

Application Type Renewal  
 Facility Type Municipal  
 Major / Minor Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0111929  
 APS ID 989943  
 Authorization ID 1267567

**Applicant and Facility Information**

Applicant Name	<u>Lawrenceville Borough</u>	Facility Name	<u>Lawrenceville Borough Wastewater Treatment Plant</u>
Applicant Address	<u>6 Mechanic Street</u> <u>Lawrenceville, PA 16929-9768</u>	Facility Address	<u>Cherry Street</u> <u>Lawrenceville, PA 16929</u>
Applicant Contact	<u>Meagan Hutcheson</u>	Facility Contact	<u>James Frew</u>
Applicant Phone	<u>(570) 827-2066</u>	Facility Phone	<u>(814) 368-7348</u>
Client ID	<u>147372</u>	Site ID	<u>248296</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Lawrenceville Borough</u>
Connection Status	<u>No Limitations</u>	County	<u>Tioga</u>
Date Application Received	<u>March 28, 2019</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>April 3, 2019</u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal of an existing NPDES permit for the discharge of treated sewage.</u>		

**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
		Derek S. Garner / Project Manager	
		Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	001	Design Flow (MGD)	0.1
Latitude	41° 59' 38.63"	Longitude	-77° 7' 21.36"
Quad Name	Jackson Summit	Quad Code	0329
Wastewater Description: Sewage Effluent			
Receiving Waters	Tioga River	Stream Code	30990
NHD Com ID	57349457	RMI	13.6
Drainage Area	456	Yield (cfs/mi <sup>2</sup> )	0.069
Q <sub>7-10</sub> Flow (cfs)	31.3	Q <sub>7-10</sub> Basis	Streamgage No. 01518700
Elevation (ft)	982	Slope (ft/ft)	n/a
Watershed No.	4-A	Chapter 93 Class.	WWF
Existing Use	n/a	Existing Use Qualifier	n/a
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Impaired		
Cause(s) of Impairment	Mercury		
Source(s) of Impairment	Unknown		
TMDL Status	Pending	Name	n/a
Nearest Downstream Public Water Supply Intake	PA-NY Border		
PWS Waters	Tioga River	Flow at Intake (cfs)	n/a
PWS RMI	13	Distance from Outfall (mi)	0.6

**Treatment Facility Summary**

The Lawrenceville Borough Wastewater Treatment Plant is an extended aeration package plant originally constructed in 1975 under approval from WQM Permit No. 5975403. The treatment plant is permitted for an average annual design flow of 0.1 MGD and an organic capacity of 170 lbs/day. In December 2006 a plate frame filter press was approved to replace the sludge drying beds under WQM Permit No. 5906402. In March 2018, both permits were consolidated into 5906402 and transferred from the Lawrenceville Borough Authority to Lawrenceville Borough.

In August 2019 it was brought to DEP's attention that the filter press was removed from the facility without a DEP authorization. The Borough was instructed to submit an application to amend the existing WQM permit to reflect removal of the filter press and continued use of the drying beds. As of the date of this fact sheet, the amendment application has not been received.

The treatment plant consists of the following treatment:

- One (1) manual bar screen
- One (1) grit chamber
- One (1) comminutor
- One (1) splitter box
- Two (2) aeration tanks (operated in parallel)
- Two (2) secondary clarifiers (operated in parallel)
- One (1) chlorine contact tank (gas chlorine)
- One (1) aerated sludge holding tank
- One (1) sludge drying bed

After disinfection, the treated effluent is discharged via Outfall 001 to the Tioga River. Dried sludge is hauled by B&L Toilet to the Northern Tier Solid Waste Authority Landfill.

**Compliance History**

A client-based open violations report yielded in the following results:

Program	Program ID	Inspection ID	Violation ID	Violation Date	Violation Code	Violation	Inspector
Safe Drinking Water	2590050	2901703	855190	6/12/2019	D8	Failure of a CWS to develop and/or update an emergency response plan	Accettulla, Mark
Safe Drinking Water	2590050	2901703	855191	6/12/2019	D8	Failure of a CWS to develop and/or update an emergency response plan	Accettulla, Mark

A compliance history report yielded the following resolved permit violations over the term of the existing permit:

Violation ID	Violation Date	Violation Type	Violation Type Description	Resolved Date
715309	2/2/2015	92A.41(A)5	NPDES - Failure to properly operate and maintain all facilities which are installed or used by the permittee to achieve compliance	2/5/2015
735357	8/28/2015	92A.41(A)12B	NPDES - Failure to submit monitoring report(s) or properly complete monitoring reports	9/24/2015
769951	10/3/2016	92A.41(A)13B	NPDES - Unauthorized bypass occurred	10/7/2016
780254	11/30/2016	92A.41(A)12B	NPDES - Failure to submit monitoring report(s) or properly complete monitoring reports	3/7/2017
780255	11/30/2016	92A.61(F)2	NPDES - Failure to maintain records for at least 3 years	3/7/2017
842227	12/9/2018	CSL201	CSL - Unauthorized, unpermitted discharge of sewage to waters of the Commonwealth	2/20/2019
842228	12/9/2018	91.33(A)	CSL - Failure to immediately report to DEP a pollution incident	2/20/2019
842231	7/18/2018	CSL611	CSL - Failure to comply with terms and conditions of a WQM permit	2/20/2019
842236	4/4/2018	CSL611	CSL - Failure to comply with terms and conditions of a WQM permit	2/20/2019

