pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0252654**
Facility Type	**Municipal**	APS ID	**838348**
Major / Minor	**Minor**	Authorization ID	**1359024**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Yough Sanitary Authority**	Facility Name	**Yough Sanitary Authority WWTP**
Applicant Address	PO Box 9	Facility Address	210 Front Street
	Dawson, PA 15428-0009		Dunbar, PA 15486
Applicant Contact	Francis Cricco	Facility Contact	Wayne Cable
Applicant Phone		Facility Phone	724-529-2120
Client ID	221345	Site ID	554137
Ch 94 Load Status	Not Overloaded	Municipality	Dunbar Township
Connection Status	No Limitations	County	Fayette
Date Application Received	June 8, 2021	EPA Waived?	Yes
Date Application Accepted	June 24, 2021	If No, Reason	

Purpose of Application: Application for renewal of an NPDES Permit for treated sewage.

Summary of Review

The permittee has applied for a renewal of NPDES Permit No. PA0047228. NPDES Permit No. PA0047228 was previously issued by the PA Department of Environmental Protection (DEP) on December 2, 2016 and expires on December 31, 2021.

Sewage from this facility is treated by mechanical screen, sequencing batch activated sludge reactor, final clarification, and UV disinfection prior to discharge into Dickerson Run.

The applicant is currently involved in and will continue to use eDMR.

Sludge produced at this facility is dewatered, hauled by County Hauling, and disposed of in the Westmoreland Sanitary Landfill.

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		Stephanie Conrad / Environmental Engineering Specialist	August 10, 2021
X		Christopher Kriley, P.E. / Environmental Program Manager	August 12, 2021

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.21
Latitude	40º 2' 44"	Longitude	-79º 39' 47"
Quad Name	Dawson	Quad Code	1808
Wastewater Description:	Sewage Effluent		
Receiving Waters	Youghiogheny River	Stream Code	37456
NHD Com ID	69917451	RMI	38.58
Drainage Area	1380	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)	460	Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	19-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	ORGANIC ENRICHMENT		
Source(s) of Impairment	ON-SITE TREATMENT SYSTEMS (SEPTIC SYSTEMS AND SIMILAR DECENTRALIZED SYSTEMS)		
TMDL Status		Name	

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

Nearest Downstream Public Water Supply Intake	Westmoreland County Municipal Authority-McKeesport		
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	34.5

Changes Since Last Permit Issuance:

Other Comments:

Treatment Facility Summary

Treatment Facility Name: Yough Sanitary Authority WWTP

WQM Permit No.	Issuance Date
2604404	December 16, 2004

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Sequencing Batch Reactors	Ultraviolet Radiation	0.064

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.21	370	Not Overloaded	Aerated digestion/belt filter press	Landfill

Changes Since Last Permit Issuance:

Other Comments:

Compliance History	
Summary of DMRs:	
Summary of Inspections:	

Other Comments: **Compliance report requested August 10, 2021**

Compliance History

DMR Data for Outfall 001 (from July 1, 2020 to June 30, 2021)

