

Office of the Attorney General



HERBERT H. SLATERY III
ATTORNEY GENERAL AND REPORTER

P.O. BOX 20207, NASHVILLE, TN 37202
TELEPHONE (615)741-3491
FACSIMILE (615)741-2009

July 21, 2022

Charles B. Welch, Jr.
Tyler A. Cosby
Farris Bobango PLC
414 Union Street, Suite 1105
Nashville, TN 37219

Re: Tennessee Public Utility Commission, Docket No. 22-00073, Limestone Water Utility Operating Company, LLC Notice Regarding Extension of Service to Contiguous Territory Pursuant to TPUC Rule 1220-01-04.13

Dear Mr. Welch and Mr. Cosby:

The Consumer Advocate has reviewed Limestone Water Utility Operating Company, LLC's ("Limestone") Petition in the above-referenced docket. Since it is Limestone's position that the addition of these three homes is contiguous to its existing service territory, the Consumer Advocate reviewed the requirements for a utility seeking to provide service to a contiguous territory as set out in TPUC Rule 1220-04-01-.13. The Consumer Advocate review of the Company's filing is set out in Attachment A.

The Consumer Advocate would like to thank, in advance, Limestone's attention to the Consumer Advocate's request. If you have questions regarding this request, please contact me at (615) 741-2370.

Respectfully,

A handwritten signature in blue ink that reads "Karen H Stachowski".

Karen H. Stachowski
Senior Assistant Attorney General

cc: Patsy Fulton, TPUC
Kelly Cashman-Grams, TPUC

TPUC Rule 1220-04-01-.13 EXTENSIONS OF SERVICE TO CONTIGUOUS TERRITORY.

1. *1220-04-01-.13(1)*. “For purposes of this Rule, ‘contiguous’ means immediately adjacent, and sharing at least one significant common boundary line.” It appears, based on the information provided, that the three homes are “contiguous” as defined in the rule.
2. *1220-04-01-.13(2)(a)-(b)*. “The contiguous territory is not receiving similar service from another utility service provider,” and “the contiguous territory is not located within the designated service territory of another utility providing similar service.” The Consumer Advocate could not locate documentation in the filing that the 3 homes are not within the service territory of another utility service provider. The Consumer Advocate reviewed the Water Resources Dataviewer of Tennessee Department of Environment and Conservation (“TDEC”).¹ In one document containing emails, a Matt Bryant referenced “two versions of the availability/connection letters from the Utility District.” However, those two letters were not provided in the TDEC documentation. A copy of this TDEC document is attached for convenience. Please provide the documentation required by the Rule.
3. *1220-04-01-.13(3)*. “A public utility shall provide written notice to the Commission of its intention to construct, acquire, or commence operation of a utility system or service in territory that is contiguous to the service territory.” It appears, based on the information provided, that the Company has provided notice to the Commission.
4. *1220-04-01-.13(4)*. In addition to the written notice to the Commission required by paragraph three (3) herein, the public utility shall provide to the Commission:
 - *1220-04-01-.13(4)(a)*. Proof of notice that may be required to any regulatory agency of the extension of service of contiguous territory. The Consumer Advocate could not locate documentation in the filing that the Company had given notice to TDEC. However, the Consumer Advocate reviewed TDEC’s Water Resources Dataviewer and located a Wastewater Plans Review Fees Worksheet. This document states that the project type was the construction of “284 LF 1.5” Sanitary Force Main (Public) to service two private residences.” A copy of this worksheet is attached. This is in conflict with the Petition which shows that 3 residences are to be served by Limestone. Please explain this discrepancy.
 - *1220-04-01-.13(4)(b)*. A complete description of the geographic contiguous territory and a legible map. It appears, based on the information provided, that the Company has provided a description and a legible map.

¹ Documents for the Grasslands STP can be accessed at TDEC’s Water Resources Dataviewer at https://dataviewers.tdec.tn.gov/dataviewers/f?p=2005:34051:25259733319783:::34051:P34051_PERMIT_NUMBE R:TN0027278.

