pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0203696**
Facility Type	**Non-Municipal**	APS ID	**1065712**
Major / Minor	**Minor**	Authorization ID	**1400194**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**South Side Area School District**	Facility Name	**South Side Area School District**
Applicant Address	4949 State Route 151	Facility Address	4949 State Route 151
	Hookstown, PA 15050-1439		Hookstown, PA 15050
Applicant Contact	Scott P Smith	Facility Contact	Scott P Smith
Applicant Phone	(412) 956-0414	Facility Phone	(412) 956-0414
Client ID	40597	Site ID	243673
Ch 94 Load Status	Not Overloaded	Municipality	Greene Township
Connection Status		County	Beaver
Date Application Received	June 21, 2022	EPA Waived?	Yes
Date Application Accepted	July 1, 2022	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 South Side Area School District (SSASD/permittee) on June 21, 2022 for permittee's South Side Area School District STP (facility). The facility that is in Greene Township, Beaver County. The facility discharges treated effluent through Outfall 001 into dry swale to Little Travers Creek (WWF) in state watershed 20-D. The current permit will expire on November 30, 2022. The terms and conditions of the current permit is administratively extended since the renewal application was not received at least 180 days prior to the expiration date. Renewal NPDES permit applications 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 in this renewal: E. Coli monitoring added

Sludge use and disposal description and location(s): Liquid sludge is hauled off to New Castle Sewage Treatment Plant.

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	August 24, 2022
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	08/25/2022

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.02
Latitude	40º 34' 2.1"	Longitude	-80º 26' 15"
Quad Name	Hookstown	Quad Code	1402
Wastewater Description:	Sewage Effluent		
Receiving Waters	Little Travers Creek (WWF) (POFU)	Stream Code	33680 (POFU)
NHD Com ID	99683336	RMI	5.5 (at POFU)
Drainage Area	0.01 mi^2 (POFU)	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	20-D	Chapter 93 Class.	HQ-CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	SILTATION, SILTATION		
Source(s) of Impairment	AGRICULTURE, HIGHWAY/ROAD/BRIDGE RUNOFF (NON-CONSTRUCTION RELATED)		
TMDL Status	Final	Name	Raccoon Creek Watershed

Background/Ambient Data		Data Source
pH (SU)		
Temperature (°F)		
Hardness (mg/L)		
Other:		

Nearest Downstream Public Water Supply Intake	Midland Borough Municipal Authority		
PWS Waters	Ohio River	Flow at Intake (cfs)	5,400
PWS RMI	4.84	Distance from Outfall (mi)	35.48

Changes Since Last Permit Issuance: None

Treatment Facility Summary

Treatment Facility Name: South Side School STP

WQM Permit No.	Issuance Date
362S13	
0474420	

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary with ammonia reduction	Extended aeration	Chlorine tablets	0.02

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.02		Not Overloaded	Other WWTP	Landfill

Changes Since Last Permit Issuance: None

Treatment Plant Description

South Side Area School District owns and operates a WWTP to serve single school district with five buildings on one site. The facility was upgraded in August 13, 1991 to handle a flow of 0.02 MGD. Per the most recent CEI report, the facility consists of the following treatment units:

1. One comminutor
2. One bar screen
3. One EQ tank
4. Five blowers
5. One aeration basin
6. One clarifier
7. One sludge holding tank
8. One tube settler
9. Two chlorine contact tank

The discharge is into a dry swale that travels approximately 1,500-ft south and discharges into Little Travers Creek. A POFU survey was conducted on January 18, 2000. The POFU survey concluded that the POFU was at approximate RMI of 5.5 mile on Little Travers Creek. The protection report in 2000 stated that the modeling wasn't done with the consideration that the existing/proposed limits were based on dry stream guidance and are stringent enough. The drainage area at POFU is approximately 0.01 mi^2. It is decided that the existing limits may be carried over.