An effluent violation report yielded numerous effluent violations and has been attached as Attachment A. The effluent exceedances are generally tied into the plant experiencing hydraulic overloads thought to be caused from infiltration/inflow. A Consent Assessment of Civil Penalty related to the chronic exceedances was executed by DEP on April 18, 2019. In the most recent inspection report, dated August 14, 2019, it is noted that the Borough is actively working on reducing infiltration/inflow within the sewer system by slip lining and replacing damaged pipes discovered by video inspections.

**Development of Effluent Limitations**

<b>Outfall No.</b> <u>001</u>	<b>Design Flow (MGD)</b> <u>0.1</u>
<b>Latitude</b> <u>41° 59' 38.90"</u>	<b>Longitude</b> <u>-77° 7' 21.60"</u>
<b>Wastewater Description:</b> <u>Sewage Effluent</u>	

**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 <sub>5</sub>	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 <sup>(1)</sup>	0.5	Average Monthly	-	92a.48(b)(2)

<sup>(1)</sup> Previous renewals of the permit carried over an average monthly total residual chlorine (TRC) limit of 1.0 mg/L and instantaneous maximum limit of 3.2 mg/l. As identified in the table above, 25 PA Code § 92a.48(b)(2) establishes a best available technology (BAT) limit of 0.5 mg/L. The previous three years of DMR data was reviewed to see if the permittee will require a schedule to comply with the new limit of 0.5 mg/l. The results are included in Attachment B.

As demonstrated by the data, the permittee generally does not achieve the proposed average monthly limits. Accordingly, DEP will establish a two-year compliance schedule to allow for one year of design and one year of construction of additional treatment units, if necessary.

**Water Quality-Based Limitations**

A “Reasonable Potential Analysis” (Attachment C) was conducted using WQM 7.0 v1.0b. The model results are as follows:

Parameter	Input (mg/l)	Minimum Eff. Limit (mg/l)	Avg Monthly Eff. Limit (mg/l)	Maximum Eff. Limit (mg/l)
CBOD <sub>5</sub>	25 <sup>(1)</sup>	--	25	--
Ammonia-N	3.86 <sup>(2)</sup>	--	3.86	7.72
Dissolved Oxygen	4.0 <sup>(3)</sup>	4.0	--	--

<sup>(1)</sup> The existing CBOD<sub>5</sub> technology-based effluent limit.

<sup>(2)</sup> The existing permit requires weekly monitoring. The most recent three years of sample results were averaged together for the input concentration.

<sup>(3)</sup> The existing dissolved oxygen limit established using best professional judgment.

As indicated by the above results, the existing limits and monitoring requirements are protective of the Tioga River.

A TRC evaluation (Attachment D) indicates the proposed technology-based TRC limits are protective of the Tioga River.

**Best Professional Judgment (BPJ) Limitations**

The previous permit renewal established weekly monitoring for ammonia-n and a minimum concentration limit of 4 mg/l for dissolved oxygen to better characterize the wastewater and to help ensure the facility is operating as intended. DEP recommends that these monitoring requirements and limits remain in the permit.

**Chesapeake Bay Nutrient Monitoring**

The previous permit renewal established annual nutrient monitoring for total nitrogen and total phosphorus in accordance with Pennsylvania's Chesapeake Bay Watershed Implementation Plan (WIP) for Phase V facilities. The monitoring results are included in Attachment E.

Since the facility has completed the required nutrient monitoring, per the WIP's requirements for Phase V facilities, nutrient monitoring has been removed from the permit.

**Additional Considerations**

Raw sewage influent monitoring is proposed to remain in the permit for Chapter 94 reporting purposes.

**Anti-Backsliding**

Monitoring requirements for Chesapeake Bay nutrients have been removed from the permit per anti-backsliding regulations at 40 CFR § 122.44(l)(2)(i)(B)(1), which allows for parameters to be removed from the permit based on information that was not available at the time of previous permit issuance.

**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 December 31, 2021**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	4.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	1.0	XXX	2.3	1/day	Grab
CBOD5	20	33	XXX	25.0	40.0	50	1/week	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
TSS	25	37	XXX	30.0	45.0	60	1/week	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
Ammonia	Report	XXX	XXX	Report	XXX	XXX	1/week	8-Hr Composite

Compliance Sampling Location: Outfall 001

**Outfall 001, Effective Period: January 1, 2022 through Permit Expiration Date**

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	4.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	20	33	XXX	25.0	40.0	50	1/week	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
TSS	25	37	XXX	30.0	45.0	60	1/week	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	1/week	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
Ammonia	Report	XXX	XXX	Report	XXX	XXX	1/week	8-Hr Composite

Compliance Sampling Location: Outfall 001



**ATTACHMENTS**