Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0096423**
Facility Type	**Non-Municipal**	APS ID	**1115730**
Major / Minor	**Minor**	Authorization ID	**1488625**

Applicant and Facility Information

Applicant Name	**Turkeyfoot Valley Area School District**	Facility Name	**Turkeyfoot Valley Area School**
Applicant Address	172 Turkeyfoot Road	Facility Address	172 Turkeyfoot Road
	Confluence, PA 15424-2420		Confluence, PA 15424-2420
Applicant Contact	Nicole Dice	Facility Contact	Glenn Cameron
Applicant Phone	(814) 395-3621	Facility Phone	(814) 395-3621
Client ID	62362	Site ID	241253
Ch 94 Load Status	Not Overloaded	Municipality	Lower Turkeyfoot Township
Connection Status		County	Somerset
Date Application Received	June 6, 2024	EPA Waived?	Yes
Date Application Accepted	June 9, 2024	If No, Reason	

Purpose of Application: Renewal to discharge treated sewage

Summary of Review

This review is in response to a renewal application from the Turkeyfoot Valley Area School District (TVASD) in Lower Turkeyfoot Township, Somerset County. Sewage from the school is treated with aeration, settling, chlorination, and de-chlorination before discharging to the Casselman River, a warm water fishery, through outfall 001. Sludges are sent to the Dornick Point sewage treatment plant.

Sludge use and disposal description and location(s): sludges are hauled to Dornick Point STP.

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		James Vanek James Vanek, P.E. / Environmental Engineer	April 30, 2025
X		Mahbuba Iasmin Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineering Manager	May 1, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.0117
Latitude	39º 47' 49.32"	Longitude	-79º 19' 25.86"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		

Receiving Waters	Casselman River (WWF)	Stream Code	38579
NHD Com ID	69922379	RMI	2.83
Drainage Area	431	Yield (cfs/mi^2)	0.0494
Q_{7-10} Flow (cfs)	21.3	Q_{7-10} Basis	USGS Stream Stats
Elevation (ft)	1357	Slope (ft/ft)	0.0023
Watershed No.	19-F	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	METALS		
Source(s) of Impairment	ACID MINE DRAINAGE		
TMDL Status	Final	Name	Casselman River

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

Nearest Downstream Public Water Supply Intake	Ohiopyle Municipal Waterworks		
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	390
PWS RMI		Distance from Outfall (mi)	13.6

Changes Since Last Permit Issuance: added de-chlorination

Other Comments:

Treatment Facility Summary

Treatment Facility Name: Turkeyfoot Valley Area School STP

WQM Permit No.	Issuance Date
465 S 87	07/13/2022

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Conventional activated sludge	Chlorination/de-chlorination	0.0117

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0117	4	Not Overloaded	None	Other sewage treatment plant

Changes Since Last Permit Issuance: added de-chlorination

Other Comments:

Compliance History

DMR Data for Outfall 001 (from March 1, 2024 to February 28, 2025)

Parameter	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24
Flow (MGD) Average Monthly	0.0030	0.00143	0.0023	0.0026	0.00216	0.00195	0.00118	0.00066	0.0024	0.0023	0.0023	0.0017
pH (S.U.) Minimum	7.82	8.31	7.75	6.81	7.01	6.45	7.25	7.12	7.63	7.52	7.09	7.09
pH (S.U.) Maximum	8.43	8.64	8.52	8.28	8.25	7.39	7.68	7.64	7.99	8.03	7.41	7.38
DO (mg/L) Minimum	6.0	8.35	6.94	6.09	2.50	3.28	5.04	6.17	3.80	5.60	8.27	8.07
TRC (mg/L) Average Monthly	0.05	0.07	0.06	0.07	0.28	0.10	0.08	0.05	0.06	0.06	0.08	0.06
TRC (mg/L) Instantaneous Maximum	0.10	0.11	0.18	0.15	4.30	0.52	0.20	0.11	0.10	0.11	0.19	0.14
CBOD5 (mg/L) Average Monthly	7.67	3.86	4.58	3.51	4.28	3.11	7.6	5.46	4.55	2.26	2.84	4.85
CBOD5 (mg/L) Instantaneous Maximum	9.94	4.90	5.04	4.98	4.98	4.23	13.2	6.00	5.06	2.51	3.65	5.01
TSS (mg/L) Average Monthly	10.0	15.5	14.00	11.0	8.00	7.0	14.0	18.5	5.00	5.00	26.5	7.50
TSS (mg/L) Instantaneous Maximum	12.0	19.0	18.00	11.0	10.00	7.0	20.0	19.0	5.00	5.00	48.0	8.00
Total Dissolved Solids (mg/L) Daily Maximum			1330									
Fecal Coliform (No./100 ml) Geometric Mean	1.0	1591	1.73	49.19	< 1	< 1	< 1	3.46	3.32	< 1	1	8.48
Fecal Coliform (No./100 ml) Instantaneous Maximum	1.0	2420	3.00	2420	< 1	< 1	< 1	12.00	11.0	< 1	1	9.00
Total Nitrogen (mg/L) Daily Maximum			0.625									