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)	0.02	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	XXX	Daily when Discharging	Grab
Dissolved Oxygen	XXX	XXX	5.0	XXX	XXX	XXX	Daily when Discharging	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	Daily when Discharging	Grab
CBOD5	XXX	XXX	XXX	10	XXX	20	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
Total Nitrogen	XXX	XXX	XXX	Report Daily Max	XXX	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	Report Daily Max	XXX	XXX	1/year	Grab

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	0.001	0.001	0.02	0.0012	0.0007	0.02	0.0006	0.02	0.02	0.0006	0.0006	0.0015
Flow (MGD) Daily Maximum	0.0008	0.0012	0.06	0.0013	0.001	0.0007	0.0008	0.0006	0.0006	0.0074	0.0009	0.09
pH (S.U.) Minimum	7.0	7.1	7.3	7.1	7.1	7.1	7.0	7.2	7.3	7.3	6.9	7.0
pH (S.U.) Maximum	7.0	7.1	7.2	7.1	7.2	7.3	7.1	7.1	7.4	7.3	7.1	7.0
DO (mg/L) Minimum	6.6	8.1	7.3	8.1	8.3	7.7	5.1	7.3	6.4	7.0	7.2	6.7
TRC (mg/L) Average Monthly	0.5	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.02	0.5	0.5	0.06
TRC (mg/L) IMAX	1.5	1.3	1.5	1.5	1.0	1.0	0.90	1.3	1.5	1.0	1.6	0.05
CBOD5 (mg/L) Average Monthly	8.0	< 4.0	< 4.0	< 4.0	5.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
CBOD5 (mg/L) IMAX	< 4.0	< 4.0	13.7	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
TSS (mg/L) Average Monthly	7.5	< 5.0	< 5.0	< 5.0	19.5	< 5.0	25	0.0011	0.0005	5.0	< 5.0	< 5.0
TSS (mg/L) IMAX	< 5.0	< 5.0	< 5.0	< 5.0	10.0	6.0	30.5	0.0006	0.0006	< 5.0	< 10.0	< 5.0
Fecal Coliform (No./100 ml) Geometric Mean	168	< 4.0	0.1	< 4	1800	14.8	4.0	< 0.01	0.523	0.440	< 1	0.007
Fecal Coliform (No./100 ml) IMAX	< 1	< 1	0.001	< 1	2620	69.00	5.0	< 0.01	0.523	1	< 1	0.214
Total Nitrogen (mg/L) Daily Maximum							3.75					
Ammonia (mg/L) Average Monthly	2.9	3.0	9.0	3.82	8.11	3.22	5.39	3.41	2.51	3.0	1.25	1.62
Ammonia (mg/L) IMAX	5.0	5.9	16.0	8.01	12.6	16.9	14.2	6.01	4.0	4.51	0.63	0.93
Total Phosphorus (mg/L) Daily Maximum							5.40					

Compliance History

There is no DMR non-compliance reported for last 12 months.

Inspection report:
August 8, 2021: CEI conducted. DMR violation noted for exceedances. Non-compliances noted including failure to use current pH buffers or reagent standards and failure to submit a required DMR supplemental report. Recommended to submit daily effluent monitoring form and influent and process control form with monthly DMR.

August 18, 2021: NOV issued on August 8 violations/non-compliances.

September 10, 2020: CACP issued.

November 1, 2018: NOV issued for non-payment of annual fee.

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	.02
Latitude	40º 34' 2.10"	**Longitude**	-80º 26' 15.00"
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

As stated in page 3 of this report, the outfall 001 discharges into a dry stream and then travels approximately 1,500-ft towards south until the treated effluent reaches POFU stream. The existing limits are based on dry stream guidance. The receiving watershed has an EPA approved TMDL named Raccoon Creek Watershed TMDL (February 3, 2005). The impairment was from acid mine drainage activities. WLA was approved for mining facilities, but not for WWTPs. Since the facility doesn't contribute to the existing impairment and the drainage area at the POFU is close to zero (0.01 mi^2), it was decided that running the WQM model to check if the dry stream limits are stringent enough is not necessary. It is recommended that the existing limits for $CBOD_5$, NH_3-N, and DO may be carried over.

Additional Consideration:

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 all dischargers with flow between ≥0.002 MGD to <0.05 MGD, per Pa code 25 §92a.61. This requirement will be applied from this permit term.

Flow Monitoring Requirement:
The requirement to monitor the volume of effluent will remain in the draft permit per 40 CFR § 122.44(i)(1)(ii).

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 the same as existing permit limits and will be carried over.

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)) which are existing limits and will be carried over.

Total Suspended Solids (TSS):
There is no water quality criterion for TSS. The existing limits of 25 mg/L average monthly and 50 mg/L instantaneous maximum will remain in the permit based on the minimum level of effluent quality attainable by secondary treatment, 25 Pa. Code § 92a.47 and 40CFR 133.102(b).

Total Residual Chlorine (TRC):
The existing permit has 0.5 mg/l as average monthly and 1.6 mg/l as IMAX. Since the discharge is into a dry stream, the requirements in dry stream guidance is applicable. Per dry stream guidance, *"if the design stream flow is zero or nearly zero, WQBELs for most pollutants, including toxics and ammonia, will be at or close to the criteria value. This is unavoidable under these unfavorable conditions."* However, a review of last 12 months DMR data indicated that the facility is barely meeting average monthly and IMAX limit. PADEP's SOP (BCW-PMT-033, revised March 24, 2021) stated that "For existing discharges, if the more stringent treatment requirements cannot be achieved, do not apply the standards in DEP guidance (391-2000-014, dry stream guidance) unless the receiving stream is impaired and the point source discharge contributes to the impairment". There is no reported chlorine related toxicity reported in the receiving stream or downstream of Outfall 001 and the impairment of the receiving stream is from acid mine drainage. Therefore, it is recommended that the existing limits will be carried over.

Best Professional Judgement (BPJ):
Total Nitrogen:
PADEP's SOP BCW-PMT-033 suggests monitoring requirement, at a minimum, for facilities with design flow greater than 2,000 GPD. This requirement is applied for all facilities meeting the flow criteria. This is an existing requirement and will be carried over.

Total Phosphorus:
PADEP's SOP BCW-PMT-033 suggests monitoring requirement, at a minimum, for facilities with design flow greater than 2,000 GPD. This requirement is applied for all facilities meeting the flow criteria. This is an existing requirement and will be carried over.

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)	0.02	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	Daily when Discharging	Grab
DO	XXX	XXX	5.0 Daily Min	XXX	XXX	XXX	Daily when Discharging	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	Daily when Discharging	Grab
CBOD5	XXX	XXX	XXX	10	XXX	20	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	Report Daily Max	XXX	XXX	1/year	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18.0	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6.0	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab

Compliance Sampling Location: At Outfall 001
Other Comments: None

COMMONWEALTH OF PENNSYLVANIA
Department of Environmental Protection
Southwest Regional Office
February 16, 2000
8-412-442-5219

SUBJECT: Point of First Use Survey
Little Traverse Creek
Green Township, Beaver County
Stream Code: 33680
SWP: 20D

TO: Karen Crowley
Sanitary Engineer
Water Management

FROM: Abbey Falcone AF
Water Pollution Biologist
Water Management

On January 18, 2000, Water Pollution Biologist Abbey Falcone conducted a point of first use survey on Little Traverse Creek in Beaver County. The objective of this survey was to determine the point in the stream where an aquatic use is first supported. The headwaters of the creek are below the Southside Area School property (see attached map). Despite indication on the map, the point marked Station 1 is the most upstream location with flowing, unfrozen water. Six taxa were recovered here. The most common was Gammarus followed by Perlodidae, Limnephilidae, Tipula, Asellus, and Oligochaeta. The presence of these macroinvertebrates indicates that the stream does constitute a use and, therefore, the permit limits should reflect this information.

cc: T. Proch
File

AF:kld

Permit No. PA0203696