Pennsylvania Department of Environmental Protection

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0080586**
Facility Type	**Non-Municipal**	APS ID	**276925**
Major / Minor	**Minor**	Authorization ID	**1499984**

Applicant and Facility Information

Applicant Name	**Morton Bldg Inc.**	Facility Name	**Morton Bldg Manufacturing**
Applicant Address	3370 York Road	Facility Address	3370 York Road
	Gettysburg, PA 17325-8258		Gettysburg, PA 17325-8258
Applicant Contact	Eric Edmiston	Facility Contact	Eric Edmiston
Applicant Phone	(717) 624-8000	Facility Phone	(717) 624-8000
Client ID	80413	Site ID	250875
Ch 94 Load Status	Not Overloaded	Municipality	Straban Township
Connection Status		County	Adams
Date Application Received	September 19, 2024	EPA Waived?	Yes
Date Application Accepted	September 19, 2024	If No, Reason	

Purpose of Application: NPDES Permit Renewal.

Summary of Review

Morton Building, Inc. has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit. The permit was issued on July 31, 2020 and became effective on August 1, 2020. The existing permit expiration date was July 31, 2025. The NPDES PA0080586 A-1 DEP-Initiated Minor Amendment was issued on 12/30/2022 to remove Section III-Requirements Applicable Stormwater Outfall in Part C, pages #18 to 23.

The permit authorized discharge of treated sewage from the existing wastewater treatment plant (WWTP) located in Straban Township, Adams County to Unnamed Tributary of Swift Run (WWF).

The discharge design flow and hydraulic capacity is 0.003 MGD. The facility manufactures the wood and steel components, and directly discharges stormwater to a stormwater retention pond which is located in the southeast corner of the 20.5 acres of the operating facility.

WQM No. 01104040 was issued on October 4, 2010.

Sludge use and disposal description and location(s): N/A because sludge is hauled by Smith's Septic Service.

Changes from the previous permit: The E. Coli monitoring and report requirements will add to the proposed permit.

Based on the review outline in this fact sheet, it is recommended that the permit be drafted and published in the Pennsylvania Bulletin for public comments for 30 days.

Approve	Deny	Signatures	Date
X		*Hilaryle* Hilary H. Le / Environmental Engineering Specialist	May 23, 2025
X		*Maria D. Bebenek for* Daniel W. Martin, P.E. / Environmental Engineer Manager	June 30, 2025

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.003
Latitude	39º 51' 53.81"	Longitude	-77º 7' 37.94"
Quad Name	Gettysburg	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Swift Run (WWF)	Stream Code	08955
NHD Com ID	133624954	RMI	0.71 mile
Drainage Area	0.45 mi.^{2}	Yield (cfs/mi^2)	0.014
Q_{7-10} Flow (cfs)	0.0063	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	560.45	Slope (ft/ft)	
Watershed No.	7-F	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Wrightsville Borough Municipal Authority, York County		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	28.52 miles	Distance from Outfall (mi)	Approximate 69.0 miles

Changes Since Last Permit Issuance:

Drainage Area
The discharge is to unnamed tributary of Swift Run at RMI 0.71 miles. A drainage area upstream of the discharge is estimated to be 0.45 mi.^{2}, according to USGS StreamStats available at https://streamstats.usgs.gov/ss/.

Stream Flow
According to USGS StreamStats, the Q_{7-10} at the discharge point is 0.0063 cfs and the drainage area is 0.45 mi.^{2} which results in a Q_{7-10} low flow yield of 0.014 cfs/mi.^{2}. This information is used to obtain a chronic or 30-day (Q_{30-10}), and an acute or 1-day (Q_{1-10}) exposure stream flow for the discharge point as follows (Guidance No. 391-2000-023):

Q_{7-10} = 0.0063 cfs
Low Flow Yield = 0.0063 cfs / 0.45 mi.^{2} ≈ 0.014 cfs/mi.^{2}
Q_{30-10} = 1.36 * 0.0063 cfs ≈ 0.008 cfs
Q_{1-10} = 0.64 * 0.0063 cfs ≈ 0.004 cfs

Unnamed Tributary to Swift Run
25 Pa Code § 93.9o classifies Unnamed Tributary to Swift Run as warm water fishes (WWF) surface water. Based on the 2024 Integrated Report, Swift Run (Assessment ID 11591), is not impaired. A TMDL currently does not exist for this stream segment, therefore, no TMDL has been taken into consideration during this review.

Potable Water Supply Intake
The nearest downstream public water supply intake is the Wrightsville Borough Municipal Authority, York County intake on the Susquehanna River, approximately 69 miles from the point of discharge. Given the nature and dilution, the discharge is not expected to significantly impact the water supply.

Treatment Facility Summary				
Treatment Facility Name: Morton Bldg Manufacturing				
WQM Permit No.	**Issuance Date**			
01104040	10/4/2010			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage			Hypochlorite	0.0026
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.003		Not Overloaded		

Changes Since Last Permit Issuance:

Other Comments:
The facility is a 3,000 GPD system with the following treatment units:

One (1), Bar Screen
One (1), Equalization Tank
One (1), Aeration Tank
One (1), Final Clarifier
One (1), Chlorine Contact Tank
One (1), Post-Aeration Tank
One (1), Sludge Holding Tank

Sodium Hypochlorite is used for disinfection. Sodium Bisulfate is used for de-chlorination. Sodium Carbonate is used for pH adjustment as need. Aluminum sulfate is used for coagulant/phosphate precipitation as need. Anti-foam is used for surfactant as need.

Compliance History	
Summary of DMRs:	DMRs reported last 12 months are summarized in the Table below.
Summary of Inspections:	1/4/2024: Mr. Hoy, DEP WQS, conducted a compliance evaluation inspection. The discharge was clear. The field test results indicated in permit limits. There were no violations indicate during inspection. DEP's recommendations: 1. Keeping physical copies of discharge monitoring reports, sample results, and supplemental reports on-site. 2. Clearing the leaves so the outfall is easily identified.
Other Comments:	There are currently no open violations associated with the permittee or the facility.