Total Phosphorus (mg/L) Daily Maximum			0.241									

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .0117
Latitude 39º 47' 45.00" **Longitude** -79º 19' 30.00"
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)
NH_3N	Report	IMAX	-	92a.61
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Water Quality-Based Limitations

Modeling was performed on this discharge. Background information for elevations, slope, drainage area, distance, and stream flow were obtained from the USGS Stream Stats. Water quality analysis for dissolved oxygen, carbonaceous biochemical oxygen demand, and ammonia-nitrogen was performed with the Department's WQM 7.0 model. TRC modeling was performed using the TRC Spreadsheet. The result of this modeling shows that water quality based effluent limits are not necessary. The modeling results from WQM7.0 and the TRC spreadsheet are attached at the end of this report.

Best Professional Judgment (BPJ) Limitations

Dissolved oxygen will be limited at 4.0 mg/l as an instantaneous minimum. Monitoring for NH_3N is necessary.

Anti-Backsliding

Anti-backsliding was not used for this permit renewal.

TN and TP MONITORING

Nutrient monitoring is required to establish the nutrient load from the wastewater treatment facility and the impacts that load may have on the quality of the receiving stream(s). Sewage discharges with design flows > 2,000 gpd require monitoring for Total Nitrogen and Total Phosphorus in new and reissued permits. Annual monitoring has been imposed.

Casselman River Basin TMDL

There is a TMDL for metals in the Casselman 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. Annual monitoring for iron, aluminum and manganese has been imposed. Monitoring is required to establish data to ensure there are no impacts on the quality of the receiving stream.

Sample Types

The sample types and monitoring frequencies conform with Table 6.3 of the DEP's Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits.

Industrial Contributors/Total Dissolved Solids

There are no industrial contributors. However, the discharge has very high TDS results, greater than 1200 mg/l. The instream criterion is 500 mg/l. Since the discharge TDS is more than twice the criterion, sampling for TDS shall remain in the permit.

E. Coli

In accordance with Section I of DEP's "Standard Operating Procedure for Clean Water Program Establishing Effluent Limitations for Individual Sewage Permits" [SOP No. BCW-PMT-033, Version 1.9, March 22, 2021] and under the authority of 25 Pa. Code § 92a.61(b), annual reporting for *E. coli* will be added to Outfall 001. *E. coli* was recently added to the bacteria water quality criteria in 25 Pa. Code § 93.7(a) and the monitoring will be used to determine if *E. coli* concentrations require additional controls.

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.

