STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
Davy Crockett Tower, 9th Floor
500 James Robertson Pkwy
Nashville, Tennessee 37243

October 1, 2025

Electronically Filed in TPUC Docket Room on October 1, 2025 at 12:32 p.m.

Mr. Josiah Cox
President
e-copy: jcox@cswrgroup.com
Central States Water Resources (CSWR)
500 Northwest Plaza Drive, Suite 500
St. Ann, MO 63074

24-00044
24-00020
23-00036
21-00053

Subject: **DRAFT MODIFICATION NPDES Permit No. TN0027278**
Limestone Water Utility Operating Company, LLC
Franklin, Williamson County, Tennessee

Dear Mr. Cox:

Enclosed please find a draft copy of the NPDES Permit No. TN0027278 which the Division of Water Resources proposes to modify to include conditions for a proposed replacement and expansion of the sewage treatment plant from 0.25 to 0.45 MGD. The document includes a modification rationale explaining the proposed changes after Page 43 of the draft modified permit.

This draft copy is furnished to you solely for your review of its provisions. No wastewater discharges are authorized by this draft permit. The issuance of this permit is contingent upon your meeting all of the requirements of the Tennessee Water Quality Control Act and the Rules and Regulations of the Tennessee Water Quality, Oil and Gas Board.

Also enclosed is a copy of the public notice that announces our intent to issue this permit. The notice affords the public an opportunity to review the draft permit and, if necessary, request a public hearing on this issuance process. If you disagree with the provisions and requirements contained in the draft permit, you have thirty (30) days from the date of this correspondence to notify the division of your objections. If your objections cannot be resolved, you may appeal this permit upon issuance. This appeal should be filed in accordance with Section 69-3-110 of the Tennessee Code Annotated.

If you have questions, please contact the Nashville Environmental Field Office at 1-888-891-TDEC; or, at this office, please contact Mr. Wade Murphy at (615) 532-0666 or by E-mail at *Wade.Murphy@tn.gov*.

Sincerely,

Sarah Terpstra
Manager, Water-Based Systems

Enclosure

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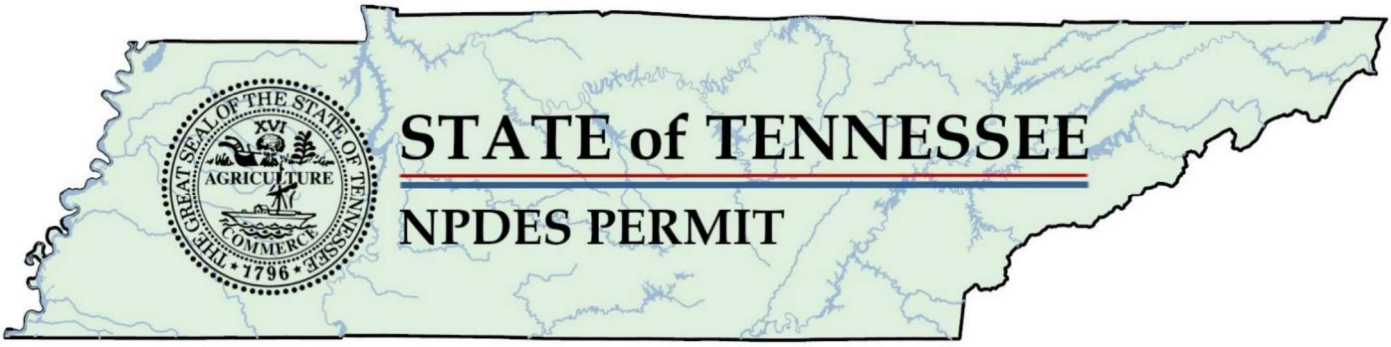


Authorization to Discharge Under the National Pollutant Discharge Elimination System (NPDES) Permit Number TN0027278

Issued by

Department of Environment and Conservation
Division of Water Resources
Davy Crockett Tower, 9th Floor
500 James Robertson Pkwy
Nashville, Tennessee 37243

Under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the delegation of authority from the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.)

Discharger:	**Limestone Water Utility Operating Company, LLC** **Grassland STP**
is authorized to:	treated domestic wastewater from Outfall 001
from a facility located at:	River Rest Subdivision, Franklin, Williamson County, Tennessee
to receiving waters named:	Harpeth River at mile 68.8

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on: **January 01, 2022 (modified 07/22 & TBD)**

This permit shall expire on: **November 30, 2026**

Issuance date:

DRAFT

for April Grippo
Director

Table of Contents

PART 1 1
1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS 1
1.1. Numeric and Narrative Effluent Limitations 1
1.1.1. Numeric Limitations – 0.25 MGD Facility 1
1.1.2. Numeric Limitations – 0.45 MGD Facility 5
1.1.3. Collection System Requirements 10
1.1.4. Narrative Conditions 11
1.2. Monitoring Procedures 11
1.2.1. Representative Sampling 11
1.2.2. Sampling Frequency 13
1.2.3. Test Procedures 13
1.2.4. Recording of Results 14
1.2.5. Records Retention 14
1.3. Reporting 14
1.3.1. Monitoring Results 14
1.3.2. Additional Monitoring by Permittee 15
1.3.3. Falsifying Results and/or Reports 15
1.3.4. Monthly Report of Operation 15
1.3.5. Overflow, Release, and Bypass Reporting 16
1.3.5.1. Event Report Requirements 16
1.3.5.2. DMR Report Requirements 17
1.3.6. Reporting Less Than Detection; Reporting Significant Figures 17
1.3.7. Outlier Data 18
1.4. Compliance with Section 208 18
1.5. Reopener Clause 18
1.6. Schedule of Compliance 19
1.7. Electronic Reporting 19
PART 2 20
2. GENERAL PERMIT REQUIREMENTS 20
2.1. GENERAL PROVISIONS 20
2.1.1. Duty to Comply 20
2.1.2. Duty to Reapply 20
2.1.3. Proper Operation and Maintenance 20
2.1.4. Duty to Provide Information 20
2.1.5. Right of Entry 21
2.1.6. Availability of Reports 21
2.1.7. Treatment Facility Failure (Industrial Sources) 21
2.1.8. Property Rights 21
2.1.9. Severability 22
2.1.10. Other Information 22
2.2. Changes Affecting the Permit 22
2.2.1. Planned Changes 22

2.2.2. Permit Modification, Revocation, or Termination 22
2.2.3. Change of Ownership 23
2.2.4. Change of Mailing Address 24
2.3. Noncompliance 24
2.3.1. Reporting of Noncompliance 24
2.3.2. Overflows and Releases 25
2.3.3. Upset 26
2.3.4. Adverse Impact 27
2.3.5. Bypass 27
2.3.6. Washout 28
2.4. Liabilities 28
2.4.1. Civil and Criminal Liability 28
2.4.2. Liability Under State Law 28
PART 3 29
3. Permit Specific Requirements 29
3.1. Certified Operator 29
3.2. POTW Pretreatment Program General Provisions 29
3.3. Biosolids Management Practices 31
3.4. Placement of Signs 32
PART 4 34
4. Definitions and Acronyms 34
4.1. Definitions 34
4.2. Acronyms and Abbreviations 39
4.3. Resources, Hyperlinks, and Web Pages 41
Modification rationale (for Expansion) 2025 ..... MOD-1
Minor modification rationale 2022 ..... MM-1
Addendum to RATIONALE at permit issue 2021 ..... A-1
RATIONALE R-1
1. Facility Information 1
2. Receiving Stream Information 2
3. Current Permit Status 2
4. New Permit Limitations and Compliance Schedule Summary 3
5. Previous Permit Term Review 3
6. Proposed Effluent Limits and Rationale 5
6.1. Conventional Parameters 6
6.1.1. $CBOD_5$ and Dissolved Oxygen 6
6.1.2. Total Suspended Solids (TSS) 6
6.1.3. Percent Removal 7
6.1.4. Settleable Solids 7
6.2. Flow 7
6.3. pH 7
6.4. Ammonia (NH_3-N) 7
6.5. Chlorination 10

6.6. Total Nitrogen and Total Phosphorus 10
6.7. *E. coli* 11
6.8. Biomonitoring 11
6.9. Collection System 12
7. Other Permit Requirements and Conditions 13
7.1. Certified Wastewater Treatment Operator 13
7.2. Collection System Certified Operator 13
7.3. Pretreatment Program 13
7.4. Biosolids Management Practices 13
7.5. Permit Term 14
7.6. Electronic Reporting 14
7.7. Antidegradation Statement / Water Quality Status 15
Appendix 1 – Previous Permit Limits 17
Appendix 2 – DMR Summary 18
Appendix 3 – Receiving Stream Low Flow Determination 19

PART 1

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1.1. NUMERIC AND NARRATIVE EFFLUENT LIMITATIONS

1.1.1. Numeric Limitations – 0.25 MGD Facility

These limits apply though the end of the month in which initiation of operation of the 0.45 MGD facility initiates operation. Limits for the discharge of 0.45 MGD begin on Page 5.

Limestone Water Utility Operating Company, LLC is authorized to discharge treated municipal wastewater from Outfall 001 to Harpeth River at mile 68.8 from a treatment facility with a design capacity of 0.25 MGD until the month following the month during which initiation of operation of the 0.45 MGD facility begins. Discharge from Outfall 001 shall be limited and monitored by the permittee as specified below:

Description : External Outfall, Number : 001, Monitoring : Effluent Gross, Season : All Year, Limit Set Status : Active							
Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00300	Oxygen, dissolved (DO)	>=	6.0	mg/L	Grab	Five Per Week	Instantaneous Minimum
00400	pH	>=	6.0	SU	Grab	Five Per Week	Minimum
00400	pH	<=	9.0	SU	Grab	Five Per Week	Maximum
00530	Total Suspended Solids (TSS)	<=	30	mg/L	Composite	Three Per Week	Monthly Average
00530	Total Suspended Solids (TSS)	<=	40	mg/L	Composite	Three Per Week	Weekly Average
00530	Total Suspended Solids (TSS)	<=	45	mg/L	Composite	Three Per Week	Daily Maximum
00530	Total Suspended Solids (TSS)	<=	63	lb/d	Composite	Three Per Week	Monthly Average
00530	Total Suspended Solids (TSS)	<=	83	lb/d	Composite	Three Per Week	Weekly Average
00545	Settleable Solids	<=	1.0	mL/L	Grab	Five Per Week	Daily Maximum
00600	Nitrogen, total (as N)	Report	-	mg/L	Composite	Twice Per Month	Monthly Average
00600	Nitrogen, total (as N)	Report	-	mg/L	Composite	Twice Per Month	Daily Maximum

00600	Nitrogen, total (as N)	Report	-	lb/d	Composite	Twice Per Month	Monthly Average
00600	Nitrogen, total (as N)	Report	-	lb/d	Composite	Twice Per Month	Daily Maximum
00600	Nitrogen, total (as N)	<=	15	lb/d	Calculated	Monthly	Annual Average
00665	Phosphorus, total (as P)	Report	-	mg/L	Composite	Twice Per Month	Monthly Average
00665	Phosphorus, total (as P)	Report	-	mg/L	Composite	Twice Per Month	Daily Maximum
00665	Phosphorus, total (as P)	Report	-	lb/d	Composite	Twice Per Month	Monthly Average
00665	Phosphorus, total (as P)	Report	-	lb/d	Composite	Twice Per Month	Daily Maximum
00665	Phosphorus, total (as P)	<=	5.0	lb/d	Calculated	Monthly	Annual Average
50050	Flow	Report	-	MGD	Continuous	Daily	Monthly Average
50050	Flow	Report	-	MGD	Continuous	Daily	Daily Maximum
50060	Chlorine, total residual (TRC)	<=	0.16	mg/L	Grab	Fiver Per Week	Monthly Average
50060	Chlorine, total residual (TRC)	<=	0.28	mg/L	Grab	Five Per Week	Daily Maximum
51040	E. coli	<=	126	#/100mL	Grab	Three Per Week	Monthly Geometric Mean
51040	E. coli	<=	941	#/100mL	Grab	Three Per Week	Daily Maximum

Description : External Outfall, Number : 001, Monitoring : Effluent Gross, Season : Summer, Limit Set Status : Active

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00610	Nitrogen, Ammonia total (as N)	<=	2	mg/L	Composite	Three Per Week	Monthly Average
00610	Nitrogen, Ammonia total (as N)	<=	3	mg/L	Composite	Three Per Week	Weekly Average
00610	Nitrogen, Ammonia total (as N)	<=	4	mg/L	Composite	Three Per Week	Daily Maximum
00610	Nitrogen, Ammonia total (as N)	<=	4	lb/d	Composite	Three Per Week	Monthly Average
00610	Nitrogen, Ammonia total (as N)	<=	6	lb/d	Composite	Three Per Week	Weekly Average
80082	CBOD, 5-day, 20 C	<=	5	mg/L	Composite	Three Per Week	Monthly Average
80082	CBOD, 5-day, 20 C	<=	7.5	mg/L	Composite	Three Per Week	Weekly Average
80082	CBOD, 5-day, 20 C	<=	10	mg/L	Composite	Three Per Week	Daily Maximum

80082	CBOD, 5-day, 20 C	<=	10	lb/d	Composite	Three Per Week	Monthly Average
80082	CBOD, 5-day, 20 C	<=	15	lb/d	Composite	Three Per Week	Weekly Average

Description : External Outfall, Number : 001, Monitoring : Effluent Gross, Season : Winter, Limit Set Status : Active

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00610	Nitrogen, Ammonia total (as N)	<=	5	mg/L	Composite	Three Per Week	Monthly Average
00610	Nitrogen, Ammonia total (as N)	<=	7.5	mg/L	Composite	Three Per Week	Weekly Average
00610	Nitrogen, Ammonia total (as N)	<=	10	mg/L	Composite	Three Per Week	Daily Maximum
00610	Nitrogen, Ammonia total (as N)	<=	10	lb/d	Composite	Three Per Week	Monthly Average
00610	Nitrogen, Ammonia total (as N)	<=	16	lb/d	Composite	Three Per Week	Weekly Average
80082	CBOD, 5-day, 20 C	<=	10	mg/L	Composite	Three Per Week	Monthly Average
80082	CBOD, 5-day, 20 C	<=	15	mg/L	Composite	Three Per Week	Weekly Average
80082	CBOD, 5-day, 20 C	<=	20	mg/L	Composite	Three Per Week	Daily Maximum
80082	CBOD, 5-day, 20 C	<=	21	lb/d	Composite	Three Per Week	Monthly Average
80082	CBOD, 5-day, 20 C	<=	31	lb/d	Composite	Three Per Week	Weekly Average

Description : External Outfall, Number : 001, Monitoring : Percent Removal, Season : All Year, Limit Set Status : Active

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
80358	CBOD, 5-day, 20 C, % removal	>=	85	%	Calculated	Three Per Week	Monthly Average
80358	CBOD, 5-day, 20 C, % removal	>=	40	%	Calculated	Three Per Week	Daily Minimum
81011	TSS, % removal	>=	85	%	Calculated	Three Per Week	Monthly Average
81011	TSS, % removal	>=	40	%	Calculated	Three Per Week	Daily Minimum

Description : Influent Structure, Number : INF1, Monitoring : Raw Sewage Influent, Season : All Year, Limit Set Status : Active

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00530	Total Suspended Solids (TSS)	Report	-	mg/L	Composite	Three Per Week	Monthly Average

00530	Total Suspended Solids (TSS)	Report	-	mg/L	Composite	Three Per Week	Daily Maximum
50050	Flow	Report	-	MGD	Continuous	Daily	Monthly Average
50050	Flow	Report	-	MGD	Continuous	Daily	Daily Maximum
80082	CBOD, 5-day, 20 C	Report	-	mg/L	Composite	Three Per Week	Monthly Average
80082	CBOD, 5-day, 20 C	Report	-	mg/L	Composite	Three Per Week	Daily Maximum

General MyTDEC Forms Report Requirements*	
Bypass of Treatment Facility	See Section 1.3.5.1. and 2.3.5.
Anticipated Bypass of Treatment Facility	See Section 1.3.5.1. and 2.3.5.
Five-day Follow-up Noncompliance Report	See Sections 1.3.5.1. and 2.3.1.a.
Scheduled Reporting	See Section 2.3.1.b.

* Each event shall be reported via MyTDEC Forms.

Notes:

The permittee shall achieve 85 % removal of $CBOD_5$ and TSS on a monthly average basis. The permittee shall report all instances of releases, overflows and/or bypasses. See **Part 2.3.2(a)** for the definition of overflow and **Part 1.3.5** for reporting requirements.

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

Unless elsewhere specified, summer months are May through October; winter months are November through April.

See **Part 1.2.3** for test procedures.

See below for percent removal calculations.

The permittee may collect more samples than specified as the monitoring frequency in the permit. Samples may not be collected at intervals of less than 12 hours. 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. In addition, the concentration of the *E. coli* group in any individual sample shall not exceed a specified maximum amount.

Total residual chlorine (TRC) monitoring shall be applicable when chlorine, bromine, or any other oxidants are added. The acceptable methods for analysis of TRC are any methods specified in Title 40 CFR § 136 as amended, so long as the requirements of Tennessee Rule 0400-40-03-.05(8) are met. The method detection limit (MDL) for TRC shall not exceed 0.05 mg/l unless the permittee demonstrates that its MDL is higher. The permittee shall retain the documentation that justifies the MDL and have it available for review upon request. In cases where the permit limit is less that the MDL, the reporting of TRC at less than the MDL shall be interpreted to constitute compliance with the permit.

or $CBOD_5$ and TSS, the treatment facility shall demonstrate a minimum of 85% removal efficiency on a monthly average basis. This is calculated by determining an average of all daily influent concentrations and comparing this to an average of all daily effluent concentrations. The formula for this calculation is as follows:

$$\left(1 - \frac{average\ of\ daily\ effluent\ concentrations}{average\ of\ daily\ influent\ concentrations}\right) * 100\% = \%\ removal$$

This treatment facility will also demonstrate 40% daily minimum removal of $CBOD_5$ and TSS based on each daily composite sample. The formula for this calculation is as follows:

$$\left(1 - \frac{daily\ effluent\ concentration}{daily\ influent\ concentration}\right) * 100\% = \%\ removal$$

Each daily load is calculated by multiplying the day's sample concentration (mg/L) by the effluent flow rate (MGD) for the day the sample was collected and the conversion factor 8.34 lbs/gal.

$$Load = \left(\begin{matrix}Effluent\\Concentration\end{matrix}\right) * \left(\begin{matrix}Effluent\ flow\ for\ the\ day\ the\\day\ the\ sample\ was\ collected\end{matrix}\right) * (8.34)$$

The average pound per day is the mathematical average where the sum of all the calculated loads during the current month and previous 11 months is divided by the number of calculated loads.

$$Average\ Pounds\ per\ Day = \left(\begin{matrix}Sum\ of\ All\ Loads\ in\frac{lbs}{day}\ During\ the\\Current\ Month\ and\ the\ Previous\ 11\ Months\\Total\ Number\ of\ Loads\ Calculated\ During\\the\ Current\ Month\ and\ Previous\ 11\ Months\end{matrix}\right)$$

1.1.2. Numeric Limitations – 0.45 MGD Facility

These limits apply beginning the first day of the month following the month in which initiation of operation of the 0.45 MGD facility.

