

Application Type

Renewal

Facility Type

Non-Municipal

Major / Minor

Minor

Application No.

PA0030929

APS ID

1116499

Authorization ID

1489910

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Applicant and Facility Information

Applicant Name	PA Department of Human Services	Facility Name	Torrance St Hospital STP
Applicant Address	2525 N. 7 th Street, CoPA HUB, Suite 150	Facility Address	121 Longview Drive
	Harrisburg, PA 17110-2511		Torrance, PA 15779
Applicant Contact	Carl Rundquist	Facility Contact	Larry Volpato
Applicant Phone	717-772-2088	Facility Phone	(724) 459-4597
Client ID	51700	Site ID	249476
Ch 94 Load Status	Not Overloaded	Municipality	Derry Township
Connection Status		County	Westmoreland
Date Application Received	May 3, 2024	EPA Waived?	Yes
Date Application Accepted		If No, Reason	
Purpose of Application	Permit renewal		

Summary of Review

The permittee has applied for a renewal of NPDES Permit No. PA0030929. NPDES Permit No. PA0030929 was previously issued by the PA Department of Environmental Protection (DEP) on October 7, 2019.

The existing plant consists of the following: an influent flow meter, 1 comminutor, 1 auger, 1 bypass bar screen, 3 primary clarifiers (Imhoff tanks), 1 dosing tank, 1 trickling filter, 1 final clarifier, 1 chlorinator, 1 chlorine contact tank and 1 de-chlorinator.

There is no digester/sludge holding tank at this plant; the 3 primary clarifiers and final clarifier are periodically pumped out to remove sludge.

Design of a new 0.5 mgd ADF treatment plant (SBR process) is currently underway; coordinating with Derry Township stakeholder for financing.

Magnesium Hydroxide (raise alkalinity), Sodium Hypochlorite (disinfection) and Sodium Bi-sulfite (De-chlorination) are listed as wastewater treatment chemicals.

eDMR review shows a few effluent limit violations in the past year. DEP inspection was conducted on 3/14/2024. Inspection report mentioned the following non compliances: (i) Owner failed to notify DEP within 10 days when the available operators or OIC changed (ii) Failure to monitor pollutants as required by the NPDES permit.

Approve	Deny	Signatures	Date
X		<i>Sara Abraham</i> Sara Reji Abraham, E.I.T. / Project Manager	July 23, 2024
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	08/05/2024

Summary of Review

According to the Operations Section there are no open violations in the system and it is not necessary to hold the permit issuance.

Sludge use and disposal description and location(s): Sludge produced from this STP is always hauled by McCutcheon Enterprises Inc. They either take the sludge to a larger wastewater facility or use their own 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.

Act 14 Notifications:

Derry Township - March 18, 2024
Westmoreland County - March 15, 2024

Permit Conditions:

- A. No Stormwater
- B. Acquire Necessary Property Rights
- C. Proper Sludge Disposal
- D. Abandon STP When Municipal Sewers Available
- E. Chlorine Optimization
- F. Operator Notification
- G. Solids Management

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.8
Latitude	40° 24' 21.62"	Longitude	-79° 14' 59.24"
Quad Name	Bolivar	Quad Code	1512
Wastewater Description:	Treated Sewage Effluent		
Receiving Waters	Unnamed Tributary to McGee Run (CWF) (also known as Tannery Hollow)		
NHD Com ID	123714557	Stream Code	44720
Drainage Area	*1.3	RMI	0.47
Q ₇₋₁₀ Flow (cfs)	0.065	Yield (cfs/mi ²)	0.050
Elevation (ft)	~ 620 feet	Q ₇₋₁₀ Basis	Bulletin 12, page 372, station #03042200, Little Yellow Creek near Strongstown, PA
Watershed No.	18-D	Chapter 93 Class.	CWF
Existing Use	Tannery Hollow	Existing Use Qualifier	
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	Siltation		
Source(s) of Impairment	Acid mine drainage, Agriculture		
TMDL Status	Final, 01/29/2010	Name	Kiskiminetas-Conemaugh River Watersheds TMDL
Nearest Downstream Public Water Supply Intake		Municipality Authority of Buffalo Twp	

* Bulletin 6 indicates the DA of "Tannery Hollow" is 1.44 mi². The incremental DA from the mouth of "Tannery Hollow" to the outfall pipe is ~ 0.14 mi². (from previous fact sheet)

Treatment Facility Summary				
Treatment Facility Name: Torrance St Hospital STP				
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Trickling Filter	Liquid Sodium Hypochlorite	0.8
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.8	1335*	Not Overloaded	None	Hauled for further treatment

Changes Since Last Permit Issuance: None

*A review of the microfiche files to locate WQM Permit No. 7089 to determine the design organic capacity was unsuccessful. Based on an assumed organic design of 200 mg/l, the organic capacity is 0.8 mgd x 200 mg/l x 8.345 = 1335 lbs./day – from previous fact sheet.

Compliance History

DMR Data for Outfall 001 (from May 1, 2023 to April 30, 2024)

Parameter	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23
Flow (MGD) Average Monthly	1.11	0.211	0.071	0.1565	0.073	0.071	0.058	0.047	0.083	0.072	0.06	0.062
pH (S.U.) Instantaneous Minimum	7.0	6.1	6.0	6.1	6.0	6.1	6.0	6.0	6.2	6.2	6.3	6.5
pH (S.U.) Instantaneous Maximum	7.6	7.6	6.4	7.1	6.3	6.87	6.3	6.3	6.5	6.8	6.8	7.2
DO (mg/L) Instantaneous Minimum	6.6	6.5	7.4	7.1	10.4	9.6	7.2	6.2	6.9	6.8	7.1	7.0
TRC (mg/L) Average Monthly	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
TRC (mg/L) Instantaneous Maximum	0.001	0.03	0.001	0.001	0.001	0.001	0.001	0.001	0.02	0.02	0.01	0.001
CBOD5 (mg/L) Average Monthly	< 2.0	5.0	5.0	< 15.0	3.0	6.0	2.0	2.0	< 2.0	2.0	3.0	5.0
CBOD5 (mg/L) Weekly Average	4.0	5.0	8.0	34.0	4.0	18.0	2.0	2.0	3.0	2.0	6.0	6.0
CBOD5 (mg/L) Instantaneous Maximum	3.61	5.40	7.79	34.0	8.76	10.5	5.42	2.0	2.89	2.4	6.04	5.7
TSS (mg/L) Average Monthly	20.0	12.0	7.0	13.0	5.0	8.0	6.0	9.0	10.0	10.0	21.0	12.0
TSS (mg/L) Weekly Average	41.0	18.0	7.0	25.0	7.0	20.0	4.0	11.0	15.0	10.0	34.0	15.0
TSS (mg/L) Instantaneous Maximum	41.0	18.0	14.0	25.0	18.0	12.0	20.0	11.0	15.0	13.0	34.0	15.0
Fecal Coliform (No./100 ml) Geometric Mean	< 55	< 12	< 17	> 79.0	< 8	< 67	< 13	< 16	< 40	23.0	< 54	< 11

NPDES Permit Fact Sheet
Torrance St Hospital

NPDES Permit No. PA0030929

Fecal Coliform (No./100 ml) Instantaneous Maximum	9208	20	86	> 24200	< 10	19860	31	63	10460	97.0	1607	20
Total Nitrogen (mg/L) Daily Maximum					18.9							
Ammonia (mg/L) Average Monthly	0.555	0.726	0.902	< 5.535	0.8	0.5	< 0.400	< 0.4	< 0.400	< 0.400	1.009	< 0.673
Ammonia (mg/L) Instantaneous Maximum	0.684	1.21	1.64	17.4	2.7	2.26	< 0.400	< 0.4	< 0.400	< 0.400	2.69	1.04
Total Phosphorus (mg/L) Daily Maximum					4.0							
Total Aluminum (mg/L) Daily Maximum					0.034							
Total Iron (mg/L) Daily Maximum					0.142							
Total Manganese (mg/L) Daily Maximum					0.015							
Bromide (mg/L) Daily Maximum					< 0.100							

Compliance History

Effluent Violations for Outfall 001, from: June 1, 2023 To: April 30, 2024

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Flow	04/30/24	Avg Mo	1.11	MGD	.8	MGD
Fecal Coliform	01/31/24	Geo Mean	> 79.0	No./100 ml	2000	No./100 ml
Fecal Coliform	06/30/23	IMAX	1607	No./100 ml	1000	No./100 ml
Fecal Coliform	08/31/23	IMAX	10460	No./100 ml	1000	No./100 ml
Fecal Coliform	11/30/23	IMAX	19860	No./100 ml	10000	No./100 ml

NPDES Permit Fact Sheet
Torrance St Hospital

NPDES Permit No. PA0030929

Fecal Coliform	01/31/24	IMAX	> 24200	No./100 ml	10000	No./100 ml
Ammonia	01/31/24	Avg Mo	< 5.535	mg/L	3.5	mg/L
Ammonia	01/31/24	IMAX	17.4	mg/L	7.0	mg/L

Development of Effluent Limitations

Outfall No. 001
Latitude 40° 24' 22.00"
Wastewater Description: Treated Sewage Effluent

Design Flow (MGD) .8
Longitude -79° 14' 59.00"

The effluent limitations contained in the previous NPDES permit were re-imposed in this renewal permit. It was not necessary to re-evaluate the existing effluent limitations because no additional treatment plants have been constructed along the stream to cause an allocation to occur with the Torrance State Hospital STP.

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)

* Existing TRC limit is carried over to the draft permit.

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
NH3-N (May 1 – Oct 31)	2.0	Ave Monthly	WQAM63*
NH3-N (Nov 1 – Apr 30)	3.5	Ave Monthly	WQAM63*
Total Residual Chlorine	0.03	Ave Monthly	TRC_CALC (existing)
Dissolved Oxygen	6.0	Minimum	WQAM63*

*Limits are based on previous WQMAM63 model run. The output files could not be located.

Anti-Backsliding

N/A

- E. Coli monitoring is included in the draft permit according to the DEP SOP guidance (Chapter 92.a.61). This is a new requirement and is consistent with the requirements of other similar discharges in the area.
- Mass loading limits and influent monitoring are not applicable for non-publicly owned treatment works and will once again not be established in the permit.

- There is a TMDL for metals in the Kiskiminetas River watershed. The contribution for metals from a sewage plant of this nature is expected to be less than water quality criteria and therefore not contributing to stream impairment. 1/year monitoring for the Total Aluminum, Total Manganese, and Total Iron parameters are continued in the draft permit similar to the existing permit. Review of the past results show no concern.
- The maximum concentration of TDS in the discharge is reported as 434 mg/l (which is less than the PWS criteria of 500 mg/L). There is no applicable requirement for TDS to be included in the draft permit similar to the existing permit.
- The maximum Bromide concentration in the discharge is reported as 0.805 mg/l and the existing 1/year monitoring for Bromide is continued in the 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	Average Weekly	Average Monthly	Weekly Average	Maximum	Instant. Maximum		
Flow (MGD)	0.8	XXX	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	6.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	0.03	XXX	XXX	0.09	1/day	Grab
CBOD5	XXX	XXX	25.0	40.0	XXX	50.0	1/week	8-Hr Composite
TSS	XXX	XXX	30.0	45.0	XXX	60.0	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
Total Nitrogen	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	8-Hr Composite
Ammonia Nov 1 - Apr 30	XXX	XXX	3.5	XXX	XXX	7.0	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	Average Weekly	Average Monthly	Weekly Average	Maximum	Instant. Maximum		
Ammonia May 1 - Oct 31	XXX	XXX	2.0	XXX	XXX	4.0	1/week	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	8-Hr Composite
Total Aluminum	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	8-Hr Composite
Total Iron	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	8-Hr Composite
Total Manganese	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	8-Hr Composite
Bromide	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	8-Hr Composite

