

Application Type Renewal
 Facility Type Non-Municipal
 Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0095303
 APS ID 1045666
 Authorization ID 1365566

Applicant and Facility Information

Applicant Name	<u>Purchase Line School District</u>	Facility Name	<u>Purchase Line School Complex</u>
Applicant Address	<u>16559 Route 286 Highway East</u> <u>Commodore, PA 15729-8309</u>	Facility Address	<u>16559 Route 286 Highway East</u> <u>Commodore, PA 15729-8309</u>
Applicant Contact	<u>Carl Jones</u>	Facility Contact	<u>David Putt</u>
Applicant Phone	<u>(724) 254-4312</u>	Facility Phone	<u>(724) 254 9377</u>
Client ID	<u>2180</u>	Site ID	<u>259373</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Green Township</u>
Connection Status		County	<u>Indiana</u>
Date Application Received	<u>August 13, 2021</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted		If No, Reason	
Purpose of Application	<u>NPDES Permit Renewal for an existing discharge of sewage.</u>		

Summary of Review

The permittee is currently using the eDMR system for reporting.

No changes to the discharge quality or quantity were proposed as part of this renewal. *(Therefore, antidegradation requirements for the discharge being to a High Quality (HQ) watershed are met since the discharge is not expanding or changing.)*

There are currently 8 open violations currently in EFACTS for this permittee as of 8/1/2022, all from the Safe Drinking Water Program.

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
X		Jordan A. Frey, E.I.T. Jordan A. Frey, E.I.T. / Project Manager	August 2, 2022 AJP 8/9/22
X		Vacant / Environmental Engineer Manager	OK to Draft JCD 8/15/2022

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.022</u>
Latitude	<u>40° 44' 9.0"</u>	Longitude	<u>-78° 54' 53.0"</u>
Quad Name	<u>Commodore</u>	Quad Code	<u>40078F8</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary to East Run (HQ-CWF)</u>	Stream Code	<u>47671</u>
NHD Com ID	<u>123855191</u>	RMI	<u>0.51</u>
Drainage Area	<u>0.045</u>	Yield (cfs/mi ²)	<u>0.1</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.004</u>	Q ₇₋₁₀ Basis	<u>Default</u>
Elevation (ft)	<u>1619</u>	Slope (ft/ft)	<u>---</u>
Watershed No.	<u>17-D</u>	Chapter 93 Class.	<u>HQ-CWF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	<u></u>		
Source(s) of Impairment	<u></u>		
TMDL Status	<u></u>	Name	<u></u>
Background/Ambient Data		Data Source	
pH (SU)	<u>7.0</u>	Default	<u></u>
Temperature (°C)	<u>20</u>	Default	<u></u>
Hardness (mg/L)	<u>100</u>	Default	<u></u>
Other:	<u></u>		<u></u>
Nearest Downstream Public Water Supply Intake	<u>Kittanning Suburban Joint Water Authority</u>		
PWS Waters	<u>Allegheny River</u>	Flow at Intake (cfs)	<u>987</u>
PWS RMI	<u>45.6</u>	Distance from Outfall (mi)	<u>>25</u>

Changes Since Last Permit Issuance: None

Other Comments: None.

Treatment Facility Summary				
Treatment Facility Name: Purchase Line School District STP				
WQM Permit No.		Issuance Date		
3274412				
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Activated Sludge	Gas Chlorine	0.022
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.022		Not Overloaded		

Changes Since Last Permit Issuance: None.

Other Comments: Treatment facility consists of a grinder, then 22,000-gallon aeration tank with two alternating blowers, two clarifiers, a chlorine contact tank, then a dechlorination chamber.