Limestone Water Utility Operating Company, LLC is authorized to discharge treated municipal wastewater from Outfall 001 to Harpeth River at mile 68.8 from a treatment facility with a design capacity of 0.45 MGD after initiation of operation of the aerobic granular sludge (AGS) facility. Discharge from Outfall 001 shall be limited and monitored by the permittee as specified below:

Description : External Outfall, Number : 001, Monitoring : Effluent Gross, Season : All Year, Limit Set Status : Active							
Code	**Parameter**	**Qualifier**	**Value**	**Unit**	**Sample Type**	**Monitoring Frequency**	**Statistical Base**
00165	Sludge Volume Index, SVI – Alert Level	<=	50	Svol index (mL/g)	Grab	Weekly	Daily Maximum

00300	Oxygen, dissolved (DO)	>=	6.0	mg/L	Grab	Five Per Week	Instantaneous Minimum
00400	pH	>=	6.0	SU	Grab	Five Per Week	Minimum
00400	pH	<=	9.0	SU	Grab	Five Per Week	Maximum
00530	Total Suspended Solids (TSS)	<=	17	mg/L	Composite	Three Per Week	Monthly Average
00530	Total Suspended Solids (TSS)	<=	22	mg/L	Composite	Three Per Week	Weekly Average
00530	Total Suspended Solids (TSS)	<=	25	mg/L	Composite	Three Per Week	Daily Maximum
00530	Total Suspended Solids (TSS)	<=	63	lb/d	Composite	Three Per Week	Monthly Average
00530	Total Suspended Solids (TSS)	<=	83	lb/d	Composite	Three Per Week	Weekly Average
00530	Total Suspended Solids (TSS)	<=	94	lb/d	Composite	Three Per Week	Daily Maximum
00545	Settleable Solids	<=	1.0	mL/L	Grab	Five Per Week	Daily Maximum
00600	Nitrogen, total (as N)	Report	-	mg/L	Composite	Twice Per Month	Monthly Average
00600	Nitrogen, total (as N)	Report	-	mg/L	Composite	Twice Per Month	Daily Maximum
00600	Nitrogen, total (as N)	Report	-	lb/d	Composite	Twice Per Month	Monthly Average
00600	Nitrogen, total (as N)	Report	-	lb/d	Composite	Twice Per Month	Daily Maximum
00600	Nitrogen, total (as N)	<=	15	lb/d	Calculated	Monthly	Rolling 12-Month Average
00665	Phosphorus, total (as P)	Report	-	mg/L	Composite	Twice Per Month	Monthly Average
00665	Phosphorus, total (as P)	Report	-	mg/L	Composite	Twice Per Month	Daily Maximum
00665	Phosphorus, total (as P)	Report	-	lb/d	Composite	Twice Per Month	Monthly Average
00665	Phosphorus, total (as P)	Report	-	lb/d	Composite	Twice Per Month	Daily Maximum

00665	Phosphorus, total (as P)	<=	5.0	lb/d	Calculated	Monthly	Rolling 12-Month Average
50050	Flow	Report	-	MGD	Continuous	Daily	Monthly Average
50050	Flow	Report	-	MGD	Continuous	Daily	Daily Maximum
51040	E. coli	<=	126	#/100mL	Grab	Three Per Week	Monthly Geometric Mean
51040	E. coli	<=	410	#/100mL	Grab	Three Per Week	Daily Maximum
51504	UV Light Working	Report		Pass = 0; Fail = 1	Visual	Three Per Week	Value (VA)
51947	Monthly Certification Statement	Report		Pass = 0; Fail = 1	Certification (CT)	Monthly	Value (VA)
71900	Mercury, total (as Hg)	<=	0.0001376	mg/L	Per Method	Monthly	Monthly Average

Description : External Outfall, Number : 001, Monitoring : Effluent Gross, Season : Summer, Limit Set Status : Active

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00610	Nitrogen, Ammonia total (as N)	<=	1.1	mg/L	Composite	Three Per Week	Monthly Average
00610	Nitrogen, Ammonia total (as N)	<=	1.7	mg/L	Composite	Three Per Week	Weekly Average
00610	Nitrogen, Ammonia total (as N)	<=	2.2	mg/L	Composite	Three Per Week	Daily Maximum
00610	Nitrogen, Ammonia total (as N)	<=	4	lb/d	Composite	Three Per Week	Monthly Average
00610	Nitrogen, Ammonia total (as N)	<=	6	lb/d	Composite	Three Per Week	Weekly Average
00610	Nitrogen, Ammonia total (as N)	<=	8	lb/d	Composite	Three Per Week	Daily Maximum
80082	CBOD, 5-day, 20 C	<=	2.8	mg/L	Composite	Three Per Week	Monthly Average
80082	CBOD, 5-day, 20 C	<=	4.2	mg/L	Composite	Three Per Week	Weekly Average
80082	CBOD, 5-day, 20 C	<=	5.6	mg/L	Composite	Three Per Week	Daily Maximum
80082	CBOD, 5-day, 20 C	<=	10	lb/d	Composite	Three Per Week	Monthly Average
80082	CBOD, 5-day, 20 C	<=	16	lb/d	Composite	Three Per Week	Weekly Average
80082	CBOD, 5-day, 20 C	<=	21	lb/d	Composite	Three Per Week	Daily Maximum

Description : External Outfall, Number : 001, Monitoring : Effluent Gross, Season : Winter, Limit Set Status : Active

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base

00610	Nitrogen, Ammonia total (as N)	<=	2.8	mg/L	Composite	Three Per Week	Monthly Average
00610	Nitrogen, Ammonia total (as N)	<=	4.2	mg/L	Composite	Three Per Week	Weekly Average
00610	Nitrogen, Ammonia total (as N)	<=	5.6	mg/L	Composite	Three Per Week	Daily Maximum
00610	Nitrogen, Ammonia total (as N)	<=	10	lb/d	Composite	Three Per Week	Monthly Average
00610	Nitrogen, Ammonia total (as N)	<=	16	lb/d	Composite	Three Per Week	Weekly Average
00610	Nitrogen, Ammonia total (as N)	<=	21	lb/d	Composite	Three Per Week	Daily Maximum
80082	CBOD, 5-day, 20 C	<=	6	mg/L	Composite	Three Per Week	Monthly Average
80082	CBOD, 5-day, 20 C	<=	8	mg/L	Composite	Three Per Week	Weekly Average
80082	CBOD, 5-day, 20 C	<=	11	mg/L	Composite	Three Per Week	Daily Maximum
80082	CBOD, 5-day, 20 C	<=	21	lb/d	Composite	Three Per Week	Monthly Average
80082	CBOD, 5-day, 20 C	<=	31	lb/d	Composite	Three Per Week	Weekly Average
80082	CBOD, 5-day, 20 C	<=	42	lb/d	Composite	Three Per Week	Daily Maximum

Description : External Outfall, Number : 001, Monitoring : Percent Removal, Season : All Year, Limit Set Status : Active

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
80358	CBOD, 5-day, 20 C, % removal	>=	85	%	Calculated	Three Per Week	Monthly Average
81011	TSS, % removal	>=	85	%	Calculated	Three Per Week	Monthly Average

Description : Influent Structure, Number : INF1, Monitoring : Raw Sewage Influent, Season : All Year, Limit Set Status : Active

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00530	Total Suspended Solids (TSS)	Report	-	mg/L	Composite	Three Per Week	Monthly Average
00530	Total Suspended Solids (TSS)	Report	-	mg/L	Composite	Three Per Week	Daily Maximum
50050	Flow	Report	-	MGD	Continuous	Daily	Monthly Average
50050	Flow	Report	-	MGD	Continuous	Daily	Daily Maximum
80082	CBOD, 5-day, 20 C	Report	-	mg/L	Composite	Three Per Week	Monthly Average
80082	CBOD, 5-day, 20 C	Report	-	mg/L	Composite	Three Per Week	Daily Maximum

General MyTDEC Forms Report Requirements*	
Bypass of Treatment Facility	See Section 1.3.5.1. and 2.3.5.
Anticipated Bypass of Treatment Facility	See Section 1.3.5.1. and 2.3.5.
Five-day Follow-up Noncompliance Report	See Sections 1.3.5.1. and 2.3.1.a.
Scheduled Reporting	See Section 2.3.1.b.

* Each event shall be reported via MyTDEC Forms.

Notes:

Each month, the permittee shall certify on its DMR that, for the reporting month, the 1) AGS process control monitoring record and 2) waste activated sludge hauling and hauler/receiver redundancy records are complete and on file and available for inspection at the facility. The permittee shall report 0 for parameter code 51947 if the records are complete (pass) and 1 if they are not (fail). **Parameters monitored and recorded only for supervising and optimizing process control are not subject to Part 1.2.3.**

The sludge volume index value is an alert value rather than an enforceable limit.

All sampling for total mercury (application, pretreatment, etc.) shall use Methods 1631, 245.7 or any additional method in 40 CFR § 136 with a maximum detection limit of 5 ng/L.

The permittee shall achieve 85 % removal of $CBOD_5$ and TSS on a monthly average basis. The permittee shall report all instances of releases, overflows and/or bypasses. See **Part 2.3.2(a)** for the definition of overflow and **Part 1.3.5** for reporting requirements.

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

Unless elsewhere specified, summer months are May through October; winter months are November through April.

See **Part 1.2.3** for test procedures.

See below for percent removal calculations.

The permittee may collect more samples than specified as the monitoring frequency in the permit. Samples may not be collected at intervals of less than 12 hours. 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. In addition, the concentration of the *E. coli* group in any individual sample shall not exceed a specified maximum amount.

Total residual chlorine (TRC) monitoring shall be applicable when chlorine, bromine, or any other oxidants are added. The acceptable methods for analysis of TRC are any methods specified in Title 40 CFR § 136 as amended, so long as the requirements of Tennessee Rule 0400-40-03-.05(8) are met. The method detection limit (MDL) for TRC shall not exceed 0.05 mg/l unless the permittee demonstrates that its MDL is higher. The permittee shall retain the documentation that justifies the MDL and have it available for review upon request. In cases

where the permit limit is less that the MDL, the reporting of TRC at less than the MDL shall be interpreted to constitute compliance with the permit.

or $CBOD_5$ and TSS, the treatment facility shall demonstrate a minimum of 85% removal efficiency on a monthly average basis. This is calculated by determining an average of all daily influent concentrations and comparing this to an average of all daily effluent concentrations. The formula for this calculation is as follows:

$$\left(1 - \frac{average\ of\ daily\ effluent\ concentrations}{average\ of\ daily\ influent\ concentrations}\right) * 100\% = \%\ removal$$

Each daily load is calculated by multiplying the day's sample concentration (mg/L) by the effluent flow rate (MGD) for the day the sample was collected and the conversion factor 8.34 lbs/gal.

$$Load = \left(\begin{matrix} Effluent \\ Concentration \end{matrix}\right) * \left(\begin{matrix} Effluent\ flow\ for\ the\ day\ the \\ day\ the\ sample\ was\ collected \end{matrix}\right) * (8.34)$$

The average pound per day is the mathematical average where the sum of all the calculated loads during the current month and previous 11 months is divided by the number of calculated loads.

$$Average\ Pounds\ per\ Day = \left(\begin{matrix} Sum\ of\ All\ Loads\ in \frac{lbs}{day}\ During\ the \\ \frac{Current\ Month\ and\ the\ Previous\ 11\ Months}{Total\ Number\ of\ Loads\ Calculated\ During} \\ the\ Current\ Month\ and\ Previous\ 11\ Months \end{matrix}\right)$$

1.1.3. Collection System Requirements

Limestone Water Utility Operating Company, LLC is authorized to operate a sewage collection system. Operation and discharges from the collection system shall be limited and monitored by the permittee as specified below:

Code	Monitoring	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
51925	Dry Weather	SSO, Dry Weather	<=	0	occur/mo	Occurrences	Continuous	Monthly Total
51926	Wet Weather	SSO, Wet Weather	<=	0	occur/mo	Occurrences	Continuous	Monthly Total

Report via NetDMR. See sections **1.3.1.** and **1.3.5.2.**

Collection System MyTDEC Forms Report Requirements*	
Sanitary Sewer Overflow (SSO, Dry Weather)	See Section 1.3.5.1.
Sanitary Sewer Overflow (SSO, Wet Weather)	See Section 1.3.5.1.
Release (Dry Weather)	See Section 1.3.5.1.
Release (Wet Weather)	See Section 1.3.5.1.
Five-day Follow-up Noncompliance Report	See Sections 1.3.5.1. and 2.3.1.

* Each event shall be reported via MyTDEC Forms.

1.1.4. Narrative Conditions

The following narrative condition applies to the 0.45 MGD facility:

At start-up, the permittee shall provide TDEC with a copy of the daily operating recording format for monitoring process controls (ORP, DO, TSS, etc.) that the operator will use to supervise plant activities and performance of the AGS process. Additionally, at startup, the permittee will provide TDEC with a copy of an operating record for recording the quantity of waste activated sludge hauled away for disposal, the dates of hauling, the company hauling, and the receiving entity. The waste activated sludge record will also provide evidence that backup hauler(s) and receiver(s) are arranged and on standby. This report(s) format shall be prepared for record keeping by calendar month and may be either paper or electronic.

The following narrative conditions apply to both the 0.25 and 0.45 MGD facilities:

The authorized discharge shall not:

- Result in distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits, or sludge banks of such size or character as may be detrimental to fish and aquatic life.
- Result in total suspended solids, turbidity, or color in such amounts or character that will result in any objectionable appearance to the receiving water, considering the nature and location of the water.
- Contain pollutants in quantities that will be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream.

Sludge or any other material removed by any treatment works must be disposed of in a manner that prevents its entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material must be in compliance with the Tennessee Solid Waste Disposal Act, Tennessee Code Annotated (Tenn. Code Ann.) §68-31-101 et seq. and the Tennessee Hazardous Waste Management Act, Tenn. Code Ann. §68-46-101 et. seq.

1.2. MONITORING PROCEDURES

1.2.1. Representative Sampling

Samples and measurements taken in compliance with the monitoring requirements specified herein shall be representative of the volume and nature

of the monitored discharge and shall be taken after treatment and prior to mixing with uncontaminated stormwater runoff or the receiving stream. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed and calibrated by a qualified source at least once every 12 months[1], and maintained to ensure that the accuracy of the measurements is consistent with accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of plus or minus 10% from the true discharge rates throughout the range of expected discharge volumes.

Composite samples must be proportioned by flow at the time of sampling. Aliquots may be collected manually or automatically. The sample aliquots must be maintained at ≤ 6°C during the compositing period, or as otherwise specified in 40 CFR §136 or in the method.

Samples and measurements taken in compliance with the monitoring requirements specified above shall be representative of the volume and nature of the monitored discharge, and shall be taken at the following location(s):

Influent samples must be collected prior to mixing with any other wastewater being returned to the head of the plant, such as sludge return. Those systems with more than one influent line must collect samples from each and proportion the results by the flow from each line.

Effluent samples must be representative of the wastewater being discharged and collected prior to mixing with any other discharge or the receiving stream. This can be a different point for different parameters but must be after all treatment for that parameter or all expected changes. Specifically:

a) The chlorine residual must be measured after the chlorine contact chamber and any dechlorination. It may be to the advantage of the permittee to measure at the end of any long outfall lines.

b) Samples for *E. coli* can be collected at any point between completion of disinfection and the actual discharge.

c) The dissolved oxygen (DO) can drop in the outfall line; therefore, DO measurements are required at the discharge end of outfall lines greater than

[1] The Division expects for permittees to meet EPA's guidance on proper operation and maintenance of flow measurement devices, as stated in the NPDES Compliance Inspection Manual.

one mile long. Systems with outfall lines less than one mile may measure dissolved oxygen as the wastewater leaves the treatment facility. For systems with dechlorination, DO must be measured after this step and as close to the end of the outfall line as possible.

d) Total suspended solids (TSS) and settleable solids can be collected at any point after the final clarifier.

e) Biomonitoring tests (if required) shall be conducted on final effluent.

1.2.2. Sampling Frequency

The permittee should report "No Discharge" on Discharge Monitoring Reports (DMRs) only if a permitted outfall does not discharge at any time during the monitoring period. If the outfall discharges effluent at any time during the monitoring period, the permittee must provide at least one sampling result from the effluent of that outfall.

If the required monitoring frequency is once per month or 1/month, the monitoring period is one month. If the discharge occurs during only one day in that period, the permittee must sample on that day and report the results of analyses accordingly.

1.2.3. Test Procedures

a) Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304 (h) of the Clean Water Act (the "Act"), as amended, under which such procedures may be required.

b) Unless otherwise noted in the permit, all pollutant parameters shall be determined using sufficiently sensitive methods in Title 40 CFR § 136, as amended, and promulgated pursuant to Section 304 (h) of the Act. The chosen methods must be sufficiently sensitive as required in state rule 0400-40-03-.05(8).

c) If the ML for all methods available in accordance with 40 CFR § 136 are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest ML shall be used.

d) Where the analytical results are below the method detection limit (MDL), the permittee shall report the actual laboratory MDL and ML values. See **Section 1.3.6.** for instructions regarding reporting less than detection.

e) When there is no analytical method that has been approved under 40 CFR §136 or required under 40 CFR chapter I, subchapter N or O, and a specific method is not otherwise required by the Director, the permittee may use any suitable method but shall provide a description of the method. When selecting a suitable method, factors such as a method's precision, accuracy, or resolution must be considered when assessing the performance of the method.

f) All sampling for total mercury (application, pretreatment, etc.) shall use Methods 1631, 245.7 or any additional method in 40 CFR § 136 with a maximum detection limit of 5 ng/L.

1.2.4. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

i. The date, exact place, and time of sampling or measurements;
ii. The individual(s) who performed the sampling or measurements;
iii. The date analyses were performed;
iv. The individual(s) who performed the analyses;
v. The laboratory where the analyses were performed;
vi. The analytical techniques or methods used; and
vii. The results of such analyses.

1.2.5. Records Retention

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, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

1.3. REPORTING

1.3.1. Monitoring Results

Monitoring results shall be recorded monthly and submitted monthly on Discharge Monitoring Reports (DMRs) using EPA's NetDMR website. The first DMR is due on the 15th of the month following permit effectiveness. Subsequent DMRs shall be submitted through NetDMR no later than 15 days after the completion of the reporting period. In compliance with the Federal NPDES Electronic Reporting Rule, DMRs may not be submitted via email under any circumstances.

Discharge Monitoring Reports and any other information or report must be signed and certified by a responsible corporate officer as defined in Tennessee Rules, Chapter 0400-40-05-.07(2)(i), a general partner or proprietor, a principal municipal executive officer or ranking elected official, or his or her duly authorized representative. Such authorization must be submitted in writing and must explain the duties and responsibilities of the authorized representative.

In the event that electronic reporting is unavailable, the permittee shall comply with reporting conditions provided in **Section 1.7**.

1.3.2. Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR § 136, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or other reporting form specified by the Commissioner. Such increased frequency shall also be indicated.

1.3.3. Falsifying Results and/or Reports

Knowingly making any false statement on any report required by this permit or falsifying any result may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Water Pollution Control Act, as amended, and in § 69-3-115 of the Tennessee Water Quality Control Act.

1.3.4. Monthly Report of Operation

Monthly Operational Reports (MORs) shall be submitted by the 15th day of the month following data collection. Reports shall be submitted by one of the following methods, presented below in order of preference:

1) Using MyTDEC Forms, if available.

2) Submitting both a signed and certified copy in pdf format, uploaded as an attachment to NetDMR, *and* a copy of the native format spreadsheet file emailed to DWRWW.Report@tn.gov and TDEC.Nashville.EFO@tn.gov.

3) Submitting signed and certified forms to the EFO at the following address:

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
Nashville Environmental Field Office
711 R.S. Gass Boulevard
Nashville, Tennessee 37216

1.3.5. Overflow, Release, and Bypass Reporting

1.3.5.1. Event Report Requirements

For the purpose of this section, "events" are known as instances of sanitary sewer overflows, releases, upsets, and bypasses. These events shall be reported through MyTDEC Forms according to the following conditions:

a) Events that are not a threat to human health and the environment shall be reported using MyTDEC Forms no later than 15 days following the completion of the DMR reporting period.

b) Events that could cause a threat to human health or the environment, as defined in **Section 2.3.1.a**., shall be reported using MyTDEC Forms no later than 5 days after becoming aware of the non-compliance.

In both cases, the event report must contain the following:

i. Start date;
ii. Estimated duration in hours;
iii. Estimated volume in gallons;
iv. Type of event;
v. Type of structure (e.g., manhole);
vi. Types of human health and environmental impacts;
vii. Location (i.e., latitude and longitude);
viii. The name of receiving water (if applicable);
ix. Description of the cause;
x. The steps being taken to correct, reduce, eliminate, and prevent recurrence of the noncompliance; and
xi. The next downstream pump/lift station using the permittee's naming conventions.

In the event that MyTDEC Forms is not functioning, the permittee shall comply with reporting conditions provided in **Section 1.7**.

1.3.5.2. DMR Report Requirements

On the DMR, the permittee must separately report:

i. The total number of sanitary sewer overflows for the reporting month; and
ii. The total number of dry-weather sanitary sewer overflows for the reporting month.

On the DMR, sanitary sewer overflows are coded "SSO, Dry Weather" and "SSO, Wet Weather". Each discrete location of a sanitary sewer overflow shall be reported as a separate value.

1.3.6. Reporting Less Than Detection; Reporting Significant Figures

For the purpose of evaluating compliance with the permit limits established herein, where certain limits are below the minimum level (ML) of 40 CFR § 136 approved analytical methods, compliance will be demonstrated when a non-detect result is obtained using the most sensitive method available. The results of non-detect analyses, in this case, shall be reported as Below Detection Limit (BDL) or "NODI = B" in NetDMR. Reporting examples are provided below.

Reporting Example 1: If the permit limit is 0.02 mg/L with a method detection limit (MDL) of 0.05 mg/L and no detection is shown, the permittee must report "BDL" or "NODI = B" on DMRs in NetDMR. Whenever "BDL" or "NODI = B" is reported, the actual MDL must be reported in the DMR comments or in an attachment submitted in NetDMR.

Reporting Example 2: If the permit limit is 0.02 mg/L with an MDL of 0.05 mg/L and detection is shown, the actual detected value must be reported.

Reporting Example 3: If the permit limit is 0.02 mg/L with an MDL of 0.01 mg/L and no detection is shown, the permittee must report less than MDL (<0.01 mg/L in this case).

In instances where an average must be calculated with a mix of numerical and BDL results, the permittee shall calculate the average using the MDL value for BDL results.

Reported results are to correspond to the number of significant figures (decimal places) set forth in the permit conditions. The permittee shall round values, if allowed by the method of sample analysis, using a uniform rounding convention adopted by the permittee.

1.3.7. Outlier Data

Outlier data include analytical results that are probably false. The validity of results is based on operational knowledge and a properly implemented quality assurance program. False results may include laboratory artifacts, potential sample tampering, broken or suspect sample containers, sample contamination or similar demonstrated quality control flaw.

Outlier data are identified through a properly implemented quality assurance program, and according to ASTM standards (e.g. Grubbs Test, 'h' and 'k' statistics). Furthermore, outliers should be verified, corrected, or removed based on further inquiries into the matter. If an outlier was verified (through repeated testing and/or analysis), it should remain in the preliminary data set. If an outlier resulted from a transcription or similar clerical error, it should be corrected and subsequently reported.