Other Comments:

Compliance History

DMR Data for Outfall 001 (from April 1, 2024 to March 31, 2025)

Parameter	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24
Flow (MGD) Average Monthly	0.0002	0.0003	0.0003	0.0002	0.0002	0.0003	0.0003	0.0003	0.0002	0.0003	0.0003	0.0002
Flow (MGD) Daily Maximum	0.0005	0.0025	0.0021	0.0006	0.0004	0.0005	0.0006	0.0009	0.0004	0.0005	0.0005	0.0006
pH (S.U.) Daily Minimum	8.3	7.8	8.5	8.6	8.5	8.5	8.6	8.0	8.5	8.5	8.5	8.4
pH (S.U.) Instantaneous Maximum	8.6	8.6	8.7	8.7	8.7	8.7	8.7	8.6	8.5	8.7	8.6	8.7
DO (mg/L) Daily Minimum	9.6	16.8	16.3	14.7	12.8	9.6	9.2	8.5	8.7	9.2	11.2	14.5
TRC (mg/L) Average Monthly	0.12	0.11	0.11	0.09	0.09	0.08	0.09	0.09	0.10	0.09	0.10	0.10
TRC (mg/L) Instantaneous Maximum	0.22	0.23	0.19	0.16	0.15	0.16	0.27	0.20	0.17	0.17	0.19	0.21
CBOD5 (mg/L) Average Monthly	13.2	6.25	2.9	2.25	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.25	2.0
TSS (mg/L) Average Monthly	9	9.5	8	10	13	5	5.5	8.5	6.5	9	6.5	11.5
Fecal Coliform (No./100 ml) Geometric Mean	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Nitrate-Nitrite (mg/L) Average Monthly	31.1	12.3	64.5	54.8	46.7	51.0	68.2	75.6	79.2	74.5	77.9	74.1
Total Nitrogen (mg/L) Average Monthly	32.4	13.7	65.5	55.8	47.7	52.0	69.2	76.6	80.2	75.5	78.9	75.1
Ammonia (mg/L) Average Monthly	< 0.10	0.32	< 0.10	0.135	< 0.10	< 0.10	0.297	0.286	< 0.10	< 0.100	0.1165	< 0.100
TKN (mg/L) Average Monthly	1.3	1.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1	< 1.0	< 1	< 1	< 1.0
Total Phosphorus (mg/L) Average Monthly	2.5	< 1.0	5.2	3.7	4.2	4.8	4.6	4.9	6.5	6.5	5.9	6.8

Existing Effluent Limitations and Monitoring Requirements

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	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
D.O.	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.2	XXX	0.60	1/day	Grab
$CBOD_5$	XXX	XXX	XXX	25	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	15	XXX	30	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	5.0	XXX	10	2/month	Grab
TKN	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.003
Latitude 39º 51' 53.81" **Longitude** -77º 7' 37.94"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

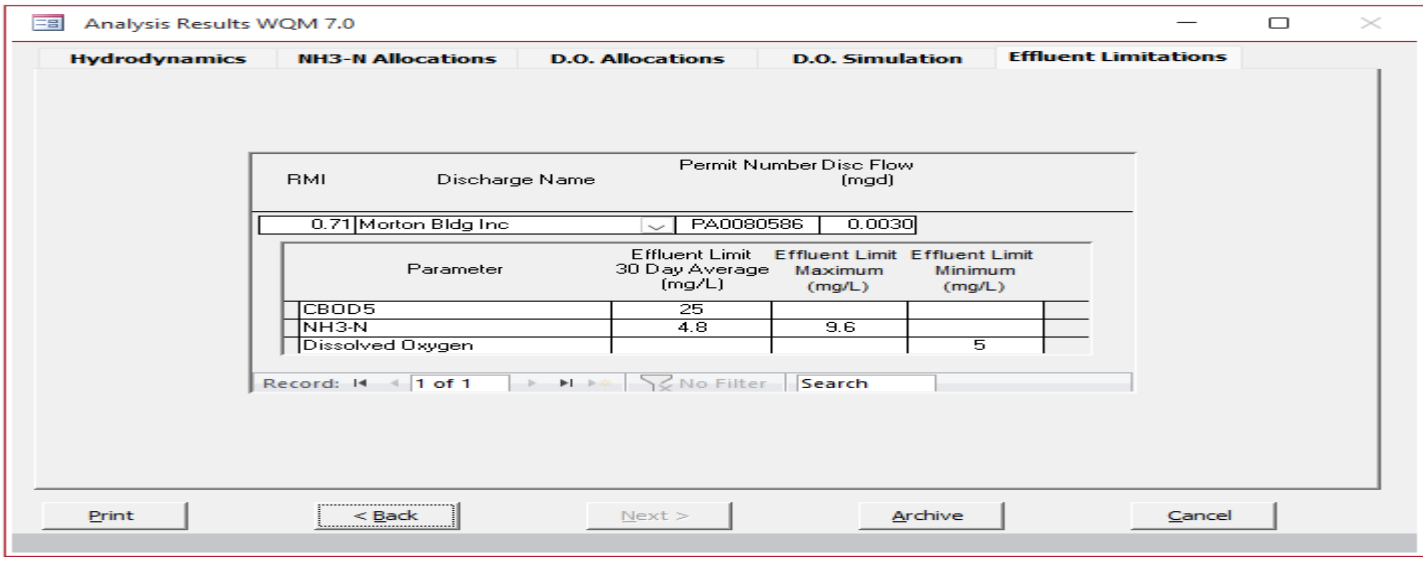
Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	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:

Water Quality-Based Limitations

Ammonia (NH_3-N):
NH_3-N calculations were first based on the Department's Implementation Guidance of Section 93.7 Ammonia Criteria, dated 11/4/97 (ID No. 391-2000-013). The following data is necessary to determine the in-stream NH_3-N criteria used in the attached computer model of the stream:

Discharge pH	=	7.0	(Default)
Discharge Temperature	=	25°C	(Default)
Stream pH	=	7.0	(Default)
Stream Temperature	=	20ºC	(Default)
Background NH_3-N	=	0	(Default)



The model input data and results are attached. The printout of the WQM 7.0 output indicates that at a discharge of 0.003 MGD, limits (rounded according to the NPDES Technical Guidance 362-0400-001) of 4.8 (5.0) mg/L NH_3-N as a monthly average (AML) and 9.6 (10.0) mg/L NH_3-N instantaneous maximum (IMAX) are necessary to protect the aquatic life from toxicity effects. However, the existing limits of 5.0 mg/L AML and 10.0 mg/L IMAX are same and will remain in the proposed permit due to anti-backsliding requirements.

