pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0043435**
Facility Type	**Non-Municipal**	APS ID	**1113079**
Major / Minor	**Minor**	Authorization ID	**1483959**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**L & S Wastewater Inc.**	Facility Name	**L & S WW Inc. STP**
Applicant Address	P.O. Box 254	Facility Address	224 Parkwood Circle
	Cecil, PA 15321-0254		Canonsburg, PA 15317-5946
Applicant Contact	Jack Lang	Facility Contact	Jack Lang
Applicant Phone	(412) 257-4163	Facility Phone	(412) 257-4163
Client ID	251525	Site ID	249121
Ch 94 Load Status	Not Overloaded	Municipality	Cecil Township
Connection Status		County	Washington
Date Application Received	April 29, 2024	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: NPDES permit renewal.

Summary of Review

The Pa Department of Environmental Protection (PADEP/Department) received an NPDES permit renewal application from L&S Wastewater Inc. (permittee) on April 29, 2024 for permittee's L&S WW Inc. STP (facility). This is a minor sewage facility with a design flow of 0.03 MGD that discharges into a drainage swale to UNT to Coal Run (WWF) in state watershed 20-F. The current permit will expire on October 31, 2024. The terms and conditions of the current permit is automatically extended since the renewal application was received at least 180 days prior to expiration date. Renewal NPDES permit application under Clean Water Program are not covered by PADEP's PDG per 021-2100-001. This fact sheet is developed in accordance with 40 CFR §124.56.

Changes to existing permit: Added: E. Coli, average monthly TRC limits relaxed to match QL in Part C/eDMR.

Sludge use and disposal description and location(s): Aerobically digested sludge hauled-off to other WWTP.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
√		Reza H. Chowdhury, E.I.T. / Project Manager	June 10, 2024
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	06/21/2024

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.03
Latitude	40º 19' 23"	Longitude	-80º 10' 23"
Quad Name	Canonsburg	Quad Code	1604
Wastewater Description:	Sewage Effluent		
Receiving Waters	Drainage Swale to UNT to Coal Run (WWF)	Stream Code	Swale to 36858
NHD Com ID	99690894	RMI	4.42 on 36858
Drainage Area	0.07 mi^2	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	20-F	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	NUTRIENTS, SILTATION		
Source(s) of Impairment	AGRICULTURE, AGRICULTURE		
TMDL Status	Final, Final	Name	Chartiers Creek, Chartiers Creek Watershed
Nearest Downstream Public Water Supply Intake	West View Municipal Authority		
PWS Waters	Ohio River	Flow at Intake (cfs)	
PWS RMI	35.26	Distance from Outfall (mi)	24.29

Changes Since Last Permit Issuance: None

Other Comments: The Outfall 001 is in a drainage swale that discharges into an UNT to Coal Run which eventually drains into Chartiers Creek. The drainage swale seems to be a dry/ephemeral stream since the stream flow to discharge ratio is much smaller (0.0066:1) at outfall 001. The NPDES permit was first issued on December 5, 1997 and the dry stream guidance first published on August 18, 1997. Since the guidance was published before the new permit was issued, the guidance was consulted, and the effluent limitations were developed accordingly. A new guidance was published on April 12, 2008 which is not applicable to this facility unless the facility decides to expand. In that case, the new guidance will be applicable, and a Point of First Use survey may be required to compare the guidance limits, WQBELs at POFU, or BDT. Nonetheless, the current limits meet the minimum treatment requirements in the guidance except TSS. The previous fact sheet indicated that the TSS limits were based on the policies in place at the time of original permit issuance.

PWS Intake:
The nearby downstream PWS intake is West View Municipal Authority, on Ohio River, at 35.26 RMI which is approximately 24.29 miles downstream of the outfall 001. Due to the larger dilution of the Ohio River, the discharge from the facility is expected not to have an adverse effect on the PWS intake.

Background Data:
Since no water quality modeling will be conducted, background data weren't collected.

Chartiers Creek and Chartiers Creek Watershed TMDL:
The discharge flows into Chartiers Creek that has a Final TMDL and is impaired by PCB and Chlordane. No WLAs have been developed for this sewage discharge and they are not expected to contribute to the stream impairment for these pollutants.

The discharge flows into the Chartiers Creek Watershed that has a Final TMDL and is impaired by metals and pH. This sewage discharge is not expected to contribute to the stream impairment for which abandoned mine drainage is source of

such impairment. No WLAs have been developed for this sewage discharge and they are not expected to contribute to the stream impairment for these pollutants.

Antidegradation (Ch. 93.4):
The effluent limits for this discharge have been developed to ensure that existing in-stream uses and the level of water quality necessary to protect the existing uses are maintained and protected.