Therefore, only if an outlier was associated with problems in the collection or analysis of the samples and as such does not conform with the Guidelines Establishing Test Procedures for the Analysis of Pollutants (40 CFR §136), can it be removed from the data set and not reported on DMRs. Otherwise, all results (including monitoring of pollutants more frequently than required at the location(s) designated, using approved analytical methods as specified in the permit) should be included in the calculation and reporting of the values required in the DMR form. The permittee should use the "comment" section in NetDMR to explain any potential outliers or dubious results.

1.4. COMPLIANCE WITH SECTION 208

The limits and conditions in this permit shall require compliance with an area-wide waste treatment plan (208 Water Quality Management Plan) where such approved plan is applicable.

1.5. REOPENER CLAUSE

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 307(a)(2), and 405(d)(2)(D) of the Clean Water Act, as amended, if the effluent standard, limitation, or sludge disposal requirement so issued or approved:

a) Contains different conditions or is otherwise more stringent than any condition in the permit; or

b) Controls any pollutant or disposal method not addressed in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

This permit may be modified during its term, per public notice procedures, to include terms and conditions imposed by a total maximum daily load (TMDL) allocation, approved by the EPA to replace the 2004 dissolved oxygen TMDL

1.6. SCHEDULE OF COMPLIANCE

Full compliance and operational levels shall be attained from the effective date of this permit.

1.7. ELECTRONIC REPORTING

This permit requires the submission of forms developed by the Director in order for a person to comply with certain requirements, including, but not limited to, making reports, submitting monitoring results, and applying for permits. The Director may make these forms available electronically and, if submitted electronically, then that electronic submission shall comply with the requirements of Chapter 0400-01-40. Electronic submission is required when available unless waived by the Commissioner in accordance with 40 C.F.R. § 127.15.

In the event of large-scale emergencies and/or prolonged electronic reporting system outages, an episodic electronic reporting waiver may be granted by the Commissioner in accordance with 40 CFR § 127.15. A request for a deadline extension or episodic electronic reporting waiver should be submitted to DWRWater.Compliance@tn.gov, in compliance with the Federal NPDES Electronic Reporting Rule.

If an episodic electronic reporting waiver is granted, reports with wet-ink original signatures shall be mailed to the following address:

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
COMPLIANCE & ENFORCEMENT UNIT
Davy Crockett Tower, 9th Floor
500 James Robertson Pkwy
Nashville, Tennessee 37243

For purposes of determining compliance with this permit, data provided to the Division electronically is legally equivalent to data submitted on signed and certified forms. A copy must be retained for the permittee's files.

PART 2

2. GENERAL PERMIT REQUIREMENTS

2.1. GENERAL PROVISIONS

2.1.1. Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Water Quality Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

2.1.2. Duty to Reapply

The permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information and forms as are required to the Division Director no later than 180 days prior to the expiration date. Such forms shall be properly signed and certified.

2.1.3. Proper Operation and Maintenance

a) The permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup 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. Backup continuous pH and flow monitoring equipment are not required.

b) Dilution water shall not be added to comply with effluent requirements to achieve BCT, BPT, BAT, or other technology based effluent limitations such as those established in Tennessee Rule 0400-40-05-.09.

2.1.4. Duty to Provide Information

The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

2.1.5. Right of Entry

The permittee shall allow the Director, the Regional Administrator of the U.S. Environmental Protection Agency, or their authorized representatives, upon the presentation of credentials, to:

a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this permit;

b) Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit;

c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d) Sample or monitor at reasonable times for the purposes of assuring permit compliance or as otherwise authorized by the Director.

2.1.6. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Water Pollution Control Act, as amended, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the Division's offices or via the Department's dataviewer webpage. As required by the Federal Act, effluent data shall not be considered confidential.

2.1.7. Treatment Facility Failure (Industrial Sources)

The permittee, in order to maintain compliance with this permit, shall control production, all discharges, or both, upon reduction, loss, or failure of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in such situations as the reduction, loss, or failure of the primary source of power.

2.1.8. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

2.1.9. Severability

The provisions of this permit are severable. If any provision of this permit due to any circumstance is held invalid, then the application of such provision to other circumstances and to the remainder of this permit shall not be affected thereby.

2.1.10. Other Information

If the permittee becomes aware of failure to submit any relevant facts in a permit application, or of submission of incorrect information in a permit application or in any report to the Director, then the permittee shall promptly submit such facts or information.

2.2. CHANGES AFFECTING THE PERMIT

2.2.1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as defined in Rule 0400-40-05-.02;

b) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit nor to notification requirements under 40 CFR § 122.42(a)(1); or

c) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices.

2.2.2. Permit Modification, Revocation, or Termination

a) This permit may be modified, revoked and reissued, or terminated for cause as described in 40 CFR § 122.62 and § 122.64, Federal Register, Volume 49, No. 188 (Wednesday, September 26, 1984), as amended. Causes for such permit action include but are not limited to the following:

i. Violation of any terms or conditions of the permit;
ii. Obtaining a permit by misrepresentation or failure to disclose fully all relevant facts; and
iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

b) The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

c) If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established for any toxic pollutant under Section 307(a) of the Federal Water Pollution Control Act, as amended, the Director shall modify or revoke and reissue the permit to conform to the prohibition or to the effluent standard, providing that the effluent standard is more stringent than the limitation in the permit for the toxic pollutant. The permittee shall comply with these effluent standards or prohibitions within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified or revoked and reissued to incorporate the requirement.

d) The filing of a request by the permittee for a modification, revocation, reissuance, termination, or notification of planned changes or anticipated noncompliance does not halt any permit condition.

2.2.3. Change of Ownership

Except as provided in Tennessee Rule Chapter 0400-40-05-.06(5)(a) or (b), this permit may be transferred to another party (provided there are neither modifications to the facility or its operations, nor any other changes which might affect permit limits and conditions contained in the permit) by the permittee if:

a) The permittee notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;

b) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them; and

c) The permittee shall provide the following information to the Director in their formal notice of intent to transfer ownership:

i. The permit number of the subject permit;
ii. The effective date of the proposed transfer;
iii. The name, address, and contact information of the transferor;
iv. The name, address, and contact information of the transferee;

v. The names of the responsible parties for both the transferor and transferee;
vi. A statement that the transferee assumes responsibility for the subject permit;
vii. A statement that the transferor relinquishes responsibility for the subject permit;
viii. The signatures of the responsible parties for both the transferor and transferee pursuant to the signatory requirements of subparagraph (i) of Rule 0400-40-05-.07(2); and
ix. A statement regarding any proposed modifications to the facility, its operations, or any other changes, which might affect the permit, limits and conditions contained in the permit.

2.2.4. Change of Mailing Address

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice, the original address of the permittee will be assumed to be correct.

2.3. NONCOMPLIANCE

2.3.1. Reporting of Noncompliance

a) 24-hour Reporting:

In the case of any noncompliance which could cause a threat to public drinking supplies or any other discharge which could constitute a threat to human health or the environment, the required notice of non-compliance shall be provided to the Division of Water Resources in the appropriate EFO within 24 hours from the time the permittee becomes aware of the circumstances. The EFO should be contacted for names and phone numbers of the environmental response team.

A written submission must be provided via MyTDEC Forms within five days of the time the permittee becomes aware of the circumstances unless the Director on a case-by-case basis waives this requirement. The permittee shall provide the Director with the following information:

i. A description of the discharge and cause of noncompliance;
ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
iii. The steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

b) Scheduled Reporting:

For instances of noncompliance which do not cause a threat to public drinking supplies, or any other discharge which could constitute a threat to human health or the environment, the permittee shall report the noncompliance on the DMR. The report shall contain all information concerning the steps taken, or planned, to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

2.3.2. Overflows and Releases

a) Sanitary sewer overflows, including dry-weather overflows, are prohibited.

b) The permittee shall operate the collection, transmission, and treatment system so as to avoid sanitary sewer overflows and releases due to improper operation or maintenance. A "release" may be due to improper operation or maintenance of the collection system or may be due to other cause(s). Releases caused by improper operation or maintenance of the permittee's collection, transmission, and treatment system are prohibited.

c) The permittee shall take all reasonable steps to minimize any adverse impact associated with overflows and releases.

d) No new or additional flows shall be added upstream of any point in the collection, transmission, or treatment system that experiences greater than 5 sanitary sewer overflows and/or releases per year[2] or would otherwise overload any portion of the system. Unless there is specific enforcement action to the contrary, the permittee is relieved of this requirement after:

1) An authorized representative of the Commissioner of the Department of Environment and Conservation has approved an engineering report and construction plans and specifications prepared in accordance with accepted engineering practices for correction of the problem;
2) The correction work is underway; and
3) The cumulative, peak-design flows potentially added from new connections and line extensions upstream of any chronic overflow or release point are less than or proportional to the amount of inflow and infiltration removal documented upstream from that point.

[2] This includes dry weather overflows, wet weather overflows, dry weather releases and wet weather releases.

The inflow and infiltration reduction must be measured by the permittee using practices that are customary in the environmental engineering field and reported in an attachment to the permittee's DMR and uploaded to NetDMR. The data measurement period shall be sufficient to account for seasonal rainfall patterns and seasonal groundwater table elevations.

e) In the event that chronic sanitary sewer overflows or releases have occurred from a single point in the collection system for reasons that may not warrant the self-imposed moratorium of the actions identified in this paragraph, the permittee may request a meeting with Division EFO staff to petition for a waiver based on mitigating evidence.

f) Unpermitted discharges from the collection or treatment system of industrial facilities are prohibited.

2.3.3. Upset

a) "*Upset*" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations due to factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b) An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An upset occurred and that the permittee can identify the cause(s) of the upset;
ii. The permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;
iii. The permittee submitted information required under "Reporting of Noncompliance" within 24 hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within five days); and
iv. The permittee complied with any remedial measures required under "Adverse Impact".

2.3.4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2.3.5. Bypass

a) "*Bypass*" means the intentional diversion of waste streams from any portion of a treatment facility. "*Severe property damage*" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b) Bypasses are prohibited unless all the following conditions are met:

   i. The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;
   ii. There are no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
   iii. For anticipated bypass, the permittee submits prior notice, if possible at least ten days before the date of the bypass, or for unanticipated bypass, the permittee submits notice of an unanticipated bypass within 24 hours from the time that the permittee becomes aware of the bypass.

c) Bypasses that do not cause effluent limitations to be exceeded may be allowed only if the bypass is necessary for essential maintenance to assure efficient operation and are not subject to the reporting requirements of part b) iii. above.

2.3.6. Washout

a) For domestic wastewater plants only, a "*washout*" shall be defined as loss of Mixed Liquor Suspended Solids (MLSS) of 30.00% or more. This refers to the MLSS in the aeration basin(s) only. This does not include MLSS decreases due to solids wasting to the sludge disposal system. A washout can be caused by improper operation or from peak flows due to inflow and infiltration.

b) A washout is prohibited. If a washout occurs the permittee must report the incident to the Division in the appropriate EFO within 24 hours by telephone. A written submission must be provided within five days. The washout must be noted on that month's DMR. Each day of a washout is a separate violation.

2.4. LIABILITIES

2.4.1. Civil and Criminal Liability

Except as provided in permit conditions for "*Bypass*" (**Section 2.3.5**), "*Overflows and Releases*" (**Section 2.3.2**), and "*Upset*" (**Section 2.3.3**), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including, but not limited to, fish kills and losses of aquatic life and/or wildlife as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2.4.2. Liability Under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or the Federal Water Pollution Control Act, as amended.

PART 3

3. PERMIT SPECIFIC REQUIREMENTS

3.1. CERTIFIED OPERATOR

The waste treatment facilities shall be operated under the supervision of a certified wastewater treatment operator, and the collection system shall be operated under the supervision of a certified collection system operator in accordance with the Water Environmental Health Act of 1984.

3.2. POTW PRETREATMENT PROGRAM GENERAL PROVISIONS

As an update of information previously submitted to the Division, the permittee will undertake the following activity:

a) The permittee shall submit the results of an Industrial Waste Survey (IWS) in accordance with Rule 0400-40-14-.08-(6)(b)1, including any industrial users (IU) covered under Section 301(i)(2) of the Act. As much information as possible must be obtained relative to the character and volume of pollutants contributed to the POTW by the IUs. This information will be submitted to the Division of Water Resources, Pretreatment Section within one hundred twenty (120) days of the effective date of this permit, unless such a survey has been submitted within 3 years of the effective date. Development of a pretreatment program may be required after completion of the industrial user review. All requirements and conditions of the pretreatment program are enforceable through the NPDES permit.

b) The permittee shall enforce Rule 0400-40-14-.05, "prohibited discharges". Pollutants introduced into the POTW by a non-domestic source shall not cause pass through or interference as defined in Rule 0400-40-14-.03. These general prohibitions and the specific prohibitions in this section apply to all non-domestic sources introducing pollutants into the POTW whether the source is subject to other National Pretreatment Standards or any state or local pretreatment requirements.

Specific prohibitions: Under no circumstances shall the permittee allow introduction of the following wastes into the POTW:

i. Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, wastestreams with a closed cup flashpoint

of less than 140°F or 60°C using the test methods specified in 40 CFR § 261.21

ii. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0 unless the system is specifically designed to accommodate such discharges;

iii. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference;

iv. Any pollutant, including oxygen-demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;

v. Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40°C (104°F) unless the Division, upon request of the POTW, approves alternate temperature limits;

vi. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;

vii. Pollutants which result in the presence of toxic gases, vapors or fumes within the POTW in a quantity that may cause acute worker health and safety problems; or

viii. Any trucked or hauled pollutants, except at discharge points designated by the POTW.

c) The permittee shall notify the Division of any of the following changes in user discharge to the system no later than 30 days prior to change of discharge:

i. New introductions into such works of pollutants from any source which would be a new source as defined in Section 306 of the Act if such source were discharging pollutants;

ii. New introductions of pollutants into such works from a source which would be subject to Section 301 of the "Federal Water Quality Act as Amended" if it were discharging such pollutants; or

iii. A substantial change in volume or character of pollutants being introduced into such works by a source already discharging pollutants into such works at the time this permit is issued.

This notice will include information on the quantity and quality of the wastewater introduced by the new source into the POTW, and on any anticipated impact on the effluent discharged from such works. If this discharge necessitates a revision of the current NPDES permit or pass-through guidelines, discharge by this source is prohibited until the Tennessee Division of Water Resources gives final authorization.

i. Compliance with categorical and local standards, and review of industrial compliance, which includes a summary of the compliance status for all permitted industries. Also included is information on the number and type of major violations of pretreatment regulations, and the actions taken by the POTW to obtain compliance. The effluent from all significant industrial users must be analyzed for the appropriate pollutants at least once every 12 months;

ii. A list of industries in significant non-compliance as published in local newspapers in accordance with the requirements set forth in Rule 0400-40-14-.08(6)(b)8;

iii. A description of all substantive changes made to the permittee's pretreatment program. Any such changes shall receive prior approval. Substantive changes include, but are not limited to, any change in any ordinance, major modification in the program's administrative structure, local limits, or a change in the method of funding the program; and

iv. A summary of the permittee's industrial user inspections, which includes information on the number and type of industry inspected. All significant industrial users must be inspected at least once every twelve months.

3.3. BIOSOLIDS MANAGEMENT PRACTICES

All sludge and/or biosolids use or disposal must comply with 40 CFR § 503 *et seq*. Biosolids shall be sampled and analyzed at a frequency dependent on the amount used annually.

Any facility that land applies non-exceptional quality biosolids must obtain an appropriate permit from the Division in accordance with Chapter 0400-40-15.

a) Reopener: If an applicable "acceptable management practice" or numerical limitation for pollutants in sewage sludge promulgated under Section 405(d)(2) of the Clean Water Act, as amended by the Water Quality Act of 1987, is more stringent than the sludge pollutant limit or acceptable management practice in this permit, or controls a pollutant not limited in this permit, this permit shall be promptly modified or revoked and reissued to conform to the requirements promulgated under Section 405(d)(2). The permittee shall comply with the limitations by no later than the compliance deadline specified in the applicable regulations as required by Section 405(d)(2) of the Clean Water Act.

b) Notice of change in sludge disposal practice: The permittee shall give prior notice to the Director of any change planned in the permittee's sludge disposal practice. The current method of sludge disposal is to a municipal solid waste landfill (or co-composting facility). This method of disposal is controlled by the rules of the Tennessee Division of Solid Waste Management (DSWM) and Federal Regulations at 40 CFR § 258.

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF SOLID WASTE MANAGEMENT
Nashville Environmental Field Office
711 R.S. Gass Boulevard
Nashville, Tennessee 37216
(615)687-7000

If the permittee anticipates changing its disposal practices to either land application or surface disposal, the Division of Water Resources shall be notified prior to the change. A copy of any results of pollutant analyses required by the Tennessee Division of Solid Waste Management (DSWM) and/or 40 CFR § 258 shall be submitted to the Division of Water Resources.

3.4. PLACEMENT OF SIGNS

Within 60 days of the effective date of this permit, the permittee shall place and maintain a sign at each outfall and any overflow/release point in the collection system or the nearest publicly accessible location. For the purposes of this requirement, any point that has had a total of 5 or more overflows plus releases in the previous 12 months must be so posted. The sign(s) should be clearly visible to the public from the bank and the receiving stream. The *minimum* sign size should be two feet by two feet (2' x 2') with one-inch (1") letters. The sign should be made of durable material and have a white background with black letters.

The sign(s) are to provide notice to the public as to the nature of the discharge and, in the case of the permitted outfalls, that the discharge is regulated by the Tennessee Department of Environment and Conservation, Division of Water Resources. The following are given as examples of the minimal amount of information that must be included on the signs:

NPDES Permitted Municipal/Sanitary Outfall:

TREATED MUNICIPAL/SANITARY WASTEWATER
Limestone Water Utility Operating Company, LLC
Grassland STP
(615) 714-7868
NPDES Permit NO. TN0027278
TENNESSEE DIVISION OF WATER RESOURCES
1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Nashville

Unpermitted release/overflow point:

UNTREATED WASTEWATER DISCHARGE POINT
Limestone Water Utility Operating Company, LLC
Grassland STP
(615) 714-7868
NPDES Permit No. TN0027278
TENNESSEE DIVISION OF WATER RESOURCES
1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Nashville

The permittee may request the removal of signs for unpermitted release/overflows points only. This request should be sent to Division EFO staff detailing the work that has been completed to rectify the cause(s) contributing to overflows and releases at that location. In no case will approval to remove the signs be granted if either an overflow or release has occurred at that location in the previous 12 months.

PART 4

4. DEFINITIONS AND ACRONYMS

4.1. DEFINITIONS

For the purposes of this permit, ***annually*** is defined as a monitoring frequency of once every 12 months beginning with the effective date of this permit, so long as the following set of measurements for a given 12 month period are made approximately 12 months subsequent to that time.

Biosolids are treated sewage sludge that have contaminant concentrations less than or equal to the contaminant concentrations listed in Table 1 of subparagraph (3)(b) of Rule 0400-40-15-.02, meet any one of the ten vector attraction reduction options listed in part (4)(b)1, 2, 3, 4, 5, 6, 7, 8, 9, or 10 of Rule 0400-40-15-.04, and meet either one of the six pathogen reduction alternatives for Class A listed in part (3)(a)3, 4, 5, 6, 7, or 8, or one of the three pathogen reduction alternatives for Class B listed in part (3)(b)2, 3, or 4 of Rule 0400- 40-15-.04.

A ***bypass*** is defined as the intentional diversion of waste streams from any portion of a treatment facility.

A ***calendar day*** is defined as the 24-hour period from midnight to midnight or any other 24-hour period that reasonably approximates the midnight to midnight time period.

A ***composite sample*** is a combination of not less than 8 influent or effluent portions, of at least 100 mL, collected over a 24-hour period. Under certain circumstances a lesser time period may be allowed, but in no case less than 8 hours.

The ***daily maximum amount*** is a limitation, measured in units of weight per time (*e.g.* pounds per day), on the total amount of any pollutant in the discharge during any calendar day.

The ***daily maximum concentration*** is a limitation on the average concentration in units of mass per volume (*e.g.* milligrams per liter) of the discharge during any calendar day. When a proportional-to-flow composite sampling device is used, the daily concentration is the concentration of that 24-hour composite; when other sampling means are used, the daily concentration is the arithmetic mean of the concentrations of equal volume samples collected during any calendar day or sampling period.

Degradation means the alteration of the properties of waters by the addition of pollutants, withdrawal of water, or removal of habitat, except those alterations of a short duration.

De Minimis is degradation of a small magnitude, as provided in this paragraph:

(a) Discharges and withdrawals:
   1. Subject to the limitation in part 3 of this subparagraph, a single discharge other than those from new domestic wastewater sources will be considered de minimis if it uses less than five percent of the available assimilative capacity for the substance being discharged.
   2. Subject to the limitation in part 3 of this subparagraph, a single water withdrawal will be considered de minimis if it removes less than five percent of the 7Q10 flow of the stream.
   3. If more than one activity described in part 1 or 2 of this subparagraph has been authorized in a segment and the total of the authorized and proposed impacts uses no more than 10% of the assimilative capacity, or 7Q10 low flow, they are presumed to be de minimis. Where the total of the authorized and proposed impacts uses 10% of the assimilative capacity, or 7Q10 low flow, additional degradation may only be treated as de minimis if the Division finds on a scientific basis that the additional degradation has an insignificant effect on the resource.

(b) Habitat alterations authorized by an Aquatic Resource Alteration Permit (ARAP) are de minimis if the Division finds that the impacts, individually and cumulatively, are offset by impact minimization and/or in-system mitigation, provided however, in Outstanding National Resource Waters (ONRWs) the mitigation must occur within the ONRW.

Discharge or ***discharge of a pollutant*** refers to the addition of pollutants to waters from a source.

A ***dry weather overflow*** is a type of sanitary sewer overflow and is defined as one day or any portion of a day in which unpermitted discharge of wastewater from the collection, or treatment system other than through the permitted outfall occurs and is not directly related to a rainfall event. Discharges from more than one point within a 24-hour period shall be counted as separate overflows.

An ***ecoregion*** is a relatively homogeneous area defined by similarity of climate, landform, soil, potential natural vegetation, hydrology, or other ecologically relevant variables.

The ***geometric mean*** of any set of values is the n^{th} root of the product of the individual values where "n" is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For the purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).

A ***grab sample*** is a single influent or effluent sample collected at a particular time.

The ***instantaneous maximum concentration*** is a limitation on the maximum concentration, in units of mass per volume (*e.g.* milligrams per liter), of any pollutant contained in the wastewater discharge determined from a grab sample taken from the discharge at any point in time.

The ***instantaneous minimum concentration*** is the minimum allowable concentration, in units of mass per volume (*e.g.* milligrams per liter), of a pollutant parameter contained in the wastewater discharge determined from a grab sample taken from the discharge at any point in time.

The ***monthly average amount*** is the arithmetic mean of all the measured daily discharges by weight during the calendar month when the measurements were made.

The ***monthly average concentration***, a limitation on the discharge concentration in units of mass per volume, of any pollutant, other than bacteria, is the arithmetic mean of all the composite or grab samples collected in a one calendar-month period.

A ***one-week period*** (or ***calendar-week***) is defined as the period from Sunday through Saturday. For weekly average reporting purposes, a calendar week that contains a change of month shall be considered part of the latter month.

Pollutant means sewage, industrial wastes, or other wastes.

A ***quarter*** is defined as any one of the following three-month periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, and/or October 1 through December 31.

A ***rainfall event*** is defined as any occurrence of rain preceded by 10 hours without precipitation that results in an accumulation of 0.01 inches or more. Instances of rainfall occurring within 10 hours of each other will be considered a single rainfall event.

A ***rationale*** (or ***fact sheet***) is a document that is prepared when drafting an NPDES permit or permit action. It provides the technical, regulatory and administrative basis for an agency's permit decision.

A ***reference site*** means the least impacted waters within an ecoregion that have been monitored to establish a baseline to which alterations of other waters can be compared.

A ***reference condition*** is a parameter-specific set of data from regional reference sites that establish the statistical range of values for that particular substance at least-impacted streams.

A ***release*** is the flow of sewage from any portion of the collection, transmission, or treatment system owned or operated by the permittee other than through permitted outfalls that does not add pollutants to waters. In addition, a release includes a backup into a building or private property that is caused by blockages, flow conditions, or other malfunctions originating in the collection and transmission system owned or operated by the permittee. A "release" does not include backups into a building or private property caused by blockages or other malfunctions originating in a private lateral.

A ***sanitary sewer overflow (SSO)*** is defined as an unpermitted discharge of wastewater from the collection, transmission, or treatment system other than through the permitted outfall.

The term ***semi-annually,*** for the purposes of this permit, means the same as once every 6 months. Measurements of the limited effluent parameters may be made any time during a 6 month period beginning from the effective date of this permit, so long as the second set of measurements for a given 12 month period are made approximately 6 months subsequent to that time, if feasible.

Sewage means water-carried waste or discharges from human beings or animals, from residences, public or private buildings, or industrial establishments, or boats, together with such other wastes and ground, surface, storm, or other water as may be present.

Severe property damage, when used to consider the allowance of a bypass, means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the

absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Sewerage system means the conduits, sewers, and all devices and appurtenances by means of which sewage and other waste is collected, pumped, treated, or disposed.

Sludge or ***sewage sludge*** is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

A ***subecoregion*** is a smaller, more homogenous area that has been delineated within an ecoregion.

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

The term ***washout*** is applicable to domestic wastewater activated sludge plants and is defined as loss of mixed liquor suspended solids (MLSS) of 30.00% or more from the aeration basin(s).

Waters means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof, except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

The ***weekly average amount*** is the sum of all the measured daily discharges by weight divided by the number of days during the calendar week when the measurements were made.

The ***weekly average concentration*** is the highest arithmetic mean of all the composite samples collected in a one-week period in a month.

4.2. ACRONYMS AND ABBREVIATIONS

1Q10 – 1-day minimum, 10-year recurrence interval
30Q5 – 30-day minimum, 5-year recurrence interval
7Q10 – 7-day minimum, 10-year recurrence interval
BAT – best available technology economically achievable
BCT – best conventional pollutant control technology
BDL – below detection limit
BOD_5 – five-day biochemical oxygen demand
BPT – best practicable control technology currently available
$CBOD_5$ – five-day carbonaceous biochemical oxygen demand
CEI – compliance evaluation inspection
CFR – code of federal regulations
CFS – cubic feet per second
CFU – colony forming units
CIU – categorical industrial user
CSO – combined sewer overflow
DMR – discharge monitoring report
D.O. – dissolved oxygen
E. coli – *Escherichia coli*
EPA – Environmental Protection Agency
EFO – environmental field office
GPM – gallons per minute
IC_{25} – inhibition concentration causing 25% reduction in survival, reproduction, and growth of the test organisms
IU – industrial user
IWS – industrial waste survey
LB (lb) – pound
LC_{50} – acute test causing 50% lethality
MDL – method detection limit
MGD – million gallons per day
mg/L – milligrams per liter
ML – minimum level of quantification
mL – milliliter
MLSS – mixed liquor suspended solids
MOR – monthly operating report
NODI – no discharge code in NetDMR
NPDES – national pollutant discharge elimination system
PL – permit limit
POTW – publicly owned treatment works

SAR – semi-annual report [pretreatment program]
SIU – significant industrial user
SSO – sanitary sewer overflow
STP – sewage treatment plant
TBEL – technology-based effluent limit
TCA – Tennessee code annotated
TDEC – Tennessee Department of Environment and Conservation
TIE/TRE – toxicity identification evaluation/toxicity reduction evaluation
TMDL – total maximum daily load
TRC – total residual chlorine
TSS – total suspended solids
WQBEL – water quality-based effluent limit

4.3. RESOURCES, HYPERLINKS, AND WEB PAGES

Clean Water Act NPDES Electronic Reporting (eReporting) Information
https://www.epa.gov/compliance/npdes-ereporting

Electronic Code of Federal Regulations (eCFR), Title 40 (40 CFR § 1 through § 1099)
https://www.ecfr.gov/cgi-bin/text-idx?SID=75202eb5d09974cab585afeea981220b&mc=true&tpl=/ecfrbrowse/Title40/40chaptI.tpl

Electronic Reporting (NetDMR) Waiver Request
https://www.tn.gov/content/dam/tn/environment/water/documents/wr_ereporting_waiver.pdf

Low Flow Statistics Tools: A How-To Handbook for NPDES Permit Writers (EPA)
https://www.epa.gov/sites/production/files/2018-11/documents/low_flow_stats_tools_handbook.pdf

Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (EPA)
https://www.epa.gov/sites/production/files/2015-08/documents/acute-freshwater-and-marine-wet-manual_2002.pdf

NetDMR Login
https://cdxnodengn.epa.gov/net-netdmr/

NetDMR, MyTDEC Forms, & Electronic Reporting Information
https://www.tn.gov/environment/program-areas/wr-water-resources/netdmr-and-electronic-reporting.html

NPDES Compliance Inspection Manual (EPA)
https://www.epa.gov/sites/production/files/2017-01/documents/npdesinspect.pdf

NPDES Electronic Reporting Rule
https://www.federalregister.gov/documents/2015/10/22/2015-24954/national-pollutant-discharge-elimination-system-npdes-electronic-reporting-rule

Quality System Standard Operating Procedure for Macroinvertebrate Stream Surveys (QSSOP)
https://www.tn.gov/content/dam/tn/environment/water/documents/DWR-PAS-P-01-Quality_System_SOP_for_Macroinvertebrate_Stream_Surveys-081117.pdf

Rules of the TN Department of Environment and Conservation, Chapter 0400-40
https://publications.tnsosfiles.com/rules/0400/0400-40/0400-40.htm

Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA)
https://www.epa.gov/sites/production/files/2015-08/documents/short-term-chronic-freshwater-wet-manual_2002.pdf

TDEC Water Quality Rules, Reports, and Publications
https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-quality-reports---publications.html

Technical Support Document for Water Quality-based Toxics Control (EPA)
https://www3.epa.gov/npdes/pubs/owm0264.pdf

Tennessee Nutrient Reduction Framework
https://www.tn.gov/content/dam/tn/environment/water/tmdl-program/wr-ws_tennessee-draft-nutrient-reduction-framework_030315.pdf

Tennessee Plant Optimization Program (TNPOP)
https://www.tn.gov/environment/program-areas/wr-water-resources/tn-plant-optimization-programs/tnpop.html

Tennessee Water Resources Data and Map Viewers
https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/water-resources-data-map-viewers.html

USGS StreamStats
https://www.usgs.gov/mission-areas/water-resources/science/streamstats-streamflow-statistics-and-spatial-analysis-tools?qt-science_center_objects=0#qt-science_center_objects

USGS SWToolbox
https://www.usgs.gov/software/swtoolbox-software-information

MODIFICATION RATIONALE (FOR EXPANSION)

Limestone Water Utility Operating Company, LLC
Grassland STP
NPDES Permit No. TN0027278
Date: 10/1/2025
Permit Writer: Wade Murphy

This draft permit modification proposes terms and conditions for a proposed new wastewater treatment plant at 1006 Treatment Plant Road, Franklin, TN, 37069, that will include expansion of the design treatment capacity from 0.25 MGD to 0.45 MGD. See the next page for proposed permit changes.

As provided under Rule 0400-40-05-.06, this permit allows 30 days for public comment on the proposed permit. The 30-day public comment period begins the date this permit is placed on public notice. The public notice document for this permit can be found at the Division's Water Notices and Hearings website under "Permit Public Notices".

Public Notice Date:	September 30, 2025
Comment Period Ends:	October 30, 2025

Those wishing to make a formal comment on the proposed permit may submit comments electronically to Water.Permits@tn.gov, or by mail to:

Division of Water Resources - Water Based Systems Unit
Davy Crockett Tower, 9th Floor
500 James Robertson Parkway
Nashville, TN 37243

The public may also request a public hearing on a proposed permit by submitting such a request in writing during the public comment period specified above. The request should indicate the interest of the party filing it and the reasons why a hearing is warranted. A request for public hearing should be submitted as soon as practicable to the addresses provided above. Questions regarding the draft permit may be directed to 1-888-891-TDEC.

This modification rationale:

- Provides background for the proposed permit action.
- Summarizes the antidegradation analysis
- Identifies the proposed permit changes.
- Provides rationale for the proposed changes.
- Reevaluates potential for ammonia toxicity
- Reevaluates the wastewater operation certification grade

Background

The applicant, via its engineering design consultant, Goodwyn Mills Cawood, LLC (GMC), proposes to replace and expand the current municipal wastewater treatment plant to provide continued wastewater treatment for existing sewer customers and to new customers through additions to the service area.

The existing treatment facility has reached the end of its useful life at an estimated 50 years old. The facility experiences operational problems due to the condition of the aged facility and due to a large volume of extraneous water that enters the treatment plant via the municipal collection system (inflow and infiltration).

The permittee is working with the Tennessee Public Utility Commission (TPUC) to amend its service area to serve additional service areas called the Nash Ridge and Adley Subdivisions (TPUC Docket Numbers 23-00036 and 24-00020 respectively).

The following engineering, planning and permit documents support this proposed permit modification:

Document Description	Related Date*	Project Number
Consent Order to Comply with NPDES Permit	13-FEB-2023	WPC22-0086
Corrective Action Plan/Engineering Report (CAP/ER)	17-MAY-2023	WPN23.0259
Nash Ridge Subdivision Sewer Plans	18-AUG-2023	WPN23.0446
Preliminary Project Discussion	29-AUG-2023	WPN23.0470
Preliminary Engineering Report	28-FEB-2024	WPN24.0154
Application for NPDES Permit Modification	28-MAR-2025	TN0027278
De minimis Antidegradation Analysis; Amended Application for NPDES Permit Modification	19-JUN-2025	TN0027278
Basis of Design Report (Engineering Report)	17-JAN-2025	WPN25.0038
Construction Plans and Specifications	05-AUG-2025	WPN25.0545

*Effective date for the consent order and the initial received date for other documents. Incomplete and resubmittal dates are not listed.

Antidegradation Analysis

Stream determinations for this permit action are associated with the waterbody segment identified by the Division as segment ID# TN05130204009_3000.

The Division has made a water quality assessment of the receiving waters associated with the subject discharge(s) and has found the receiving stream to be neither an exceptional nor outstanding national resource water. Additionally, the Division assesses this water as not having quality to support its recreation designated use due to pathogens (*E. coli*) or its fish and aquatic life designated use due to nutrients. The Division's reassessment on the water quality segment in May 2024 concluded that nutrients are generally elevated downstream at river mile 65.6 based on monthly chemical data collected in 2021-2022. The Harpeth River Conservancy collected numerous *E. coli* samples from 2020-2023 at RM 68.4 that showed criteria violations for pathogens. The City of Franklin conducted annual continuous monitoring in 2019, 2020, & 2021. Sampling showed temperatures over criteria of 30.5 °C in two summers, and for two days ambient dissolved oxygen (D.O.) just briefly below the D.O. criteria of 5.0 mg/L in 2020. All other D.O. readings were above 5.0. Monthly samples from the last three cycles (n=37) showed all D.O. discreet samples above criteria. Based on all dissolved oxygen data, the Division is delisting low dissolved oxygen as a cause of impairment in this segment.

Total Maximum Daily Loads (TMDLs) have been developed and approved for this waterbody segment on the following parameters and dates:

Parameter:	TMDL Approval Date:
Dissolved Oxygen	September 2004

The applicant provided its antidegradation analysis on June 19, 2025, with its application for permit modification. The applicant states, *To improve treatment and ensure downstream water quality does not decline, Central States Water Sources (CSWR) is dedicated to incorporating advanced wastewater technology at Grassland STP. As a result, CSWR takes the position that improvements to Grassland STP will result in de minimis degradation to the receiving stream.*

More specifically, the applicant's analysis demonstrates that:

- Projected effluent will not result in pollution by exceeding any applicable water quality criterion based on three effluent scans for metals.
- Oxygen-demanding pollutants ($CBOD_5$ and ammonia) will not increase.

Below are the scan results reported by the applicant:

Table 0.3. Results of Heavy Metal Scans

Date	Arsenic [mg/L]	Barium [mg/L]	Cadmium [mg/L]	Chromium [mg/L]	Lead [mg/L]	Mercury [mg/L]	Selenium [mg/L]	Silver [mg/L]
8/5/2024	0.001	0.044	0.0001	0.001	0.003	0.0001	0.001	0.0002
8/12/2024	0.001	0.035	0.0001	0.002	0.001	0.0001	0.001	0.0001
8/19/2024	0.001	0.032	0.0001	0.001	0.001	0.0001	0.001	0.0001
Criterion Maximum Concentration (CMC)	**0.340**	**2.000**	**0.0018**	**0.570**	**0.065**	**0.0014**	**0.02**	**0.0032**

The applicant's evaluation above shows that the applicant's projected effluent concentrations will not violate water quality standards. Additionally, the Division used the results of these effluent scans to evaluate whether the proposed new discharge at 0.45 MGD, in combination with impacts of upstream discharges, will constitute less than de minimis degradation. The evaluation shows that all the parameters except mercury are projected below de minimis levels. Below is a summary of the Division's evaluation.

The antidegradation regulation defines de minimis as 10% of available assimilative capacity when there are multiple discharges into a stream segment. This evaluation uses the 10% allocation in consideration that Berry's Chapel Utility, Inc., is authorized to discharge 0.4 MGD to the Harpeth at RM 77.9. Therefore, the spreadsheets below calculate allowable amounts using the currently authorized flow rate of Grasslands (0.25 MGD) combined with Berry's Chapel (0.4 MGD).

In this calculation, the Division assumes that the river background concentration is already at ½ the most stringent, applicable, water quality criterion. This segment of the river is designated for fish & aquatic life, recreation, irrigation, livestock water & wildlife uses, domestic water supply and industrial water supply. Therefore, the most stringent criteria in columns 5, 6, 9, 10 and 11 of the tables below apply.

The Division also uses a lower stream flow in the analysis than it used in the permit issued in August 2021. That permit used a flow rate calculated using a United States Geological Survey (USGS) tool that uses regression equations and hydrology factors to estimate stream flow from watershed runoff. This evaluation uses the statistical low flow measured from 1988 through 2025 at flow gage #03432400 downstream from Franklin's POTW outfall and upstream of Limestone Grasslands at the Highway 431 bridge.

Calculated allowable concentrations to uphold designated stream uses (prevent pollution) are highlighted yellow.

2019 WQC

WATER QUALITY CALCULATIONS FOR METALS AND OTHER TOXIC SUBSTANCES
WATER QUALITY BASED EFFLUENT CALCULATIONS
OUTFALL 001

FACILITY: Grasslands **PERMIT #: TN0027278** **DATE: 22 SEP 2025** **CALC BY: WDM**

non-regulated stream worksheet (7Q10)

Stream (7Q10) [MGD]	Stream (30Q5) [MGD]	Waste Flow [MGD]	Ttl. Susp. Solids [mg/l]	Hardness (as CaCO3) [mg/l]	Margin of Safety [%]
2.49	**3.46**	**0.65**	**19**	**224**	**100**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Stream	Fish/Aqua. Life (F & AL) WQC			F & AL- instream allowable		**Calc. Effluent Concentration**		Human Health Water Quality Criteria *					
	Bckgrnd.	lab conditions		Fraction	ambient conditions (Tot)		based on F & AL		In-Stream Criteria			**Calc. Effluent Concentration ****		
	Conc.	Chronic	Acute	Dissolved	Chronic	Acute	Chronic	Acute	Organisms	Water/Orgs	DWS	Organisms	Water/Orgs	DWS
PARAMETER	[ug/l]	[ug/l]	[ug/l]	[Fraction]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]
Chromium III	367.581	143.468	1102.929	0.195	735.162	5651.640	**2143.28**	**25893.65**	N/A	N/A	N/A	**N/A**	N/A	N/A
Chromium VI	5.500	11.000	16.000	1.000	11.000	16.000	**32.07**	**56.22**	N/A	N/A	N/A	**N/A**	N/A	N/A
Chromium, Total	50.000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100.0	**N/A**	N/A	366.15
Barium	1000.000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2000.0	**N/A**	N/A	7323.08
Cadmium (a,b)	2.449	1.316	3.828	0.269	4.899	14.248	**14.28**	**59.45**	N/A	N/A	5.0	**N/A**	N/A	18.58
Lead (a,b)	2.500	5.982	153.506	0.165	36.164	928.030	**165.12**	**4473.52**	N/A	N/A	5.0	**N/A**	N/A	18.31
Mercury (T) (c)	0.025	0.770	1.400	1.000	0.770	1.400	**3.62**	**6.67**	0.051	0.05	2.0	**0.19**	0.18	12.51
Silver (a,b,e)	6.439	N/A	12.878	1.000	N/A	12.878	N/A	**37.54**	N/A	N/A	N/A	**N/A**	N/A	N/A

2019 WQC

WATER QUALITY BASED EFFLUENT CALCULATIONS
OUTFALL 001

FACILITY: Limestone Grasslands
PERMIT: TN0027278
DATE: 22 SEP 2025

Stream (7Q10) [MGD]	Stream (30Q5) [MGD]	Waste Flow [MGD]	Ttl. Susp. Solids [mg/l]	Hardness (as CaCO3) [mg/l]	Margin of Safety [%]
2.49	**3.46**	**0.65**	**19**	**224**	**100**

	1	2	3	5		6	7		8	9	10	11	12	13	14
	Stream	Dectection Levels		Fish/Aqua. Life			**Calculated Effluent Concentration**			Human Health Water Quality Criteria (30Q5)					
	Bckgrnd.	Scan	WQC RDL	Water Quality Criteria						In-Stream Criteria			**Calculated Effluent Concentration**		
	Conc.	MDL	*EPA MDL	Chronic		Acute	Chronic		Acute	Organisms	Water/Org	DWS	Organisms	Water/Org	DWS
PARAMETER	[µg/l]	[µg/l]	[µg/l]	[µg/l]		[µg/l]	[µg/l]		[µg/l]	[µg/l]	[µg/l]	[µg/l]	[µg/l]	[µg/l]	[µg/l]
Arsenic	5	1.0	1.0	150.0		340.0	**705.5**		**1623.3**	10.0	10.0	10.0	**36.6**	**36.6**	**36.6**
Selenium (f)	0.75	5.0	2.0	1.5	3.1	20.0	**4.4**	**12.1**	**93.7**	4200.0	170.0	50.0	**26552.9**	**1070.9**	**312.2**

The following table converts these allowable concentrations into allowable loads for 0.65 MGD, calculates the de minimis load (10%) and then compares that to the calculated increase in load by an additional 0.2 MGD using the highest value from the applicant's heavy metal scans. All the projected load increases except for mercury are below the 10% load:

Parameter	Calculated Allowable Concentration	Calculated Available Load	10% Load	Maximum Antidegradation Concentration	Projected Increase in Load	Projected Less Than De minimis
	ug/L	lb/d	lb/d	mg/L	lb/d	
Arsenic	36.6	0.1984086	0.01984086	0.001	0.001668	Yes
Cadmium	14.28	0.0774119	0.007741188	0.0001	0.000167	Yes
Chromium, Total	366.15	1.9848992	0.198489915	0.002	0.003336	Yes
Chromium VI	32.07	0.1738515	0.017385147	0.002	0.003336	Yes
Barium	7323.08	39.698417	3.969841668	0.044	0.073392	Yes
Lead	18.31	0.0992585	0.009925851	0.003	0.005004	Yes
Mercury	0.18	0.0009758	0.000097578	0.0001	0.000167	No
Selenium	4.4	0.0238524	0.00238524	0.001	0.001668	Yes
Silver	37.54	0.2035043	0.020350434	0.0002	0.000334	Yes

However, it is not reasonable to assume that treated domestic wastewater from either Limestone Grasslands or Berry's Chapel are sources of mercury.

The reported mercury value in the metals scans is likely a function of the applicant using a test method with a minimum detection level that is not low enough to demonstrate compliance with de minimis in this scenario. For many years, EPA's approved test method for mercury could reliably test down to 0.0002 mg/L of which 0.0001 is ½ the detection level. In recent years, EPA approved additional test methods for mercury in treated wastewater with minimum detection levels of 5 ng/L or 0.000005 mg/L. Until the applicant/permittee demonstrates de minimis levels of mercury, de minimis can be maintained via a permit limit.

Summary of Proposed Permit Changes by Pages

Permit Page	Description of Change
5	Addition of Sludge Volume Index (SVI) alert level
6	Reduced concentrations for effluent TSS (mg/L)
6	Addition of TSS daily maximum load limit (lb/d)
6	Elimination of chlorine limits
7	Addition of UV system monitoring
7	Revised daily maximum *E. coli* limit
7	Addition of monthly certification statement parameter
7	Addition of mercury monthly average effluent limit
7-8	Reduced concentrations for ammonia and CBOD5 (mg/L)
7-8	Addition of ammonia and CBOD5 daily maximum load limits (lb/d)
8	Elimination of TSS and CBOD5 minimum 40% removal requirement
9	Added notes about the monthly certification statement, SVI and Hg
11	Added a narrative report requirement applicable at start-up
14	Added narrative regarding MDL of mercury analyses
NA	Changes wastewater operation certification grade from III to IV

Rationale for Proposed Permit Changes

<u>Page 5 - Addition of Sludge Volume Index (SVI) alert level</u>
Measuring the sludge volume index is a means to confirm the quality of the mixed liquor suspended solids in the reactor tanks and the effectiveness of the pollutant removal process.

The permittee proposes to replace its old, extended aeration activated sludge treatment plant technology with an expanded treatment processing using a technology known as

Aerobic Granular Sludge or AGS. This technology provides both treatment and settling in the same basin saving on infrastructure costs. The process uses chemical addition and process control probes to create and maintain an environment in the reactor tanks where the treated sewage creates dense solids that settle rapidly for removal of pollutants out of the system. Sludge volume index (SVI) is the typical measure of this settleability in biological treatment plants. Data submitted with the engineering documents for the proposed new treatment process say that the AGS process proposed generally achieves a SVI that is less than or equal to 50 mL/g.

Therefore, this permit proposes to impose weekly monitoring and reporting of SVI with 50 mL/g being an alert value rather than a limit. The monitoring keeps the operator informed of the effectiveness of the process control and reporting the results to the state provides demonstration to the public that the facility process performs technologically as designed.

Achieving the outcome and successfully removing pollutants is necessary for the permittee to meet its goal of no measurable increase in pollutants from the added 0.20 MGD in treatment plant capacity (de minimis increase in pollutants to the Harpeth River.) This permit does not propose any specific follow up requirement whenever the 50 mL/g value is not achieved and leaves the operator the discretion to incorporate the feedback into its process control as appropriate.

Pages 6-8 - Reduced concentrations for effluent TSS, ammonia as nitrogen and $CBOD_5$ (mg/L)
This permit reduces the concentration limits for TSS, ammonia as nitrogen and $CBOD_5$ for two reasons: 1) To maintain de minimis degradation (unmeasurable movement of water quality toward impairment by the addition of pollutants) when the facility expands from 0.25 to 0.45 MGD and 2) To maintain the wasteload allocation for oxygen demanding pollutants established by the 2004 dissolved oxygen TMDL developed by the Environmental Protection Agency (EPA).

To maintain existing pollutant loading to the river authorized for the 0.25 MGD treatment facility, effluent concentrations must be reduced by the relationship: lb/d = mg/L x MGD x 8.34. The following table compares existing and future loadings for these three parameters:

TSS			Ammonia Summer			CBOD5 Summer			Ammonia Winter			CBOD5 Winter		
0.25 conc.	Load	0.45 conc.	0.25 conc.	Load	0.45 conc.	0.25 conc.	Load	0.45 conc.	0.25 conc.	Load	0.45 conc.	0.25 conc.	Load	0.45 conc.
30	63	17	2	4	1.1	5	10	2.8	5	10	2.8	10	21	6
40	83	22	3	6	1.7	7.5	15.6	4.2	7.5	16	4.2	15	31	8
45	94	25	4	8	2.2	10	21	5.6	10	21	5.6	20	42	11

Highlighted values are proposed new limits for the 0.45 MGD design flow.

Pages 6-8 - Addition of Daily Maximum Loads for TSS, Ammonia as Nitrogen and $CBOD_5$
Daily load limits cap the amount of water hydraulically passed through the plant in excess of the pollutant removal capability of the treatment plant.

This facility, like many other municipal and domestic wastewater treatment plants, experiences inflow and infiltration into the sewer system during rain events and/or high groundwater tables. Federal regulation requires that concentration-based effluent limits be paired with load limits, but the Division typically applies a 40% daily minimum removal rate as an equivalent measure to daily maximum loading. However, the proposed AGS design will allow for peak flows to enter the reactor basins during decant as a normal function of operation. It is not clear in the basis of design documents where this mode of operation ceases to be treatment and becomes pass-through of dilute inflow and infiltration. Load limits are a function of flow rate. Therefore, the Division imposes daily effluent load limits on TSS, ammonia and $CBOD_5$ to focus operations on organic pollutant removal and not masking of infiltration and inflow.

Pages 6-7 - Elimination of Chlorine Limits and Addition of UV System Monitoring/Reporting
These changes to the permit reflect the proposed change in disinfecting method.

Chlorination

The new treatment facility proposes to disinfect using ultraviolet light radiation eliminating the use of chlorine. Elimination of chlorine and dechlorinating agents from the treated effluent is consistent with applicant's intent to cause no measurable degradation with the upgrade. Therefore, the Division does not include limits on effluent total residual chlorine in the limit set for the 0.45 MGD design.

In consideration that the final construction plans for the proposed new treatment system are not approved nor bid, for construction the Division calculates the allowable amount below for planning purposes:

$$\frac{0.019\ (Qd + Qs)}{Qd} = Limit\ (mg/L) = \frac{0.019(0.45 + 2.49)}{0.45} = 0.124\,mg/L \approx 0.12\,mg/L$$

Where:

0.019 mg/L	=	acute instream protection value
2.49	=	Qs – Updated 7Q10 flow of receiving stream (MGD)
0.45	=	Qd – design flow of new AGS STP (MGD)

Ultraviolet Light Radiation

An Ultraviolet (UV) disinfection system transfers electromagnetic energy from a specially designed lamp to an organism's genetic material (DNA and RNA). When UV radiation penetrates the cell wall of an organism, it destroys the cell's ability to reproduce. (EPA 832-F-99-064)

This type of disinfection generally does not have the potential to contribute to pollutants in the effluent. However, the lamps or bulbs must be properly operated and maintained. Maintenance often entails cleaning algae growth off the surface of the UV bulbs. As such, the limit table includes a reportable limit to ensure that the UV lamps/bulbs are functional. This limit is a pass/fail.

Page 7 - Revised *E.coli* Daily Maximum Limit

A reduced daily maximum *E. coli* limit applies due to a change in Tennessee state water quality standards.

In November 2022, the Tennessee Board of Water Quality, Oil, and Gas adopted a new maximum criterion to align with U.S. Environmental Protection Agency national recommended criteria. That criterion will apply to Tennessee waters to protect the recreation use designation effective March 17, 2024. EPA established a statistical relationship between number of colony forming units and percent of time when such numbers were observed in any 30-day period. The new criterion of 410 cfu/100 mL corresponds to no exceedances in more than 10% of samples during any 30-day interval for all receiving waters.

Tennessee has historically applied water quality standards for pathogens at the outfall of POTWs so that a discharger can demonstrate that it is not contributing to any violation of the criterion in the receiving waterbody. The Division therefore proposes to apply the new criterion as a daily maximum of 410 cfu/100 mL in accordance with EPA guidance and retains the monthly geometric mean for E. coli of 126 cfu/100 mL.

For the purposes of this permit modification (i.e. public comment, construction plans approval), this new daily maximum limit only applies to the 0.45 MGD facility. (Revisions to limits for the 0.25 MGD design will happen at permit renewal.) Units for E. coli have been standardized to #/100 mL, which is functionally equivalent to colony forming units.

Page 7 - Addition of Monthly Certification Statement Parameter

To use an analogy, the AGS process is set up to run on autopilot, but the control systems must still be supervised for successful piloting through dynamic operating conditions that present. Waiting to review data recorded in the "black box" computer system after the system "crashes and burns" is not acceptable operation and maintenance to protect water quality in the Harpeth River and to maintain de minimis degradation.

The AGS vendor will supply various types of probes that will self-regulate the reactor basins through four phases identified as anaerobic fill, react, settle and filled decant. The process needs specific conditions for the bacteria in the reactors to form the granules capable of pollutant removal with quick settling. These conditions will be subject to the dynamics of inflow and infiltration and the addition of acetic acid (carbon source) and alum (coagulant) by the operator.

With the implementation of the federal electronic reporting rule, Monthly Operating Reports (MORs) forms serve as tools to calculate results reported on monthly Discharge Monitoring Reports (DMRs). These reports only serve to demonstrate compliance with technology-based and/or water-quality based effluent limits. They are insufficient for supervising process control.

Process control records are appropriately maintained onsite. The purpose of this parameter is for the operator to certify monthly on its DMR that the reporting month's process control record is complete and available for inspection.

Page 7 – Addition of a Mercury Effluent Limit

This permit imposes a limit on mercury so the discharge will result in only de minimis degradation as intended by the applicant. This limit may be considered for removal from the permit based on new information.

As described above in the antidegradation discussion, the inability by the applicant's antidegradation analysis to show that mercury is de minimis appears to be a function of the test method used for analyzing mercury in the sample. Using an EPA approved method with a method detection level of 5 ng/L, equivalent to 0.005 ug/L, or 0.000005 mg/L, will have the potential to demonstrate that the level of mercury in the proposed discharge of 0.45 MGD will constitute de minimis degradation.

This modified permit will expire November 30, 2026. The applicant is welcome to recharacterize mercury with its renewal application due by June 01, 2026, for reconsideration of the need to impose the mercury limit at permit renewal.

There are two discharges into the receiving stream segment so the de minimis degradation for mercury, 10% of available assimilative capacity, must be allocated between the two dischargers. The proportioning uses the following factors:

0.0009758 lb/d	= allowable de minimis load (from Table on MOD-5)
0.45 MGD	= Design flow rate of Limestone Grasslands, TN0027278
0.40 MGD	= Design flow rate of Berry's Chapel Utility; TN0029718

Proportioning the load yields the load to Limestone Grasslands:

$$\frac{0.45}{(0.45+0.40)} \times \frac{0.0009758\ lb/d}{} = \frac{0.0005166\ lb/d}{}$$

Converting the load into a concentration limit yields:

$$\frac{0.0005166 \frac{lb}{d}}{(0.45\ MGD)(8.34)} = \ 0.0001376 \frac{mg}{L} or\ 0.1376 \frac{ug}{L}$$

The permit imposes the limit as a monthly average with a monthly monitoring frequency. The applicant may sample for mercury more than once per month at its discretion to meet the average.

The water quality criterion for mercury is a human health criterion protective of a lifetime of exposure via domestic water supply and recreational exposure such as eating fish. Therefore, it applies as a monthly average.

Page 8 – Removal of 40% Minimum Removal Rate for TSS and $CBOD_5$

Minimum daily removal rates for TSS and $CBOD_5$ have been removed from the percent removal rate table on Page 8 because the Division replaces this parameter with daily maximum load limits for TSS and $CBOD_5$. The Division considers daily load limits and daily minimum percent removal rates to both represent technology removal daily and does not intend to enable the possibility of double permit violations. As stated previously, the Division is imposing the daily load limits (versus minimum percent removal) to limit the ability of the proposed technology to blend unlimited inflow and infiltration during the filled decant portion of the AGS cycle.

Page 9 – Notes For Monthly Certification, SVI and Mercury Sampling

The Division adds notes under the limit tables applicable to the 0.45 MGD facility regarding the monthly certification statement, SVI and mercury parameters.

Page 11 – Added Narrative Start-up Requirement

This permit adds an enforceable requirement for the permittee to provide the Division a reporting format for supervising process control and waste activated sludge disposal at start-up of the new treatment facility.

Rule 0400-40-02-.10 requires the submission of records and reports to ascertain the continuous and satisfactory operation of the works in such manner as to ensure the protection of water quality. The Division establishes parameters on monthly discharge monitoring reports (DMRs) and monthly operating reports (MORs) to demonstrate in the public record that the discharge complies with minimum technology treatment standards

and any more stringent water quality standards, including antidegradation, that apply. Such DMRs/MORs are neither designed nor suggested as the supervisory control of the AGS process.

When Limestone's engineering consultant evaluated alternatives to replace the existing treatment process in the document, *Preliminary Engineering Report, Grassland STP Improvements for Central States Water Resources, September 2024, by Goodwyn Mills Cawood, LLC, GMC Project Number CNAS230028*, tracked as WPN 24.0154, it says this about the AGS process:

> AGS offers simultaneous removal of carbon, nitrogen, phosphorus, and other wastewater constituents through a fast-settling biological process that reduces residence time. This allows the biological process to have shorter cycles, reduction in oxygen demand, and a smaller footprint, which reduces energy requirements. While AGS reduces energy through microbial relationships, it does require frequent process testing to ensure treatment conditions are favorable for the reactions to take place. Additionally, AGS requires more operator interaction due to the plant operating in batches and requiring supervision and maintenance throughout the day to ensure the next run is successful. Compared to membrane systems where treatment is accomplished through filtration and the primary responsibility for operators is ensuring the membranes are cleaned and the blowers are serviced, AGS is more involved to operate. However, membranes incur larger power costs due to the energy-intensive solid-liquid separation phase.

Prior to start-up then, the engineering design consultant, in cooperation with the technology vendor, is being required to develop for the operator the plan for supervising and maintaining favorable treatment conditions in each batch of wastewater treated throughout the day. The permit is requiring that the evidence of this process control supervision be documented monthly in an on-site file record and for the permittee to record on its DMR that this record is complete and on file.

Similarly, per the engineering *basis of design* document, tracked as WPN25.0038, the engineering design consultant reports that favorable pollutant removal conditions are a function of wasting mixed liquor suspended solids (MLSS). This permit refers to that wasted product as waste activated sludge (WAS). The basis of design report says that it is necessary to waste MLSS during the react step (surface wasting) to select favorable conditions for the formation of granules that settle rapidly. The report estimates needing to waste up to 4,868 gallons per day. The report says that due to on-site limitations for managing waste solids, the permittee must plan on hauling 2 trucks of waste solids per day, five days per week. The permittee currently has a commitment by the City of Columbia to accept these loads as well as a septage hauler to transport them to Columbia. Neither the receiver nor the hauler have presented commitments for the life of this process. This permit is requiring that the on-site process control log also records what happens to the waste activated sludge daily as well as to document that the permittee continually identifies redundant receivers and haulers to keep the AGS process operating properly.

Page 14 – Mercury Sampling Method

The Division repeats the note added to Page 9 that requires mercury be sampled and analyzed via a method with a method detection limit of 5 ng/L or less in Part 1.2.3 of the permit. Part 1.2.3 of the permit is the usual place that the Division ads this requirement into NPDES permits. The Division includes it redundantly for the convenience of persons who will inspect this facility in the future for permit compliance.

Recheck for Ammonia Toxicity

This proposed permit modification uses a reduced stream low flow based on flow measurements at the USGS gaging station below the City of Franklin and upstream of Limestone Grassland's STP. Therefore, it is necessary to double check that the permit's antidegradation-based effluent limits for ammonia will not result in ammonia toxicity. The below calculation shows that the antidegradation based limits for ammonia of 1.1 mg/L summer and 2.8 mg/L winter, to protect dissolved oxygen and meet the dissolved oxygen TMDL, are more stringent than those calculated to prevent toxicity to fish and aquatic life. Therefore, no reduction in the ammonia limits is necessary for toxicity.

CCC Calculation: Chronic Limits

	Winter			Summer	
Temp (°C)=	17		Temp (°C)=	27	
pH=	8		pH=	8	
MAX Expression	17.0000		MAX Expression	27.0000	
Winter CCC=	**0.94**		Summer CCC=	**0.49**	

CCC - Continuous Chronic Criterion Allowable instream NH3 concentration [mg/l]

$$CCC = 0.8876 \times \left(\frac{0.0278}{1+10^{7.688-pH}} + \frac{1.1994}{1+10^{pH-7.688}}\right) x \left(2.126 \times 10^{0.028\times(20-MAX\ (T,7))}\right)$$

where:	2.49	Critical Low Flow [MGD] (7Q10 value)
	0.1	Background Ammonia Concentration [mg/L] *
	0.45	WWTP Design Flow or long-term average flow [MGD]

$$Effluent\ Concentration = \frac{CCC\ X\ ([Background\ Ammonia\ Concentration] + [Design\ Flow]) - ([Critical\ Low\ Flow] * [Background\ Ammonia\ Concentration])}{Design\ Flow}$$

Therefore, the Allowable **Effluent Concentrations** and corresponding **Amounts** in winter and summer are:

Winter		Summer	
5.61	Concentration [mg/L]	**2.680**	Concentration [mg/L]
21.0	Amount [lb/day]	**10.1**	Amount [lb/day]

* In the absence of measured data, an assumed background concentration of 0.1 mg/L is used based on an Agreed Wasteload Allocation Modeling Methodology between the EPA and State of TN

Reevaluate Required Wastewater Operator Certification Level

Operator grades are rated by the Division of Water Resources pursuant to Rule 0400-49-01, on behalf of the Water & Wastewater Operators Certification Board. The Division identifies ratings in the permit file record and in permit fact sheets but not permits so that the Water & Wastewater Operators Certification Board and operators can negotiate changes to a POTW's rating without having to modify the NPDES permit.

In this case, designers at Goodwyn Mills Cawood (GMC) rated the new treatment plant using a spreadsheet provided by the Division that sums points for the proposed new treatment processes and other plant operation factors. Based on the evaluation of the proposed new treatment plant design, the wastewater operation certification of the operator in charge will be increasing from Grade III to Grade IV.

See the rating sheet on the next page:

State of Tennessee
Department of Environment and Conservation -Division of Water Resources
Wastewater System Operator Grade Calculation Sheet for Grades II, III, IV
Wastewater Plants with a design flow of less than 0.075 MGD are Grade I
1/6/2017

Instructions:
1. Complete only boxes with red background. All other values are standard or calculated.
2. Fill in red boxes in Section 1.
3. Fill in red box with number of connections in collection system.
4. In "Variation Raw Wastewater" Section place a "Y" in one of the four options provided in list.
5. In "Effluent/Permit Characteristics" input CBOD/BOD and NH3 limits from NPDES permit
6. In "Receiving Stream Sensitivity" section place a "Y" in one of the six options provided in list.
7. In the "Treatment Processes", "Sludge Treatment and Handling", and "Laboratory Control" sections place a "Y" in all processes that are applicable to this plant.
8. The table to the left will calculate total points and place Section 2 table.

Section 1			
Facility Name	Grassland STP	NPDES Number	TN0027278
Facility Contact	Micah Franklin	Phone Number	816-317-4755
Form Completed By	Logan Dickinson	Date	8/26/2025
Design Flow (MGD)	0.45		

Section2			
Wastewater Plant Total Points	86	Wastewater Plant Grade	4
# of Connections for Collection System	566	Collection System Grade	1

Section 3					
Variation Raw Wastewater (flow, BOD, or SS use ratio of peak to average) Select only one box.			Effluent/Permit Characteristics	CBOD/BOD NH3	2.7 1.1
Less than 100 percent	0		Design Flow Points (30 max.) (Qd X 2)	2	
100-200 percent	2		Receiving Stream Sensitivity (Select only one box)		
More than 200 percent	4	Y	Secondary (STP limits: BOD≥30 and no NH3)	1	
Subject to toxic wastes	6		Adv. Sec. (BOD = 10-29 and any NH3)	3	
			Tertiary (BOD<10 and any NH3)	5	Y
			Direct Reuse	7	
			Land Disposal, evaporation	2	
			Subsurface discharge	4	

Treatment Processes					
Manually cleaned screens	2		Two-stage activated sludge	10	
Mechanically cleaned screens	3		Polishing pond or effluent flow equal	2	Y
Preareation	2		Land application of treated effluent	5	
Comminutor, barminutor, grinders, etc.	3		Chemical treatment removal	6	
Grit removal	3	Y	Denitrification	10	Y
Raw sewage pumping (on-site)	3	Y	Sand or mixed media filters	8	Y
Flow equalization basin (aerated)	5	Y	Activated carbon beds	10	
Flow equalization basin (unaerated)	3		Nitrification required by permit		
Fine screens (preliminary treatment)	3	Y	By activated sludge	6	Y
Pre-chlorination	3		By other processes	5	
Primary clarifiers	5		Disinfection		
Primary clarifiers with chemical settling aid	7		Chlorination/PAA	5	
Swirl system	3		Dechlorination	5	
Secondary clarifiers	5		Ozonation	10	
Flocculation with or without chemical aid	7	Y	Ultraviolet	5	Y
Trickling filter with or without chemical aid	6				
Trickling filter with recirulation	8				
Activated Sludge					
Oxidation ditch	8				
Mechanical aeration	9				
Diffused or dispersed aeration	10				
Batch treatment (SBR, ICEAS, etc.)	10	Y			
Pure oxygen	15				

Sludge Treatment and Handling					
Anaerobic digestion (check either unheated or heated)			Solids reduction (incinerator, wet oxidation, etc.)	15	
Unheated	5		Chemical stabilization with lime	8	
Heated	10		All other dewatering units including wedgewire and vacuum beds, both with polymers	5	
Aerobic digestion	7		Composting:in vessel	10	
Drying beds	3		Composting:static pile	5	
Sand bed with polymer added	5		Land application	5	
Gravity thickener	5	Y	Sludge lagoon	3	
Dissolved air flotation thickener	8		Sludge disposal (Landfill, land application, etc.)	Y	
Vacuum filter	8				
Centrifuge	8				
Belt press, plate & frame filter press	8				

Laboratory Control (Check all that apply)					
Bacteriological			Chemical/Physical		
Lab work done outside the plant	0	Y	Lab work done outside the plant	0	Y
Membrane filter procedures	3		Push-button or visual methods for simple tests such as pH,	3	Y
Use of fermentation tubes or any dilution method	5		Test such as DO, COD, BOD, titrations, gas analysis, volatile content	5	Y
Biological identification	7		Specific nutrients, total oils, phenols, etc.	7	
			A/A or GC/MS	10	

Point system taken from operator rules. (TN Rule 0400-49-01-.08 CLASSIFICATION OF WASTEWATER TREATMENT PLANTS AND WASTEWATER COLLECTION SYSTEMS)

In summary, the Division proposes the following changes in the modified permit:

Permit Page	Description of Change
5	Addition of Sludge Volume Index (SVI) alert level
6	Reduced concentrations for effluent TSS (mg/L)
6	Addition of TSS daily maximum load limit (lb/d)
6	Elimination of chlorine limits
7	Addition of UV system monitoring
7	Revised daily maximum *E. coli* limit
7	Addition of monthly certification statement parameter
7	Addition of mercury monthly average effluent limit
7-8	Reduced concentrations for ammonia and CBOD5 (mg/L)
7-8	Addition of ammonia and CBOD5 daily maximum load limits (lb/d)
8	Elimination of TSS and CBOD5 minimum 40% removal requirement
9	Added notes about the monthly certification statement, SVI and Hg
11	Added a narrative report requirement applicable at start-up
14	Added narrative regarding MDL of mercury analyses
NA	Changes wastewater operation certification grade from III to IV

MINOR MODIFICATION RATIONALE

Limestone Water Utility Operating Company, LLC
Grassland STP
NPDES Permit No. TN0027278
Date: 2/6/2022
Permit Writer: Wade Murphy

This minor modification transfers the NPDES permit to Limestone Water Utility Operating Company, LLC from Cartwright Creek, LLC. Permit regulation allows that a permit transfer due to change in ownership is a minor modification not requiring public notice. (Rule 0400-40-05-0.06(5)(b)).

On January 25, 2022, the Division received written notification from Josiah Cox, President, Limestone Water Utility Operating Company, LLC, dated December 27, 2021, notifying the Division that Limestone Water Utility Operating Company, LLC had acquired the sewerage treatment plant assets from Cartwright Creek Utility, LLC, effective December 21, 2021.

Limestone Water Utility Operating Company, LLC has an active business filing with the Tennessee Secretary of State, Control # 000997814.

Further, Limestone Water Utility Operating Company, LLC, applied for and obtained a Certificate of Public Convenience and Necessity (CCN) from the Tennessee Public Utility Commission (TPUC) to provide sewer utility service as a privately-owned public utility. The TPUC granted the CCN on January 24, 2022, via Docket #2100053.

For discharge and monthly operating monitoring and reporting purposes, this minor modification is retroactively effective on January 01, 2022.

References to Cartwright Creek, LLC in the original fact sheet dated 7/28/21 and its addendum at permit issue dated 8/30/21 remain unchanged. The division published those documents prior to the asset transfer. However, the rationale within those documents for permit limits and conditions are the basis for the minor modified permit issued to Limestone Water Utility Operating Company, LLC.

ADDENDUM TO RATIONALE AT PERMIT ISSUE

Cartwright Creek, LLC
Grassland STP
NPDES Permit No. TN0027278
Date: 8/30/21
Permit Writer: Wade Murphy

On August 3, 2021, Bruce Meyer sent comment on the draft permit rationale on behalf of Cartwright Creek, LLC. The permittee wished to affirm success of the inflow and infiltration work on the collection system referenced in the "Previous Permit Term Review" in Section 5.0 of the rationale on R-3 and R-4. The Division is happy to relay the clarification because successful inflow and infiltration rehabilitation is noteworthy.

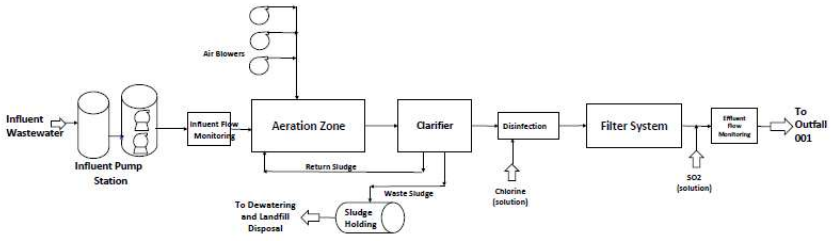
Mr. Meyers relayed that the influent flows decreased in 2020 and 2021, and the influent concentrations increased because Cartwright Creek repaired parts of the collection system in 2019 and 2020. The repairs were completed in a service area identified through engineering studies as having by far the highest I&I. In-line flow monitoring conducted after the repairs showed that the average dry weather flow substantially decreased. The reduction in flow has helped the performance of the treatment system. The repair work mentioned in the rationale dated July 28, 2021, was completed and impactful.

RATIONALE

Cartwright Creek, LLC
Grassland STP
NPDES Permit No. TN0027278
Date: 7/28/2021
Permit Writer: Wade Murphy

1. FACILITY INFORMATION

Permittee Name:	**Cartwright Creek, LLC**
Project Name:	**Grassland STP**
Location:	River Rest Subdivision, Franklin, Williamson County, Tennessee
Contact:	Mr. Bruce Meyer - Operations Manager (615) 714-7868 bruce@cartwrightcreek.com
Design Flow Rate:	0.25 MGD
Percentage Industrial Flow:	Zero %
Certified Operator Grades:	STP: III; CS: I; Date Rated: 04/01/99
Treatment Description:	Extended aeration activated sludge, tertiary filtration and treated effluent chlorination/dechlorination



Cartwright Creek, LLC - Grasslands Wastewater Treatment Facility
Process Flow

2. RECEIVING STREAM INFORMATION

Receiving Waterbody:	**Harpeth River at mile 68.8**
Watershed Group:	Harpeth
Hydrocode:	05130204
Low Flow:	7Q10 = 3.4 MGD (5.27 CFS)
Low Flow Reference:	USGS Streamstats, Version 4.3.8

Stream Designated Uses:

Domestic Water Supply	*Industrial*	*Fish & Aquatic Life*	*Recreation*
	X	**X**	**X**
Livestock & Wildlife	*Irrigation*	*Navigation*	*Trout*
X	**X**		

Low flows on unregulated streams are estimated using guidance from the EPA document *Low Flow Statistics Tools: A How-To Handbook for NPDES Permit Writers*. When sufficient and representative USGS gage data is available, USGS SWToolbox is used to analyze the flow data and calculate 7Q10 and 30Q5 values. Using these low flow values at the gage, the permit writer then determines the flow at the point of discharge using the following equation:

$$Q_{outfall} = Q_{gage} \times \frac{A_{outfall}}{A_{gage}}$$

Where:

$Q_{outfall}$ = Low flow statistic at outfall location
Q_{gage} = Low flow statistic at gage location
$A_{outfall}$ = Area draining to outfall
A_{gage} = Area draining to gage

In the absence of sufficient gage data, the Division relies on USGS Streamstats to calculate low flows statistics. In this permit, no sufficient gage data is available to characterize the receiving stream. Thus, USGS Streamstats was used to delineate the critical low flow at the point of discharge. Appendix 3 shows the Streamstats output used for this estimation.

3. CURRENT PERMIT STATUS

Permit Type:	Municipal
Classification:	Minor
Issuance Date:	31-DEC-19
Expiration Date:	30-NOV-21
Effective Date:	01-FEB-20

4. NEW PERMIT LIMITATIONS AND COMPLIANCE SCHEDULE SUMMARY

a) The units for *E. coli* have been standardized to number per 100 mL (#/100 mL). Previously, the Division used either MPN/100 mL or CFU/100 mL. The identification of one of these two units indirectly created a requirement for a specific type of testing methodology. By utilizing #/100 mL unit, permittees are provided the flexibility to select the 40 CFR § 136 method that is most suitable for their operations. The limit value (number) will remain the same as the limit units are functionally equivalent.

Language throughout the permit has been updated to reflect the eReporting phase 2 requirements in 40 CFR § 127. This includes (but is not limited to) detailing specific data elements that are required to be reported for overflows, releases and bypasses as well as pretreatment program information.

This permit includes a monthly average limit on total residual chlorine derived from the applicable water quality criterion. The monthly average limit protects against chronic exposure to chlorine. See **Section 6.5**.

b) Compliance Schedule Summary

Description of Report to be Submitted	Reference Section in Permit
Monthly Discharge Monitoring Reports	1.3.1.
Monthly Operational Reports	1.3.4.
Bypass and Overflow and Release Report	1.3.5.1.

c) For comparison, this rationale contains a table depicting the previous permit limits and effluent monitoring requirements in Appendix 1.

5. PREVIOUS PERMIT TERM REVIEW

A review of the permittee's Discharge Monitoring Reports (DMRs) from September 2017 through June 2021 reveals that the permittee generally met permit requirements with occasional violations of various $CBOD_5$ limits and TSS percent removal requirements. There have been no violations reported for the past 12 months. For the reporting period, the permittee reported only two sanitary sewer overflows due to causes not related to wet weather. The summary also reflects variable influent concentrations of both $CBOD_5$ and TSS with very weak influent (<100 mg/L) at times. However, the data appears to show a trend toward less weak

influent in 2020 and 2021. A summary of data reported on DMRs during the previous permit term is located in Appendix 2.

During the previous permit term, Division personnel from the Nashville Environmental Field Office performed a Compliance Sampling Inspection (CSI) of the permittee's facility. The CSI was performed by Virginia Lawrence and Lilia Sewell on May 20-23, 2019. The permittee was found to be out of compliance in part due to the deteriorated state of the treatment system which has outlived its useful life. The resulting Notice of Violation dated July 17, 2019, describes no screening at the headworks, no bottom rake on the primary clarifier, a collapsed digestor wall, severe corrosion of metal components including metal walkways, and use of surface injection of chlorine.

The permittee's response dated August 15, 2019, admitted the 50-year old facility needs to be replaced but attributed effluent violations to the impact of inflow and infiltration on treatment rather than on the condition of the facility. The letter detailed plans for some collection system rehabilitation work scheduled for 2019 and 2020.

6. PROPOSED EFFLUENT LIMITS AND RATIONALE

PARAMETERS	MONTHLY AVERAGE CONCENTRATION (MG/L)	MONTHLY AVERAGE AMOUNT (LB/DAY)	WEEKLY AVERAGE CONCENTRATION (MG/L)	WEEKLY AVERAGE AMOUNT (LB/DAY)	DAILY MAXIMUM CONCENTRATION (MG/L)	DAILY MINIMUM PERCENT REMOVAL	RATIONALE
$CBOD_5$ (summer)	5	10	7.5	15	10	40	D.O. protection, Refer to 6.1 below
$CBOD_5$ (winter)	10	21	15	31	20	40	D.O. protection, Refer to 6.1 below
NH_3-N (summer)	2	4	3	6	4	—	D.O. protection, Refer to 6.4 below
NH_3-N (winter)	5	10	7.5	16	10	—	D.O. protection, Refer to 6.4 below
Total Suspended Solids	30	63	40	83	45	40	Rule 0400-40-05-.09
Dissolved Oxygen	6.0 (daily minimum) instantaneous	—	—	—	—	—	D.O. protection, Refer to 6.1 below
Total Chlorine Residual	0.16	—	—	—	0.28	—	Refer to 6.5 below
Total Nitrogen	Report	Report	—	—	Report	Report (lb/d)	Refer to 6.6 below
	15 lb/d as a 12-month rolling average, calculated monthly						Refer to 7.7 below
Total Phosphorus	Report	Report	—	—	Report	Report (lb/d)	Refer to 6.6 below
	5.0 lb/d as a 12-month rolling average, calculated monthly						Refer to 7.7 below
E. coli (#/100mL)	126/100 mL	—	—	—	941/100 mL	—	Rule 0400-40-03-.03, Refer to 6.7 below
Settleable Solids (mL/L)		—	—	—	1.0	—	Rule 0400-40-05-.09
pH (standard units)	6.0 -9.0	—	—	—	—	—	Rule 0400-40-03-.03
Flow (MGD):							
Influent	Report	—	—	—	Report	—	Used to quantify pollutant load
Effluent	Report	—	—	—	Report	—	Used to quantify pollutant load

	Monthly Total		Refer to 6.11 below
Dry Weather	Overflows	0	Refer to 6.11 below
Wet Weather	Overflows	0	Refer to 6.11 below

Note: Weekly limitations on $CBOD_5$ and TSS concentrations are given as required per 40 CFR 133.102(a)(2) or 133.102(a)(4)(2) & 133.102 (b)(2) respectively; daily $CBOD_5$ and TSS limitations are authorized by T.C.A. 0400-40-05-.09; monthly and weekly mass loads are limited per 40 CFR 122.45(f) and based on the design flow as per 40 CFR 122.45(b); monthly average percent removal rates for $CBOD_5$ and TSS are required per 40 CFR 133.102(a)(3) or 133.102(a)(4)(iii) and 133.102 (b)(3) respectively. A minimum 40% daily removal rate is required as equivalent to a daily mass load limitation.

6.1. CONVENTIONAL PARAMETERS

6.1.1. $CBOD_5$ and Dissolved Oxygen

Biochemical oxygen demand, or BOD, is a measure of the oxygen used when biological processes break down organic pollutants in wastewater. The amount of oxygen used is more specifically referred to as the five-day biochemical oxygen demand, or BOD_5. This parameter is used in the wastewater industry to measure both the strength of wastewater and the performance of wastewater treatment processes.

Limits on the oxygen demand remaining in the treated wastewater is often necessary to prevent pollutants in the wastewater from driving oxygen in the receiving stream down below the levels necessary to support fish and aquatic life. Additionally, the breakdown of ammonia into other forms of nitrogen also requires oxygen and therefore exerts an oxygen demand on receiving wastewaters.

EPA completed extensive computer modeling for developing its 2004 total maximum daily load (TMDL) for addressing organic enrichment and low dissolved oxygen conditions within the receiving stream. The TMDL incorporated the previously established CBOD5, ammonia and dissolved oxygen limits for this facility. In order to consistently achieve an instream dissolved oxygen concentration at or above the required minimum of 5.0 mg/l, the TMDL also imposed an average annual total nitrogen mass loading of < 15 lb/day for the permittee's Outfall 001 discharge. All of these limits are retained in this permit.

6.1.2. Total Suspended Solids (TSS)

Total Suspended Solids is a general indicator of the quality of a wastewater and will be limited in this permit. The technology-based TSS limit for conventional treatment plants is provided in Tennessee Rule 0400-40-05-.09(1)(a).

TSS - Conventional Secondary Treatment Plants			
Monthly Average	*Weekly Average*	*Daily Maximum*	*Monthly Average*
30 mg/L	40 mg/L	45 mg/L	85 % Removal

6.1.3. Percent Removal

The treatment facility is required to remove 85 % of the $CBOD_5$ and TSS that enter the facility on a monthly basis. This is part of the minimum requirement for all municipal treatment facilities contained in Code of Federal Regulations (CFR) 40 § 133.102. The reasons stated by the EPA for these requirements are to achieve these two basic objectives:

i. To encourage municipalities to correct excessive inflow and infiltration (I/I) problems in their sanitary sewer systems; and
ii. To help prevent intentional dilution of the influent wastewater as a means of meeting permit limits.

The treatment facility is required to remove 40 % of the $CBOD_5$ and TSS that enter the facility on a daily basis. This percent removal will be calculated three times per week and recorded on the Monthly Operation Report. The number of excursions (days when $CBOD_5$ and/or TSS removal is less than 40%) will be reported on the Discharge Monitoring Report.

6.1.4. Settleable Solids

The settleable solids limit of 1.0 ml/L is a technology-based limit established in Rule 0400-40-05-.09.

6.2. FLOW

Monitoring of flow quantifies the load of pollutants to the stream. Flow shall be reported in million gallons per day (MGD) and monitored at the time of sample collection.

6.3. PH

According to the State of Tennessee Water Quality Standards [Chapter 0400-40-03-.03(3) (b)], the pH for the protection of Fish and Aquatic Life shall not fluctuate more than 1.0 unit over a period of 24 hours and shall not be outside the following ranges: 6.0 – 9.0 standard units (SU) in wadeable streams and 6.5 – 9.0 SU in larger rivers, lakes, reservoirs, and wetlands. Considering that the receiving stream will provide some buffering capacity, effluent limitation for pH will be retained in a range 6.0 to 9.0. The sample type will be grab.

6.4. AMMONIA (NH_3-N)

To assess ammonia toxicity impacts, the state utilizes Tennessee Rules, Chapter 0400-40-03-.03-3(3)(j), dated September 11, 2019, to derive allowable instream protection values protective of chronic and acute exposures to a

continuous discharge. A mass balance equation with the treatment facility, stream flows, and these allowable values determines the monthly average and daily maximum permit limits.

The temperature used in calculations is determined based on measured ambient instream temperature or is estimated according to Tennessee's Three Grand Divisions as follows: East (winter 15°C, summer 25°C), Middle (winter 17°C, summer 27°C), and West (winter 20°C, summer 30°C). A pH value of 8 is used because ambient monitoring shows ambient pH is sometimes as high as 8, and because this assumption is more conservative.

Using temperature and pH values, the criterion continuous concentration (CCC) and criterion maximum concentration (CMC) values are calculated using the following equations:

$$CCC = 0.8876 * \left(\frac{0.0278}{1+10^{7.688-pH}} + \frac{1.1994}{1+10^{pH-7.688}}\right) * \left(2.126 * 10^{0.028*(20-MAX(T,7))}\right)$$

and

$$CMC = MIN\left\{\begin{array}{c}\left(\frac{0.275}{1+10^{7.204-pH}} + \frac{39.0}{1+10^{pH-7.204}}\right), \\ \left(0.7249 * \left(\frac{0.0114}{1+10^{7.204-pH}} + \frac{1.6181}{1+10^{pH-7.204}}\right) * \left(23.12 * 10^{0.036*(20-T)}\right)\right)\end{array}\right\}$$

The determined CCC and CMC values are then used in the mass balance equation as follows:

$$CCC = \frac{Q_s C_s + Q_{STP} C_{STP}}{Q_s + Q_{STP}} \quad \text{or} \quad C"STP" = \frac{CCC(Q"S" + Q"STP") - (Q"S" C"S")}{Q} "STP"$$

where:

CCC	=	Criteria continuous concentration (mg/L)
Q_S	=	7Q10 flow of receiving stream (MGD)
Q_{STP}	=	Design flow of STP (MGD)
C_S	=	Assumed/Measured instream NH_3 (mg/L)
C_{STP}	=	Allowable STP discharge of NH_3 (mg/L)

See below for calculations:

Ammonia as Nitrogen Calculations

The State utilizes the Water Quality Criteria and the EPA document, EPA Ambient Water Quality Criteria for Ammonia (https://www.epa.gov/wqc/aquatic-life-criteria-ammonia). A mass balance with plant and stream flows and this allowable value determines the monthly average permit limit. Seasonal limits may also be allowed due to ambient temperature variations between the summer and winter seasons.