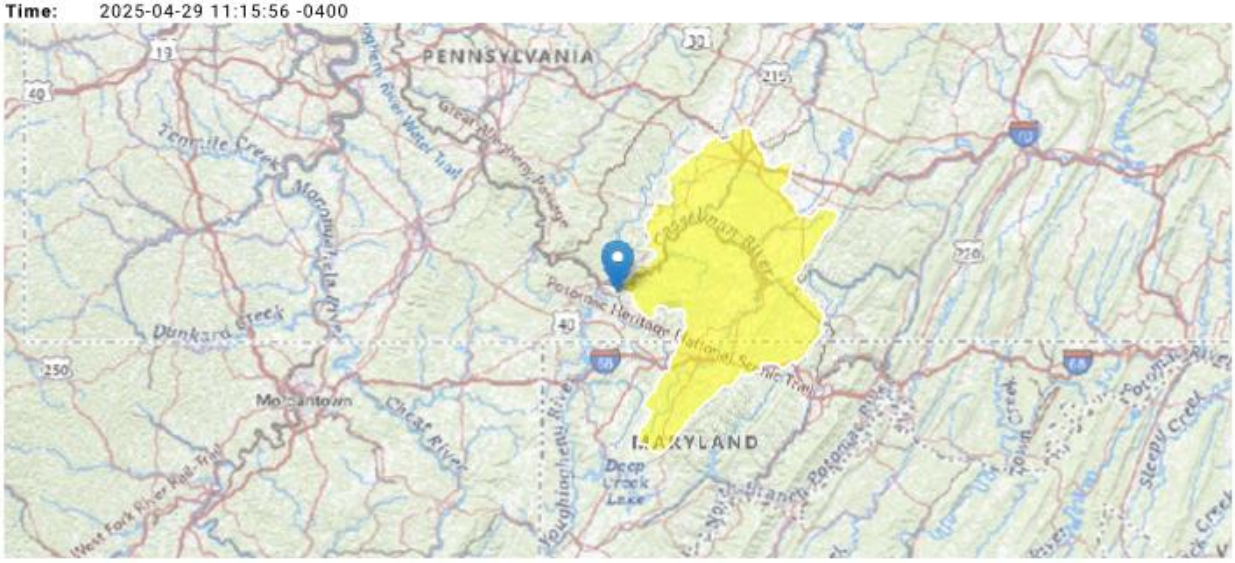
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	0.0117	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	Daily when Discharging	Grab
DO	XXX	XXX	4.0 Inst Min	XXX	XXX	XXX	Daily when Discharging	Grab
TRC	XXX	XXX	0.5 Avg Mo	XXX	XXX	1.6	Daily when Discharging	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50.0	2/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	Grab
Total Dissolved Solids	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	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
NH_3N	XXX	XXX	XXX	XXX	XXX	Report	1/month	Grab
E. Coli	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab

Compliance Sampling Location: at outfall 001

REFERENCES

StreamStats Report

Region ID: PA
Workspace ID: PA20250429151532426000
Clicked Point (Latitude, Longitude): 39.79897, -79.32552
Time: 2025-04-29 11:15:56 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CARBON	Percentage of area of carbonate rock	0	percent
DRNAREA	Area that drains to a point on a stream	431	square miles
ELEV	Mean Basin Elevation	2361	feet
FOREST	Percentage of area covered by forest	64.3686	percent
PRECIP	Mean Annual Precipitation	42	inches
URBAN	Percentage of basin with urban development	1.8606	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	431	square miles	2.26	1400
ELEV	Mean Basin Elevation	2361	feet	1050	2580

Low-Flow Statistics Flow Report [Low Flow Region 4]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	49.5	ft^3/s	43	43
30 Day 2 Year Low Flow	74.9	ft^3/s	38	38
7 Day 10 Year Low Flow	21.3	ft^3/s	66	66
30 Day 10 Year Low Flow	30.8	ft^3/s	54	54
90 Day 10 Year Low Flow	54.7	ft^3/s	41	41

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Base Flow Statistics

Base Flow Statistics Parameters [Statewide Mean and Base Flow]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CARBON	Percent Carbonate	0	percent	0	99
DRNAREA	Drainage Area	431	square miles	2.26	1720
FOREST	Percent Forest	64.3686	percent	5.1	100
PRECIP	Mean Annual Precipitation	42	inches	33.1	50.4
URBAN	Percent Urban	1.8606	percent	0	89

Base Flow Statistics Flow Report [Statewide Mean and Base Flow]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
Base Flow 10 Year Recurrence Interval	235	ft^3/s	21	21
Base Flow 25 Year Recurrence Interval	208	ft^3/s	21	21
Base Flow 50 Year Recurrence Interval	192	ft^3/s	23	23

Base Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Maximum Probable Flood Statistics

Maximum Probable Flood Statistics Parameters [Crippen Bue Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	431	square miles	0.1	10000

Maximum Probable Flood Statistics Flow Report [Crippen Bue Region 4]

Statistic	Value	Unit
Maximum Flood Crippen Bue Regional	169000	ft^3/s

Maximum Probable Flood Statistics Citations

Crippen, J.R. and Bue, Conrad D.1977, Maximum Floodflows in the Conterminous United States, Geological Survey Water-Supply Paper 1887, 52p. (https://pubs.usgs.gov/wsp/1887/report.pdf)

Application Version: 4.28.1
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19F	38579	CASSELMAN RIVER	**2.830**	1357.00	431.00	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.049	0.00	0.00	0.000	0.000	25.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
TSD	PA0096423	0.0117	0.0117	0.0117	0.250	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19F	38579	CASSELMAN RIVER	**2.530**	1351.00	475.00	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.049	0.00	0.00	0.000	0.000	25.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70