Class A Wild Trout Fisheries:
No Class A wild trout fisheries are impacted by this discharge.

Treatment Facility Summary

Treatment Facility Name: L & S WW Inc. STP

WQM Permit No.	Issuance Date
6374418	10/14/1975

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Aeration	Tablet chlorine with dechlorination	0.03

Hydraulic Capacity (MGD)	Organic Capacity (lbs./day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.03		Not Overloaded		

Changes Since Last Permit Issuance: None

Treatment Plant Description

L&S Wastewater Inc. (permittee) owns and operates a STP named L&S Wastewater Inc. STP (facility) located in Cecil Township, Washington County. This is a non-publicly owned minor sewage facility with a design flow of 0.03 MGD. Per the 2019 inspection report, the treatment system consists of the following treatment units:

1 Comminutor, 1 Bar screen, 1 EQ tank, 1 sludge holding tank, 1 aeration tank, 1 Clarifier, 1 tertiary sand filter, and 1 disinfection system.

Compliance History

DMR Data for Outfall 001 (from May 1, 2023 to April 30, 2024)

Parameter	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23
Flow (MGD) Average Monthly	0.014	0.014	0.013	0.013	0.014	0.013	0.013	0.013	0.122	0.014	0.012	0.012
pH (S.U.) Daily Minimum	7.3	7.2	7.1	7.2	7.1	7.1	7.2	7.1	7.1	7.1	7.1	7.1
pH (S.U.) Daily Maximum	7.6	7.6	7.5	7.7	7.8	7.7	9.0	7.9	7.8	7.5	7.6	7.7
DO (mg/L) Daily Minimum	10.5	10.2	9.8	10.3	9.6	12.6	8.8	7.8	7.3	6.5	8.0	8.0
TRC (mg/L) Average Monthly	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
TRC (mg/L) IMAX	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
CBOD5 (mg/L) Average Monthly	5.2	2.2	4.7	3.1	2.4	4.0	2.0	2.8	2.6	3.5	6.1	3.9
CBOD5 (mg/L) IMAX	6.5	2.4	7.3	4.1	2.7	5.1	2.0	3.5	3.1	4.6	7.0	4.9
TSS (mg/L) Average Monthly	6.5	5.0	5.0	9.5	5.0	5.0	5.0	5.0	5.5	5.0	5.0	5.0
TSS (mg/L) IMAX	8.0	5.0	5.0	14.0	5.0	5.0	5.0	5.0	6.0	5.0	5.0	5.0
Fecal Coliform (No./100 ml) Geometric Mean	11.6	1	1.0	9.9	1.4	3.0	1.4	2.6	1.4	1.4	1	1
Fecal Coliform (No./100 ml) IMAX	134	1	1	14.0	2	9	2	7.0	2	2	1	1
Total Nitrogen (mg/L) Daily Maximum					1.4							
Ammonia (mg/L) Average Monthly	1.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.4	3.3
Ammonia (mg/L) IMAX	1.5	0.3	0.2	0.2	0.2	0.2	0.4	0.3	0.4	0.1	0.5	4.9
Total Phosphorus (mg/L) Daily Maximum					1.4							

Compliance History

Effluent Violations for Outfall 001, from: June 1, 2023 To: April 30, 2024

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Flow	08/31/23	Avg Mo	0.122	MGD	.03	MGD

Summary of Inspections:
12/06/2019: CEI conducted. Numerous violations noted including effluent violations, incorrectly completed DMRs, failure to submit supplemental forms, failure to monitor pollutants, failure to properly maintain facilities, failure to properly document monitoring activities, and failure to monitor flow as required. An NOV was issued consequently on December 19, 2019. There's currently no open violation against the facility or the permittee.

Existing limits

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	0.03	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
Total Residual Chlorine (TRC) (Interim)	XXX	XXX	XXX	1.4	XXX	3.3	1/day	Grab
Total Residual Chlorine (TRC) (Final)	XXX	XXX	XXX	0.01	XXX	0.02	1/day	Grab
Dissolved Oxygen	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	10	XXX	20	2/month	Grab
Total Suspended Solids	XXX	XXX	XXX	25	XXX	50	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18.0	2/month	Grab
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	.03
Latitude	40º 19' 23.00"	**Longitude**	-80º 10' 23.00"

Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Water Quality-Based Limitations

Previous permit's fact sheet indicated that the effluent limits were modeled using WQAM63 to evaluate CBOD5, Ammonia-nitrogen, and DO. As discussed in page 2 of this fact sheet, these limits are at least as stringent as applicable dry stream guidance and are still valid, until the facility wants to expand. Existing limits for these pollutants will be carried over.

