

Application Type Renewal
 Facility Type Non-Municipal
 Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0030431
 APS ID 1019857
 Authorization ID 1320507

Applicant and Facility Information

Applicant Name	<u>Fox Valley Comm Services Inc.</u>	Facility Name	<u>Fox Valley STP</u>
Applicant Address	<u>PO Box 462</u> <u>Chester Heights, PA 19017-0462</u>	Facility Address	<u>132 Pole Cat Road</u> <u>Glen Mills, PA 19342</u>
Applicant Contact	<u>Dennis Zane</u>	Facility Contact	<u>Brian Norris</u>
Applicant Phone	<u>(610) 755-5782</u>	Facility Phone	<u>(610) 633-8009</u>
Client ID	<u>44127</u>	Site ID	<u>452815</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Concord Township</u>
Connection Status		County	<u>Delaware</u>
Date Application Received	<u>July 7, 2020</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted		If No, Reason	
Purpose of Application	<u>Permit renewal.</u>		

Summary of Review

The applicant requests renewal of an NPDES permit to discharge treated sewage from Fox Valley STP.

The STP consists of influent duplex pump station, bar screen, aerated flow equalization, extended aeration, clarification, disinfection, dechlorination, effluent flow metering, aerated sludge holding, digestion and phosphorus removal by chemical addition.

The sewage sludge is disposed by hauling away to other WWTP.

DMR review shows the discharge is in compliance with the effluent limits most of the times. The previous inspection report shows the facility is operating well.

There are no changes in the flow, stream designation, treatment units, influent characteristics etc. The receiving stream is not currently listed as impaired for nutrients. There are no industrial wastewater contributors connected to the facility and no expectations for future development or service connections to occur. The existing limits are recommended for the new permit.

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

Approve	Deny	Signatures	Date
X		<i>Sara Abraham</i> Sara Reji Abraham, E.I.T. / Project Manager	August 28, 2020
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	08/28/2020

Summary of Review

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:

Concord Township	-	June 5, 2020
Delaware County	-	June 8, 2020

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. Collection System Maintenance
- H. Fecal Coliform Reporting
- I. Operation and Maintenance Plan
- J. Solids Management

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.074
Latitude	39° 53' 18.98"	Longitude	-75° 29' 40.89"
Quad Name	Media	Quad Code	1942
Wastewater Description: Treated Sewage Effluent			
Receiving Waters	West Branch Chester Creek (TSF, MF)	Stream Code	00542
NHD Com ID	25607125	RMI	4.65
Drainage Area	10.74 mi ²		
Q ₇₋₁₀ Flow (cfs)	1.95	Q ₇₋₁₀ Basis	Previous fact sheet
Watershed No.	3-G	Chapter 93 Class.	TSF, MF
Assessment Status	Impaired		
Cause(s) of Impairment	cause unknown, flow regime modification, habitat alterations, siltation		
Source(s) of Impairment	habitat modification - other than hydromodification, urban runoff/storm sewers		
TMDL Status	None		

Treatment Facility Summary				
Treatment Facility Name: Fox Valley STP				
WQM Permit No.	Issuance Date			
2396406	03-06-1997			
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Hypochlorite	0.074
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.074		Not Overloaded		

Compliance History

DMR Data for Outfall 001 (from June 1, 2019 to May 31, 2020)

Parameter	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19
Flow (MGD) Average Monthly	0.06583	0.06966 0	0.06087 0	0.06388 0	0.06553 0	0.07170	0.05446 0	0.05376 0	0.04850	0.05189 0	0.05781 0	0.07266 0
Flow (MGD) Daily Maximum	0.08390	0.10170	0.08970	0.07610	0.10030	0.0986	0.07140	0.10160	0.06000	0.08180	0.07140	0.10180
pH (S.U.) Instantaneous Minimum	6.54	6.49	6.25	6.64	6.75	6.44	6.80	6.80	6.76	6.72	6.75	6.80
pH (S.U.) Instantaneous Maximum	6.94	6.93	6.94	7.16	7.39	7.31	7.36	8.85	7.03	7.10	7.25	7.29
DO (mg/L) Instantaneous Minimum	7.0	6.4	6.3	6.5	6.5	6.1	6.0	5.1	5.0	5.0	5.0	5.1
DO (mg/L) Average Monthly	7.36	7.32	7.59	7.49	7.61	7.49	6.72	6.08	5.41	5.95	5.66	6.21
TRC (mg/L) Average Monthly	0.091	0.090	0.062	0.064	0.075	0.068	0.058	0.032	0.033	0.028	0.030	0.031
TRC (mg/L) Instantaneous Maximum	0.20	0.20	0.23	0.19	0.22	0.18	0.23	0.09	0.05	0.05	0.09	0.11
CBOD5 (lbs/day) Average Monthly	1.29	1.92	< 1.74	2.7	< 1.09	12.66	< 1.33	< 0.89	< 0.68	< 1.07	< 2.88	< 1.1
CBOD5 (mg/L) Average Monthly	2.4	2.9	< 4	5.35	< 2	17.9	< 3.45	< 2.25	< 2.1	< 2.55	< 6.3	< 2
TSS (lbs/day) Average Monthly	< 4.8	5.67	< 3.1	< 2.79	< 3.87	6.26	< 2.05	< 2.38	< 1.78	< 2.29	< 2.81	< 2.76
TSS (mg/L) Average Monthly	< 9	8.5	< 7	< 5.5	< 7.5	11.5	< 5	< 6	< 5.5	< 5.5	< 6	< 5
Total Dissolved Solids (mg/L) Daily Maximum			280			434			505			398
Fecal Coliform (CFU/100 ml) Geometric Mean	235.4	< 2	8.1	< 5.6	< 1.4	< 1	< 1	2.2	26.2	3.2	< 1.4	< 1.4

**NPDES Permit Fact Sheet
Fox Valley STP**

NPDES Permit No. PA0030431

Fecal Coliform (CFU/100 ml) Instantaneous Maximum	290	4	33	31	2	1	< 1	5	49	10	2	2
Total Nitrogen (mg/L) Average Monthly	17.6	< 16.4	34.8	16.4	22.8	20.4	< 26.0	< 21.2	19.6	< 17.8	12.1	17.1
Ammonia (lbs/day) Average Monthly	< 0.658	< 0.19	0.247	0.268	1.523	2.194	0.058	0.352	0.107	0.143	2.649	2.355
Ammonia (mg/L) Average Monthly	< 1.255	< 0.283	0.565	0.526	2.78	3.75	0.141	0.888	0.313	0.352	5.54	4.285
Total Phosphorus (lbs/day) Average Monthly	0.524	0.597	0.229	0.347	0.296	0.403	0.201	0.236	0.304	0.522	0.425	0.556
Total Phosphorus (mg/L) Average Monthly	0.98	0.89	0.54	0.69	0.60	0.74	0.49	0.60	0.83	1.23	0.91	1.0

Compliance History

Effluent Violations for Outfall 001, from: July 1, 2019 To: May 31, 2020

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Fecal Coliform	05/31/20	Geo Mean	235.4	CFU/100 ml	200	CFU/100 ml
Total Phosphorus	08/31/19	Avg Mo	1.23	mg/L	1.0	mg/L

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .074
Latitude 39° 53' 18.95" **Longitude** -75° 29' 40.89"
Wastewater Description: Treated 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

Parameter	Limit (mg/l)	SBC	Basis
CBOD ₅	25	Average Monthly	Previous Modeling
TSS	30	Average Monthly	DRBC
NH ₃ -N (5-1 to 10-31)	10	Average Monthly	Previous Modeling
NH ₃ -N (11-1 to 4-30)	20	Average Monthly	Seasonal limit
Total Phosphorus (5-1 to 10-31)	1.0	Average Monthly	BPJ/existing
Total Phosphorus (11-01 to 4-30)	2.0	Average Monthly	BPJ/existing
Dissolved Oxygen	4.0	Inst. Minimum	BPJ
Total Residual Chlorine	0.5	Average Monthly	Existing limit
Fecal Coliform	200/1000	Geo.Mean/Inst. Max.	Chapt. 93&DRBC
pH	6.0 to 9.0 all the times		Chapt. 93
Total Nitrogen	Report	Average Monthly	Data Collection
Total Dissolved Solids	Report	Daily Maximum	DRBC

*All the limits are existing.

See the below attached previous WQM model:



wqm

Anti-Backsliding

N/A

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)	Report	Report Daily Max	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	Report	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.2	1/day	Grab
CBOD5	15.4	XXX	XXX	25	XXX	50	2/month	24-Hr Composite
TSS	18.5	XXX	XXX	30	XXX	60	2/month	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/quarter	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	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	Report	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Ammonia Nov 1 - Apr 30	12.4	XXX	XXX	20	XXX	40	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	6.2	XXX	XXX	10	XXX	20	2/month	24-Hr Composite
Total Phosphorus Nov 1 - Apr 30	1.2	XXX	XXX	2.0	XXX	4	2/month	24-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	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Phosphorus May 1 - Oct 31	0.6	XXX	XXX	1.0	XXX	2	2/month	24-Hr Composite