The winter effluent limit will be set at three-times the summer limits; therefore, the average monthly winter limit for NH_3-N will be 15.0 mg/L (5.0 mg/L x 3). For the same reason, the instantaneous maximum limit for the winter season will be 30 mg/L (10 mg/L x 3).

Additionally, past DMRs and inspection reports show that the facility has been consistently achieving concentrations under these limits.

Carbonaceous Biochemical Oxygen Demand ($CBOD_5$):
The attached computer printout of the WQM 7.0 stream model indicates that a monthly average limit of 25.0 mg/L, or secondary treatment, is adequate to protect the water quality of the stream. However, the existing limits of 25.0 mg/L average monthly (AML), and 50.0 mg/L instantaneous maximum (IMAX) will remain in the proposed permit as per guidance document 391-2000-014. Recent DMRs and inspection reports show that the facility has been consistently achieving these limits.

Dissolved Oxygen (D.O.):
A minimum D.O. of 5.0 mg/L is required per 25 Pa. Code § 93.7. This is consistent with the previous permit and current Department criteria.

pH:
The effluent discharge pH should remain above 6.0 and below 9.0 standard units according to 25 Pa. Code § 95.2(2).

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 1,000/100 ml and 25 Pa. Code § 92a.47.(a)(5) requires a winter limit of 2,000/100 ml as a geometric mean and an instantaneous maximum not greater than 10,000/100 ml.

E. Coli:
As recommended by DEP's SOP No. BCW-PMT-033, version 2.0 revised February 5, 2024, a routine monitoring for E. Coli will be included in the proposed permit under 25 Pa. Code § 92a.61. This requirement applies to all sewage dischargers greater than 0.002 MGD in their new and reissued permits. A monitoring frequency of 1/year will be included in the permit to be consistent with the recommendation from this SOP.

Total Suspended Solids (TSS):
There is no water quality criterion for TSS. A limit of 30.0 mg/L AML and 60.0 mg/L IMAX will be required based on the minimum level of effluent quality attainable by secondary treatment as defined in 40 CFR 133.102b(1) and 25 Pa. Code § 92a.47(a)(1).

Toxics:
This is a minor sewage facility receiving domestic wastewater only and the current application does not require sampling of toxic pollutants (or heavy metals) for those facilities with design flows less than 0.1 MGD. Therefore, no reasonable potential analysis for toxic pollutants has been performed for this permit renewal.

Chesapeake Bay Strategy:
The Department formulated a strategy to comply with the EPA and Chesapeake Bay Foundation requirements by reducing point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP). Sewage discharges have been prioritized by Central Office based on their delivered TN loadings to the Bay. The highest priority (Phases 1, 2, and 3) dischargers will receive annual loading caps based on their design flow on August 29, 2005 and concentrations of 6.0 mg/L TN and 0.8 mg/L TP. These limits may be achieved through a combination of treatment technology, credits, or offsets. Phase 4 (0.2 - 0.4 MGD) will be required to monitor and report TN and TP during permit renewal monthly and Phase 5 (below 0.2 MGD) will monitor during current permit renewal once a year unless two years of monitoring were completed and documented. Any facility in Phases 4 and 5 that undergoes expansion is subjected to cap load right away. This plant is classified as a phase 5 and will be required to monitor and report Nitrate-Nitrite as N, Total Kjeldahl Nitrogen, Total Phosphorus, and Total Nitrogen. The once per month monitoring and report requirements for these parameters will remain in the proposed permit.

Total Residual Chlorine:

The attached computer printout utilizes the equations and calculations as presented in the Department's 2003 Implementation Guidance for Total Residual Chlorine (TRC), dated 11/15/94 (ID No. 391-2000-015) for developing chlorine limitations. The attached printout indicates that an average monthly water quality limit of 0.2 mg/L and 0.6 mg/L max daily would be needed to prevent toxicity concerns. This is consistent with the existing permit. The treatment facility is meeting this limit.

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.0063	= Q stream (cfs)	0.5	= CV Daily
0.003	= Q discharge (MGD)	0.5	= CV Hourly
30	= no. samples	1	= AFC_Partial Mix Factor
0.3	= Chlorine Demand of Stream	1	= CFC_Partial Mix Factor
0	= Chlorine Demand of Discharge	15	= AFC_Criteria Compliance Time (min)
0.5	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)
0	= % Factor of Safety (FOS)		=Decay Coefficient (K)

Source	Reference	AFC Calculations		Reference	CFC Calculations	
TRC	1.3.2.iii	WLA afc =	0.452	1.3.2.iii	WLA cfc =	0.433
PENTOXSD TRG	5.1a	LTAMULT afc =	0.373	5.1c	LTAMULT cfc =	0.581
PENTOXSD TRG	5.1b	LTA_afc=	0.168	5.1d	LTA_cfc =	0.252

Source		Effluent Limit Calculations		
PENTOXSD TRG	5.1f	AML MULT =	1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) =	0.207	AFC
		INST MAX LIMIT (mg/l) =	0.678	

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)**

Phosphorus:

Phosphorus limitations are based on the Department's Implementation Guidance for Section 95.9 Phosphorus Discharge to Free Flowing Streams, dated 10/27/97 (ID No. 391-2000-018). This Guidance requires phosphorus control to be implemented at the technology-based limit of 2.0 mg/L if the discharge is to a stream or tributary that has a nutrient-related problem, provided that the discharger contributes 0.25% or more of the total point source phosphorus loading to the Lower Susquehanna. To determine the percentage of phosphorus contributed by the point discharge, the following calculations are utilized:

Phosphorus Loading from Discharger = (Flow Rate) x (Total P. Concentration) x (Density of Water)
= (0.003 MGD)(12.675 mg/L)(8.34 (lb/MG)(L/mg)) = 0.317 lbs. P/day

Phosphorus Loading from Discharger Corrected for Biological Uptake = (Calculated Loading from Discharge) x $(0.99^{\text{Distance from Outfall to Lower Susquehanna(mi.)}})$

= (0.317 lbs. P/day)$(0.99^{95.63})$ = 0.121 lbs. P/day

Percentage of Phosphorus Loading from Discharger Relative to Total Phosphorus Loading from Watershed = (0.121 lbs. P/day)/(3814 lbs. P/day) x 100% = 0.003%.