Compliance History

DMR Data for Outfall 001 (from July 1, 2021 to June 30, 2022)

Parameter	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21
Flow (MGD) Average Monthly	0.0024	0.0080	0.0051	0.007	0.0064	0.0050	0.0047	0.0090	0.022	0.0060	0.0023	0.0016
pH (S.U.) Minimum	7.20	7.3	7.3	6.3	6.3	6.7	6.8	6.8	6.9	6.9	6.8	6.8
pH (S.U.) Maximum	7.60	7.7	7.7	7.8	7.4	7.2	7.2	7.3	7.2	7.3	7.2	7.2
DO (mg/L) Minimum	7.40	7.2	7.6	7.3	7.3	7.3	7.3	7.4	7.4	7.3	7.3	7.4
TRC (mg/L) Average Monthly	0.40	0.39	0.40	0.40	0.40	0.40	0.4	0.40	0.4	0.40	0.4	0.4
TRC (mg/L) Instantaneous Maximum	0.50	0.53	0.60	0.60	0.60	0.60	0.6	0.60	0.60	0.6	0.60	0.5
CBOD5 (mg/L) Average Monthly	3.0	10.5	13.85	9.65	8.70	3.35	13.35	8.15	7.60	6.40	3.05	3.0
CBOD5 (mg/L) Instantaneous Maximum	3.0	12.20	24.70	12.40	9.90	3.70	20.10	9.40	11.80	6.50	3.10	3.0
TSS (mg/L) Average Monthly	4.50	10.5	5.0	8.0	15.0	6.0	14.0	8.0	12.50	5.50	4.50	7.0
TSS (mg/L) Instantaneous Maximum	5.0	13.0	7.0	9.0	20.0	6.0	25	13.0	14.0	6.0	6.0	11.0
Fecal Coliform (No./100 ml) Geometric Mean	1.0	1.0	11.00	8.0	2	1.0	14	1.0	25	1.0	1.0	1.0
Fecal Coliform (No./100 ml) Instantaneous Maximum	1.0	1.0	110.0	57.0	3	1.0	192	1.0	614	1.0	1.0	1.0
Total Nitrogen (mg/L) Daily Maximum							18.9					
Ammonia (mg/L) Average Monthly	1.26	0.88	1.05	0.81	1.63	0.70	1.38	1.44	1.95	1.23	0.44	0.50
Ammonia (mg/L) Instantaneous Maximum	1.44	0.91	1.48	0.89	2.05	1.30	1.62	1.65	3.27	1.24	0.52	0.75

**NPDES Permit Fact Sheet
Purchase Line School Complex**

NPDES Permit No. PA0095303

Total Phosphorus (mg/L) Daily Maximum							5.76					
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Development of Effluent Limitations

Outfall No. <u>001</u>	Design Flow (MGD) <u>0.022</u>
Latitude <u>40° 44' 9.00"</u>	Longitude <u>-78° 54' 53.00"</u>
Wastewater Description: <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 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)
E. Coli	Report (No./100 ml)	IMAX	-	92a.61

Comments: CBOD₅ and Total Suspended Solids limitations on this permit are currently more stringent than the regulatory minimum treatment standards, so the current limitations have been retained due to anti-backsliding policy.

Monitoring for E. coli is placed in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Water Quality-Based Limitations

Parameter	Limit (mg/l)	SBC	Model
Ammonia-Nitrogen Nov 1 - Apr 30	5.8	Average Monthly	WQM 7.0
Ammonia-Nitrogen May 1 - Oct 31	4.0	Average Monthly	WQM 7.0

Comments: Modeling was performed during the previous permit renewal using WQM 7.0, and those limits established have been retained.

Best Professional Judgment (BPJ) Limitations

Comments: Annual monitoring for total nitrogen and total phosphorus is required. Nutrient monitoring is required to establish the nutrient load from the wastewater treatment facility and the impacts that load may have on the quality of the receiving stream.

A dissolved oxygen limit of a minimum of 4.0 mg/l, a TRC IMAX limit of 1.6 mg/l, and annual monitoring for total nitrogen and total phosphorus were retained in the permit in accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Sewage Permits."

Anti-Backsliding

N/A

Other Considerations

Monitoring frequencies of 5/week for pH, Dissolved Oxygen, and Total Residual Chlorine (TRC) have been imposed because the facility serves two schools, and so will have negligible sewage flows generated on weekends due to the schools limited use on those days.

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)	0.022	XXX	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	5/week	Grab
DO	XXX	XXX	4.0 Inst Min	XXX	XXX	XXX	5/week	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	5/week	Grab
CBOD5	XXX	XXX	XXX	20	XXX	40	2/month	Grab
TSS	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	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	2.9	XXX	5.8	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	2.0	XXX	4.0	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001, after disinfection