Total Residual Chlorine

Current permit has average monthly limit of 0.01 mg/l and IMAX of 0.02 mg/l. These limits were calculated using TRC_Calc, a Spreadsheet-based model. The average monthly limit of 0.01 mg/l is more stringent compared to Quantitation Limit of 0.02 mg/l. According to current guidance, if TRC limits is below QL, the permittee is subjected to meet the QL limit. A "less than QL" value will demonstrate compliance with more stringent limit. According to the guidance, the WQBEL (0.01 mg/l in this case) will remain in Part A of the permit, however, there will be a Part C condition that will read the following:

I. TRC EFFLUENT LIMITATIONS BELOW QUANTITATION LIMITS

A. The calculated limits for Total Residual Chlorine (TRC) as specified in Part A of this permit are the limits necessary to comply with state water quality standards. These effluent limits are lower than the Quantitation Limit (QL), as defined in 25 Pa. Code § 252.1, of the most sensitive existing EPA-approved (40 CFR Part 136) test method or other DEP-approved method. If the sensitivity of the specified method improves or a more sensitive test method becomes available, DEP may modify the permit to require use of the more sensitive method.

B. TRC shall be analyzed using one of the following test methods below, or an approved equivalent, to achieve a QL of 0.02 mg/l or less:

1. EPA 330.5 Spectrophotometric, DPD (SM 4500-Cl G, DPD Colorimetric Method)

2. EPA 330.4 Titrimetric, DPD-FAS (SM 4500-Cl F, DPD Ferrous Titrimetric Method)

For the purpose of compliance, a statistical value reported on the DMR that is less than the QL (i.e., "non-detect") will be considered to be in compliance.

C. The permittee may develop a site-specific alternate MDL pursuant to the procedure contained in 40 CFR Part 136 Appendix B. DEP should be contacted for guidance before initiating this procedure.

1. The permittee shall manage non-detect values and report statistical results to DEP in accordance with published DMR guidance (3800-BK-DEP3047). Where a mixed data set exists containing non-detect results and "detected" values (i.e., results greater than or equal to the QL), the QL shall be used for non-detect results to compute average statistical results.

The WMS, and consequently the eDMR, will have limit of 0.02 mg/l as average monthly and IMAX. This relaxation in average monthly limit is within the authority under Clean Water Act Section 402(o)(2)(B)(ii).

Total Suspended Solids:
As discussed in page 2 of this report, existing TSS limits will be carried over in this renewal.

pH:
The TBEL for pH is above 6.0 and below 9.0 S.U. (40 CFR §133.102(c) and Pa Code 25 §§ 95.2(1), 92a.47) which are existing limits and will be carried over.

Total Nitrogen:
PADEP's SOP BCW-PMT-033 recommends monitoring for Total Nitrogen for facilities with design flow more than 2000-GPD, which is also supported by Pa Code 25 Ch. 92a.61. Current monitoring requirement will be continued.

Total Phosphorus:
PADEP's SOP BCW-PMT-033 recommends monitoring for Total Phosphorus for facilities with design flow more than 2000-GPD, which is also supported by Pa Code 25 Ch. 92a.61. Current monitoring requirement will be continued.

Fecal Coliform:
The recent coliform guidance in 25 Pa. code § 92a.47.(a)(4) requires a summer technology limit of 200/100 ml as a geometric mean and an instantaneous maximum not greater than 1,000/100ml and § 92a.47.(a)(5) requires a winter limit of 2,000/100ml as a geometric mean and an instantaneous maximum not greater than 10,000/100ml. These are existing requirements and will be carried over in this renewal.

E. Coli:
Pa Code 25 § 92a. 61 requires monitoring of E. Coli. DEP's SOP titled "Establishing Effluent Limitations for Individual Sewage Permits (BCW-PMT-033, revised March 24, 2021) recommends annual E. Coli monitoring for sewage dischargers with design flow between 0.002-0.05 MGD. This requirement will be applied from this permit term.

Monitoring Frequency and Sample Types:
Unless otherwise specified above, the monitoring frequency and sample type of compliance monitoring for existing parameters are recommended by DEP's SOP and Permit Writers Manual and/or on a case-by-case basis using best professional judgment (BPJ).

Anti-Backsliding
Anti-backsliding prohibition is justified in sections where an exception is justified for the affected pollutant(s). For remaining pollutants, this prohibition isn't applicable since the proposed limits are at least as stringent as were in current permit.

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
Dissolved Oxygen	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.01	XXX	0.02	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	10	XXX	20	2/month	Grab
Total Suspended Solids	XXX	XXX	XXX	25	XXX	50	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18.0	2/month	Grab
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: At Outfall 001
Other Comments: none

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other: