pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0030929**
Facility Type	**Non-Municipal**	APS ID	**505796**
Major / Minor	**Minor**	Authorization ID	**1259318**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	PA Dept of Human Services	Facility Name	Torrance St Hospital
Applicant Address	3 Ginko Drive, Hilltop Building #52	Facility Address	PO Box 111, State Route 1014
	Harrisburg, PA 17110		Torrance, PA 15779-0111
Applicant Contact	Milind Desai	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	December 5, 2017	EPA Waived?	Yes
Date Application Accepted	January 25, 2019	If No, Reason	

Purpose of Application: Permittee requesting renewal of NPDES permit PA0030929.

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 May 29, 2013. That permit expired on May 31, 2018.

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		David R. Ponchione / Project Manager /s/	June 25, 2019
x		Donald J. Leone, P.E. / Environmental Engineer Manager /s/	June 26, 2019

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.8
Latitude	40° 24’ 22.00”	Longitude	79° 14’ 59.00”
Quad Name	Bolivar	Quad Code	1512
Wastewater Description:	Domestic sewage		
Receiving Waters	UNT of McGee Run also known as “Tannery Hollow”	Stream Code	44720
NHD Com ID	123714557	RMI	0.47
Drainage Area	*1.3	Yield (cfs/mi^2)	0.050
Q_{7-10} Flow (cfs)	0.065	Q_{7-10} Basis	Bulletin 12, page 372, station #03042200, Little Yellow Creek near Strongstown, PA
Elevation (ft)	~ 620 feet	Slope (ft/ft)	
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	Abandoned 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 mi^2. The incremental DA from the mouth of “Tannery Hollow” to the outfall pipe is ~ 0.14 mi^2.

Changes Since Last Permit Issuance: None

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	0.107
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.8	(1) 1335	Not Overloaded	None	Hauled for further treatment

Upgrades listed in WQM Permit No. 7089 A-1 issued on October 21, 2010 were completed in 2017.

The existing plant consists of:

- an influent flow meter
- 1 comminutor
- 1 auger
- 1 bypass par screen
- 3 primary clarifiers (Imhoff tanks)
- 1 dosing tank
- 1 trickling filter
- 1 final clarifier
- 1 chlorinator
- 1 chlorine contact tank
- 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.

(1) The organic capacity is not listed in the application. 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.

Compliance History

DMR Data for Outfall 001 (from May 1, 2018 to April 30, 2019)

Parameter	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18	AUG-18	JUL-18	JUN-18	MAY-18
Flow (MGD) Average Monthly	0.141	0.106	0.195	0.133	0.150	0.16	0.155	0.175	0.097	0.091	0.12	0.124
Flow (MGD) Daily Maximum	0.293	0.153	0.562	0.282	0.284	0.285	0.276	0.612	0.199	0.149	0.443	0.197
pH (S.U.) Minimum	6.4	6.2	6.4	6.2	6.3	6.4	6.5	6.4	6.2	6.2	6.3	6.2
pH (S.U.) Maximum	6.7	6.6	6.8	6.6	6.9	6.8	6.9	7.0	6.7	6.6	6.9	6.9
DO (mg/L) Minimum	7.0	7.8	8.2	8.2	8.2	7.9	6.8	6.0	6.0	6.0	6.1	6.2
TRC (mg/L) Average Monthly	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.01	0.01	0.01	0.01
TRC (mg/L) Instantaneous Maximum	0.04	0.04	0.04	0.04	0.04	0.04	0.06	0.06	0.05	0.05	0.07	0.08
CBOD5 (mg/L) Average Monthly	6	< 8	5.4	< 4	5	7	5	4	8	< 5	6	10
CBOD5 (mg/L) Weekly Average	6	< 8	5.4	< 4	7	14	8	5	9	5	8	29
TSS (mg/L) Average Monthly	5	< 5	6.25	5	< 5	< 5	8	< 7	< 5	4	5	8
TSS (mg/L) Weekly Average	5	< 5	6.25	5	< 5	< 5	20	8	< 5	7	5	18
Fecal Coliform (CFU/100 ml) Geometric Mean	< 21	< 84	236	51	< 150	382	< 46	124	< 62	234	40	117
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	389	1725	2442	1724	4884	862	1935	1497	1842	862	180	1538
Total Nitrogen (mg/L) Daily Maximum					16.4							
Ammonia (mg/L) Average Monthly	< 0.8	< 1.23	1.54	< 1.82	< 1.74	< 1.09	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Total Phosphorus (mg/L) Daily Maximum					2.86							

Operations Compliance Check Summary Report

Facility: Torrance State Hospital STP

NPDES Permit No.: PA0030929

Compliance Review Period: 6/1/2014 – 6/24/2019

Inspection Summary:

INSPECTED DATE	INSP TYPE	AGENCY	INSPECTION RESULT DESC
03/15/2019	Compliance Evaluation	PA Dept of Environmental Protection	No Violations Noted
08/29/2017	Compliance Evaluation	PA Dept of Environmental Protection	No Violations Noted
01/07/2016	Compliance Evaluation	PA Dept of Environmental Protection	No Violations Noted

Violation Summary:

No violations found.

Open Violations by Client ID:

Open violations for client ID 51700. Violations are from other regions and can't be closed by this office.

Enforcement Summary:

No enforcements

DMR Violation Summary:

MONITORING START DATE	MONITORING END DATE	PARAMETER	SAMPLE VALUE	PERMIT VALUE	UNIT OF MEASURE	STATISTICAL BASE CODE
09/01/2018	09/30/2018	Fecal Coliform	1497	1000	CFU/100 ml	Instantaneous Maximum
08/01/2018	08/31/2018	Fecal Coliform	1842	1000	CFU/100 ml	Instantaneous Maximum
07/01/2018	07/31/2018	Fecal Coliform	234	200	CFU/100 ml	Geometric Mean
05/01/2018	05/31/2018	Fecal Coliform	1538	1000	CFU/100 ml	Instantaneous Maximum
01/01/2018	01/31/2018	Ammonia-Nitrogen	4.55	3.5	mg/L	Average Monthly
12/01/2017	12/31/2017	Total Residual Chlorine (TRC)	2.20	0.09	mg/L	Instantaneous Maximum
12/01/2017	12/31/2017	Total Residual Chlorine (TRC)	0.15	0.03	mg/L	Average Monthly
07/01/2017	07/31/2017	Fecal Coliform	17820	1000	CFU/100 ml	Instantaneous Maximum
07/01/2017	07/31/2017	Dissolved Oxygen	5.8	6.0	mg/L	Minimum
06/01/2017	06/30/2017	Fecal Coliform	24200	1000	CFU/100 ml	Instantaneous Maximum
06/01/2017	06/30/2017	Fecal Coliform	989.16	200	CFU/100 ml	Geometric Mean
06/01/2017	06/30/2017	Ammonia-Nitrogen	2.44	2.0	mg/L	Average Monthly
05/01/2017	05/31/2017	Fecal Coliform	225	200	CFU/100 ml	Geometric Mean
05/01/2017	05/31/2017	Fecal Coliform	2420	1000	CFU/100 ml	Instantaneous Maximum
12/01/2016	12/31/2016	Ammonia-Nitrogen	4.02	3.5	mg/L	Average Monthly
10/01/2016	10/31/2016	Ammonia-Nitrogen	2.455	2.0	mg/L	Average Monthly
01/01/2016	01/31/2016	Ammonia-Nitrogen	6.14	3.5	mg/L	Average Monthly

11/01/2015	11/30/2015	Ammonia-Nitrogen	5.90	3.5	mg/L	Average Monthly
02/01/2015	02/28/2015	Ammonia-Nitrogen	7.53	3.5	mg/L	Average Monthly
01/01/2015	01/31/2015	Ammonia-Nitrogen	5.84	3.5	mg/L	Average Monthly

Compliance Status:

DMR exceedances will be addressed during the next inspection. Current guidance is to generally not issue NOV's to state entities. Permittee is in compliance.

Completed by: John Murphy

Completed date: 6/24/19

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .8
Latitude 40º 24' 22.00" **Longitude** -79º 14' 59.00"
Wastewater Description: Sewage Effluent

The effluent limitations contained in the previous NPDES permit were re-imposed in this renewal permit. It was unnecessary 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)

Water Quality-Based Limitations

The following limitations were determined through water quality modeling (output files could not be located):

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
Dissolved Oxygen	6.0	Minimum	WQAM63

The following modifications have been made to be consistent with current DEP policy:

- Daily sampling is now required for pH, Dissolved Oxygen (DO) and Total Residual Chlorine (TRC) to provide minimum assurance the facility is being operated properly. An explanation why increased monitoring is imposed is explained to the permittee in the draft cover letter. Page 5 of 9 of an inspection report on file dated August 29, 2017 states an operator checks the plant on weekends and holidays, therefore daily sampling should not be an issue.
- Effluent limitations for pH and DO are to be reported as “Instantaneous Minimum” in lieu of “Minimum”.
- The units for Fecal Coliform are now “No./100 ml” in lieu of “CFU/100 ml”.
- 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 will be imposed on the Total Aluminum, Total Manganese, and Total Iron parameters because plant flows are between 0.002 mgd up to 0.499 mgd. If plant flows were greater than 0.499 mgd quarterly monitoring would be listed in the permit. Monitoring is required to establish data to ensure there are no impacts on the quality of the receiving stream.
- Total Dissolved Solids (TDS) and its major constituents including sulfate, chloride, and bromide have emerged as pollutants of concern in several major watersheds in the Commonwealth. The conservative nature of these solids allows them to accumulate in surface waters and they may remain a concern even if the immediate downstream public water supply is not directly impacted. Bromide has been linked to the formation of disinfection byproducts

at increased levels in public water systems. Because of actions associated with Triennial Review 13, the Environmental Quality Board has directed DEP to collect additional data. A facility with a design flow greater than or equal to 0.1 mgd are required to report at least one sample analyzed for these parameters. The application reports 3 samples were taken for TDS, sulfate, chloride, and bromide. The permit includes additional monitoring for bromide because the concentration of bromide exceeds 1 mg/l (reported as an average of 1.15 mg/l). The concentration of TDS in the discharge does not exceed 1,000 mg/L (reported as an average 388 mg/l), and the net TDS load from the discharge does not exceed 20,000 lbs/day, therefore no additional monitoring is required for TDS.

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	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
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
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

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		
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

Compliance Sampling Location: Outfall 001