- 1220-04-01-.13(4)(c). Documentation of permit, permit modifications, or permit amendments or other approval documents from TDEC. The Consumer Advocate could not locate documentation in the filing that the Company had given notice to TDEC. However, the Consumer Advocate reviewed TDEC's Water Resources Dataviewer and located TDEC's approval of construction of "284 LF 1.5-inch diameter low pressure line with grinder pumps and related appurtenances." A copy of this letter is attached.
 - 1220-04-01-.13(4)(d). Documentation of any complaints, or other administrative action from TDEC. The utility shall update the record regarding such administrative action within 60 days after the filing of the written notice. The Company provided no documentation of complaints or other administrative action from TDEC in its filing with the Commission. However, a review of TDEC's Water Resources Dataviewer shows a recent Notice of Violation ("NOV"). A copy of this NOV is attached. According to the NOV, the Company was required to file a response on July 15th. Please provide the Company's response to TDEC's NOV.
5. 1220-04-01-.13(5). In addition to the requirements of paragraphs three (3) and four (4), a public wastewater utility shall provide to the Commission:
- 1220-04-01-.13(5)(a). Proof that the existing system has the capacity to handle the additional wasteload as reviewed by TDEC. It does not appear that the Company has filed documentation that the Grasslands System has the capacity to serve 3 homes. Again, the Consumer Advocate notes that the TDEC documents reference only 2 residences.
 - 1220-04-01-.13(5)(b). Certification from a design engineer that the existing system, before any alteration, was constructed in accordance with approved constructions and specifications. In TDEC's NOV, TDEC commended Mr. Reed's "ability to operate the wastewater treatment plan in its current condition." As such, it does not appear that TDEC has concerns regarding the construction of the system but is concerned regarding the age and condition of the system. During TDEC's inspection, Mr. Butler stated that CSWR was in the beginning stages of designing a new facility but that it could take approximately 5 years or more before the facility is constructed."

Mahendra Upadhyaya

From: Matt Bryant <matt@m2groupllc.com>
Sent: Thursday, May 5, 2022 1:30 PM
To: Mahendra Upadhyaya
Cc: Wayde Morrow; Joshua Kauffman; Jake Freeman; Benjamin Lucas
Subject: [EXTERNAL] RE: 104 Bobby Drive - TDEC Project #22.0106
Attachments: COF SanitarySewerSpecification.pdf

Importance: High

*** This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email - STS-Security. ***

Mahendra

After speaking with the Utility provider representative, Jake Freeman, for this project, the sewer installation will follow the City of Franklin Technical Specifications (see attached PDF). I also met with City of Franklin Sewer Dept this morning and discussed this issue with them, and they did not object to us using the City of Franklin sewer specifications as a guide for installation on this project even though it is not under their jurisdiction. Please allow this email to serve as the notification to TDEC for what technical specifications will be used for this project.

Regards,

MB

Matt Bryant, PE
M2 Group, LLC
615.406.3415 cell
matt@m2groupllc.com

www.m2groupllc.com

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From: Matt Bryant
Sent: Friday, April 22, 2022 11:06 AM
To: mahendra.upadhyaya@tn.gov
Cc: Wayde Morrow <wayde@m2groupllc.com>; Joshua Kauffman <joshua.kauffman@mig.cc>; Jake Freeman <jfreeman@cswrgroup.com>; Benjamin Lucas <blucas@cswrgroup.com>
Subject: RE: 104 Bobby Drive - TDEC Project #22.0106
Importance: High

Mahendra

I understand you spoke to Jake Freeman regarding the utility specs.

This sewer line that is part of our submittal is to service 2 homes, there are no plans to service anymore units beyond that with this line at this time.

Per your request, here are the 2 versions of the availability/connection letters from the Utility District.

We hope that this completes the outstanding items in order for you to issue the permit.

Thanks.

MB

Matt Bryant, PE
M2 Group, LLC
615.406.3415 cell
matt@m2groupllc.com

www.m2groupllc.com

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From: Matt Bryant
Sent: Thursday, April 7, 2022 7:14 AM
To: mahendra.upadhyaya@tn.gov
Cc: Wayne Morrow <wayne@m2groupllc.com>
Subject: 104 Bobby Drive - TDEC Project #22.0106

Mahendra

Here are the calculations and specs that you requested for this project.

Thanks.

MB

Matt Bryant, PE
M2 Group, LLC
615.406.3415 cell
matt@m2groupllc.com

www.m2groupllc.com

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STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass – Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243-1102

WASTEWATER PLANS REVIEW FEES WORKSHEET

Consulting Engineer Contact Information	
Organization Name: M2 Group, LLC	Address: P.O. Box 848 Franklin, TN 37064
Contact Name: Matt Bryant, PE	Email: matt@m2groupllc.com
Contact Title: Managing Member	Phone Number: (615) 406-3415
Project Description	
Depending on project type, including but not limited to: Linear feet, diameter, and type, (force main, gravity sewer, low pressure sewer); engineering drawings with utility signature; treatment/pumping capacity. For line rehabilitation: linear feet and size by activity, e.g., replacement, pipe-bursting, cured-in-place, slip-line, TV inspection, smoke testing; number of manhole or service lateral rehabs. 284 LF 1.5" Sanitary Force Main (Public) to service to two private residences. Reference ARAP NR2104-408	
Submitted Files	
<input type="checkbox"/> Preliminary Engineering Report	<input type="checkbox"/> Engineering Report
<input type="checkbox"/> Preliminary Plans	<input type="checkbox"/> Calculations
<input type="checkbox"/> Specifications	<input checked="" type="checkbox"/> Plans
<input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Copy of Check, with routing, account number, and any other confidential information redacted
Estimated Construction Cost (\$): \$ 50,000.00	
Utility Contact Information	
Organization Name: Central States Water Resources	Address: 1650 Des Peres Rd. Ste. 303, St. Louis, MO
Contact Name: Benjamin Lucas	Email: blucas@cswrgroup.com
Contact Title: Construction Manager	Phone Number: (314) 406-7080
Project Location	
County: Williamson	City: Franklin
NPDES or SOP Number (If not a treatment project, submit which serves the proposed improvements):	
System Information	
System Name: Cartwright Creek Utility (Grassland Area of Williamson County)	Public
Is your system on a moratorium? No	
Is it self-imposed? No	
If yes, provide information that the proposed project would be in compliance with existing moratorium restrictions:	
Utility Letter	
A letter is attached from the utility demonstrating: 1) It has conducted the capacity analysis for this project and it will not create any capacity or overflow problems 2) They approved the design, and agree to own, operate and maintain the proposed projects once in operation Yes	

<u>Activity</u>		<u>Fee Paid</u>	<u>Fee Due</u>
1. <u>Wastewater Plants:</u>			
Major Industrial Facility w/flow \geq 5 MGD	=	\$ _____	\$1,500.00
Major Industrial Facility w/flow < 5 MGD	=	\$ _____	\$1,000.00
Minor Industrial Facility w/flow \geq 0.1 MGD	=	\$ _____	\$ 500.00
Minor Industrial Facility w/flow < 0.1 MGD	=	\$ _____	\$ 250.00
Sewage Treatment Facility w/design flow \geq 5 MGD	=	\$ _____	\$1,500.00
Sewage Treatment Facility w/design flow \geq 1 but < 5 MGD	=	\$ _____	\$1,000.00
Sewage Treatment Facility w/design flow > 0.075 but < 1 MGD	=	\$ _____	\$ 500.00
Sewage Treatment Facility w/design flow \leq 0.075 MGD	=	\$ _____	\$ 250.00
2. <u>Collection Systems:</u>			
Collection Lines - \$25.00 per 250 feet (or portion thereof) of sewage collection line not to exceed \$1,500.00	=	\$ 50.00 _____	
3. <u>Equalization Basins:</u>			
Holding Capacity \geq 5 million gallons (MG)	=	\$ _____	\$ 300.00
\geq 1 MG but < 5 MG	=	\$ _____	\$ 200.00
\geq 0.075 MG but < 1 MG	=	\$ _____	\$ 100.00
< 0.075 MG	=	\$ _____	\$ 50.00
4. <u>Pumping Stations:</u>			
Design Capacity \geq 5 MGD (3473 GPM)	=	\$ _____	\$ 300.00
\geq 1 MGD but < 5 MGD (695 GPM – 3473 GPM)	=	\$ _____	\$ 200.00
\geq 0.075 MGD but < 1 MGD (52 GPM – 695 GPM)	=	\$ _____	\$ 100.00
< 0.075 MGD (52 GPM)	=	\$ _____	\$ 50.00
5. <u>Wastewater Plant and/or Collection System Modifications:</u>			
The plans review fee for modifications to wastewater plants and/or collection systems shall be 20% of the full review fee based on the category and size of the resulting facility.	=	\$ _____	
6. <u>Engineering Report Review</u>			
Major Industrial Facility w/flow \geq 5 MGD	=	\$ _____	\$1,500.00
Major Industrial Facility w/flow < 5 MGD	=	\$ _____	\$1,000.00
Minor Industrial Facility w/flow \geq 0.1 MGD	=	\$ _____	\$ 500.00
Minor Industrial Facility w/flow < 0.1 MGD	=	\$ _____	\$ 250.00
Sewage Treatment Facility w/design flow \geq 5 MGD	=	\$ _____	\$1,500.00
Sewage Treatment Facility w/design flow \geq 1 but < 5 MGD	=	\$ _____	\$1,000.00
Sewage Treatment Facility w/design flow \geq 0.075 MGD but < 1 MGD	=	\$ _____	\$ 500.00
Sewage Treatment Facility w/design flow \leq 0.075 MGD	=	\$ _____	\$ 250.00
TOTAL PLANS REVIEW FEE (sum of all individual fees)	=	\$ 250.00 _____	