East TN- 25°C, 15°C
Middle TN- 27°C, 17°C
West TN- 30°C, 20°C

A pH value of 8 (instead of historically used 7.5) was chosen for two reasons: 1.) ambient monitoring in west TN showed that a pH often exceeds 7.5, and is up to 8 sometimes 2.) this assumption is more conservative.

	Winter		Summer
Temp (°C)=	17	Temp (°C)=	27
pH=	8	pH=	8
MAX Expression	17.0000	MAX Expression	27.0000

$$CCC = 0.8876 \times \left(\frac{0.0278}{1+10^{7.688-pH}} + \frac{1.1994}{1+10^{pH-7.688}}\right) x\left(2.126 \times 10^{0.028\times(20-MAX(T,7))}\right)$$

Winter CCC= **0.94** Summer CCC= **0.49**

CCC - Continuous Chronic Criterion Allowable instream NH3 concentration [mg/l]

$$CCC = \frac{\text{(Critical Low Flow [MGD] * Background Ammonia [mg/L]) + (Design Flow [MGD] * } \textbf{Effluent Concentration} \text{ [mg/L])}}{\text{(Critical Low Flow [MGD] + (Design Flow [MGD])}}$$

where:	3.4	Critical Low Flow [MGD] (7Q10 value)
	0.1	Background Ammonia Concentration [mg/L]
	0.25	WWTP Design Flow or long-term average flow [MGD]

Therefore, the Allowable **Effluent Concentrations** and corresponding **Amounts** in winter and summer are:

Winter		Summer	
12.41	Concentration [mg/L]	**5.864**	Concentration [mg/L]
25.9	Amount [lb/day]	**12.2**	Amount [lb/day]

The calculated acute and chronic toxicity values above are compared to ammonia limits previously imposed to prevent ammonia toxicity or calculated to protect ambient dissolved oxygen levels. The permit imposes the most stringent values in the analysis. The analysis compares the calculated chronic ammonia value (CCC) with a monthly average limit previously imposed to protect dissolved oxygen or to prevent toxicity. The analysis compares the calculated acute ammonia value (CMC) with the previously imposed daily maximum value to protect dissolved oxygen or to prevent toxicity. Generally, water quality models have predicted the monthly average ammonia limit to protect dissolved oxygen. The Division has historically developed a companion daily maximum value to protect dissolved oxygen by multiplying the monthly average limit by two. Empirical data supports the factor of two developed in consideration of the natural variation in biological pollutant removal and the design basis for treatment unit sizing.

Because the NH_3-N concentration limits calculated to protect dissolved oxygen are more restrictive than the toxicity limits calculated above, the monthly average limits for NH_3-N (2 mg/L summer, 5 mg/L winter) are applied to the permit.

6.5. CHLORINATION

The total residual chlorine (TRC) limit is derived using the mass balance formula and the EPA acute instream protection value of 0.019 mg/L for fish and aquatic life. Applying this formula yields the following calculation for the TRC daily maximum limit:

$$\frac{0.019\ (Qd + Qs)}{Qd} = Limit\ (mg/L) = \frac{0.019(0.25 + 3.4)}{0.25} = 0.2774\,mg/L \approx 0.28\,mg/L$$

Where:

0.019 mg/L	=	acute instream protection value
3.4	=	Qs – 7Q10 flow of receiving stream (MGD)
0.25	=	Qd – design flow of STP (MGD)

Similarly, the chronic instream protection value of 0.011 mg/L for fish and aquatic life is applied to the mass balance formula to determine the monthly average limit for TRC. Previous permits do not contain rationale for omitting this limit and may have utilized the belief that chlorine's reactivity with other compounds will ensure it does not remain in solution long enough to result in chronic exposure to fish and aquatic life. The best way to reflect chronic exposure to chlorine in harmful quantities is not occurring is reporting successful operation of the de-chlorination technology in compliance with the monthly average limit. This added limit does not entail additional sampling but rather calculation of a monthly average value based on the sampling results in consideration of the method detection level of the test method.

$$\frac{0.011\ (Qd + Qs)}{Qd} = Limit\ (mg/L) = \frac{0.011(0.25 + 3.4)}{0.25} = 0.1606\,mg/L \approx 0.16\,mg/L$$

6.6. TOTAL NITROGEN AND TOTAL PHOSPHORUS

Nutrients are naturally occurring and essential components of healthy aquatic systems. Excessive amounts of nutrients, however, can impact water quality. The enrichment of a waterbody with nutrients, called eutrophication, can result in dense, rapidly multiplying growths, or blooms, of algal species and other nuisance aquatic plants. These have potential for negatively impacting the habitat for fish and aquatic life and degrading the water quality for drinking water supply and recreation uses. These impacts can present both locally from an individual activity and much further downstream from the cumulative impact of multiple activities. The Division has therefore developed and begun to implement a strategy to accomplish long-term nutrient reduction in Tennessee waters. The strategy, referred to as the Tennessee Nutrient Reduction Framework (NRF), contains

proposed rationale and the methodology for implementing the strategy within a watershed area. Consequently, the Framework considers impacts from both point and non-point sources of nutrients and recommends possible reduction goals for both point and non-point sources. The NRF approach to nutrient reduction is intended to utilize an adaptive management approach in consideration of the facts presenting within a watershed and reevaluation of the effectiveness of progress being made. Regular reassessments of goals and action plans will be conducted by reviewing monitoring data, modeling results and other measures of success. As additional data becomes available (such as WWTP effluent characterization and instream water quality data), model results can be re-evaluated.

Therefore, for purposes of implementing this strategy, the Division is imposing a minimum of quarterly effluent characterization for total nitrogen and total phosphorus on all discharges of treated domestic wastewater. This permit retains the twice monthly monitoring and nutrient limits from the previous permit. See Section 7.7 below for additional detail.

In coordination with the NRF and in recognition that meeting nutrient limits may require changes in plant operations, the Division has created the Tennessee Plant Optimization Program (TNPOP), which is a free program created to provide technical assistance and other resources to participating wastewater treatment plants. TNPOP can help wastewater treatment plants optimize energy use and nutrient removal, which can result in cost and energy savings. Interested facilities should visit the Division's TNPOP website for a program description, frequently asked questions, and information on how to apply.

6.7. *E. COLI*

Disinfection of wastewater is required to protect the receiving stream from pathogenic microorganisms. *E. coli* is used as an indicator organism as a measure of the bacteriological health of a receiving stream and the effectiveness of disinfection. Both the geometric mean and daily maximum are limited for *E. coli* in accordance with Rule 0400-40-03-.03. The *E. coli* daily maximum limit of 487 colony forming units per 100 mL applies to lakes and exceptional Tennessee waters. A maximum daily limit of 941 colony forming units per 100 mL applies to all other recreational waters. The units for *E. coli* have been standardized to #/100 mL, which is functionally equivalent to colony forming units.

6.8. BIOMONITORING

The Division evaluates all dischargers for reasonable potential to exceed the narrative water quality criterion "no toxics in toxic amounts". The Division has

determined that for municipal facilities with stream dilutions of less than 500 to 1, any of the following conditions may demonstrate reasonable potential to exceed this criterion:

i. Toxicity is suspected or demonstrated;
ii. A pretreatment program is required; or
iii. The design capacity of the facility is greater than 1.0 MGD.

This facility does not meet any of these criteria.

6.9. COLLECTION SYSTEM

For the purposes of demonstrating proper operation of the collection, transmission and treatment system, the permit treats releases separately from overflows and bypass. State regulations at 0400-40-05-.07(2) establish "standard conditions". These standard conditions include 0400-40-05-.07(2)(n) that sets forth specific language prohibiting sanitary sewer overflows (defined in the regulations as a "discharge") and standard conditions in 0400-40-05-.07(2)(l) and (m) pertaining to bypass. While the regulations prohibit sanitary sewer overflow (*i.e.*, discharges that reach or are likely to reach receiving waters) it does not prohibit "releases" that do not reach or are not likely to reach receiving waters. However, releases that do not reach receiving waters may be indicative of other problems, such as improper operation and maintenance of the sewer system. Whether another violation occurs or whether, for example, there is an unavoidable accident (see, e.g., § 69-3-114(a)), will involve case-specific evaluations. Regardless, the permit assures, without waiving rights to pursue other violations associated with a release, as applicable, that the permittee would, at a minimum be reporting and responding to releases. Any release potentially warrants permittee mitigation of human health risks via direct or indirect contact and may demonstrate a hydraulic problem in the system that warrants permittee consideration as part of proper operation and maintenance of the system.

Proper operation and maintenance of the collection system may include, but is not limited to:

1. A comprehensive collection system map showing all drainage areas, manholes, pump stations (number and size of pumps), flow meters, chronic overflow and release locations, miles of collection system, material and diameter of construction, and other relevant system elements.
2. Rainfall data at location(s) using method(s) representative of precipitation within the collection system area.

3. Flow meters at locations in the collection system that would enable drainage area analysis and prioritization based on the amount of inflow and infiltration (I/I) observed.
4. A collection system hydraulic model that predicts I/I problems in response to rainfall events and the effects of new conditions.

When determining if a location experiences chronic sanitary sewer overflows or releases, the term "event(s)" includes dry weather overflows, wet weather overflows, dry weather releases and wet weather releases.

7. OTHER PERMIT REQUIREMENTS AND CONDITIONS

7.1. CERTIFIED WASTEWATER TREATMENT OPERATOR

The waste treatment facilities shall be operated under the supervision of a Grade III certified wastewater treatment operator in accordance with the Water Environmental Health Act of 1984. Operator grades are under jurisdiction of the Water and Wastewater Operators Certification Board. This NPDES permit is under jurisdiction of the Tennessee Board of Water Quality, Oil and Gas. Operator grades are rated and recommended by the Division of Water Resources pursuant to Rule 0400-49-01 and are included in this fact sheet for reference. The grades are intentionally not specified in the permit so that the operation certification board can authorize changes in grade without conflicting with this permit.

7.2. COLLECTION SYSTEM CERTIFIED OPERATOR

The collection system shall be operated under the supervision of a Grade I certified collection system operator in accordance with the Water Environmental Health Act of 1984.

7.3. PRETREATMENT PROGRAM

The Cartwright Creek, LLC has received an exemption from development of a pretreatment program due to the lack of any significant industrial users.

The permittee submitted an updated Industrial User Survey to the Division dated April 20, 2020. The survey is in the permittee's electronic file record.

7.4. BIOSOLIDS MANAGEMENT PRACTICES

The Clean Water Act (CWA) requires that any NPDES permit issued to a publicly owned treatment works or any other treatment works treating domestic sewage shall comply with 40 CFR § 503, the federal regulation governing the use and

disposal of sewage sludge. It is important to note that "biosolids" are sewage sludge that have been treated to a level so that they can be land applied.

The language in **section 3.3.** of the permit, relative to biosolids management, a CWA requirement, allows the "permitting authority" under 40 CFR § 503.9(p) to be able to enforce the provisions of § 503. The "permitting authority" relative to Part 503 is either a state that has been delegated biosolids management authority or the applicable EPA Region; for Tennessee it is EPA Region 4.

Tennessee regulates the land application of non-exceptional quality biosolids under state rules, Chapter 0400-40-15. The state rules became effective on June 30, 2013. Under these state rules, all facilities that land apply non-exceptional quality biosolids must obtain a biosolids permit from the division. The land application of non-exceptional quality biosolids under state rules is regulated through either a general permit or by an individual permit. Questions about the division's biosolids regulations and permitting program should be directed to the State Biosolids Coordinator at:

Division of Water Resources
State Biosolids Coordinator
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102
615-532-0625

7.5. PERMIT TERM

In order to meet the target reissuance date for the Harpeth watershed and following the directives for the Watershed Management Program initiated in January 1996, the permit will be issued to expire in 2026.

7.6. ELECTRONIC REPORTING

The NPDES Electronic Reporting Rule (eRule), which became effective on December 21, 2016, replaces most paper-based reporting requirements with electronic reporting requirements. NetDMR allows NPDES permittees to submit DMRs electronically to EPA through a secure internet application and has been approved by Tennessee as the official electronic reporting tool for DMRs.

Monitoring results shall be recorded monthly and submitted monthly using Discharge Monitoring Reports (DMRs) based on the effluent limits in **section 1.1** of the permit. DMRs and DMR attachments, including laboratory data and overflow reports, shall be submitted electronically in NetDMR or other electronic reporting tool approved by the State, no later than the 15th of the month following

the end of the monitoring period. All NPDES program reports must be signed and certified by a responsible official or a duly authorized representative, as defined in 40 CFR § 122.22.

According to 40 CFR § 127.15, states have the flexibility to grant temporary or episodic waivers from electronic reporting to NPDES permittees who are unable to meet the electronic reporting requirements. To obtain an electronic reporting waiver, an electronic reporting waiver request must be submitted by email to DWRwater.compliance@tn.gov or by mail to the following address:

Division of Water Resources
Compliance and Enforcement Unit – NetDMR Waivers
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243-1102

For contact and training information about NetDMR electronic reporting, visit the Division's website here.

The permit language has been modified to accommodate the implementation of the MyTDEC Forms electronic reporting tool. For more information, visit EPA's website on eReporting requirements.

7.7. ANTIDEGRADATION STATEMENT / WATER QUALITY STATUS

Tennessee's Antidegradation Statement is found in the Rules of the Tennessee Department of Environment and Conservation, Chapter 0400-40-03-.06. It is the purpose of Tennessee's standards to fully protect existing uses of all surface waters as established under the Act.

Stream determinations for this permit action are associated with the waterbody segment identified by the Division as segment ID# TN05130204009_3000.

The Division has made a water quality assessment of the receiving waters associated with the subject discharge(s) and has found the receiving stream to be neither an exceptional nor outstanding national resource water. Additionally, the division assesses this water as not having quality to support(s) designated uses due to low dissolved oxygen and elevated phosphorus attributed to municipal point source discharges and the discharges from urbanized high-density areas.

Total Maximum Daily Loads (TMDLs) have been developed and approved for this waterbody segment on the following parameters and dates:

Parameter:	TMDL Approval Date:
Dissolved Oxygen	September 2004

The proposed terms and conditions of this permit comply with the wasteload allocations of these TMDLs.

In summary, this permit imposes in Part 1.1 of permit the nitrogen load (15 lb/d) established in the 2004 EPA TMDL to protect ambient dissolved oxygen along with a reopener clause in Part 1.5 of the permit to allow for including conditions consistent with the revised TMDL being developed by Tennessee with the assistance of EPA and cooperation of permittees and local environmental groups. This permit retains a phosphorus load limit to cap the discharges of phosphorus at their current levels in support of the anti-degradation provision of state water quality standards. The division developed the phosphorus limit in the previous permit based on the 2-year average phosphorus load from the facility as an average of the monthly averages. The 5.0 lb/d limit is equivalent to a concentration of 2.4 mg/L at the design flow rate of 0.25 MGD. Both limits are set as annual (12-month) rolling averages consistent with the division's draft, statewide nutrient reduction framework. The facility is reporting the following total nitrogen and phosphorus in its effluent:

Mo/Year	Total N	Total P
02/29/2020	17.99	4.31
03/31/2020	17.14	4.39
04/30/2020	16.43	4.06
05/31/2020	16.56	3.96
06/30/2020	18.09	4.04
07/31/2020	17.94	4.14
08/31/2020	17.08	4.22
09/30/2020	16.91	4.45
10/31/2020	16.03	4.57
11/30/2020	14.51	4.47
12/31/2020	13.02	3
01/31/2021	13.04	3.14
02/28/2021	14.18	3.26
03/31/2021	14.21	3.38
04/30/2021	13.89	3.42
05/31/2021	13.6	3.45
06/30/2021	13.06	3.37
Eff. Limit:	15	5

APPENDIX 1 –
PREVIOUS PERMIT LIMITS

PARAMETERS	MONTHLY AVERAGE CONCENTRATION (MG/L)	MONTHLY AVERAGE AMOUNT (LB/DAY)	WEEKLY AVERAGE CONCENTRATION (MG/L)	WEEKLY AVERAGE AMOUNT (LB/DAY)	DAILY MAXIMUM CONCENTRATION (MG/L)	DAILY MINIMUM PERCENT REMOVAL	MEASUREMENT FREQUENCY
$CBOD_5$ (May 1- Oct. 31)	5	10	7.5	15	10	40	3/week
$CBOD_5$ (Nov. 1- April 30)	10	21	15	31	20	40	3/week
NH_3-N (May 1- Oct. 31)	2	4	3	6	4	—	3/week
NH_3-N (Nov. 1- April 30)	5	10	7.5	16	10	—	3/week
Total Suspended Solids	30	63	40	83	45		3/week
Dissolved Oxygen (mg/L)	6.0 (daily minimum) instantaneous	—	—	—	—	—	5/week
Total Chlorine Residual (mg/L)	—	—	—	—	0.28 (daily maximum)	—	5/week
Total Nitrogen	Report	Report	—	—	Report	Report (lb/d)	2/month
Total Nitrogen	15 lb/d as a 12-month rolling average, calculated monthly						1/month
Total Phosphorus	Report	Report	—	—	Report	Report (lb/d)	2/month
Total Phosphorus	5.0 lb/d as a 12-month rolling average, calculated monthly						1/month
E. coli (MPN/100ml)	126/100 ml	—	—	—	941/100 ml	—	3/week
Settleable Solids (ml/l)		—	—	—	1.0 (daily maximum)	—	5/week
pH (standard units)	6.0-9.0	—	—	—	—	—	5/week
Flow (MGD):							
Influent	Report	—	—	—	Report	—	7/week
Effluent	Report	—	—	—	Report	—	7/week
Sanitary Sewer Overflows, Total Occurrences, gal/mo., Cum total	Report						continuous
Dry Weather Overflows, Total Occurrences, gal/mo., Cum total	Report						continuous
Wet Weather Releases, Total Occurrences, gal/mo	Report						Continuous
Dry Weather Releases, Total Occurrences, gal/mo	Report						Continuous
Bypass of Treatment, Total Occurrences	Report						continuous

APPENDIX 2 –
DMR SUMMARY

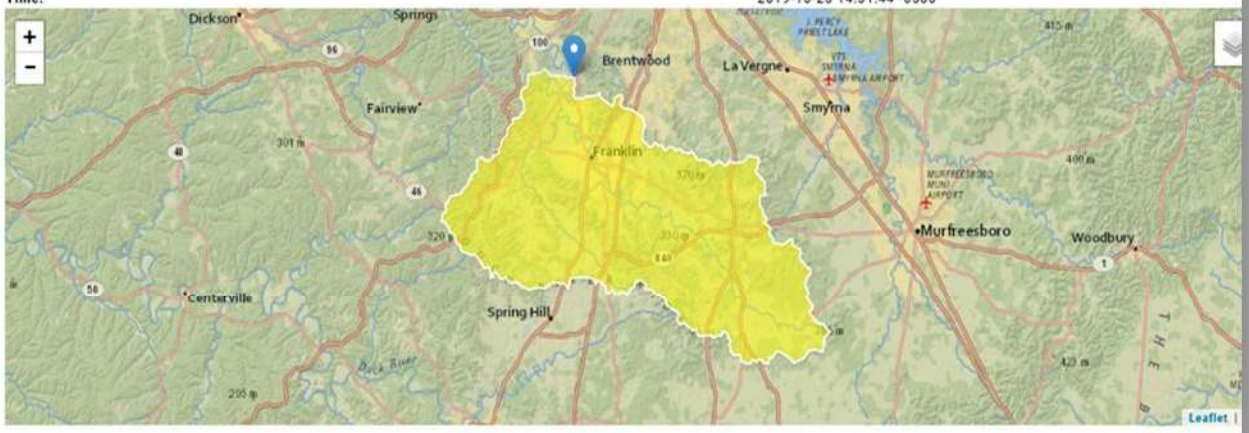
	Flow (MGD)		Biochemical Oxygen Demand				Suspended Solids				Effluent (mg/l)									Overflow and Bypass
			Influent	Effluent (mg/l)		%	Influent	Effluent (mg/l)		%	Settleable	pH		Cl_2	Ammonia		D.O.	E. coli		
	Monthly Average	Daily Max	(mg/l)	Monthly Average	Daily Max	Removal	(mg/l)	Monthly Average	Daily Max	Removal	Solids (ml/l)	(std. units) Min	Max	Daily Max	Monthly Average	Daily Max	Daily Min	Monthly Average	Daily Max	
Limits	Report	Report	Report			85	Report			85	1.0	6.0	9.0				6.0	126	941	
Summer				5	10			30	45					0.28	2.0	4.0				
Winter				10	20			30	45					0.28	5.0	10.0				
Average	0.376	0.788	106	5	17	93	80.6	4	8	93	0.2	7.2	7.6	0.11	0.5	1.7	6.8	15	76	
Maximum	1.035	1.664	251.4	25	170	99	169.3	10	20	98	1.0	7.4	7.9	0.24	2.1	7.4	7.5	35	161	
Minimum	0.130	0.181	37.3	2	2	51	8.9	2	3	74	0.1	6.8	7.4	0.04	0.1	0.1	6.0	2	4	
+ = Exceedence				5	11	5				3						1				2

