

Application Type Renewal
Facility Type Municipal
Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0057061
APS ID 1045285
Authorization ID 1364956

Applicant and Facility Information

Applicant Name	<u>Upper Frederick Township</u>	Facility Name	<u>Ivy Ridge STP</u>
Applicant Address	<u>PO Box 597 3205 Big Road</u> <u>Frederick, PA 19435-0597</u>	Facility Address	<u>Ivy Lane</u> <u>Frederick, PA 19435</u>
Applicant Contact	<u>Jackie Tallon</u>	Facility Contact	<u>Richard Sacks</u>
Applicant Phone	<u>(610) 754-6436</u>	Facility Phone	<u>(610) 828-3078</u>
Client ID	<u>93286</u>	Site ID	<u>495719</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Upper Frederick Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Montgomery</u>
Date Application Received	<u>August 9, 2021</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>Permit Renewal.</u>		

Summary of Review

The applicant requests renewal of NPDES permit to discharge 0.0215 MGD of treated sewage from Ivy Ridge STP to Scioto Creek. The receiving stream is classified as trout stocking fisheries (TSF). The STP serves residential and commercial establishment along Route 73 in Upper Frederic Township.

The sewage treatment plant consists of equalization tank, two Sequencing Batch Reactors (SBRs), post aeration, chlorination, de-chlorination, and sludge holding tank.

There is no change in quality, quantity of wastewater, receiving stream designation and regulatory requirements since last permit renewal. Effluent is in compliance with existing permit limits. Effluent limits for all the parameters are continued in this permit renewal which are based on BPJ and are more stringent than WQBEL as well as BAT. Effluent monitoring for E. Coli is included in this permit renewal which is consistent with SOP.

Sludge use and disposal description and location(s): Sewage Sludge is sent to Pottstown Wastewater Treatment Plant for treatment and disposal.

Approve	Deny	Signatures	Date
X		<i>Ketan Thaker</i> Ketan Thaker / Project Manager	February 8, 2022
X		<i>Pravin Patel</i> Pravin C. Patel, P.E. / Environmental Engineer Manager	02/08/2022

Summary of Review

Following are effluent limits:

PARAMETERS	EFFLUENT LIMITS (AV. MO in mg/l)	BASIS
CBOD5	20	WQM 7.0, BPJ
Fecal Coliform (#/ 100 ml)	200 /100 ml (Geo. Mean)	Ch. 92a.47
Ammonia as N	3.0	WQM 7.0, BPJ
pH (Standard Units – SU)	6.0 to 9.0 SU	Ch. 92a.47, 95.2
Dissolved Oxygen	5.0 minimum	WQM 7.0, BPJ
Total Suspended Solids	20	Ch. 92a.47, BPJ
Total Residual Chlorine	0.2	Ch. 92a 47-48, BPJ
Total Phosphorus	1.5	Ch. 92a.61, BPJ
Total Nitrogen	Report	Ch. 92a.61
E. Coli	Report	Ch. 92a.47, SOP

Act-14 notification to Upper Frederick Township on July 16,2021.

Act-14 notification to Montgomery County Planning Commission on July 16, 2021.

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.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.0215</u>
Latitude	<u>40° 17' 9.28"</u>	Longitude	<u>-75° 37' 37.57"</u>
Quad Name	<u>Sassamansville</u>	Quad Code	<u>1640</u>
Wastewater Description: <u>Sewage Effluent</u>			

Receiving Waters	<u>Scioto Creek (TSF)</u>	Stream Code	<u>01313</u>
NHD Com ID	<u>25965190</u>	RMI	<u>3.35</u>
Drainage Area	<u>0.15 sq. mile</u>	Yield (cfs/mi ²)	<u>0.2</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.03 cfs</u>	Q ₇₋₁₀ Basis	<u></u>
Elevation (ft)	<u></u>	Slope (ft/ft)	<u></u>
Watershed No.	<u>3-E</u>	Chapter 93 Class.	<u>TSF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>

Assessment Status Attaining Use(s)

Cause(s) of Impairment

Source(s) of Impairment

TMDL Status Name

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

Nearest Downstream Public Water Supply Intake

PWS Waters	<u></u>	Flow at Intake (cfs)	<u></u>
PWS RMI	<u></u>	Distance from Outfall (mi)	<u></u>

Treatment Facility Summary				
Treatment Facility Name: Ivy Ridge STP				
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Sequencing Batch Reactor	Hypochlorite	0.0215
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0215	40.36	Not Overloaded	Aerobic Digestion	Other WWTP

Compliance History

DMR Data for Outfall 001 (from January 1, 2021 to December 31, 2021)

Parameter	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21
Flow (MGD) Average Monthly	0.0066	0.0064	0.0068	0.0095	0.0088	0.0063	0.0070	0.0074	0.0061	0.0139	0.0120	0.0086
Flow (MGD) Daily Maximum	0.0123	0.0115	0.0184	0.0423	0.0265	0.0135	0.0221	0.0269	0.0106	0.0396	0.0358	0.0271
pH (S.U.) Instantaneous Minimum	7.3	7.2	7.0	7.6	7.1	6.8	6.8	6.9	7.1	7.2	7.1	7.0
pH (S.U.) Instantaneous Maximum	8.1	8.4	8.0	8.3	8.2	7.8	8.2	8.1	8.0	8.0	8.0	8.2
DO (mg/L) Instantaneous Minimum	12.0	9.7	8.9	7.8	7.8	8.2	8.1	8.1	9.5	10.4	9.9	9.1
TRC (mg/L) Average Monthly	0.03	0.02	0.03	0.05	0.06	0.02	0.02	0.01	0.01	0.02	0.01	0.04
CBOD5 (lbs/day) Average Monthly	0.1	0.2	0.2	0.3	0.1	< 0.1	< 0.2	0.2	0.3	0.7	0.3	0.5
CBOD5 (lbs/day) Weekly Average	0.1	0.2	0.2	0.3	0.2	0.1	0.3	0.2	0.4	1.2	0.3	0.8
CBOD5 (mg/L) Average Monthly	2.6	3.0	2.5	3.5	2.7	< 2.5	< 2.5	4.2	5.0	3.5	4.7	7.0
CBOD5 (mg/L) Weekly Average	2.8	3.4	2.7	3.5	3.1	3.0	2.9	5.1	6.0	3.9	4.8	12.1
BOD5 (mg/L) Influent Average Monthly	346	201	236	263	166	235	212	228	158	137	349	178
BOD5 (mg/L) Influent Instantaneous Maximum	373	276	275	297	212	329	354	230	178	219	503	321
TSS (lbs/day) Average Monthly	< 0.2	< 0.2	< 0.3	< 0.4	0.3	< 0.3	< 0.3	< 0.2	0.5	< 0.8	< 0.2	< 0.4
TSS (lbs/day) Weekly Average	< 0.2	< 0.2	0.3	0.5	0.3	0.3	0.4	< 0.2	0.6	< 1.2	< 0.2	< 0.7
TSS (mg/L) Average Monthly	< 4.0	< 4.0	< 4.8	< 5.3	5.8	< 5.6	< 4.4	< 4.0	7.6	< 4.0	< 4.0	< 4.0

**NPDES Permit Fact Sheet
Ivy Ridge STP**

NPDES Permit No. PA0057061

TSS (mg/L) Influent Average Monthly	294	158	261	222	298	249	138	296	126	120	225	191
TSS (mg/L) Influent Instantaneous Maximum	300	244	300	320	384	350	240	306	160	168	324	286
TSS (mg/L) Weekly Average	< 4.0	< 4.0	5.6	6.5	6.0	7.2	4.8	< 4.0	8.0	4.0	< 4.0	< 4.0
Fecal Coliform (CFU/100 ml) Geometric Mean	< 1.0	< 1.0	< 29.7	< 1.9	< 2.6	< 1.0	< 1.6	< 1.0	< 1.9	< 2.6	< 2.8	< 1.0
Fecal Coliform (No./100 ml) Geometric Mean	< 1.0	< 1.0	< 29.7	< 1.9	< 2.6	< 1.0	< 1.6	< 1.0	< 1.9	< 2.6	< 2.8	< 1.0
Fecal Coliform (CFU/100 ml) Instantaneous Maximum				7.0	27.0	1.0	7	< 1.0				
Fecal Coliform (No./100 ml) 90% of Samples	< 1.0	< 1.0	240.0						12.0	124.0	65.0	< 1.0
Total Nitrogen (mg/L) Average Monthly	36.5	28.6	35.0	14.7	35.4	< 1.00	11.3	34.9	26.9	2.5	35.0	20.2
Ammonia (lbs/day) Average Monthly	< 0.01	< 0.007	< 0.01	< 0.007	< 0.01	< 0.006	< 0.01	< 0.004	0.03	0.04	0.09	< 0.11
Ammonia (mg/L) Average Monthly	< 0.2	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	0.5	0.3	1.8	< 1.7
Total Phosphorus (lbs/day) Average Monthly	0.01	0.02	0.02	0.04	0.02	0.03	0.04	0.02	0.02	0.04	0.01	0.03
Total Phosphorus (mg/L) Average Monthly	0.2	0.3	0.3	0.6	0.4	0.4	0.5	0.4	0.3	0.2	0.2	0.3

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 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	5.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.2	XXX	0.45	1/day	Grab
CBOD5 Nov 1 - Apr 30	4.5	7.2	XXX	25.0	40.0	50	2/month	24-Hr Composite
CBOD5 May 1 - Oct 31	3.6	5.4	XXX	20.0	30.0	40	2/month	24-Hr Composite
BOD5 Raw Sewage Influent	XXX	XXX	XXX	Report	XXX	Report	2/month	24-Hr Composite
TSS Raw Sewage Influent	XXX	XXX	XXX	Report	XXX	Report	2/month	24-Hr Composite
TSS	3.6	5.4	XXX	20.0	30.0	40	2/month	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200.0 Geo Mean	XXX	1000.0	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200.0 Geo Mean	XXX	1000.0	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Ammonia Nov 1 - Apr 30	0.72	XXX	XXX	4.0	XXX	8	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	0.54	XXX	XXX	3.0	XXX	6	2/month	24-Hr Composite
Total Phosphorus	0.3	XXX	XXX	1.5	XXX	3	2/month	24-Hr Composite