0.003% < 0.25%; therefore, a Total Phosphorus limit is not required.

Anti-Degradation (93.4)

The 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. No High-Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

Class A Wild Trout Fisheries

No Class A Wild Trout Fisheries are impacted by this discharge.

303d Listed Streams:

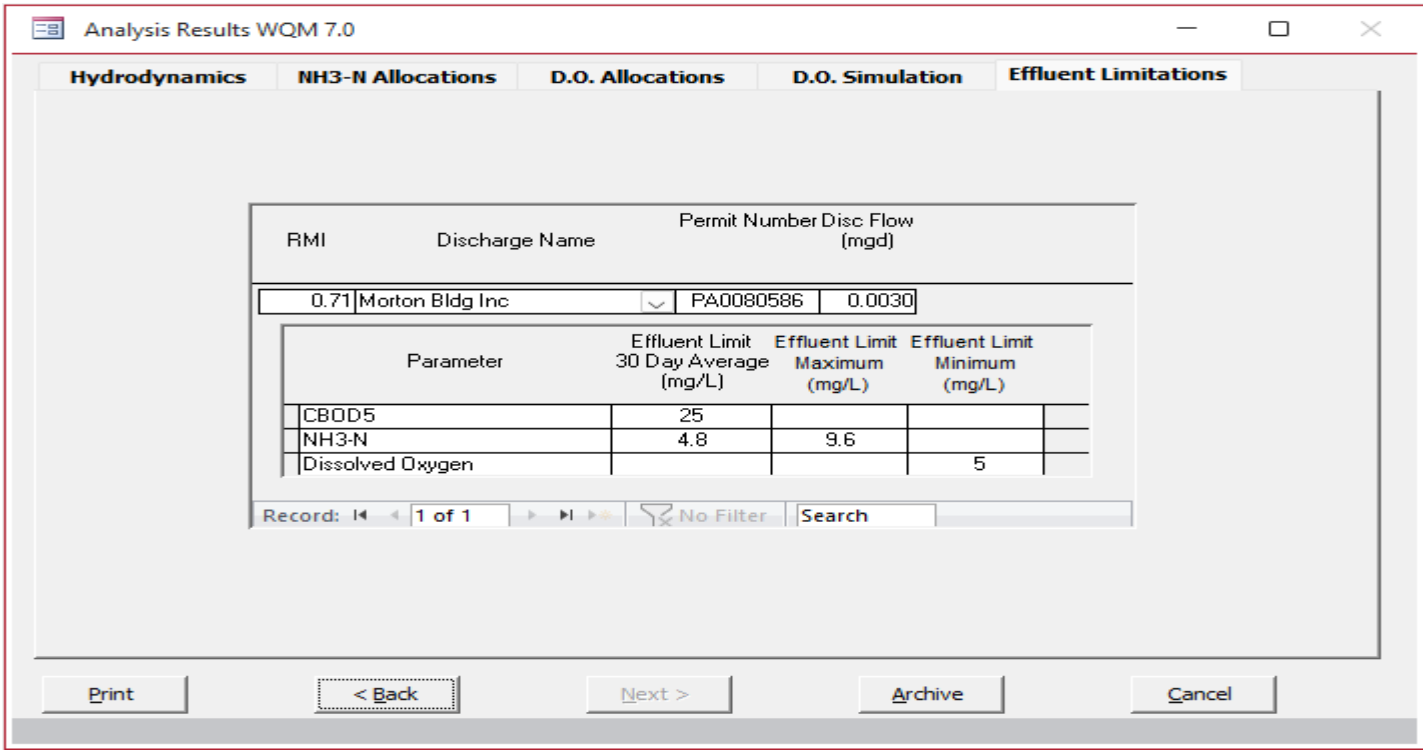
The discharge is not located on a 303d listed stream segment.

WQM 7.0 model inputs:

Discharge pH	=	7.0	(Default)
Discharge Temperature	=	20°C	(Default)
Stream pH	=	7.0	(Default)
Stream Temperature	=	20°C	(Default)
Background NH_3-N	=	0	(Default)

Node 1: Trib 08955 of Swift Run (stream code 08955)
- Elevation: 560.45 ft (USGS National Map Viewer)
- Drainage Area: 0.45 $mi.^2$ (USGS PA StreamStats)
- River Mile Index: 0.710 miles (PA DEP eMapPA)
- Low Flow Yield: 0.014 $cfs/mi.^2$
- Discharge Flow: 0.003 MGD (NPDES PA0080586)

Node 2: Just before conjunction to Trib 08954 to Swift Run
- Elevation: 510.73 ft (USGS National Map Viewer)
- Drainage Area: 0.78 $mi.^2$ (USGS PA StreamStats)
- River Mile Index: 0.10 mile (PA DEP eMapPA)
- Low Flow Yield: 0.014 $cfs/mi.^2$
- Discharge Flow: 0.00 MGD



rptEffLimits

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
07F	69655	Trib 69655 of Swift 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)
0.710	Morton Bldg Inc	PA0080586	0.003	CBOD5	25		
				NH3-N	4.8	9.6	
				Dissolved Oxygen			5

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rpt_WLA

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
07F	69655	Trib 69655 of Swift 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
0.710	Morton Bldg Inc	13.43	25.09	13.43	25.09	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
0.710	Morton Bldg Inc	1.68	4.8	1.68	4.8	0	0

Dissolved Oxygen Allocations

		CBOD5		NH3-N		Dissolved Oxygen			
RMI	Discharge Name	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Critical Reach	Percent Reduction
0.71	Morton Bldg Inc	25	25	4.8	4.8	5	5	0	0

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rptDOSim

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
07F	69655	Trib 69655 of Swift Run