Date																				
Sep/17	0.365	1.495	61	2	2	95.9	63.8	4	7	93.8	1.0	7.3	7.6	0.07	1.20	4.10 +	6.3	12.1	88	
Oct/17	0.297	0.668	62.4	2.1	2	96.4	65.6	4	12	93.5	0.1	7.3	7.7	0.06	0.64	3.60	6.6	18.1	101	
Nov/17	0.464	1.619	47.2	2.5	5	94.1	41.4	4	8	89.9	0.1	7.3	7.7	0.06	0.40	1.90	7.1	14.4	109	
Dec/17	0.541	1.567	53.2	25 +	100 +	50.8 +	65.9	10	13	84.8 +	0.2	7.2	7.6	0.11	0.65	1.60	6.9	14.1	91	
Jan/18	0.390	0.532	69.9	5	37 +	89.3	78.4	7	12	90.8	0.1	7.0	7.7	0.08	0.25	0.75	7.0	18.1	85	
Feb/18	1.035	1.664	47	19 +	170 +	76.4 +	33.6	9	11	73.9 +	0.1	7.1	7.6	0.10	0.11	0.36	6.8	34.5	87	
Mar/18	0.654	1.603	64.3	8	24 +	86.3	55.9	8	11	86.1	0.1	7.2	7.7	0.09	0.20	1.30	6.7	17.3	58	
Apr/18	0.651	1.084	40.9	17 +	88 +	54.6 +	52.1	8	16	85.3	0.1	7.3	7.6	0.12	0.37	1.50	6.8	20.2	110	
May/18	0.356	1.260	53.6	13 +	42 +	63.9 +	46.9	3	5	92.9	0.1	7.1	7.6	0.12	0.75	1.80	6.3	8.4	78	
Jun/18	0.260	0.601	122.3	20 +	53 +	82.5 +	62.9	2	4	96.8	0.1	7.1	7.6	0.04	0.47	1.30	6.4	19.8	48	
Jul/18	0.171	0.294	87.3	5	16 +	93.8	74.5	4	8	94.7	0.1	7.2	7.6	0.15	0.23	0.73	6.9	15.1	85	
Aug/18	0.162	0.307	173.4	2	5	98.4	118.4	4	7	97	0.1	6.8	7.6	0.21	0.31	0.96	6.5	17.8	89	
Sep/18	0.215	0.628	120.6	2	3	97.5	95.5	4	10	95.9	0.2	7.1	7.7	0.14	0.20	0.44	6.4	22.4	60	
Oct/18	0.361	0.622	72.3	2	4	96.8	63.6	3	6	95.1	0.4	7.3	7.8	0.07	0.22	1.07	7.2	28.6	101	
Nov/18	0.493	0.783	77.6	4	22 +	92.4	55.1	3	3	95.3	0.1	7.3	7.6	0.17	0.73	2.22	6.7	18.5	84	
Dec/18	0.610	0.843	67.7	5	16	91.5	39.1	5	11	86.6	0.6	7.3	7.5	0.19	0.75	1.69	7.5	30.1	148	
Jan/19	0.799	1.529	43.6	3	5	91.5	31.6	6	15	80.9 +	0.8	7.1	7.5	0.20	0.73	1.67	7.5	35.2	154	
Feb/19	0.754	1.083	37.3	3	7	90.8	39.3	4	11	89.2	0.4	7.1	7.5	0.06	0.44	1.65	7.2	23.6	137	
Mar/19	0.557	0.970	78.8	3	5	96	57.2	4	7	93.2	0.3	7.1	7.6	0.11	0.59	1.84	7.1	23.6	161	1
Apr/19	0.626	1.551	76.6	3	6	92.3	60.7	5	14	91.3	0.5	7.2	7.6	0.11	0.96	2.70	6.9	35	127	
May/19	0.273	0.408	144.7	3	8	97.8	132.7	3	6	97.9	0.1	7.2	7.6	0.05	1.01	1.95	6.8	17.2	50	
Jun/19	0.289	0.509	136	3	5	97.9	95.3	4	10	96	0.1	7.3	7.7	0.06	0.54	1.78	6.4	22.4	133	
Jul/19	0.265	0.560	131.6	2	3	98.1	113.9	3	5	97.4	0.1	7.4	7.8	0.12	0.34	0.81	7.2	9.7	61	
Aug/19	0.301	0.794	117.4	2	3	97.9	78.7	3	4	96.6	0.1	7.3	7.7	0.24	0.48	1.72	6.7	15.2	55	
Sep/19	0.130	0.181	179.5	4	8	97.5	127.2	4	6	96.8	0.1	7.1	7.6	0.12	0.66	1.30	6.1	7.8	91	
Oct/19	0.300	0.722	128.1	3	9	97	90.9	3	6	96.5	0.1	7.0	7.7	0.12	0.33	1.09	6.1	10.4	117	
Nov/19	0.577	1.164	86.3	3	6	96.3	83.5	3	4	96.3	0.1	7.3	7.7	0.05	0.16	0.38	6.9	18.1	111	
Dec/19	0.393	0.823	80.2	6	39 +	93.1	68.9	4	6	94.7	0.1	7.2	7.9	0.14	0.32	1.07	7.1	13.6	66	
Jan/20	0.429	0.747	89.1	3	5	97	72.5	4	5	95.1	0.1	7.3	7.7	0.11	0.11	0.13	7.1	7.7	28	
Feb/20	0.415	0.839	116.6	3	7	97	92.9	5	12	94.7	0.1	7.3	7.7	0.15	0.22	0.57	6.8	9.9	48	
Mar/20	0.323	0.672	126.2	4	6	96.6	76.2	6	9	90.3	0.1	7.4	7.7	0.13	0.14	0.31	7.4	13.6	59	
Apr/20	0.288	0.676	110.2	3	9	96.9	73.9	6	12	89.4	0.2	7.3	7.7	0.14	0.23	0.40	7.0	19	46	1
May/20	0.160	0.270	130	5	15 +	95	8.88	3	5	96.7	0.1	7.1	7.4	0.11	0.64	1.22	6.4	12.3	104	
Jun/20	0.146	0.233	165.7	3	6	98.1	131.5	3	3	98	0.1	7.0	7.5	0.08	0.67	1.63	6.1	4.1	5.4	
Jul/20	0.155	0.312	251.4	3	7	98.1	124	3	3	97.7	0.1	6.9	7.6	0.15	0.42	0.85	6.1	7.9	78	
Aug/20	0.223	0.510	131.6	2	4	98.3	106.7	3	5	97.5	0.1	7.4	7.8	0.08	0.21	0.34	6.5	9.9	4.3	
Sep/20	0.280	0.656	127.8	2	2	98	120	3	4	97.5	0.1	7.4	7.7	0.09	0.31	0.72	6.8	12.4	56	
Oct/20	0.237	0.371	129.6	2	5	98.1	102.5	3	5	96.9	0.1	7.4	7.7	0.10	0.55	2.75	6.4	6.6	54	
Nov/20	0.197	0.297	182.9	2	2	98.5	84.7	3	3	96.7	0.1	7.4	7.6	0.08	1.25	7.40	7.1	2.6	8.5	
Dec/20	0.311	0.479	101.6	2	4	97.6	85.7	3	5	96.6	0.1	7.3	7.6	0.12	0.40	1.05	7.4	6	24	
Jan/21	0.316	0.663	137.8	3	7	97.6	88.8	3	3	96.7	0.1	7.3	7.7	0.09	0.38	1.56	7.4	5	34	
Feb/21	0.342	0.635	99.7	3	6	96.7	76.3	4	8	94.5	0.1	7.3	7.6	0.12	0.87	4.90	7.4	7	24	
Mar/21	0.483	1.177	81.1	3	5	94.5	63.3	6	13	88.5	0.1	7.1	7.7	0.11	0.41	1.19	6.8	14.1	87	
Apr/21	0.275	0.780	197.8	3	8	98.5	169.3	4	20	97.4	0.1	7.1	7.6	0.13	2.11	4.65	6.6	4.9	75	
May/21	0.246	0.629	112.2	2	2	98	121.1	3	3	97.6	0.1	7.3	7.5	0.08	1.18	3.37	6.0	4.6	44	
Jun/21	0.187	0.446	135.4	2	3	98.4	115.2	3	9	97.1	0.1	7.4	7.6	0.09	0.81	1.64	6.2	2.4	11	

APPENDIX 3 –
RECEIVING STREAM LOW FLOW DETERMINATION

StreamStats Report

Region ID:	TN
Workspace ID:	TN20191025193127666000
Clicked Point (Latitude, Longitude):	36.01038, -86.89598
Time:	2019-10-25 14:31:44 -0500



Low-Flow Statistics Parameters[Low Flow Central and East Regions 2009 5159]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	350.73	square miles	1.3	14441
RECESS	Recession Index	40	days per log cycle	32	175
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.334	dimensionless	2.056	2.46
SOILPERM	Average Soil Permeability	1.499	inches per hour	0.45	9.72
PERMGTE2IN	Percent permeability gte 2 in per hr	44.727	percent	2	100

Low-Flow Statistics Flow Report[Low Flow Central and East Regions 2009 5159]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SEp
7 Day 10 Year Low Flow	5.27	ft^3/s	89
30 Day 5 Year Low Flow	10.9	ft^3/s	70.2

Low-Flow Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl.

Public Participation Opportunity
Tennessee Department of Environment and Conservation (TDEC)
Division of Water Resources (DWR)
Notice Requesting Public Comments on Draft Permit Actions

Public Notice Date: **September 30, 2025**

Public Notice Number: **MMXXV-039**

Expiration Date: **October 30, 2025**

The purpose of this notice is to advise the public of the following proposed permit actions and to solicit comments and information necessary to evaluate the potential impact of the proposed activities on human health and the environment. A list of applications, documents, draft permits, inspections and Notices of Intent (NOIs) received by the DWR is available on our DataViewer web pages (see links below)

Active DWR Permits - Tabular Display

Permits on Public Notice Map

Summary of Proposed Permitting Actions

	Count
Individual NPDES Permit	
Proposed Modification	1
Proposed Reissuance	3
State Operating Permit (SOP)	
Proposed New Permit Issuance	1
Proposed Reissuance	1

Please bring this notice to the attention of persons you believe will be interested.

Individual NPDES Permit

Proposed Modification

Applicant Name	**Limestone Water Utility Operating Company, LLC**
Project Name	Grasslands STP

Permit Number	**TN0027278**
Discharger rating	**Minor**
Permit Writer	Wade Murphy (615) 532-0666 Wade.Murphy@tn.gov
County	**Williamson**
EFO Name	**Nashville**
Street Address/Location	River Rest Subdivision
City and/or Zip Code	Franklin, TN 37069
Description of Activity	Treatment of domestic sewage via extended aeration activated sludge, tertiary filtratio and effluent chlorination/dechlorination; Application for permit modification proposes expanding treatment capacity from 0.25 MGD to 0.45 MGD via new influent lift station, screenings, grit removal, pre and post equalization, biological nutrient removal utilizing aerobic granular sludge (AGS), filtration, and UV disinfection. The applicant proposes de minimis degradation from the expanded treatment plant.
Effluent Description	treated domestic wastewater from Outfall 001
Receiving Stream	Harpeth River at mile 68.8
Facility Latitude	36.010178
Facility Longitude	-86.894733

Individual NPDES Permit

Proposed Reissuance

Applicant Name	**City of McKenzie**
Project Name	McKenzie STP

Permit Number	**TN0020613**
Discharger rating	**Major**
Permit Writer	Maybelle T. Sparks, P.E. (615) 532-0651 Maybelle.Sparks@tn.gov
County	**Carroll**
EFO Name	**Jackson**
Street Address/Location	482 Clark Street
City and/or Zip Code	Mc Kenzie, TN 38201
Description of Activity	Treatment of municipal sewage via bar screening, grit removal, extended aeration activated sludge, clarification, chlorine disinfecting and de-chlorination
Effluent Description	treated municipal wastewater from Outfall 001
Receiving Stream	unnamed tributary at mile 2.8 to Clear Creek at mile 2.4 to South Fork Obion River at mile 27
Facility Latitude	36.124574
Facility Longitude	-88.509011

Individual NPDES Permit

Proposed Reissuance

Applicant Name	**Morgan County Schools**
Project Name	Petros- Joyner School STP

Permit Number	**TN0058564**
Discharger rating	**Minor**
Permit Writer	Maybelle T. Sparks, P.E. (615) 532-0651 Maybelle.Sparks@tn.gov
County	**Morgan**
EFO Name	**Knoxville**
Street Address/Location	136 Flat Fork Road
City and/or Zip Code	Wartburg, TN 37887
Description of Activity	Treatment of domestic sewage using Advantex system with ultraviolet disinfection
Effluent Description	treated domestic wastewater from outfall 001
Receiving Stream	Crooked Fork Creek at mile 16.1
Facility Latitude	36.066630
Facility Longitude	-84.454245

Individual NPDES Permit

Proposed Reissuance

Applicant Name	**Webb Creek Utility District**
Project Name	Webb Creek STP

Permit Number	**TN0055310**
Discharger rating	**Minor**
Permit Writer	Oscar Montenegro (615) 532-0623 Oscar.Montenegro@tn.gov
County	**Sevier**
EFO Name	**Knoxville**
Street Address/Location	3625 Lindsey Mill Road
City and/or Zip Code	Gatlinburg, TN 37738
Description of Activity	Treatment of municipal sewage via influent equalization, extended aeration activated sludge (oxidation ditch), clarification, tertiary filtration, chlorine disinfecting and de-chlorination
Effluent Description	treated domestic wastewater from Outfall 001
Receiving Stream	Webb Creek at mile 2.8
Facility Latitude	35.759450
Facility Longitude	-83.363036

State Operating Permit (SOP)

Proposed New Permit Issuance

Applicant Name	**IRM Utility, Inc.**
Project Name	Amenity 1 Sewer System River Gorge Ranch

Permit Number	**SOP-24026**
Discharger rating	**Minor**
Permit Writer	Bryan Pope (931) 722-9592 Bryan.Pope@tn.gov
County	**Marion**
EFO Name	**Chattanooga**
Street Address/Location	10213 HWY 156
City and/or Zip Code	GUILD, TN 37340
Description of Activity	STEP to LPP dispersal on 7.2 acres of suitable soil for residential, rental cabins, restaurant and some small commercial flow.
Wastewater Description	residential, rental cabin, restaurant and some small commercial flow, secondary treatment of effluent
Receiving Stream	No discharge
Facility Latitude	35.014214
Facility Longitude	-85.518694

State Operating Permit (SOP)

Proposed Reissuance

Applicant Name	**West Stewart Utility District- River Trace II**
Project Name	River Trace II LPP

Permit Number	**SOP-18016**
Discharger rating	**Minor**
Permit Writer	Bryan Pope (931) 722-9592 Bryan.Pope@tn.gov
County	**Stewart**
EFO Name	**Nashville**
Street Address/Location	River Trace Rd.
City and/or Zip Code	Dover, TN 37058
Description of Activity	Step collection system with low pressure pipe subsurface disposal on a dedicated site
Wastewater Description	domestic
Receiving Stream	Site is 1100 feet from Kentucky Lake
Facility Latitude	36.438495
Facility Longitude	-88.028705

POTW - Pretreatment Program Approvals:

None

The Division of Water Resources is authorized to approve local POTW Pretreatment Programs for the administration and enforcement of the National Pretreatment Standards of Performance for industrial users of the respective Publicly Owned Treatment Works listed in this notice. Additionally, the POTW Programs are required to prevent the introduction of pollutants into the POTW's which will interfere with their operation, including the use or disposal of sludge, and prevent the introduction of pollutants into the POTW's which will pass through the treatment works or be otherwise incompatible. All POTW Pretreatment Programs approved are in accordance with the Tennessee Water Quality Control Act, the federal Clean Water Act, and appropriate regulations.

End of List

How to Comment:

TDEC is requesting public comment on this permit action. Obtaining a broad range of facts and opinions on Agency actions is one of the best ways to ensure quality decisions. Persons wishing to comment on the proposed action are invited to submit comments in writing to the Division of Water Resources at William R. Snodgrass - Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor, Nashville, Tennessee 37243-1102, Attn: Public Notice Coordinator, by fax number (615) 532-0686, or by E-mail at *Water.Permits@tn.gov*. Comments must be received by the public notice expiration date (October 30, 2025).

How to Request a Public Hearing:

Interested persons may request in writing that the Director of the Division of Water Resources hold a public hearing on any application. The request must be filed by the public notice expiration date (October 30, 2025) and must indicate the interest of the party filing it and the reasons why such a hearing is warranted. When there is significant public interest for a hearing, a hearing will be conducted according to Division of Water Resources Rule 0400-40-05-.06(12). Public hearings will be announced through another public notice.

How the Department will Proceed:

The Director of the Division of Water Resources will determine the final permit action after considering comments submitted during the comment period, the hearing record, if any, and the requirements of the Federal and State acts and regulations.

To Obtain Permit Details:

Copies of the application(s) and draft permit(s) are also available for public inspection by contacting TDEC at http://state.tn.us/environment/field-offices.shtml, by calling 1-888-891-TDEC (8332), or by visiting the following locations during normal business hours:

Environmental Field Office - Chattanooga
1301 Riverfront Parkway, Suite 206
Chattanooga, TN 37402
(423) 634-5745
Bledsoe, Bradley, Grundy, Hamilton, Marion, McMinn, Meigs, Polk, Rhea, Sequatchie

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Environmental Field Office - Columbia
1421 Hampshire Pike
Columbia, TN 38401
(931) 380-3371
Bedford, Coffee, Franklin, Giles, Hickman, Lawrence, Lewis, Lincoln, Marshall, Maury, Moore, Perry, Wayr

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Environmental Field Office - Cookeville
1221 South Willow Avenue
Cookeville, TN 38506
(931) 432-4015
Cannon, Clay, Cumberland, De Kalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Smith, Trousdale, Van Buren, Warren, White

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Environmental Field Office - Jackson
1625 Hollywood Drive
Jackson, TN 38305
(731) 512-1300
Benton, Carroll, Chester, Crockett, Decatur, Dyer, Gibson, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, Madison, McNairy, Obion, Weakley

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Environmental Field Office - Johnson City
2305 Silverdale Road
Johnson City, TN 37601
(423) 854-5400
Carter, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington

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Environmental Field Office - Knoxville
3711 Middlebrook Pike
Knoxville, TN 37921
(865) 594-6035
Anderson, Blount, Campbell, Claiborne, Cocke, Grainger, Hamblen, Jefferson, Knox, Loudon, Monroe, Morgan, Roane, Scott, Sevier, Union

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Environmental Field Office - Memphis
8383 Wolf Lake Drive
Bartlett, TN 38133-4119
(901) 371-3000
Fayette, Hardeman, Shelby, Tipton

Environmental Field Office - Nashville
711 R.S. Gass Boulevard
Nashville, TN 37243
(615) 687-7000
Cheatham, Davidson, Dickson, Houston, Humphreys, Montgomery, Robertson, Rutherford, Stewart, Sumn Williamson, Wilson

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Antidegradation:

Tennessee's Antidegradation Statement is designed to fully protect existing uses of all surface waters and to maintain existing conditions of high-quality waters.

The Antidegradation Statement applies only to new or increased discharges of pollutants. Most NPDES permits constitute renewals without an increased discharge: in this case, no antidegradation review is required.

An application for a new or increased discharge requires antidegradation review if it proposes greater than de minimis degradation (<5% for a single discharge, <=10% total for multiple discharges in the same stream segment) of waters with available parameters or Exceptional Tennessee Waters, the discharge of a pollutant for which the receiving water is impaired, or a discharge to one of the seven designated Outstanding National Resource Waters in the state. Tennessee conducts antidegradation review on a parameter-by-parameter basis. See Rule 0400-40-03-.06 for detailed antidegradation requirements.

State of Tennessee Policy of Non-Discrimination:

Pursuant to the State of Tennessee's policy of non-discrimination, the Tennessee Department of Environment and Conservation does not discriminate on the basis of race, sex, religion, color, national or ethnic origin, age, disability, or military service in its policies, or in the admission or access to, or treatment or employment in its programs, services or activities. Equal Employment Opportunity/Affirmative Action inquiries or complaints should be directed to the EEO/AA Coordinator, Office of General Counsel, William R. Snodgrass - Tennessee Tower, 312 Rosa L. Parks Avenue, 2nd Floor, Nashville, Tennessee 37243-1102, 1-888-867-7455. ADA inquiries or complaints should be directed to the ADA Coordinator, Human Resources Division, William R. Snodgrass - Tennessee Tower, 312 Rosa L. Parks Avenue, 2nd Floor, Nashville, Tennessee 37243-1102, 1-866-253-5827. Hearing impaired callers may use the Tennessee Relay Service (1-800-848-0298).

If it is hard for you to read, speak, or understand English, TDEC may be able to provide translation or interpretation services free of charge. Please contact Mr. Brian Canada at 615-979-1406 or Brian.Canada@tn.gov for more information.

Si le resulta difícil leer, hablar o comprender inglés, TDEC puede proporcionarle servicios de traducción o interpretación sin cargo comunicándose con Brian Canada al 615-979-1406 o Brian.Canada@tn.gov.

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