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

May 9, 2022

Mr. Matt Bryant, P.E.
e-copy: matt@m2groupllc.com
M2Group, LLC
PO Box 848
Franklin, TN 37065

Subject: **Cartwright Creek, LLC**
County: Williamson
Wastewater Project Number: 22.0106
Project: 104 Bobby Drive

Dear Mr. Bryant:

The Tennessee Department of Environment and Conservation, Division of Water Resources, acknowledges the receipt of your construction documents on April 7, 2022. On May 5, 2022, we received the additional information requested.

The project consists of the installation of approximately 284 linear feet of 1.5-inch diameter low pressure line with grinder pumps and related appurtenances.

Approval is granted in accordance with certain requirements of the Water Quality Control (WQC) Act of 1977 and Regulations of the Water Quality Control Board. **On the coversheet(s) of the site's set of plans and specifications, an approval date and its expiration date will be stamped by the division. Any indication of tampering with the bound set of documents will be subject to investigation and prosecution.** One complete set of construction documents, bearing the official stamp, must be kept at the construction site.

Approval expires one year from the stamped approval date (May 6, 2022) unless construction is either underway or complete. Any request for extension must be made prior to this expiration date. Significant deviations from the approved plan documents must be submitted and approved in writing before such changes are made. Minor changes made during construction need not have

prior written approval. Modifications, however, may be required by this Department should the changes be deemed inappropriate. It is advisable, therefore to obtain prior approval in cases where the significance of the change is uncertain.

The Division of Water Resources is authorized to inspect the construction work to verify compliance with the approved plans and specifications, which are on the site. Therefore, the engineer shall notify our staff at the Nashville Environmental Field Office by calling (615) 687-7000 before the start of construction.

Approval of these construction documents should not be construed as a permit for any activities related to this project. Activities which may require a permit under the WQC Act and Regulations include, but are not limited to, the following: streambank vegetation removal; creek crossing(s) for equipment or utility lines; construction within twenty (20) feet of a stream bank; construction in or near a marshy area or wetland, and/or land disturbance equal to or greater than one acre. Additionally, this approval does not authorize connection and use of sewer that will cause or contribute to collection system overflow or overload of receiving wastewater treatment facility.

The Nashville Environmental Field Office should also be contacted for determinations regarding whether modification of the existing NPDES or SOP permit, an Aquatic Resource Alteration Permit (ARAP) and/or a National Pollutant Discharge Elimination System (NPDES) construction stormwater permit will need to be obtained prior to the beginning of construction of this project.

The division's most recent TDEC Technical/Engineering Documents, including "*Design Criteria for Review of Sewage Works Construction Plans and Documents*", Chapters 1-17, of November 1, 2017, is available on our website: <https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html>.

To expedite matters, please reference the assigned wastewater project number 22.0106 on any future correspondence. If you have any questions, please feel free to contact Mr. Mahendra Upadhyaya at (615) 253-3399 or by E-mail at Mahendra.Upadhyaya@tn.gov.

Sincerely,



Angela Jones, P.E.

Manager, Engineering Services Unit

cc: Water-Based Systems File
Mr. Bruce Meyer, Operations Manager, Sheaffer Wastewater Solutions, LLC, bmeyer@sheafferwws.com
Mr. Tim Jennette, Program Manager, TDEC Division of Water Resources, tim.jennette@tn.gov



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

Nashville Environmental Field Office

711 R.S. Gass Blvd.

Nashville, Tennessee 37216

Phone 615-687-7000

Statewide 1-888-891-8332

Fax 615-687-7078

June 8, 2022

Mr. Josiah Cox | Director

e-copy: jcox@cswrgroup.com

Central States Water Resources (CSWR)

500 Northwest Plaza Drive, Suite 500

St. Ann, MO 63074

RE: Compliance Evaluation Inspection and Notice of Violation

Limestone Water Utility Operating Company, LLC

Grassland Sewage Treatment Plant (STP)

NPDES Permit #TN0027278

Franklin, Williamson County

Dear Mr. Cox,

On May 17, 2022, Mr. Jordan Fey and Ms. Jenny Strobel, with the Division of Water Resources (Division), performed a Compliance Evaluation Inspection on the Grassland STP, operated by Limestone Water Utility Operating Company, LLC, to determine compliance with National Pollutant Discharge Elimination System (NPDES) Permit #TN0027278. The Minor Modification Permit transferred the permit from Cartwright Creek, LLC to Limestone Water Utility Operating Company, LLC. This permit became effective on January 1, 2022 and will expire on November 30, 2026.

The time period covered by this inspection is from January 2022 to April 2022. While on site, Division staff were assisted by Mr. Delmar Reed and Mr. Mark Butler. The Division is appreciative of everyone's time and courtesy demonstrated during the course of the inspection.

Permit and Records Review

A current copy of the NPDES permit and records required by the permit were available on site and the facility retains more than three years of effluent data. A review of the facility's Discharge Monitoring Reports (DMRs) and EPA's Integrated Compliance Information System (ICIS) shows that the facility has reported the following violations of the permit effluent limits:

- 1 Carbonaceous Biochemical Oxygen Demand (CBOD) – March 2022

Compliance Evaluation Inspection and Notice of Violation

Grassland STP

NPDES# TN0027278

June 8, 2022

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Review of testing documentation found that information does not transfer accurately from laboratory benchsheets to Monthly Operation Reports (MORs) to DMRs. Discrepancies were observed in February, March, and April 2022:

February 2022

- Settleable Solids mL/L daily maximum was reported as 0.0 on the DMR; however, the MOR indicated <0.1 for each analysis for the month. The value for the daily maximum should have been reported on the DMR as <0.1 instead of 0.0.
- The Ammonia lbs/day monthly average and weekly average were reported as 0.0 on the DMR. There was no lbs/day data entered on the MOR. Based on the lab results for the month, there should have been values other than 0.0 on the DMR.
- *E. coli* monthly geomean and daily maximum was reported as 0 on the DMR. For the purpose of determining the geometric mean, individual samples having an *E. coli* group concentration of less than 1 per 100 mL shall be considered as having a concentration of 1 per 100 mL.
- BOD lbs/day monthly average was reported as 0.0 but there was a weekly average reported as 15.71. If there is a weekly average, there should be a monthly average.

March 2022

- Settleable Solids mL/L daily maximum was reported as 0.0 on the DMR; however, the MOR indicated <0.1 for each analysis for the month. The value for the daily maximum should have been reported on the DMR as <0.1 instead of 0.0.
- Ammonia Total Nitrogen (as N) lbs/day monthly average and weekly average was reported as 0.0 on the DMR where a value other than 0.0 should have been submitted.
- The Ammonia mg/l weekly average was also reported as 0.0 on the DMR. There were values on the DMR for monthly average and daily maximum and therefore should have had a value for weekly average.
- The Total Phosphorus lbs/day monthly average and daily maximum were reported as 0.0 on the DMR when values were reported on the Pace lab reports.
- Total Chlorine Residual monthly average was reported as 0.0 mg/l on the DMR, but the daily maximum was reported as 0.08 mg/l. If there is a daily maximum value, there should also be a monthly average value. Also, the MOR had several days with values that should have equaled a monthly average other than 0.0.

April 2022

- Total Suspended Solids lbs/day monthly average was reported on the DMR as 0.0 but the weekly average was reported as 2.4. If there was a weekly average, there should also be a monthly average.
 - Settleable solids mL/L daily maximum was reported as 0.0 on the DMR; however, the MOR indicated <0.1 for each analysis for the month.
 - Ammonia Total Nitrogen (as N) lbs/day monthly average and weekly average was reported as 0.0 on the DMR where a value other than 0.0 should have been submitted.
 - Total Chlorine residual monthly average was reported as 0.0 mg/l, but the daily maximum was reported as 0.13 mg/l. If there is a daily max value, there should also be a monthly average value. Also, the MOR had several days with values that should have equaled a monthly average other than 0.0.
-

Compliance Evaluation Inspection and Notice of Violation

Grassland STP

NPDES# TN0027278

June 8, 2022

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- BOD lbs/day monthly average was reported as 0.0 but there was a weekly average reported as 13.63. If there is a weekly average, there should be a monthly average. Also, the lab results had several values that should have equaled a monthly average other than 0.0.

There were some instances where 0.0 was reported on the MOR when Pace Analytical lab reports indicated Non-Detect (ND). This is allowable; however, if all results within the month were ND or Below Detection Limit (BDL), the permittee should report NODI=B on the DMR instead of 0.0.

The Permittee has reported the Total Nitrogen rolling annual average as 13.31 lbs/day for January, February, March, and April on the DMRs. The MORs indicate that this reported value is incorrect. The Division believes that the discrepancies noted during the file review of this inspection can be avoided in the future by enrolling the permittee in the eMOR program. The Division will contact Grassland STP separately about the enrollment process.

When asked if a Standard Operating Procedure (SOP) was available for review, Mr. Reed stated that the Hach Equipment Manuals for the lab instruments were used as SOPs. While the permittee should utilize the Hach Manuals to accurately use the equipment, an SOP establishing Quality Assurance/Quality Control procedures to reduce reporting, transcription, and calculating errors should be available. The previous inspection indicated an SOP was available for review.

Mr. Reed expressed concerns about how Total Nitrogen is calculated by Pace Analytical. The Division is researching the concern and will report their findings as soon as possible.

Site Review

No changes in the wastewater treatment process have been established since the last inspection. The treatment of domestic wastewater at Grassland STP consists of extended aeration activated sludge and chlorination and dechlorination. The influent stream enters a compartmentalized aboveground aeration treatment unit that contains an aeration basin, a clarifier, and one digester unit. The interior walls surrounding the digester unit have rusted out and therefore the unit is inoperable. A polyethylene tank is utilized to hold solids until they are hauled offsite.

There is no screening at the facility. Mr. Reed manually removes inorganic material from the basin and disposes of it in a dumpster that goes to the landfill and/or collected by Onsite Environmental. Recently, Grassland STP has contracted Onsite Environmental to pump and haul inorganic material and excess solids in the aeration basin from the facility. A "island" of solids was observed in the aeration basin near the stairs.

The clarifier was observed in poor condition. The weirs around the clarifier had a build-up of algae. The clarifier does not have a skimmer arm but does have a bottom rake. Grit, grease, pin floc, and debris were observed floating in the clarifier. The floating grit and grease were observed in the chlorination/dechlorination basin as well.

Chlorine gas is used for disinfection and sulfur dioxide gas for dechlorination. Chlorination/dechlorination occurs in what used to be the aboveground "tertiary filtration" unit of the plant. According to Mr. Reed, the internal components of the tertiary filter have been removed for years. Mr. Reed manually adjusts chlorine dosing based on flow and chlorine residual results. Flow proportional control is preferred over manual control for smaller facilities. The chlorine and sulfur dioxide cylinders are stored in the same room with a

Compliance Evaluation Inspection and Notice of Violation

Grassland STP

NPDES# TN0027278

June 8, 2022

Page 4 of 5

dividing wall in the southeast corner of the control building. The room is secure and equipped with a ventilation system and cylinders are properly secured with chains.

A significant amount of corrosion of the aboveground units was observed. Mr. Butler stated that CSWR was in the beginning stages of designing a new facility but that it could take approximately 5 years or more before the facility is constructed. The structural integrity of the treatment unit walls and equipment is questionable. This issue has been a continuing problem noted in previous inspections.

Influent flow is measured by a strap-on meter and effluent flow is measured by ultrasonic meter. The meters are calibrated on a yearly basis by Independent Controls. An Inflow and Infiltration (I/I) project was completed in September 2019 and June 2020 that rehabilitated 20 manholes and lined 15 pipe segments. Mr. Reed stated that the project helped with I/I issues in the summer months, but no improvements were noted in winter months, when rainfall was the heaviest.

Lab Review

The lab was reviewed during this inspection. Analysis for pH, dissolved oxygen (DO), settleable solids, and total chlorine residual are performed on site and the remaining effluent parameters are contracted out to Pace Analytical.

Dead gnats were observed in the pH storage solution cup. The solution should be changed on a routine basis. The bottle containing distilled water was discolored and had what appeared to be mold growing on the side of the container. The cap on the Luminescent DO probe was scratched. Extra caps were not available on site. Having an additional cap available at the facility is recommended. There was not an IDEXX Quanti-Tray comparator available on site. The comparator is used for distinguishing threshold positive results from negative results by comparison. The refrigerator used to store samples until Pace collects them also contained drink and food items. They facility must purchase a separate refrigerator for samples.

The facility uses pH 7.0 and 10.0 buffer solutions. The containers were marked with an open date and were within the expiration date. The equipment in the lab is serviced by LabtronX on a yearly basis with the latest date being March 1, 2022. Temperature ranges for incubators and ovens were within the appropriate range except the *E. coli* incubator which read at 37.1°C. The incubator temperature should read at 35±.05°C. Don't forget to include the correction factor on the LabtronX tag when reading temperatures.

Lab bench sheets and daily records for analysis conducted contained the appropriate information including the lab technician's initials, date, and time of analysis. The benchsheets should also include the analysis method number or reference the current edition of *Standard Methods for Water and Wastewater Analyses*. The influent and effluent samplers are kept in good operational condition. Both samplers are flow proportional. Temperature ranges for the samplers were well below 6°C.

Conclusion

Compliance with NPDES Permit #TN0027278 helps ensure discharges that are protective of downstream fish and aquatic life and water quality. The treatment units have surpassed their useful lifetime. Mr. Reed's ability to operate the wastewater treatment plant in its current condition is commendable. The permit requires proper operation and maintenance of the treatment facility. Corrosion, I/I, inaccurate reporting, and lack of maintenance are ongoing issues at the treatment plant and are a violation of the permit. As such,

Compliance Evaluation Inspection and Notice of Violation

Grassland STP

NPDES# TN0027278

June 8, 2022

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this letter serves as a **Notice of Violation** of the NPDES permit and the *Tennessee Water Quality Control Act*.

Action Items and Recommendations

- Review February, March, and April MORs and DMRs and make appropriate corrections.
- Develop and keep an SOP at the facility.
- Change pH storage solution on a routine basis.
- Change or thoroughly clean distilled water containers.
- Keep a spare LDO cap on site.
- Purchase an IDEXX Quanti-Tray comparator.
- Purchase a separate refrigerator for samples.
- Adjust *E. coli* incubator temperature to read $35 \pm 0.05^{\circ}\text{C}$.
- The lab benchsheets should include the analysis method number or reference the current edition of *Standard Methods for Water and Wastewater Analyses*.
- Proper Operation and Maintenance of the facility must improve.

The division requests that you develop and submit, by **July 15, 2022**, a detailed action plan and proposed implementation schedule detailing what corrective actions have been taken or will be taken to address the action items. The plan should also update the Division on the current status of plans to upgrade the facility.

Thank you for your efforts to ensure permit compliance and to protect state water quality. If you have questions or concerns about the inspection or this letter, please contact Jenny Strobel at (615) 289-0384 or via email at Jenny.Strobel@tn.gov.

Sincerely,



Michael P. Murphy
Program Coordinator
Division of Water Resources

e-copy: Delmar Reed, Certified Operator in Charge, dreed@midwestwaterop.com
Charles Steffen, DMR Signatory, csteffen@midwestwaterop.com
Joe Stoops, Regulatory Compliance Manager, jstoops@midwestwaterop.com
Jordan Fey, TDEC DWR, Jordan.Fey@tn.gov
Michael Lancaster, TDEC DWR, Michael.Lancaster@tn.gov
Cassi Savage, TDEC DWR, Cassi.Savage@tn.gov