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
0.710	0.003	22.121	7.000
Reach Width (ft)	Reach Depth (ft)	Reach W/D Ratio	Reach Velocity (fps)
2.060	0.242	8.506	0.022
Reach CBOD5 (mg/L)	Reach Kc (1/days)	Reach NH3-N (mg/L)	Reach Kn (1/days)
11.76	0.916	2.03	0.824
Reach DO (mg/L)	Reach Kr (1/days)	Kr Equation	Reach DO Goal (mg/L)
6.867	24.345	Owens	5
Reach Travel Time (days)			
1.699			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.170	9.85	1.77	7.85
0.340	8.25	1.54	7.93
0.510	6.91	1.34	7.93
0.680	5.79	1.16	7.93
0.850	4.85	1.01	7.93
1.019	4.06	0.88	7.93
1.189	3.40	0.76	7.93
1.359	2.85	0.66	7.93
1.529	2.39	0.58	7.93
1.699	2.00	0.50	7.93

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rptModelSpecs

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
W/A Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	5		

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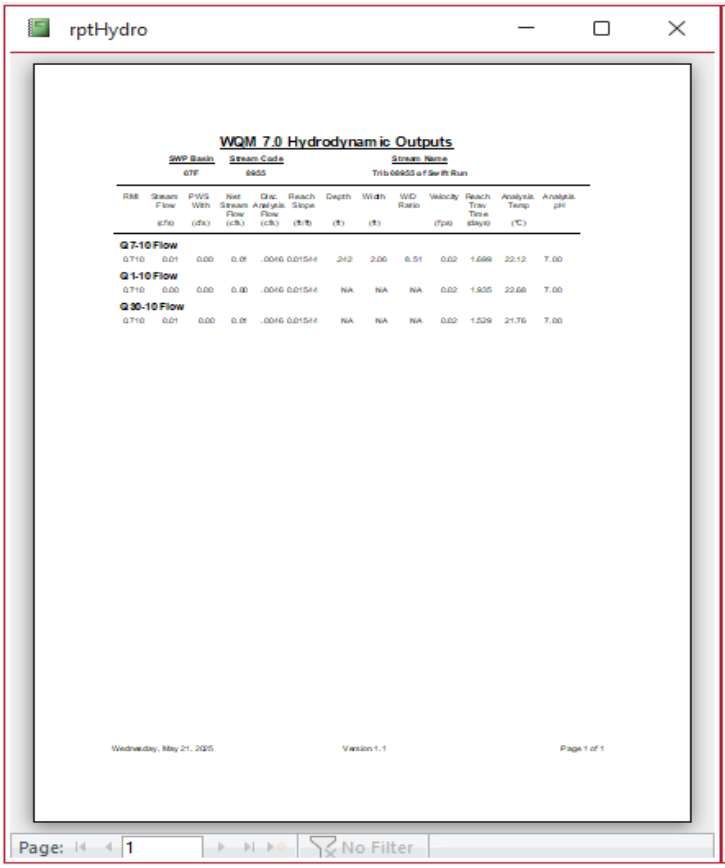
rptHydro
WQM 7.0 Hydrodynamic Outputs
SWP Basin
Stream Code
Stream Name
07F
6955
Trib 06955 of Swift Run
RMI
Stream Flow (cfs)
PWS With (cfs)
Net Stream Flow (cfs)
Disc Analysis Flow (cfs)
Reach Slope (ft/ft)
Depth (ft)
Width (ft)
WD Ratio
Velocity (fps)
Reach Trav Time (days)
Analysis Temp (°C)
Analysis pH
Q 7-10 Flow
0.710 0.01 0.00 0.01 .0046 0.01544 .242 2.00 8.51 0.02 1.099 22.12 7.00
Q 1-10 Flow
0.710 0.00 0.00 0.00 .0046 0.01544 NA NA NA 0.02 1.935 22.68 7.00
Q 30-10 Flow
0.710 0.01 0.00 0.01 .0046 0.01544 NA NA NA 0.02 1.529 21.76 7.00
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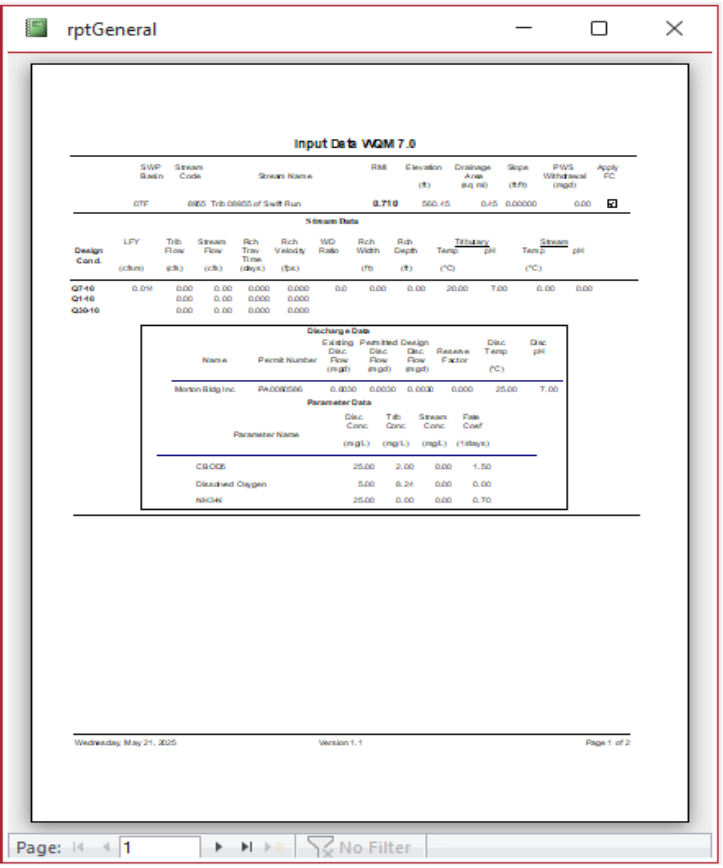
rptGeneral
Input Data WQM 7.0
SWP Basin
Stream Code
Stream Name
RMI
Elevation (ft)
Drainage Area (sq mi)
Slope (ft/ft)
PWS Withdrawal (mgd)
Apply FC
07F
6955 Trib 06955 of Swift Run
0.710
560.45
0.45
0.00000
0.00
Stream Data
Design Cond.
LFY (cfs/sq mi)
Trib Flow (cfs)
Stream Flow (cfs)
Rch Trav Time (days)
Rch Velocity (fps)
WD Ratio
Rch Width (ft)
Rch Depth (ft)
Tributary Temp (°C)
Tributary pH
Stream Temp (°C)
Stream pH
Q7-10 0.014 0.00 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
Morton Bldg Inc
PA0080586
0.0000 0.0030 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 5.00 8.24 0.00 0.00
NH3-N 25.00 0.00 0.00 0.70
Wednesday, May 21, 2025
Version 1.1
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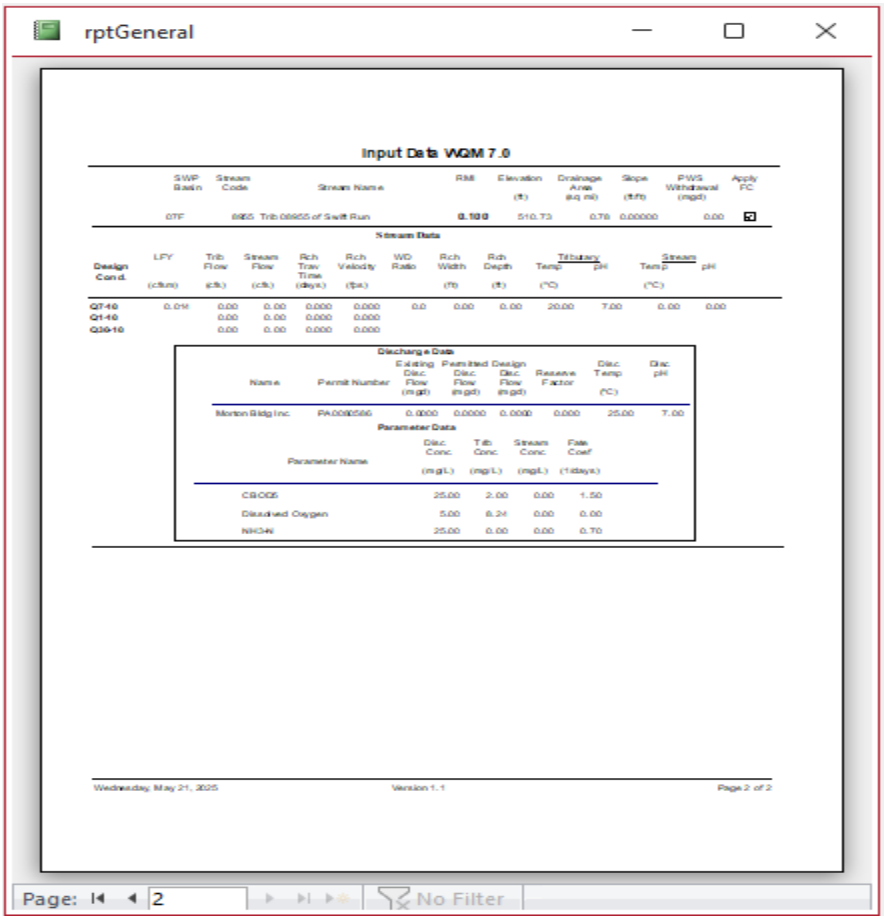
Page: 1
No Filter


