Pennsylvania Department of Environmental Protection

Northwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0205915**
Facility Type	**Municipal**	APS ID	**1103918**
Major / Minor	**Minor**	Authorization ID	**1467613**

Applicant and Facility Information

Applicant Name	**Dayton Borough**	Facility Name	**Dayton Borough STP**
Applicant Address	PO Box 396	Facility Address	207 Mechanic Street
	Dayton, PA 16222-0396		Dayton, PA 16222
Applicant Contact	James Marshall	Facility Contact	James Marshall
Applicant Phone	(814) 257-9826	Facility Phone	(814) 257-9826
Client ID	66321	Site ID	241699
Ch 94 Load Status	Not Overloaded	Municipality	Dayton Borough
Connection Status	No Limitations	County	Armstrong
Date Application Received	December 26, 2023	EPA Waived?	Yes
Date Application Accepted	January 11, 2024	If No, Reason	

Purpose of Application: Renewal of Existing NPDES Permit

Summary of Review

Dayton Borough has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of a NPDES permit for the Eldred Township STP. The permit was originally issued on July 24, 2019, with an effective date of August 1, 2019. The permit expired on July 31, 2024, but the terms and conditions of the permit have been administratively extended since that time.

Based on the review outlined in this fact sheet, it is recommended that the permit be drafted, and a notice of the draft permit be published in the *Pennsylvania Bulletin* for public comments for 30 days.

Sludge use and disposal description and location(s): Evergreen Landfill (Blairsville, PA)

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		*Aaron Baar* Aaron Baar / Project Manager	July 5, 2025
X		Adam Olesnanik Adam Olesnanik, P.E. / Environmental Engineer Manager	July 10, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.1
Latitude	40º 52' 45.92"	Longitude	-79º 14' 48.52"
Quad Name	Dayton	Quad Code	1112
Wastewater Description:	Sewage Effluent		

Receiving Waters	Glade Run (CWF)	Stream Code	47407
NHD Com ID	123856234	RMI	2.91
Drainage Area	5.62 sq. mi.	Yield (cfs/mi^2)	0.0411
Q_{7-10} Flow (cfs)	0.231	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1311.57	Slope (ft/ft)	
Watershed No.	17-D	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	ORGANICS, ORGANICS, ORGANICS, ORGANICS, SILTATION, SILTATION, SILTATION, SILTATION		
Source(s) of Impairment	AGRICULTURE, AGRICULTURE, AGRICULTURE, AGRICULTURE, AGRICULTURE, AGRICULTURE, AGRICULTURE, AGRICULTURE		
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	7.0	Assumed, default value
Temperature (°F)	20	CWF, default value
Hardness (mg/L)	100	Assumed, default value
Other:	0.1	Assumed, default value

Nearest Downstream Public Water Supply Intake		Kittanning Suburban JT Water Authority	
PWS Waters	Allegany River	Flow at Intake (cfs)	
PWS RMI	~48.5	Distance from Outfall (mi)	~34 miles

Drainage Area

The discharge is to Glade Run at RMI 2.91. A drainage area upstream of the discharge is determined to be 5.62 sq.mi. according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/.

Stream Flow

According to StreamStats, the watershed has a Q_{7-10} of 0.231 cfs and a Q_{30-10} of 0.427 cfs. This information was used to obtain a Low Flow Yield (LFY), and a chronic Q_{30-10}:Q_{7-10} ratio for the discharge point as follows (Guidance No. 391-2000-023).

Q_{7-10} = 0.231 cfs
Q_{30-10} = 0.427 cfs
Q_{30-10}:Q_{7-10} = 0.427 cfs / 0.231 cfs = 1.4329
LFY = 0.231 cfs/5.62 mi^2 = 0.0411 cfs/mi^2

For WQM modelling purposes, the default acute (Q_{1-10}) exposure stream value of 0.64 cfs was utilized in the absence of other information.

Glade Run

25 Pa Code §93.9 classifies the receiving water, Glade Run, with a Cold-Water Fishery (CWF) Existing Use designation. Effluent limits for this discharge have been developed to ensure that existing in-stream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. The discharge is in a stream segment listed as not fully attaining uses.

Local Watershed Total Maximum Daily Loads (TMDLs)

According to PA's 2024 integrated water quality monitoring and assessment report, Glade Run in the vicinity of the proposed point of discharge is currently assessed for aquatic life; the most recently assessment found aquatic life in the waterway to be impaired by agricultural organics and siltation. The impairments are listed as Category 5 in the 2024 integrated report, indicating that Glade Run may be impaired for one or more uses by a pollutant that requires the development of a TMDL.

No TMDL has been developed for Glade Run to date, so no local watershed TMDL has been taken into consideration during this review.

Public Water Supply Intake

The nearest downstream public water supply intake is the Kittanning Suburban JT Water Authority intake, located on Alleghany River approximately 34 miles from the point of discharge. Considering the distance and nature, the discharge is not expected to affect the water supply.

Class A Wild Trout Streams

The receiving stream is not a Class A Wild Trout stream; therefore, no Class A Wild Trout Fishery is impacted by this discharge.

Other Comments

The location of Outfall 001 in eFACTS was not matching other Department records. Based on information provided by the operator, updated coordinates have been entered into eFACTS that better coordinate with the as-built system. See the appendix materials at the end of this report for the existing and proposed locations.

Treatment Facility Summary				
Treatment Facility Name: Dayton Borough STP				
WQM Permit No.	**Issuance Date**			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Tertiary	Extended Aeration With Solids Removal	Chlorine With Dechlorination	0.1
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.1		Not Overloaded		

Dayton Borough owns and operates the wastewater treatment facility located at 207 Mechanic Street (Dayton Borough, Armstrong County); the facility only serves Dayton Borough. With an annual average design flow and hydraulic design capacity of 0.10 MGD, the treatment process, as described in the application, is configured as follows:

Grinder → Aeration Tank → Secondary Clarification (2) → Chlorine Contact → Dechlorination → Outfall 001

The application does not identify any chemicals used to facilitate treatment. Solids handling is facilitated by a sludge holding tank and drying beds.

Compliance History	
Summary of DMRs:	DMR results for the past year are presented below.
Summary of Inspections:	Since the last renewal of the facility's NPDES permit, the following inspections have been logged: July 10, 2024: A routine CEI was conducted by Clinton Stonesifer. No new violations were noted, but the following unresolved violations were listed: 1. 25 Pa. Code 92a.41(a)(12): Failure to submit monitoring reports or properly complete monitoring reports. The inspection was prompted by a call from the operator requesting assistance with Supplemental Submission Forms.

A CACP was entered into on April 16, 2025 for discharge violations at the facility.

Existing Permit Limits

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	1/day	Metered
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	0.095	XXX	0.3	1/day	Grab
CBOD5 Nov 1 - Apr 30	21.0	31.3	XXX	25	38	50	1/week	8-Hr Composite
CBOD5 May 1 - Oct 31	12.5	18.8	XXX	15	23	30	1/week	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	Report	XXX	1/week	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	Report	XXX	1/week	8-Hr Composite
TSS	25.0	37.0	XXX	30	45	60	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	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/year	8-Hr Composite
Ammonia Nov 1 - Apr 30	7.5	11.2	XXX	9.0	13.5	18	1/week	8-Hr Composite
Ammonia May 1 - Oct 31	2.5	3.7	XXX	3.0	4.5	6	1/week	8-Hr Composite
Total Phosphorus	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/year	8-Hr Composite

Compliance Sampling Location: Outfall 001

Compliance History

DMR Data for Outfall 001 (from June 1, 2024 to May 31, 2025)

Parameter	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24
Flow (MGD) Average Monthly	0.0685	0.067	0.0428	0.0791	0.0267	0.0469	0.0357	0.0246	0.0234	0.0656	0.0232	0.0243
Flow (MGD) Daily Maximum	0.1552	0.2474	0.0964	0.2230	0.07970	0.1491	0.1052	0.4098	0.0318	0.2496	0.0478	0.0373
pH (S.U.) Instantaneous Minimum	7.4	7.3	7.1	7.3	7.4	7.2	7.3	7.2	7.2	7.2	7.2	7.1
pH (S.U.) Instantaneous Maximum	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
DO (mg/L) Instantaneous Minimum	5.21	5.2	5.32	5.52	5.06	5.3	5.35	5.12	5.14	5.17	5.17	5.21
TRC (mg/L) Average Monthly	0.025	0.024	0.0125	0.013	0.014	0.020	0.023	0.020	0.0275	0.0125	0.016	0.015
TRC (mg/L) Instantaneous Maximum	0.04	0.03	0.02	0.02	0.03	0.030	0.04	0.04	0.05	0.02	0.03	0.02
CBOD5 (lbs/day) Average Monthly	3.9930	5.398	1.063	4.318	1.201	1.567	0.910	0.8959	1.3787	1.1863	0.5007	1.0226
CBOD5 (lbs/day) Weekly Average	13.1951	4.253	3.213	19.327	6.270	8.101	4.050	3.1834	2.6735	5.5328	1.3703	3.0120
CBOD5 (mg/L) Average Monthly	6.995	9.668	2.98	6.55	5.398	4.01	3.06	4.37	7.07	2.17	2.59	5.05
CBOD5 (mg/L) Weekly Average	10.2	15.9	4.0	10.4	9.40	6.52	4.62	9.3	10.1	2.70	3.4	9.7
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	84.951	178.220	50.379	70.102	36.891	41.843	61.806	42.517	53.138	96.541	40.561	42.981
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	250.965	1822.513	120.500	284.325	139.475	222.408	245.467	88.958	106.409	590.720	127.068	103.508
BOD5 (mg/L) Raw Sewage Influent Average Monthly	148.82	319.2	141.25	106.35	165.8	107.06	207.75	207.4	272.5	176.6	209.8	212.25
BOD5 (mg/L) Raw Sewage Influent Weekly Average	194.0	884	150.0	153.0	210.0	179	280.0	261.0	402	284.0	319.0	333

TSS (lbs/day) Average Monthly	7.1925	6.1752	3.3883	13.6448	2.4475	6.0579	4.2394	1.8450	1.6575	2.7333	1.0440	2.8350
TSS (lbs/day) Raw Sewage Influent Average Monthly	58.2250	68.1167	30.0492	63.6096	26.4330	47.4863	41.5013	24.2720	21.3525	78.4467	18.6373	25.9200
TSS (lbs/day) Raw Sewage Influent Daily Maximum	175.9341	527.7867	85.1533	293.6167	92.9833	293.2300	185.8533	69.5300	40.7638	436.8000	55.7667	52.2200
TSS (lbs/day) Weekly Average	28.2750	28.8633	13.6567	11.2750	10.6267	32.3050	21.0400	4.7717	3.9705	10.4000	2.7883	6.5275
TSS (mg/L) Average Monthly	12.6	11.06	9.5	20.7	11	15.5	14.25	9	8.5	5	5.40	14
TSS (mg/L) Raw Sewage Influent Average Monthly	102	122	84	96.5	119	122	140	118	110	144	96	128
TSS (mg/L) Raw Sewage Influent Weekly Average	136	256	106	158	140	236	212	204	154	210	140	168
TSS (mg/L) Weekly Average	29	14	17	30	16	26	24	14	15	5	7	21
Fecal Coliform (No./100 ml) Geometric Mean	5.47	2.62	1.86	500	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Fecal Coliform (No./100 ml) Instantaneous Maximum	14	62	5	200	< 10	< 10	< 10	< 10	10	< 10	< 10	< 10
Total Nitrogen (mg/L) Daily Maximum						14.59						
Ammonia (lbs/day) Average Monthly	0.0856	0.0838	0.0556	0.0989	0.0356	0.0586	0.0595	0.0410	0.0390	0.1093	0.0425	0.0450
Ammonia (mg/L) Average Monthly	< 0.150	< 0.150	0.156	< 0.15	0.16	< 0.15	< 0.2	< 0.20	< 0.20	< 0.20	0.22	< 0.20
Ammonia (mg/L) Weekly Average	< 0.150	< 0.150	0.175	< 0.15	0.20	< 0.15	< 0.20	< 0.20	< 0.20	< 0.20	0.33	< 0.20
Total Phosphorus (mg/L) Daily Maximum						1.33						

Compliance History

As of July 5, 2025, there are two Safe Drinking Water open violations associated with this facility.

CLIENT ID	CLIENT	PF ID	FACILITY	PF KIND	PF STATUS	INSP PROGRAM	PROGRAM SPECIFIC ID	INSP ID	VIOLATION ID	INSPECTION CATEGORY	VIOLATION DATE	VIOLATION CODE	VIOLATION	PF INSPECTOR	INSP REGION
66321	DAYTON BORO ARMSTRONG CNTY	267129	DAYTON MUNI WATER DEPT	Community	Active	Safe Drinking Water	5030002	3537451	991334	PF	04/13/2023	C7	FAILURE TO COMPLY WITH A PERMIT CONDITION	CROW,MELISSA	NWRO
66321	DAYTON BORO ARMSTRONG CNTY	267129	DAYTON MUNI WATER DEPT	Community	Active	Safe Drinking Water	5030002	3946792	8226836	PF	03/28/2025	B5A	FAILURE OF A PUBLIC WATER SYSTEM TO OBTAIN A PERMIT	CROW,MELISSA	NWRO

The draft permit letter will indicate that the permit may not be finalized until all pending violations are resolved or closed.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .1
Latitude 40º 52' 50.00" **Longitude** -79º 14' 40.00"
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)

Comments: These standards apply, subject to water quality analysis and BPJ where applicable.

Water Quality-Based Limitations

CBOD5, NH3-N and Dissolved Oxygen (DO)

WQM 7.0 version 1.0b is a water quality model designed to assist DEP to determine appropriate permit requirements for CBOD5, NH3-N and DO. DEP's guidance no. 391-2000-007 provides the technical methods contained in WQM 7.0 for conducting wasteload allocation and for determining recommended NPDES effluent limits for point source discharges. The model was utilized using data derived by USGS StreamStats and the model output indicated that existing WQBELs for DO, ammonia and CBOD5 are still protective of water quality

Due to the fact that the facility is a POTW, weekly average mass limits calculated from the facility's weekly average ammonia concentration limits are proposed in this permit as follows:

May 1 – Oct 31 : 4.5 mg/L ammonia x 0.10 mgd x 8.34 = 3.7 lbs/day ammonia (weekly average)
Nov 1 – Apr 30:: 13.5 mg/L ammonia x 0.10 mgd x 8.34 = 11.2 lbs/day ammonia (weekly average)

The Department notes that the new weekly average ammonia mass limits require no additional sampling.

See attached for model inputs and outputs.

Toxics

A reasonable potential (RP) analysis was done for Total Copper, Total Lead and Total Zinc using the sampling results provided with the application. The Department's Toxics Management Spreadsheet (Version 1.4) was used to perform the RP analysis for these parameters at a pH of 7.3 and a discharge hardness of 100 mg/L. The sample sizes for all analyzed parameters were less than 10, so the maximum reported effluent concentration was utilized in the analysis.

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

Pollutants	*Mass Limits* AML (lbs/day)	*Mass Limits* MDL (lbs/day)	*Concentration Limits* AML	*Concentration Limits* MDL	*Concentration Limits* IMAX	*Concentration Limits* Units	Governing WQBEL	WQBEL Basis	Comments
Total Zinc	Report	Report	Report	Report	Report	mg/L	0.19	AFC	Discharge Conc > 10% WQBEL (no RP)

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Copper	0.022	mg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	7.93	µg/L	Discharge Conc ≤ 10% WQBEL

In conformity with the Department's SOP for Establishing Water Quality-Based Effluent Limitations (WQBELs) and Permit Conditions for Toxic Pollutants in NPDES Permits for Existing Dischargers (SOP No. BCW-PMT-037), the Department proposes to establish monitoring requirements in the draft permit for Total Zinc due to effluent concentrations exceeding 10% of the WQBEL (i.e., RP is demonstrated). In conformity with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (PA Doc No. 362-0400-001), Table 6-3 (plant design flow = 0.4 mgd,), weekly monitoring of Total Zinc is proposed.

The full TMS report is presented at the end of this report.

E. Coli Monitoring

In conformity with the Department's *Establishing Effluent Limitations for Individual Sewage Permits* (SOP No. BCW-PMT-033) and as authorized by § 92a.61 of the PA Code, quarterly E. Coli monitoring has been proposed in this permit. The collection method will be via grab sample.

Best Professional Judgment (BPJ) Limitations

Total Residual Chlorine

Since chlorine is used for disinfection, Total Residual Chlorine (TRC) effluent levels must be regulated in accordance with 25 Pa Code §92a.48(b). DEP's TRC_CALC worksheet is utilized to determine if the existing BAT TBEL is still appropriate. The worksheet indicates that the existing limits of 0.095 mg/L (average monthly) and 0.3 mg/L (IMAX) are still protective of water quality.

The Department's TRC_CALC worksheet is presented at the end of this report.

Total Phosphorus & Total Nitrogen

DEP's SOP no. BPNPSM-PMT-033 (Establishing Effluent Limitations for Individual Sewage Permits) recommends monitoring requirements for Total Phosphorus and Total Nitrogen for all sewage facilities. Therefore, routine monitoring for Total Phosphorus and Total Nitrogen are recommended to be continued in this permit. Sampling frequency for TP and TN is currently required 1/year. No change to the sampling frequency is proposed.

Additional Considerations

Flow Monitoring

The requirement to monitor the volume of effluent will remain in the draft permit per 40 CFR § 122.44(i)(1)(ii).

Monitoring Frequency and Sample Type

Unless discussed otherwise above, the permit's monitoring frequency and sample type for all parameters will remain unchanged from the last permit renewal.

Antidegradation Requirements

All effluent limitations and monitoring requirements have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

Anti-backsliding Requirement

All effluent limits proposed in this fact sheet are as stringent as effluent limits specified in the existing permit renewal unless noted otherwise above. This approach is in accordance with 40 CFR §122.44(l(1).

Annual Fees

An annual fee clause is continued in the permit in accordance with 25 Pa. Code § 92a.62. The facility covered by the permit is classified in the Minor Sewage Facility >=0.05 and <1 MGD fee category, which has an annual fee of $1000.

Mass Loading Limitations

Unless stated otherwise in this fact sheet, mass loading effluent limits are calculated based on the formula: design flow (average annual) (MGD) x concentration limit (mg/L) at design flow x conversion factor (8.34).

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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/day	Metered
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	0.095	XXX	0.3	1/day	Grab
CBOD5 Nov 1 - Apr 30	21.0	31.3	XXX	25	38	50	1/week	8-Hr Composite
CBOD5 May 1 - Oct 31	12.5	18.8	XXX	15	23	30	1/week	8-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	Report	XXX	1/week	8-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	Report	XXX	1/week	8-Hr Composite
TSS	25.0	37.0	XXX	30	45	60	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
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
Total Nitrogen	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/year	8-Hr Composite
Ammonia Nov 1 - Apr 30	7.5	11.2	XXX	9.0	13.5	18	1/week	8-Hr Composite

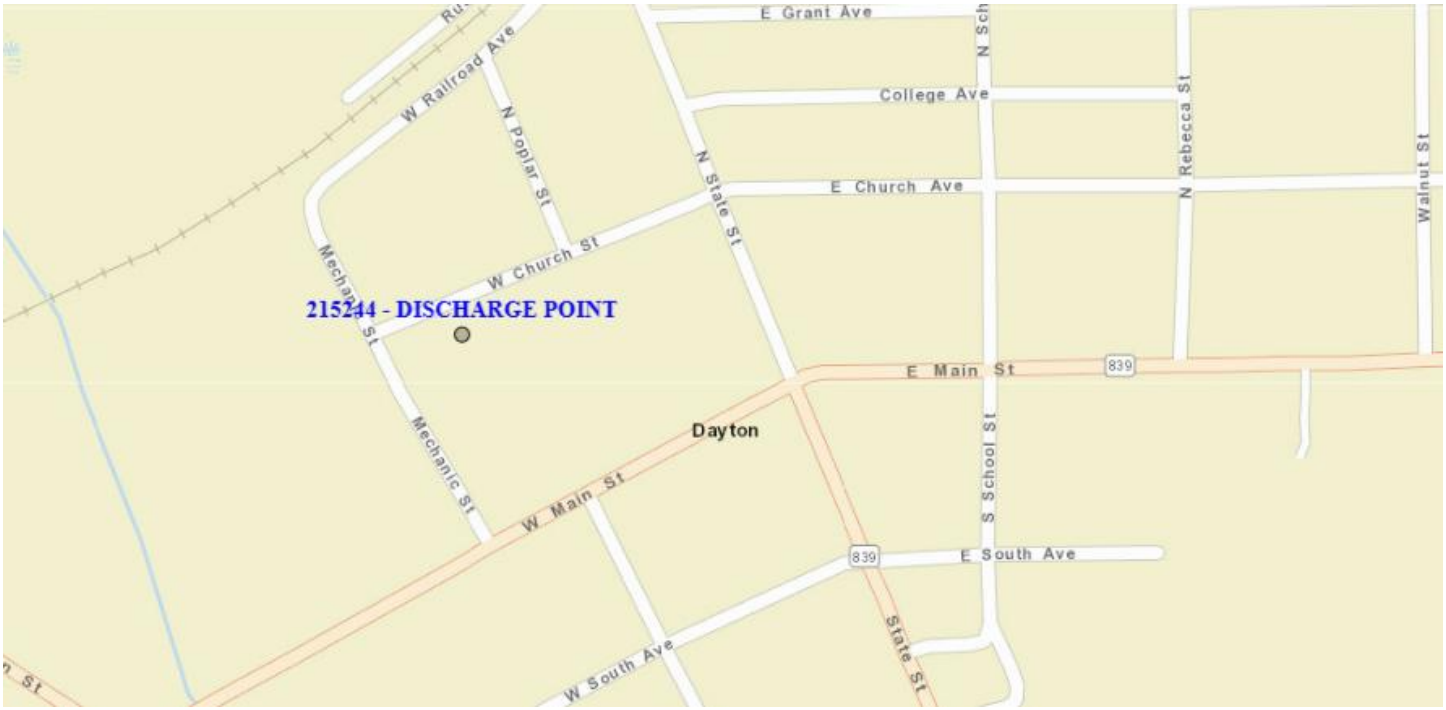
Outfall 001, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Ammonia May 1 - Oct 31	2.5	3.7	XXX	3.0	4.5	6	1/week	8-Hr Composite
Total Phosphorus	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/year	8-Hr Composite
Total Zinc	Report	Report	XXX	Report	Report	XXX	1/week	8-Hr Composite

Compliance Sampling Location: Outfall 001

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment)
☒	Toxics Management Spreadsheet (see Attachment)
☒	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other:

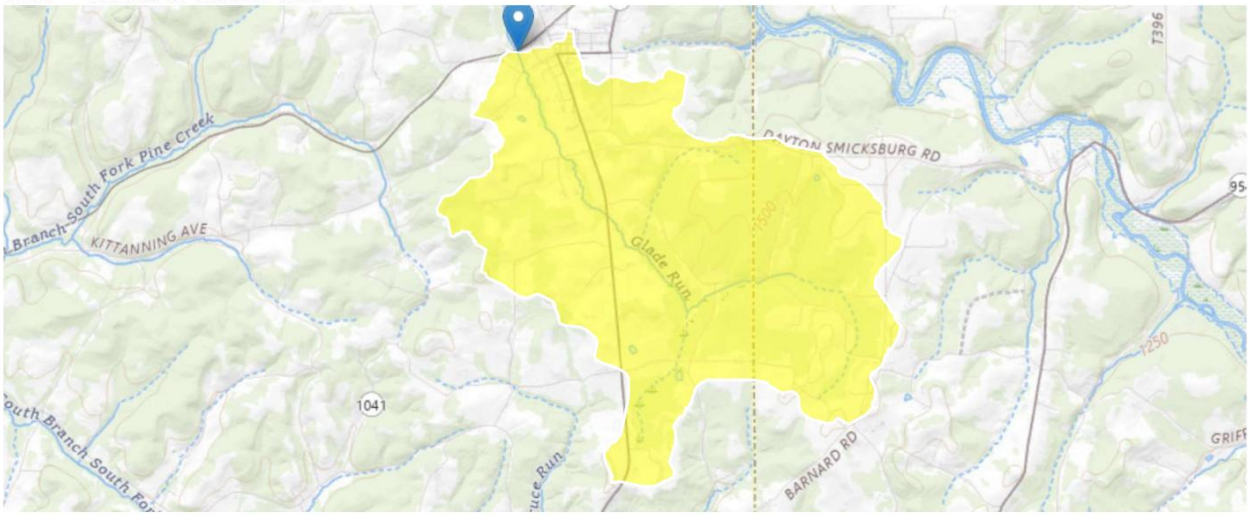
Existing Discharge Point in eFACTS:



Updated Location in eFACTS:

StreamStats Report

Region ID: PA
Workspace ID: PA20250705120325265000
Clicked Point (Latitude, Longitude): 40.88057, -79.24741
Time: 2025-07-05 08:03:45 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	5.62	square miles
ELEV	Mean Basin Elevation	1417	feet
PRECIP	Mean Annual Precipitation	43	inches

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 3]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	5.62	square miles	2.33	1720
ELEV	Mean Basin Elevation	1417	feet	898	2700
PRECIP	Mean Annual Precipitation	43	inches	38.7	47.9

Low-Flow Statistics Flow Report [Low Flow Region 3]

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	0.544	ft^3/s	43	43
30 Day 2 Year Low Flow	0.791	ft^3/s	38	38
7 Day 10 Year Low Flow	0.231	ft^3/s	54	54

Statistic	Value	Unit	SE	ASEp
30 Day 10 Year Low Flow	0.331	ft^3/s	49	49
90 Day 10 Year Low Flow	0.492	ft^3/s	41	41

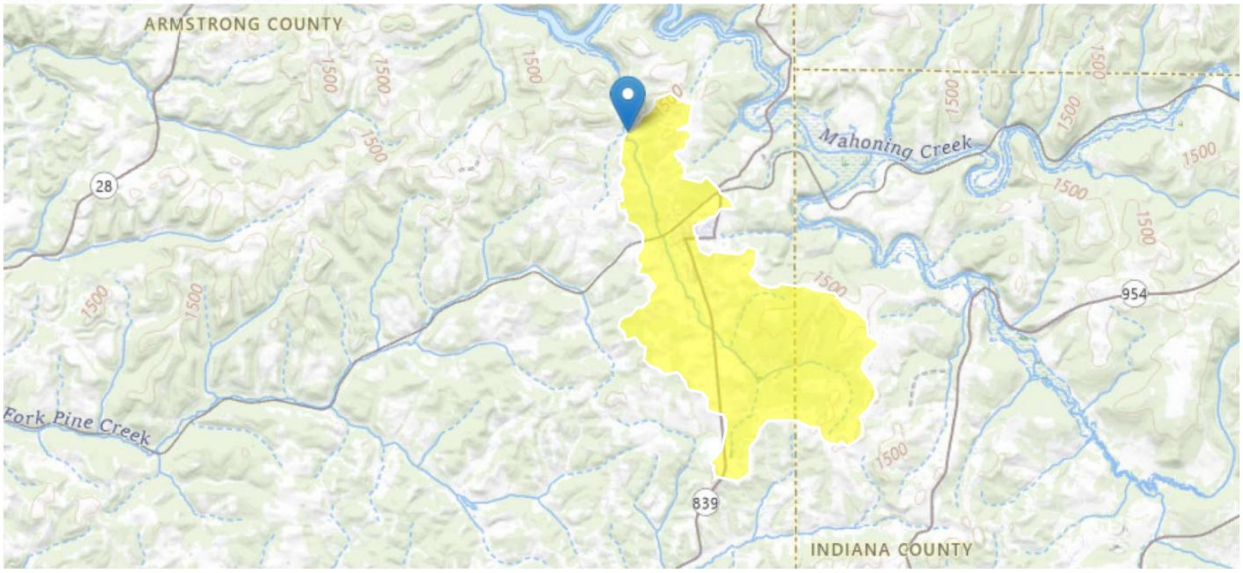
Low-Flow Statistics Citations

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/)

Application Version: 4.29.2
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

StreamStats Report

Region ID: PA
Workspace ID: PA20250705124234391000
Clicked Point (Latitude, Longitude): 40.89987, -79.25621
Time: 2025-07-05 08:42:53 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	7.17	square miles
ELEV	Mean Basin Elevation	1411	feet
PRECIP	Mean Annual Precipitation	43	inches

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 3]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	7.17	square miles	2.33	1720
ELEV	Mean Basin Elevation	1411	feet	898	2700
PRECIP	Mean Annual Precipitation	43	inches	38.7	47.9

Low-Flow Statistics Flow Report [Low Flow Region 3]

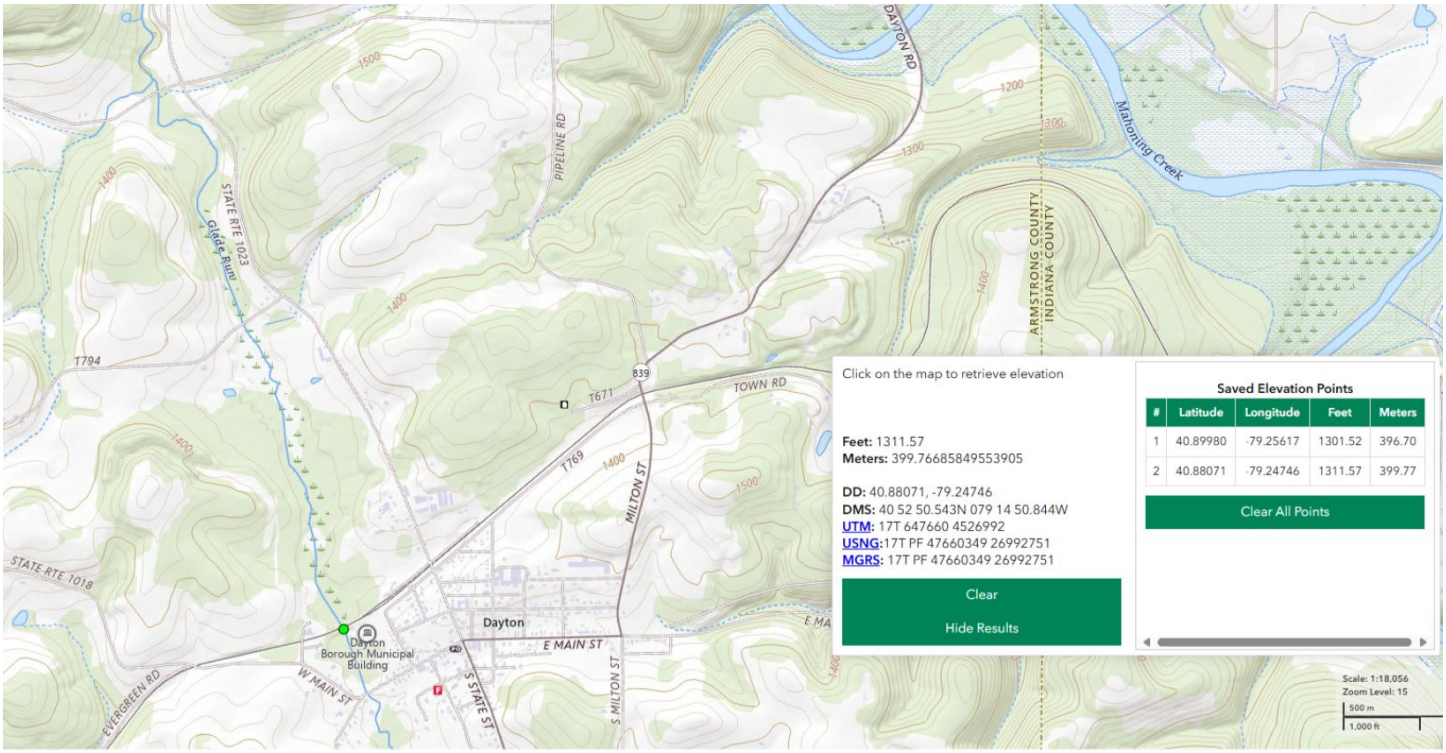
PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	0.696	ft^3/s	43	43
30 Day 2 Year Low Flow	1.01	ft^3/s	38	38
7 Day 10 Year Low Flow	0.299	ft^3/s	54	54
30 Day 10 Year Low Flow	0.427	ft^3/s	49	49
90 Day 10 Year Low Flow	0.632	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/)

Application Version: 4.29.2
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1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Meters: 399.76685849553905
DD: 40.88071, -79.24746
DMS: 40 52 50.543N 079 14 50.844W
UTM: 17T 647660 4526992
USNG:17T PF 47660349 26992751
MGRS: 17T PF 47660349 26992751
Clear
Hide Results
Saved Elevation Points
Latitude Longitude Feet Meters
1 40.89980 -79.25617 1301.52 396.70
2 40.88071 -79.24746 1311.57 399.77
Clear All Points
Dayton
Dayton Borough Municipal Building
E MAIN ST
W MAIN ST
S STATE ST
MILTON ST
TOWN RD
PIPELINE RD
DAYTON RD
STATE RTE 1023
STATE RTE 1018
EVERGREEN RD
Glade Run
Mahoning Creek
ARMSTRONG COUNTY
INDIANA COUNTY
T794
T671
T769
839
Scale: 1:18,056
Zoom Level: 15
500 m
1,000 ft

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
17D	47407	GLADE RUN

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
2.910	Dayton Boro STP	PA0205915	0.100	CBOD5	15		
				NH3-N	3	6	
				Dissolved Oxygen			5

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
17D	47407	GLADE RUN

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
2.910	Dayton Boro STP	12	6	12	6	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
2.910	Dayton Boro STP	1.65	3	1.65	3	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
2.91	Dayton Boro STP	15	15	3	3	5	5	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
17D	47407	GLADE RUN

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
2.910	0.100	22.005	7.097
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
11.176	0.460	24.280	0.075
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
7.21	0.920	1.26	0.817
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
6.942	16.854	Owens	6
Reach Travel Time (days)			
1.271			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.127	6.35	1.14	7.85
0.254	5.58	1.03	7.95
0.381	4.91	0.93	7.95
0.509	4.32	0.83	7.95
0.636	3.80	0.75	7.95
0.763	3.34	0.68	7.95
0.890	2.94	0.61	7.95
1.017	2.59	0.55	7.95
1.144	2.27	0.50	7.95
1.271	2.00	0.45	7.95

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.4329	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	6		

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
17D	47407	GLADE RUN

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
2.910	0.23	0.00	0.23	.1547	0.00122	.46	11.18	24.28	0.07	1.271	22.01	7.10
Q1-10 Flow												
2.910	0.15	0.00	0.15	.1547	0.00122	NA	NA	NA	0.07	1.457	22.56	7.13
Q30-10 Flow												
2.910	0.33	0.00	0.33	.1547	0.00122	NA	NA	NA	0.09	1.118	21.59	7.08

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
17D	47407	GLADE RUN	**2.910**	1311.57	5.62	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	0.000	0.23	0.00	0.000	0.000	0.0	0.00	0.00	20.00	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
Dayton Boro STP	PA0205915	0.1000	0.1000	0.1000	0.000	25.00	7.30

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	15.00	2.00	0.00	1.50
Dissolved Oxygen	5.00	8.24	0.00	0.00
NH3-N	3.00	0.10	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
17D	47407	GLADE RUN	**1.350**	1301.52	7.17	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	0.000	0.30	0.00	0.000	0.000	0.0	0.00	0.00	20.00	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

TRC_CALC

1A	B	C	D	E	F	G
2	**TRC EVALUATION**					
3	Input appropriate values in B4:B8 and E4:E7					
4	0.231	= Q stream (cfs)		0.5	= CV Daily	
5	0.1	= Q discharge (MGD)		0.5	= CV Hourly	
6	30	= no. samples		1	= AFC_Partial Mix Factor	
7	0.3	= Chlorine Demand of Stream		1	= CFC_Partial Mix Factor	
8	0	= Chlorine Demand of Discharge		15	= AFC_Criteria Compliance Time (min)	
9	0.095	= BAT/BPJ Value		720	= CFC_Criteria Compliance Time (min)	
	0	= % Factor of Safety (FOS)			=Decay Coefficient (K)	
10	Source	Reference	AFC Calculations		Reference	CFC Calculations
11	TRC	1.3.2.iii	WLA afc = 0.495		1.3.2.iii	WLA cfc = 0.475
12	PENTOXSD TRG	5.1a	LTAMULT afc = 0.373		5.1c	LTAMULT cfc = 0.581
13	PENTOXSD TRG	5.1b	LTA_afc= 0.185		5.1d	LTA_cfc = 0.276
14						
15	Source		Effluent Limit Calculations			
16	PENTOXSD TRG	5.1f	AML MULT = 1.231			
17	PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.095		BAT/BPJ	
18			INST MAX LIMIT (mg/l) = 0.311			

WLA afc	(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...
	...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...
	...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **Dayton Boro STP** NPDES Permit No.: **PA0205915** Outfall No.: **001**

Evaluation Type: **Custom / Additives** Wastewater Description: **Sewage**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.1	100	7.3						

				0 if left blank		0.5 if left blank		0 if left blank			1 if left blank	
Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Total Copper	mg/L		0.0011									
Total Lead	mg/L	<	0.005									
Total Zinc	mg/L		0.036									

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Toxics Management Spreadsheet
Version 1.4, May 2023

Stream / Surface Water Information

Dayton Boro STP, NPDES Permit No. PA0205915, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Glade Run**

No. Reaches to Model: **1**

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	047407	2.91	1311.57	5.62			Yes
End of Reach 1	047407	1.35	1301.52	7.17			Yes

Q $_{7\text{-}10}$

Location	RMI	LFY (cfs/mi^2)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	2.91		0.231									100	7		
End of Reach 1	1.35		0.299												

Q $_{h}$

Location	RMI	LFY (cfs/mi^2)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	2.91														
End of Reach 1	1.35														

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Toxics Management Spreadsheet
Version 1.4, May 2023

Model Results

Dayton Boro STP, NPDES Permit No. PA0205915, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All ○ Inputs ○ Results ○ Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 5.630 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.10

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Copper	0	0		0	13.439	14.0	34.9	Chem Translator of 0.96 applied
Total Lead	0	0		0	64.581	81.6	204	Chem Translator of 0.791 applied
Total Zinc	0	0		0	117.180	120	299	Chem Translator of 0.978 applied

☑ ***CFC*** CCT (min): 5.630 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.10

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Copper	0	0		0	8.956	9.33	23.3	Chem Translator of 0.96 applied
Total Lead	0	0		0	2.517	3.18	7.93	Chem Translator of 0.791 applied
Total Zinc	0	0		0	118.139	120	299	Chem Translator of 0.986 applied

☑ ***THH*** CCT (min): 5.630 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Copper	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): 4.280 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Copper	0	0		0	N/A	N/A	N/A	

Total Lead	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Total Zinc	Report	Report	Report	Report	Report	mg/L	0.19	AFC	Discharge Conc > 10% WQBEL (no RP)

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Copper	0.022	mg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	7.93	µg/L	Discharge Conc ≤ 10% WQBEL