Parameter	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20
Flow (MGD) Average Monthly	0.04506	0.06746	0.05927	0.09207	0.08925	0.07361	0.07235	0.04982	0.04129	0.04353	0.04688	0.04563
Flow (MGD) Weekly Average	0.09360	0.12580	0.08625	0.39105	0.39105	0.35200	0.20840	0.09465	0.14800	0.13550	0.17240	0.14200
pH (S.U.) Minimum	6.5	6.8	6.8	6.4	6.7	6.4	6.8	6.4	6.4	6.5	6.5	6.1
pH (S.U.) Maximum	7.2	7.4	7.4	7.4	7.2	7.4	7.1	7.1	7.2	7.1	7.2	7.2
DO (mg/L) Instantaneous Minimum	4.0	4.0	4.2	4.1	4.8	4.0	4.8	5.1	4.8	4.2	4.2	4.0
CBOD5 (lbs/day) Average Monthly	0.8	2.1	0.9	1.3	1.8	1.1	1.0	1.1	0.6	1.2	1.3	1.1
CBOD5 (lbs/day) Weekly Average	0.9	2.7	1.1	1.5	4.1	1.6	1.6	1.8	0.6	2.4	2.2	2.4
CBOD5 (mg/L) Average Monthly	2.2	3.9	2.1	2.2	2.8	2.2	2.2	2.1	2.0	3.6	3.3	2.5
CBOD5 (mg/L) Weekly Average	2.7	5.8	2.3	2.6	5.1	2.4	2.7	2.6	2.0	8.5	5.1	3.9
BOD5 (lbs/day) Influent Average Monthly	66.3	95.8	68.6	93.5	86.1	98.0	57.8	108.6	55.8	77.6	79.0	143.7
BOD5 (lbs/day) Influent Weekly Average	77.5	121.0	83.0	121.2	99.1	143.4	88.8	184.2	63.1	114.0	105.2	337.5
BOD5 (mg/L) Influent Average Monthly	176.4	179.5	158.4	160.4	145.6	207.9	135.7	209.8	177.2	210.6	203.5	224.1
BOD5 (mg/L) Influent Weekly Average	227.8	247.8	216.1	210.6	212.2	345.0	192.8	264.2	204.2	276.7	240.0	285.0
TSS (lbs/day) Average Monthly	1.9	2.9	2.2	3.0	3.1	3.5	2.4	2.6	1.6	1.9	2.0	2.7
TSS (lbs/day) Influent Average Monthly	54.9	74.0	52.4	83.6	69.9	110.1	87.6	63.5	45.3	70.1	154.1	76.6

TSS (lbs/day) Influent Weekly Average	87.1	115.4	74.0	126.6	120.8	177.4	125.4	113.7	84.5	167.2	339.6	109.7
TSS (lbs/day) Weekly Average	2.2	5.0	2.5	3.4	4.0	6.9	3.9	3.9	1.6	2.4	2.4	5.9
TSS (mg/L) Average Monthly	5.0	5.0	5.0	5.0	5.0	7.3	5.0	5.0	5.0	5.0	5.0	5.0
TSS (mg/L) Influent Average Monthly	148.8	133.0	119.0	142.4	114.5	228.0	193.5	117.6	143.0	173.6	359.5	164.5
TSS (mg/L) Influent Weekly Average	256.0	56.0	152.0	220.0	152.0	328.0	272.0	152.0	260.0	352.0	710.0	344.0
TSS (mg/L) Weekly Average	5.0	5.0	5.0	5.0	5.0	14.0	5.0	5.0	5.0	5.0	5.0	5.0
Fecal Coliform (No./100 ml) Geometric Mean	2	11	4	6	43	19	6	4	3	3	5	1
Fecal Coliform (No./100 ml) Instantaneous Maximum			30	124	66	60	42	11	9			
UV Transmittance (%) Average Monthly	79	73	76	85	73	73	96	101	89	105	86	66
UV Transmittance (%) Weekly Average	124	110	124	123	123	91	173	127	144	143	126	82
Total Nitrogen (mg/L) Daily Maximum							3.3					
Ammonia (lbs/day) Average Monthly	0.1	1.4	0.1	0.2	0.3	0.1	0.1	0.2	0.1	0.1	0.5	0.9
Ammonia (lbs/day) Weekly Average	0.1	3.1	0.4	0.6	0.4	0.1	0.1	0.5	0.1	0.1	1.0	2.4
Ammonia (mg/L) Average Monthly	0.2	2.0	0.3	0.4	0.5	0.1	0.1	0.4	0.2	0.2	1.3	1.3
Ammonia (mg/L) Weekly Average	0.4	3.1	1.0	1.0	0.7	0.2	0.2	1.0	0.2	0.4	2.7	2.0
Total Phosphorus (mg/L) Daily Maximum							2.5					

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .21
Latitude 40º 2' 44" **Longitude** -79º 39' 47"
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)

Comments:

Water Quality-Based Limitations

Water Quality Analysis Modeling for CBOD5, DO, and Ammonia-Nitrogen is not necessary, and Federal Minimum Secondary Effluent Limitations will again be imposed due to the large dilution available in the Youghiogheny River. Q 7-10 flow of the Youghiogheny River at the point of discharge is 460 cfs. The instream to wasteflow dilution ration=total stream flow (460 cfs) / discharge flow (0.325 cfs)= 1,415/1.

WQBELs for DO, CBOD5, and Ammonia-Nitrogen will not be imposed on this facility during this permit cycle.

No limitations were determined through water quality modeling using the DEP toxics management spreadsheet (output file attached), and no WQBELSs for toxics will be imposed on this facility during this permit cycle.

Best Professional Judgment (BPJ) Limitations

A Dissolved Oxygen minimum limitation of 4.0 mg/L will be implemented based on the standard in 25 PA Code Chapter 93 and best professional judgement.

Anti-Backsliding

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on a BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402 (o) arises when a permittee seeks relaxation of an effluent limitation based upon a State treatment standard of water quality standard.
Previous limits can be used pursuant to EPA's ani-backsliding regulation 40 CFR 122.44 **(l) Reissued permits. (1) Except as provided in paragraph (1)(2) of this section when a permit is renewed or reissued. Interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or**

conditions in the previous permit (unless the circumstances on which the previous permit was based has materially ad substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.

The facility is no seeking to revise the previously permitted effluent limits.

Additional Considerations

Ultraviolet (UV) disinfection is used therefore Total Residual Chlorine (TRC) limits are not applicable. Routine monitoring of UV Intensity will be at the same monitoring frequency that is used for TRC.

Sewage discharges will include monitoring, at a minimum, for E. coli, in new and reissued permits, with a monitoring frequency of 1/quarter for design flows >= 0.05 and < 1 MGD per Chapter 92.a.61.

For pH and Dissolved Oxygen (DO), a monitoring frequency of 1/day has been imposed. In general, less frequent monitoring may be established only when the permittee demonstrates that there will be no discharge on days where monitoring is not required.

The receiving stream is not impaired for nutrients, therefore, annual sampling for nitrogen and phosphorus will be imposed per 25 PA Code §92a.6.

For POTWs with design flows greater than 2,000 GPD influent BOD_5 and TSS monitoring must be established in the permit, and the monitoring should be consistent with the same frequency and sample type as is used for other effluent parameters.

Monitoring frequency for the proposed effluent limits are based upon Table 6-3, Self-Monitoring Requirements for Sewage Dischargers, from the Departments Technical Guidance for the Development and Specification of Effluent Limitations. Please note that Monitoring Requirements were changed for Flow to 1/week Metered to be consistent with the guidance.

Mass Loading

Mass loading limits are applicable for publicly owned treatment works. Current policy requires average monthly mass loading limits be established for CBOD5, TSS, and NH_3-N and average weekly mass loading limits be established for CBOD5 and TSS. Average monthly mass loading limits (lbs/day) are based on the formula: design flow (MGD) x concentration limit (mg/L) x conversion factor (8.34).

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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Recorded
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
CBOD5	43.8	65.7	XXX	25	37.5	50	1/week	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report	XXX	Report	Report	XXX	1/week	8-Hr Composite
TSS	52.6	78.9	XXX	30	45	60	1/week	8-Hr Composite
TSS Raw Sewage Influent	Report	Report	XXX	Report	Report	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
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
UV Transmittance (%)	XXX	XXX	XXX	Report	Report	XXX	1/day	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	8-Hr Composite
Ammonia	Report	Report	XXX	25	Report	XXX	1/week	8-Hr Composite

Outfall 001, Continued (from 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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	8-Hr Composite

Compliance Sampling Location:

Other Comments: