Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0228338**
Facility Type	**Municipal**	APS ID	**1074332**
Major / Minor	**Minor**	Authorization ID	**1415300**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Union & Chapman Township Region Authority**	Facility Name	**Union Chapman Region Authority Sewer System STP**
Applicant Address	1510 McNess Road	Facility Address	Route 11/15
	Port Trevorton, PA 17864-9422		Port Trevorton, PA 17864
Applicant Contact	Michael Keller	Facility Contact	Michael Keller
Applicant Phone	(570) 374-1919	Facility Phone	
Client ID	146538	Site ID	540543
Ch 94 Load Status	Not Overloaded	Municipality	Union Township
Connection Status	No Limitations	County	Snyder
Date Application Received	October 24, 2022	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application .

Summary of Review

The above applicant has submitted an NPDES renewal application for their existing 0.077 MGD discharge of treated sewage effluent to the Susquehanna River. The treatment plant serves Chapman Township and Union Township in Snyder County.

Unless otherwise noted, all of the Department's applicable Standard Operating Procedures (SOPs) were used in developing the following fact sheet. It is recommended the permit be drafted and published in the PA Bulletin for the required 30-day comment period.

Sludge use and disposal description and location(s): Sludge is processed onsite using the existing sludge digester and then is hauled off site to either Kelly Township WWTP, Ralpho Township STP, or Milton Regional Authority 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
X		*Chad A. Fabian* Chad A. Fabian / Project Manager	March 25, 2025
X		*Nicholas W. Hartranft, P.E.* Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	March 26, 2025

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.077
Latitude	40º 41' 51.06"	Longitude	-76º 52' 21.80"
Quad Name	n/a	Quad Code	n/a
Wastewater Description:	Sewage Effluent		
Receiving Waters	Susquehanna River	Stream Code	06685
NHD Com ID	54969841	RMI	112.2
Drainage Area	19026 mi^2	Yield (cfs/mi^2)	0.06
Q_{7-10} Flow (cfs)	1125	Q_{7-10} Basis	Previous stream delineation
Elevation (ft)	425	Slope (ft/ft)	n/a
Watershed No.	6-A	Chapter 93 Class.	WWF, MF
Existing Use	WWF, MF	Existing Use Qualifier	n/a
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	Mercury and PCBs		
Source(s) of Impairment	Unknown		
TMDL Status	Final	Name	Susquehanna River
Nearest Downstream Public Water Supply Intake	United Water PA near Daulphin, PA approximately 34 miles downstream		

Changes Since Last Permit Issuance: None

Other Comments: The TMDL for PCBs does not provide WLA for source impairments. PCBs are believed to be introduced to the Susquehanna River through contact with previously contaminated soil within the watershed. Based on the size of the facility and no industrial users, the facility is not expected to contribute to the PCBs or mercury impairment.

Treatment Facility Summary

Treatment Facility Name: Union Chapman Region Authority Treatment Facility

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	SBR	Ultraviolet	0.077

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.077	183	Not Overloaded	N/A	Hauled offsite to WWTP

Changes Since Last Permit Issuance: None

Other Comments: The treatment plant is a Sequencing Batch Reactor (SBR) system that consists of an influent box, comminutor, bar screen, two (2) SBR reactors, Ultraviolet (UV) disinfection, and an outfall. Sludge is processed onsite using the existing sludge digester and then is hauled off site to either Kelly Township WWTP, Ralpho Township STP, or Milton Regional Authority WWTP.

Compliance History	
Summary of DMRs:	A review of the eDMRs show no effluent violations in the previous 12 months. The following page has the previous 12 months of effluent results.
Summary of Inspections:	The most recent inspection uploaded to WMS is from 4/7/2023. No violations were found during the inspection.

Other Comments: None.

Compliance History

DMR Data for Outfall 001 (from February 1, 2024 to January 31, 2025)

Parameter	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24
Flow (MGD) Average Monthly	0.009	0.01	0.009	0.01	0.0109	0.013	0.012	0.011	0.013	0.021	0.018	0.013
Flow (MGD) Daily Maximum	0.013	0.019	0.014	0.015	0.0281	0.044	0.027	0.019	0.035	0.084	0.047	0.029
pH (S.U.) Daily Minimum	6.23	6.27	6.39	6.31	6.34	6.62	6.38	6.62	6.67	6.6	6.39	6.08
pH (S.U.) Daily Maximum	6.99	6.61	6.73	7.16	6.95	7.81	6.82	7.09	7.1	7.12	7.1	6.89
DO (mg/L) Daily Minimum	1.31	1.81	1.92	1.42	1.3	1.88	1.23	1.88	1.69	1.4	3.44	3.49
CBOD5 (lbs/day) Average Monthly	< 0.3	< 0.4	< 0.4	< 0.3	< 0.3	< 0.3	< 0.4	< 0.4	< 0.3	2	< 0.5	< 0.4
CBOD5 (lbs/day) Weekly Average	0.3	< 0.4	0.5	< 0.4	0.3	< 0.4	0.6	< 0.5	< 0.4	3	< 0.5	0.6
CBOD5 (mg/L) Average Monthly	< 3	< 3	< 4	< 3	< 3	< 3	< 4	< 3	< 3	5	< 4	< 4
CBOD5 (mg/L) Weekly Average	3	4	4	< 3	3	< 3	5	< 3	< 3	6	4	5
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	18	21	20	19	12	13	19	24	21	55	21	22
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	24	21	21	26	12	15	27	35	24	87	25	24
BOD5 (mg/L) Raw Sewage Influent Average Monthly	214	201	198	187	141	122	169	181	189	178	170	218
TSS (lbs/day) Average Monthly	< 0.3	< 0.2	0.2	< 0.2	< 0.2	< 0.3	< 0.2	< 0.2	< 0.2	2	< 0.5	0.4
TSS (lbs/day) Raw Sewage Influent Average Monthly	10	11	17	16	7	8	18	19	15	40	17	15
TSS (lbs/day) Raw Sewage Influent Daily Maximum	13	13	20	22	10	11	30	32	22	65	19	15
TSS (lbs/day) Weekly Average	0.4	< 0.2	0.2	< 0.2	0.3	0.3	< 0.2	< 0.3	< 0.2	3	0.9	0.5

TSS (mg/L) Average Monthly	< 3	< 2	2	< 2	< 2	< 3	< 2	< 2	< 2	5	< 3	4
TSS (mg/L) Raw Sewage Influent Average Monthly	116	108	159	149	84	88	150	131	130	123	140	151
TSS (mg/L) Weekly Average	4.0	2	2	2	3	4.0	< 2	< 2	< 2	7	5	4
Fecal Coliform (No./100 ml) Geometric Mean	< 3	< 3	< 10	< 18	< 1	< 5	< 1	< 1	< 1	< 1	< 1	< 1
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 10	< 10	< 10	325.5	< 1	20.9	< 1	< 1	< 1	< 1	< 1	1
UV Intensity (µw/cm²) Daily Minimum	0.1	E	E	E	5100	4900	1100	3000	3300	3000	3000	2600
Total Nitrogen (mg/L) Annual Average		< 19.27										
Total Phosphorus (mg/L) Annual Average		4.4										

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .077
Latitude 40º 42' 23.00" **Longitude** -76º 51' 56.00"
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)

Comments: None

Water Quality-Based Limitations

The Department's WQM7.0 model allows the Department to evaluate point source discharges of dissolved oxygen (DO), carbonaceous BOD (CBOD5), and ammonia-nitrogen (NH3-N) into free-flowing streams and rivers. To accomplish this, the model simulates two basic processes: the mixing and degradation of NH3-N in the stream and the mixing and consumption of DO in the stream due to the degradation of CBOD5 and NH3-N. WQM7.0 modeling was previously performed for the discharge to the Susquehanna River. No changes to the receiving water body have occurred. Additionally, no changes to the characteristics of the discharge have changed. Therefore, due to the extreme dilution ratio of the river to the discharge no additional WQM7.0 modeling was performed.

A "Reasonable Potential Analysis" was not performed since the facility is not required to test for toxics due to the low flow design of the discharge and lack of industrial contributors.

Chesapeake Bay Nutrient Requirements

According to the Department's Chesapeake Bay Watershed Implementation Plan (WIP) supplemental, the facility is classified as a Phase 5 discharger and was subject to 1/year monitoring for total nitrogen and total phosphorus for one permit cycle. The facility has been sampling for total nitrogen and total phosphorus since the last permit issuance. As identified in the table above the most recent results for total nitrogen and total phosphorus at <19.7 mg/l and <4 mg/l, respectively. Therefore, no additional sampling for total nitrogen or total phosphorus is proposed in this draft permit.

Best Professional Judgment (BPJ) Limitations

The existing permit has pH and UV monitoring of 5/week. Based on the compliance history of the facility and the significant dilution ratio, I recommend maintaining the same monitoring frequencies as the existing permit.

Anti-Backsliding

There is not any relaxation of limitations associated with this draft 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" (386-0400-001), 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	Daily Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	9.0	XXX	5/week	Grab
DO	XXX	XXX	Report	XXX	XXX	XXX	5/week	Grab
CBOD5	16	26	XXX	25	40 Wkly Avg	50	2/month	Grab
TSS	19	29	XXX	30	45 Wkly Avg	60	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
UV Intensity (µw/cm²)	XXX	XXX	Report	XXX	XXX	XXX	5/week	Metered
Raw Influent TSS	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Raw Influent BOD_5	XXX	XXX	XXX	XXX	Report	XXX	2/month	Grab

Compliance Sampling Location: 001

Other Comments: Raw influent sampling for BOD5 and TSS are included to fulfill the Department's Chapter 94 requirements.

It is recommended the permit be drafted as described herein.