rptGeneral
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
07F
6955 Trib 06955 of Swift Run
0.100
510.73
0.78
0.00000
0.00
Stream Data
Design Cond.
LFY (cfs/sq mi)
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 0.014 0.00 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
Morton Bldg Inc
PA0080586
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 5.00 8.24 0.00 0.00
NH3-N 25.00 0.00 0.00 0.70
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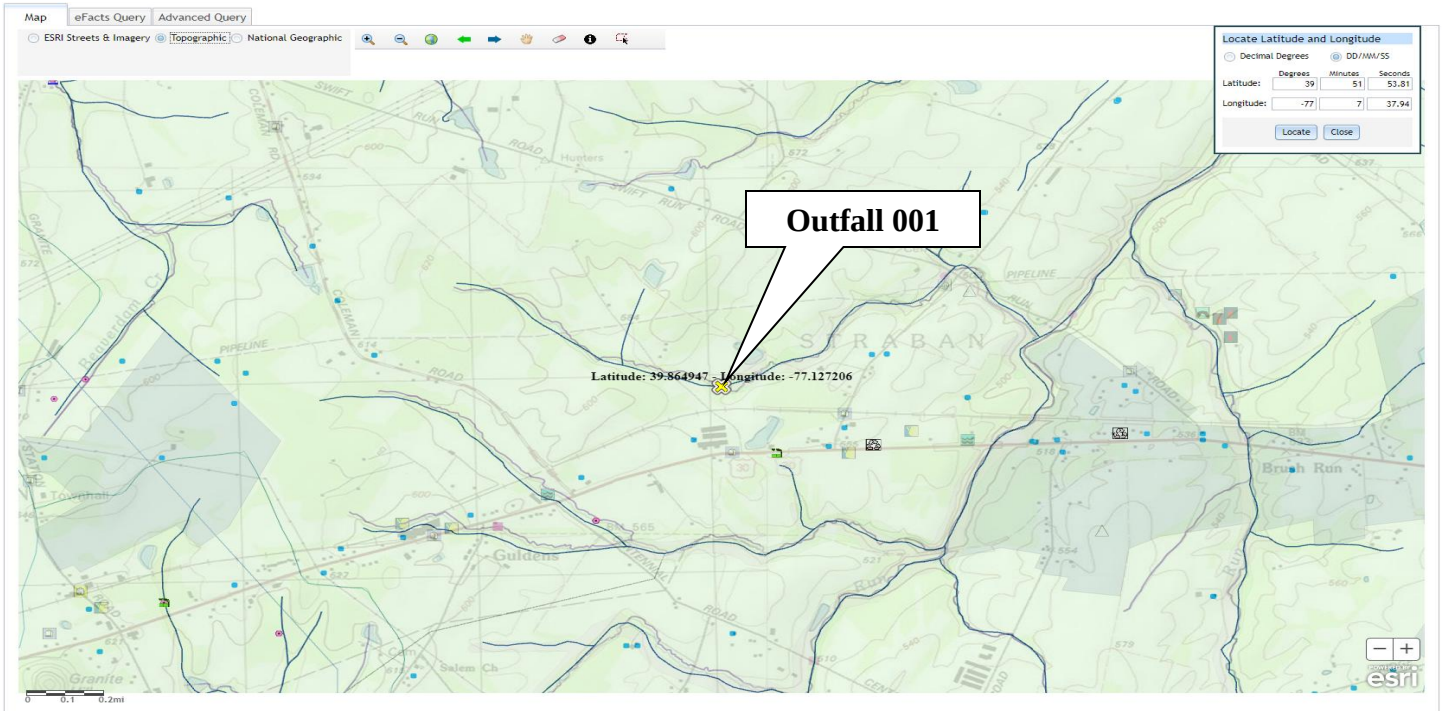
Proposed Effluent Limitations and Monitoring Requirements

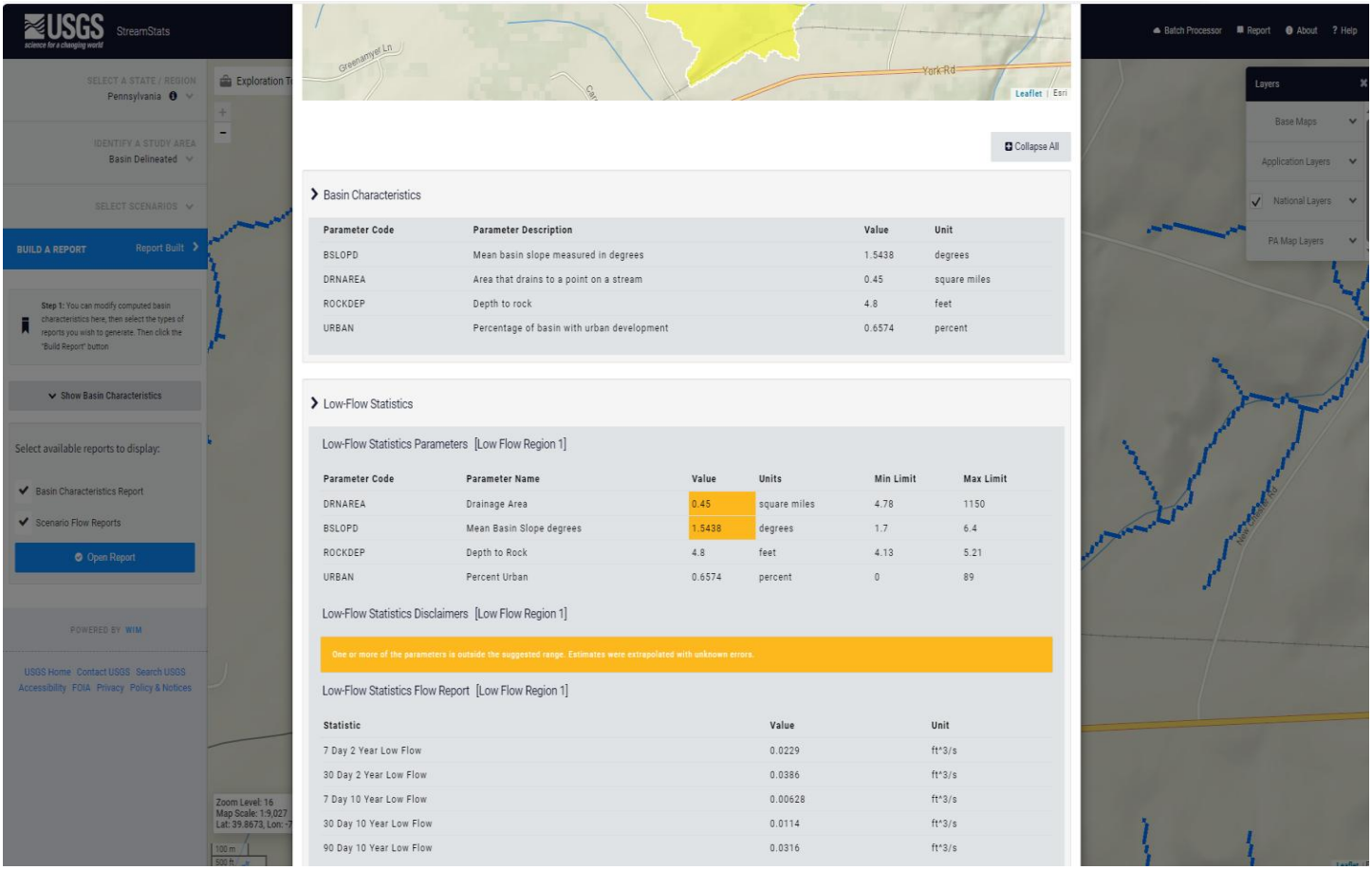
The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (386-0400-001), SOPs and/or BPJ.

