (3) The location, by either street address or latitude and longitude, of the land.
- (4) An explanation of why sewage sludge needs to remain on the land for longer than two years prior to final use or disposal.
- (5) The approximate time period when the sewage sludge will be used or disposed.

Corrective Actions:

Collect the treated septage solids that overtopped the concrete jersey barrier and place them in a contained area. Provide photos of the corrective actions implemented to address this finding.

Properly dispose of, or land apply, the sewage sludge stored for greater than 2 years as required by

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40 C.F.R. 503. Alternatively, provide the justification to store sewage sludge for greater than 2 years as required by 40 C.F.R. 503.20(b). For any questions pertaining to this requirement or the 40 C.F.R. 503 regulatory requirements, please contact Seth Draper with EPA Region 7 at draper.seth@epa.gov.

Finding 2: Piles of manure were dispersed throughout the property.

Inspectors observed large piles of livestock manure stockpiled in several areas at the facility, including south of the primary frac tank (photos 593, 596, and 598) and near the cattle pen.

Recommendation: Ensure manure stockpiles are contained or apply manure to land application sites at agronomic rates. Ensure buffer areas are established around water wells when land applying, if applicable.

Finding 3: There was a calf carcass disposed of on site.

Inspectors observed a calf carcass disposed of out in the open on top of a pile of manure just southeast of the primary frac tank (photo 598).

Recommendation: Properly cover the carcass and ensure that any future mortalities are disposed of or properly composted. Ensure mortalities are located away from surface waters and prevent runoff from coming into contact with them and then flowing offsite.

Finding 4: A response to the June 29, 2023 Request for Information letter has not been submitted to EPA.

On June 29, 2023, the EPA Biosolids Center located in EPA Region 7 issued a Request for Information letter pursuant to Section 308 of the Clean Water Act. This letter requests information pertaining to the facility's compliance with biosolids regulations. A response to the letter was due on July 29, 2023. To date, Mr. Shirley has not submitted a response to the letter.

Regulatory Information:

Section 308 of the Clean Water Act states, "(a) Maintenance; monitoring equipment; entry; access to information.

Whenever required to carry out the objective of this chapter, including but not limited to (1) developing or assisting in the development of any effluent limitation, or other limitation, prohibition, or effluent standard, pretreatment standard, or standard of performance under this chapter; (2) determining whether any person is in violation of any such effluent limitation, or other limitation, prohibition or effluent standard, pretreatment standard, or standard of performance; (3) any requirement established under this section; or (4) carrying out sections 305, 311, 402, 404 (relating to State permit programs), 405, and 504 of this title -

(A) the Administrator shall require the owner or operator of any point source to (i) establish and maintain such records, (ii) make such reports, (iii) install, use, and maintain such monitoring equipment or methods (including where appropriate, biological monitoring methods), (iv) sample such effluents (in accordance with such methods, at such locations, at such intervals, and in such

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manner as the Administrator shall prescribe), and (v) provide such other information as he may reasonably require; and

(B) the Administrator or his authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of his credentials -

(i) shall have a right of entry to, upon, or through any premises in which an effluent source is located or in which any records required to be maintained under clause (A) of this subsection are located, and

(ii) may at reasonable times have access to and copy any records, inspect any monitoring equipment or method required under clause (A), and sample any effluents which the owner or operator of such source is required to sample under such clause.

Corrective Action:

Pursuant to Section 308 of the Clean Water Act, a response to the letter issued on June 29, 2023 is required. Please provide a response to the EPA Biosolids Center upon receipt of this report. Please submit your response to Seth Draper at draper.seth@epa.gov.