Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0028258**
Facility Type	**Municipal**	APS ID	**1126632**
Major / Minor	**Minor**	Authorization ID	**1508106**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Ohiopyle Borough**	Facility Name	**Ohiopyle Borough WWTP**
Applicant Address	PO Box 83	Facility Address	PO Box 83 Sr #381
	Ohiopyle, PA 15470-0083		Ohiopyle, PA 15470-0083
Applicant Contact	Jessica Kruse	Facility Contact	Joshua Sphar
Applicant Phone	724-329-1662	Facility Phone	412-582-9642
Client ID	110675	Site ID	257943
Ch 94 Load Status	Not Overloaded	Municipality	Ohiopyle Borough
Connection Status	No Limitations	County	Fayette
Date Application Received	November 27, 2024	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: NPDES permit renewal.

Summary of Review

The Pa Department of Environmental Protection (PADEP/Department) received an NPDES permit renewal application from Widmer Engineering Inc. (consultant) on November 27, 2024 on behalf of Ohiopyle Borough (permittee) for Permittee's Ohiopyle Borough WWTP (facility). This is a minor sewage facility with a design flow of 0.03 MGD that discharges into Meadow Run (HQ-TSF) in state watershed 19-E. The current permit will expire on September 30, 2025. The terms and conditions of the current permit is automatically extended since the renewal application was received at least 180 days prior to expiration date. Renewal NPDES permit application under Clean Water Program are not covered by PADEP's PDG per 021-2100-001. This fact sheet is developed in accordance with 40 CFR §124.56.

Changes to existing permit: Added: E. Coli.

Sludge use and disposal description and location(s): Liquid sludge is hauled-off by licensed hauler.

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
√		Reza H. Chowdhury, E.I.T. / Project Manager	December 5, 2024
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	12/06/2024

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.03
Latitude	39º 51' 49"	Longitude	-79º 29' 44"
Quad Name	Ohiopyle	Quad Code	2010
Wastewater Description:	Sewage Effluent		
Receiving Waters	Meadow Run (HQ-CWF)	Stream Code	38488
NHD Com ID	69921275	RMI	0.01
Drainage Area	41.2 mi^2	Yield (cfs/mi^2)	0.0262
Q_{7-10} Flow (cfs)	1.08	Q_{7-10} Basis	Previous fact sheet
Elevation (ft)	1169	Slope (ft/ft)	
Watershed No.	19-E	Chapter 93 Class.	HQ-CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	MERCURY		
Source(s) of Impairment	SOURCE UNKNOWN		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	North Fayette County Municipal Authority		
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Changes Since Last Permit Issuance: None

Other Comments:

Streamflow:

The Outfall 001 discharges into Meadow Run, which is approximately 50' upstream from the confluence with Youghiogheny River. The previous permit determined the drainage area at the discharge point to be 41.2 mi^2 and Q7-10 of 1.08 cfs, that resulted in a yield of 0.0262 cfs/mi^2. The average annual design flow is 0.03 MGD or 0.046 cfs. The streamflow to discharge ratio is 23:1 and streamflow to discharge ratio at Youghiogheny River is 13,000:1. These larger dilutions allow the technology-based limits to be dominant. A WQM 7.0 modeling wasn't performed. The receiving stream, Meadow Run, has a Ch. 93 designation of High-Quality Cold Water Fishes (HQ-CWF). However, the facility was permitted in 1966 that predates the special protection designation of the receiving stream. Therefore, anti-degradation limits aren't applicable.

Treatment Facility Summary

Treatment Facility Name: Ohiopyle Borough STP

WQM Permit No.	Issuance Date
465S97 A-1	9/5/2000
465S97	5/23/1966

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Ultraviolet	0.03

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal

0.03		Not Overloaded	Dewatering	Other WWTP

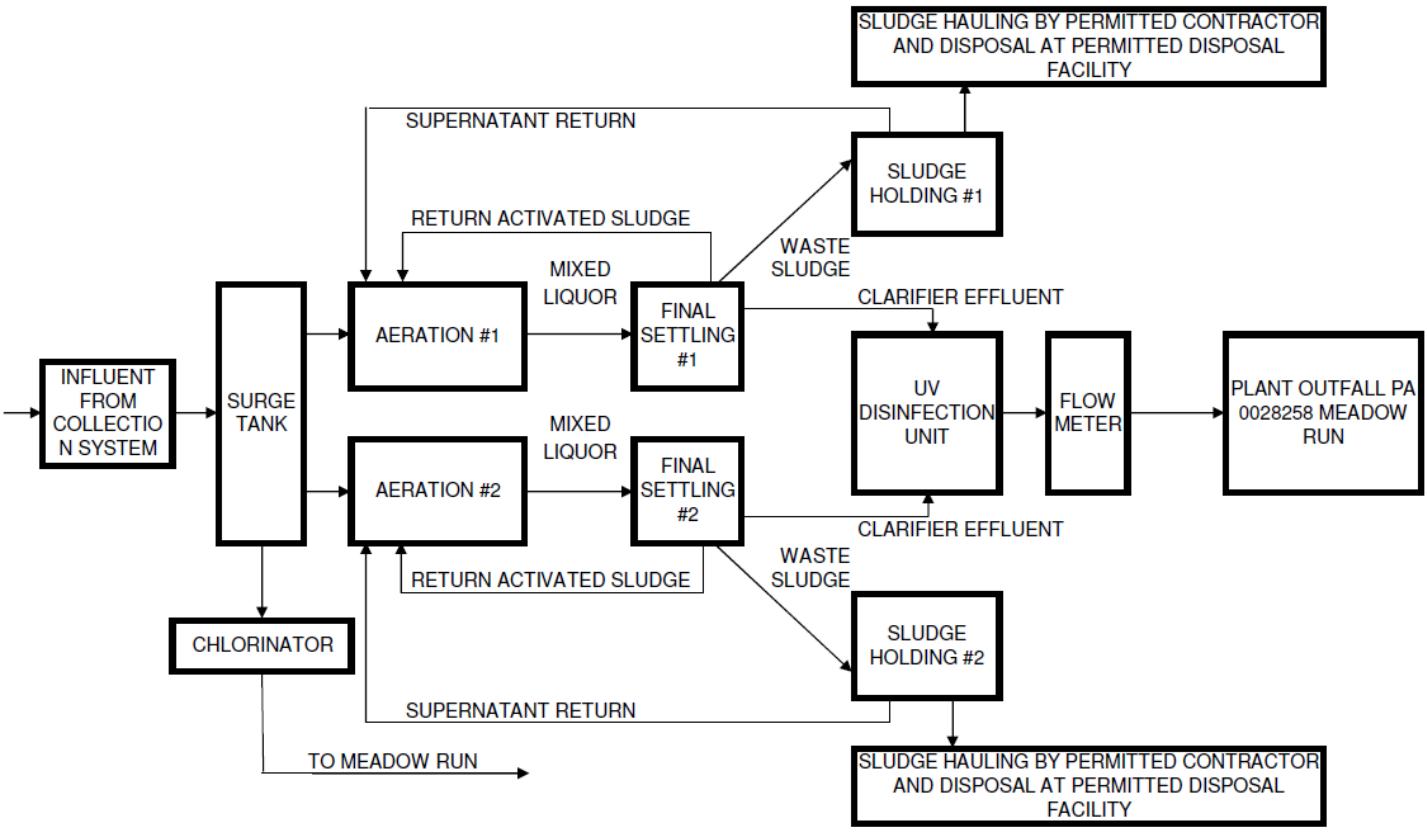
Changes Since Last Permit Issuance: None

Treatment Plant Description

Ohiopyle Borough (permittee) owns and operates a wastewater treatment plant named Ohiopyle Borough WWTP (facility), located in Ohiopyle Borough, Fayette County. The facility is a minor sewage treatment plant with a design flow of 0.03 MGD. The facility serves the borough only which has a population of 37. The facility was first permitted in 1966 that predates the special protection watershed designation of receiving stream Meadow Run and Youghiogheny River.

The treatment is an extended aeration with UV disinfection process. A process flow diagram is provided below:

OHIOPYLE BOROUGH WASTEWATER TREATMENT FACILITY
PROCESS FLOW SCHEMATIC



Per the process flow diagram, the settled and wasted sludge is sent to two holding tanks which is then hauled off by permitted hauler and disposed of at permitted disposal facility.

Compliance History

DMR Data for Outfall 001 (from November 1, 2023 to October 31, 2024)

Parameter	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23
Flow (MGD) Average Monthly	0.021	0.0012	0.016	0.017	0.022	0.031	0.0046	0.0031	0.027	0.04	0.018	0.018
pH (S.U.) IMIN	6.9	6.9	6.9	6.8	6.8	6.9	6.8	6.9	6.7	6.7	6.7	6.7
pH (S.U.) IMAX	7.0	7.0	7.1	7.0	7.0	7.0	7.0	7.1	7.0	6.9	7.0	7.0
DO (mg/L) IMIN	6.4	6.4	6.4	6.4	6.5	6.4	6.4	6.4	6.4	6.3	6.4	6.4
CBOD5 (lbs/day) Average Monthly	< 0.3	< 0.1	< 0.3	< 0.2	1.6	< 0.9	0.1	0.2	0.5	< 1.0	< 0.3	< 0.2
CBOD5 (mg/L) Average Monthly	< 2.0	< 2.5	< 2.1	< 2.1	7.5	< 5.8	8.4	5.9	2.9	< 3.3	2.0	< 2.2
CBOD5 (mg/L) IMAX	< 2.0	3.1	2.2	2.2	11.0	< 6.2	12.2	6.3	3.2	4.6	< 2.0	2.3
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	12.8	1.1	12.8	12.2	18.3	< 4.4	< 0.6	< 0.7	< 5.1	23.4	< 6.3	8.2
BOD5 (mg/L) Raw Sewage Influent Average Monthly	75	108.3	107.6	122.0	101.9	< 30.9	< 35.7	< 22.4	< 24.3	86.1	< 46.6	71.1
TSS (lbs/day) Average Monthly	< 0.9	< 0.1	< 0.6	< 0.5	< 2.2	1.1	< 0.2	< 0.2	< 1.0	< 1.4	< 0.7	< 0.6
TSS (lbs/day) Raw Sewage Influent Average Monthly	4.1	0.7	8.6	17.2	14.2	4.2	< 0.3	0.2	< 1.5	17.1	< 1.8	3.2
TSS (mg/L) Average Monthly	< 5.0	< 5.0	< 5.0	< 5.0	< 10.5	7.5	< 9.5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
TSS (mg/L) Raw Sewage Influent Average Monthly	24	75	73	218	85	25	< 20	< 5	< 7	62	< 14	29
TSS (mg/L) IMAX	< 5.0	< 5.0	< 5.0	5.0	16.0	8.0	14.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Fecal Coliform (No./100 ml) Geometric Mean	< 3	< 2	1	< 1	< 1	< 1	< 14	< 1	< 1	< 49	1	< 1
Fecal Coliform (No./100 ml) IMAX	11	6	2	< 1	< 1	2	40	2	< 1	2420	1	< 1
UV Transmittance (%) IMIN	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Total Nitrogen (mg/L) Daily Maximum											11.5	
Ammonia (lbs/day) Average Monthly	< 0.1	< 0.2	0.2	< 0.1	1.2	0.4	0.1	< 0.1	0.7	< 0.6	< 0.1	< 0.1

Ammonia (mg/L) Average Monthly	< 0.1	< 9.5	1.7	< 0.5	6.6	2.0	5.1	< 0.4	4.0	< 1.7	< 0.4	< 0.4
Ammonia (mg/L) IMAX	0.154	18.9	1.9	0.621	9.4	3.9	5.8	< 0.4	5.1	3.1	< 0.4	< 0.4
Total Phosphorus (mg/L) Daily Maximum											0.46	

Compliance History

Effluent Violations for Outfall 001, from: December 1, 2023 To: October 31, 2024

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Flow	05/31/24	Avg Mo	0.031	MGD	.03	MGD
Flow	01/31/24	Avg Mo	0.04	MGD	.03	MGD

Summary of Inspections:
05/09/2023: RTPT conducted. No violation noted during the inspection. A meeting was conducted at the Ohiopyle visitors center multipurpose room with the permittee and their consultant and discussed about the overall WWTP and 2019 CO&A. several recommendations and request were made with respect to the CO&A.

07/08/2021: CEI conducted. No violation noted. Recommended to post an SOP checklist at the plant and manually removing duckweed from the clarifier to prevent potential TSS violation. The emergency bypass line was removed and sealed off on December 21, 2020.

The facility has ongoing I&I issues and a history of sewage discharges from the unauthorized bypass at the facility's flow equalization tank directly to the receiving stream. These issues were addressed in the CO&A.

Existing Limits

The following table summarized current limits applied at Outfall 001:

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	0.03	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Dissolved Oxygen	XXX	XXX	4.0	XXX	XXX	XXX	1/day	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	6.0	XXX	XXX	25.0	XXX	50.0	2/month	Grab

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) [1]		Concentrations (mg/L)				Minimum [2] Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Biochemical Oxygen Demand (BOD5) Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
Total Suspended Solids	7.5	XXX	XXX	30.0	XXX	60.0	2/month	Grab
Total Suspended Solids Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	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
Ultraviolet light transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia-Nitrogen	Report	XXX	XXX	Report	XXX	Report	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .03
Latitude 39º 51' 49.00" **Longitude** -79º 29' 44.00"
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)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Mass-Based Limits

The federal regulation at 40 CFR 122.45(f) requires that effluent limits be expressed in terms of mass, if possible. The regulation at 40 CFR 122.45(b) requires that effluent limitations for POTWs be calculated based on the design flow of the facility. The mass-based limits are expressed in pounds per day and are calculated as follows:

Mass based limit (lb/day) = concentration limit (mg/L) × design flow (mgd) × 8.34

Water Quality-Based Limitations

As stated in page 2 of this report, a WQM 7.0 modeling isn't performed to determine the WQBELs for CBOD5, NH3-N, and DO. TBEL for CBOD5 is the current limit and will be carried over. Current permit has monitoring requirement for NH3-N which will also be carried over. A BPJ DO limit of 4.0 will be carried over.

Nutrients monitoring:
PADEP's SOP BCW-PMT-033 recommends monitoring for Total Nitrogen and Total Phosphorus for facilities with design flow more than 2000-GPD, which is also supported by Pa Code 25 Ch. 92a.61. Current monitoring requirement will be continued.

Total Suspended Solids (TSS):
There is no water quality criterion for TSS. The existing limits of 30 mg/L average monthly and 60 mg/L instantaneous maximum will remain in the permit based on the minimum level of effluent quality attainable by secondary treatment, 25 Pa. Code § 92a.47 and 40CFR 133.102(b). The mass based average monthly limit is calculated to be 7.5 lbs./day which is the same as were in existing permit and will be carried over.

UV Disinfection:
PADEP's SOP BCW-PMT-033 recommends UV parameter monitoring where UV is used as a method of disinfection, with the same frequency as would be if Chlorine is used for disinfection. The current permit has UV Transmittance in % reporting requirement which will be carried over in this renewal.

pH:
The TBEL for pH is above 6.0 and below 9.0 S.U. (40 CFR §133.102(c) and Pa Code 25 §§ 95.2(1), 92a.47) which are existing limits and will be carried over.

Fecal Coliform:
The recent coliform guidance in 25 Pa. code § 92a.47.(a)(4) requires a summer technology limit of 200/100 ml as a geometric mean and an instantaneous maximum not greater than 1,000/100ml and § 92a.47.(a)(5) requires a winter limit of 2,000/100ml as a geometric mean and an instantaneous maximum not greater than 10,000/100ml. These are existing requirements and will be carried over in this renewal.

E. Coli:
Pa Code 25 § 92a. 61 requires monitoring of E. Coli. DEP's SOP titled "Establishing Effluent Limitations for Individual Sewage Permits (BCW-PMT-033, revised March 24, 2021) recommends annual E. Coli monitoring for sewage dischargers with a design flow between 0.002 MGD to 0.05 MGD. This requirement will be applied from this permit term.

Flow and Influent BOD_5 and TSS Monitoring Requirement:
The requirement to monitor the volume of effluent will remain in the draft permit per 40 CFR § 122.44(i)(1)(ii). Influent BOD_5 and TSS monitoring requirements are established in the permit per the requirements set in Pa Code 25 Chapter 94.

Monitoring Frequency and Sample Types:
Otherwise specified above, the monitoring frequency and sample type of compliance monitoring for existing parameters are recommended by DEP's SOP and Permit Writers Manual and/or on a case-by-case basis using best professional judgment (BPJ).

Anti-Backsliding
Anti-backsliding prohibition is justified in sections where an exception is justified for the affected pollutant(s). For remaining pollutants, this prohibition isn't applicable since the proposed limits are at least as stringent as were in current 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	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	0.03	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	4.0	XXX	XXX	XXX	1/day	Grab
CBOD5	6.0	XXX	XXX	25.0	XXX	50.0	2/month	Grab
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
TSS	7.5	XXX	XXX	30.0	XXX	60.0	2/month	Grab
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	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
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia	Report	XXX	XXX	Report	XXX	Report	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: At Outfall 001