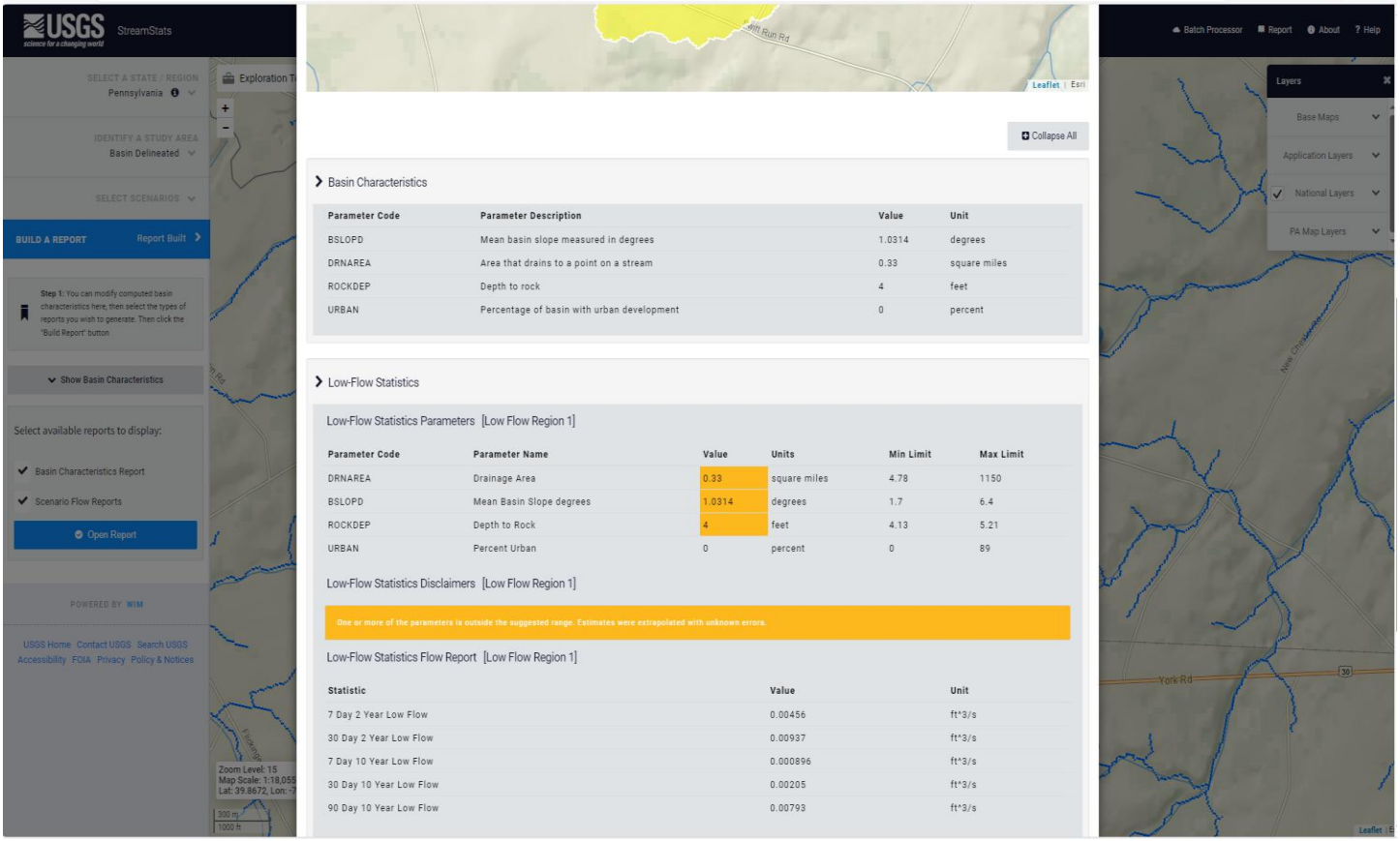
Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

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)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
D.O.	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.2	XXX	0.60	1/day	Grab
$CBOD_5$	XXX	XXX	XXX	25.0	XXX	50.0	2/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	15.0	XXX	30.0	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	5.0	XXX	10.0	2/month	Grab
TKN	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab

Compliance Sampling Location:


Map
eFacts Query
Advanced Query
ESRI Streets & Imagery
Topographic
National Geographic
Locate Latitude and Longitude
Decimal Degrees
DD/MM/SS
Degrees
Minutes
Seconds
Latitude: 39 51 53.81
Longitude: -77 7 37.94
Locate
Close
Outfall 001
Latitude: 39.864947 , Longitude: -77.127206
STRABAN
Brush Run
Gulden
esri


USGS StreamStats
Pennsylvania
Basin Delineated
BUILD A REPORT
Report Built
Show Basin Characteristics
Select available reports to display:
Basin Characteristics Report
Scenario Flow Reports
Open Report
Collapse All
Basin Characteristics
Parameter Code | Parameter Description | Value | Unit
BSLOPD | Mean basin slope measured in degrees | 1.5438 | degrees
DRNAREA | Area that drains to a point on a stream | 0.45 | square miles
ROCKDEP | Depth to rock | 4.8 | feet
URBAN | Percentage of basin with urban development | 0.6574 | percent
Low-Flow Statistics
Low-Flow Statistics Parameters [Low Flow Region 1]
Parameter Code | Parameter Name | Value | Units | Min Limit | Max Limit
DRNAREA | Drainage Area | 0.45 | square miles | 4.78 | 1150
BSLOPD | Mean Basin Slope degrees | 1.5438 | degrees | 1.7 | 6.4
ROCKDEP | Depth to Rock | 4.8 | feet | 4.13 | 5.21
URBAN | Percent Urban | 0.6574 | percent | 0 | 89
Low-Flow Statistics Disclaimers [Low Flow Region 1]
One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.
Low-Flow Statistics Flow Report [Low Flow Region 1]
Statistic | Value | Unit
7 Day 2 Year Low Flow | 0.0229 | ft^3/s
30 Day 2 Year Low Flow | 0.0386 | ft^3/s
7 Day 10 Year Low Flow | 0.00628 | ft^3/s
30 Day 10 Year Low Flow | 0.0114 | ft^3/s
90 Day 10 Year Low Flow | 0.0316 | ft^3/s
Batch Processor
Report
About
Help
Layers
Base Maps
Application Layers
National Layers
PA Map Layers


USGS StreamStats
Pennsylvania
Basin Delineated
BUILD A REPORT
Report Built
Show Basin Characteristics
Select available reports to display:
Basin Characteristics Report
Scenario Flow Reports
Open Report
Collapse All
Basin Characteristics
Parameter Code | Parameter Description | Value | Unit
BSLOPD | Mean basin slope measured in degrees | 1.0314 | degrees
DRNAREA | Area that drains to a point on a stream | 0.33 | square miles
ROCKDEP | Depth to rock | 4 | feet
URBAN | Percentage of basin with urban development | 0 | percent
Low-Flow Statistics
Low-Flow Statistics Parameters [Low Flow Region 1]
Parameter Code | Parameter Name | Value | Units | Min Limit | Max Limit
DRNAREA | Drainage Area | 0.33 | square miles | 4.78 | 1150
BSLOPD | Mean Basin Slope degrees | 1.0314 | degrees | 1.7 | 6.4
ROCKDEP | Depth to Rock | 4 | feet | 4.13 | 5.21
URBAN | Percent Urban | 0 | percent | 0 | 89
Low-Flow Statistics Disclaimers [Low Flow Region 1]
One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.
Low-Flow Statistics Flow Report [Low Flow Region 1]
Statistic | Value | Unit
7 Day 2 Year Low Flow | 0.00456 | ft^3/s
30 Day 2 Year Low Flow | 0.00937 | ft^3/s
7 Day 10 Year Low Flow | 0.000896 | ft^3/s
30 Day 10 Year Low Flow | 0.00205 | ft^3/s
90 Day 10 Year Low Flow | 0.00793 | ft^3/s
Batch Processor
Report
About
Help
Layers
Base Maps
Application Layers
National Layers
PA Map Layers
York Rd

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: BCW-PMT-033
☐	Other: