Pennsylvania Department of Environmental Protection

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0081337**
Facility Type	**Non-Municipal**	APS ID	**328109**
Major / Minor	**Minor**	Authorization ID	**1495610**

Applicant and Facility Information

Applicant Name	**ATG Properties LLC**	Facility Name	**Northwood Manor MHP**
Applicant Address	PO Box 677	Facility Address	1300 York Haven Road
	Morgantown, PA 19543-0677		York Haven, PA 17370-9624
Applicant Contact	Frank Perano	Facility Contact	James Perano
Applicant Phone	(610) 286-0490	Facility Phone	(610) 286-0490
Client ID	143577	Site ID	271671
Ch 94 Load Status	Not Overloaded	Municipality	Newberry Township
Connection Status		County	York
Date Application Received	August 13, 2024	EPA Waived?	Yes
Date Application Accepted	August 27, 2024	If No, Reason	

Purpose of Application: Renewal of existing NPDES permit.

Summary of Review

ATG Properties has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit for the Northwood Manor MHP STP. The permit was last reissued on February 24, 2020 and became effective on March 1, 2020. The permit expired on February 28, 2025 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. A file review of documents associated with the discharge or permittee may be available at the PA DEP southcentral regional office (SCRO), 909 Elmerton Avenue, Harrisburg, PA 17110. To make an appointment for file reviews, contact the SCRO file review coordinator at 717.705.4700.

Sludge use and disposal description and location(s): Hauled offsite by Walters Environmental

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	March 10, 2026
x		*Maria D. Bebenek* for Daniel W. Martin, P.E. / Environmental Engineer Manager	March 25, 2026

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.019125
Latitude	40º 7' 17.21"	Longitude	-76º 45' 30.85"
Quad Name	Dover	Quad Code	1831
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary of Conewago Creek (WWF)	Stream Code	08450
NHD Com ID	57463769	RMI	0.25
Drainage Area	0.04 mi^2	Yield (cfs/mi^2)	0.1178
Q_{7-10} Flow (cfs)	0.00471	Q_{7-10} Basis	USGS SteramStats
Elevation (ft)	467.21	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 Water Supply Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	43.54	Distance from Outfall (mi)	21

Drainage Area

The discharge is to UNT to Conewago Creek at RMI 0.25. A drainage area upstream of the discharge point is determined to be 0.04 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 0.00471 cfs and a Q_{30-10} of 0.00669 cfs. This information was used to obtain a Low Flow Yield (LFY) and Q_{30-10}/Q_{7-10} ratio as follows (Guidance No. 391-2000-023).

Q_{7-10} = 0.0.00471 cfs
LFY = 0.00471 cfs/0.04 mi^2 = 0.1178 cfs/mi^2
Q_{30-10}/Q_{7-10} = 0.00471 cfs/0.00669 cfs = 1.4204

UNT to Conewago Creek

25 Pa Code §93.9 classifies UNT to Conewago Creek as a WWF waterway. No special protection waters are impacted by this discharge. The discharge is in a stream segment listed as attaining use (aquatic life, fish consumption, and recreation) in the 2024 Integrated Report. 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.

Public Water Supply Intake

The nearest downstream public water supply intake is the Wrightsville Borough Municipal Authority intake located on the Susquehanna River approximately 21 miles from the discharge. Considering the distance and nature, the discharge is not expected to significantly affect the water supply.

Local Watershed Total Maximum Daily Loads (TMDLs)

A TMDL for this waterway has not been developed to date.

Class A Wild Trout Streams

The receiving stream is not a Class A Wild Trout stream.

Treatment Facility Summary

Treatment Facility Name: Northwood Manor MHP

WQM Permit No.	Issuance Date

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary With Ammonia Reduction	Extended Aeration	Hypochlorite	0.0191

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0191		Not Overloaded		Other WWTP

ATG Properties, LLC owns and operates the Northwood Manor MHP sanitary wastewater treatment facility located in Newberry Township, York County. The facility serves only the Northwood Manor MHP, all wastes are residential in nature, and all sewer systems are 100% separated. Having an annual average design flow of 0.019125 MGD and a hydraulic design capacity of 0.019125 MGD, this facility consists of a comminutor, an EQ tank, two aeration tanks, one secondary clarifier, two sand filters, a chlorinator, a chlorine contact tank/aeration tank, a dichlorination tank and the outfall (i.e., Outfall 001). Sodium hypochlorite (disinfection), sodium bisulfite (dichlorination) and sodium carbonate (alkalinity amendment) are all utilized at the facility. Solids are stored onsite in a sludge holding tank before being hauled offsite for disposal.

Compliance History	
Summary of DMRs:	A summary of past DMR data is presented on the next page.
Summary of Inspections:	Since the last renewal of the facility's NPDES permit, the following inspections have been logged: 10/08/2025: Shawn Lesitsky, DEP Water Quality Specialist, conducted a routine inspection. The following violations were noted: 1. **25 Pa. Code 92a.41(a)(13):** Unauthorized bypass occurred. High Flow Events - EQ Tank Full, Forward Flow Increased, Blowers Off - 8/18/2021, 9/1/2021, 9/23/2021, 4/7/2022, 5/6/2022, 4/30/2023, 12/18/2023, 3/9/2024, 4/2/2024, 7/1/2025. 2. **P.L. 1987, No. 394, Sec 611:** Failure to comply with terms and conditions of a WQM permit. Collection System Maintenance not performed. Numerous operational recommendations were also identified at the time of inspection: A. Replace EQ Tank Diffusers per Operator Request. B. Operate and Maintain Sand Filters as Designed: Remove Vegetation. C. Repair Outfall Headwall. D. Maintain Sample Results On-Site. E. Utilize flow-proportional sampling per your NPDES Permit. 5/3/2016: Austin Pardoe, DEP Water Quality Specialist, conducted a routine inspection; there was no discharge from the plant at the time of the inspection. 4/07/2021: Heather Dock, DEP Water Quality Specialist, conducted a routine inspection. The following violations were noted: **1. 92A.44: NPDES** - Violation of effluent limits in Part A of permit TRC monthly average violations were reported in January, March and December 2020 and TRC instantaneous maximum violations were reported in January, March, May, June, August, December 2020 and January, February 2021. Stipulated penalties under the Consent Decree have been paid in response to these violations. Numerous operational recommendations were also identified at the time of inspection: A. Consider UV disinfection to meet compliance for TRC and fecal coliform. B. Operate sand filters as designed. C. Within 60 days of receipt of report, conduct an investigation, such as televising, of the entire collection system. Provide a follow-up report to the Department within the time frame summarizing the investigation an a plan to address issues identified. D. Run all chlorine meters used for compliance reporting against standards weekly, as per SOPs. 4/6/2021: Heather Dock, DEP Water Quality Specialist, conducted an administrative review by phone. No violations or recommendations were noted. 6/10/2020: Austin Randecker, DEP Water Quality Specialist, conducted a routine inspection. No violations were noted. A recommendation to notify the Department when the facility enters storm mode was made.

Other Comments: A review of the facility's records revealed that there are two Clean Water open violations associated with this facility and one violation associated with another facility. These violations will need to be resolved before this permit can be finalized.

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	INSPECTED SITE ID	INSPECTED SITE
143577	ATG PROP LLC	294704	BROOKHAVEN MHP	Sewage Non-Publicly Owned (Non-Muni)	Active	WPC NPDES	PA0036285	4062058	8249926	PF	10/31/2024	92A.41(A)13B	NPDES - Unauthorized bypass occurred	LESITSKY,SHAWN	SCRO		
143577	ATG PROP LLC	294720	NORTHWOOD MANOR MHP	Sewage Non-Publicly Owned (Non-Muni)	Active	WPC NPDES	PA0081337	4068726	8256692	PF	10/08/2025	92A.41(A)13B	NPDES - Unauthorized bypass occurred	LESITSKY,SHAWN	SCRO		
143577	ATG PROP LLC	294720	NORTHWOOD MANOR MHP	Sewage Non-Publicly Owned (Non-Muni)	Active	WPC NPDES	PA0081337	4068726	8256693	PF	10/08/2025	CSL611	CSL - Failure to comply with terms and conditions of a WQM permit	LESITSKY,SHAWN	SCRO		

Compliance History

DMR Data for Outfall 001 (from February 1, 2025 to January 31, 2026)

Parameter	JAN-26	DEC-25	NOV-25	OCT-25	SEP-25	AUG-25	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25
Flow (MGD) Average Monthly	0.0052	0.005	0.0041	0.0047	0.0037	0.004	0.0062	0.006	0.0089	0.004	0.0035	0.0051
Flow (MGD) Daily Maximum	0.0097	0.0109	0.0074	0.0129	0.0066	0.0111	0.0286	0.0224	0.053	0.0074	0.007	0.0117
pH (S.U.) Instantaneous Minimum	7.3	7.6	7.5	7.7	7.9	7.6	7.2	7.7	7.3	7.6	7.5	7.9
pH (S.U.) Instantaneous Maximum	8.3	8.4	8.5	8.5	8.6	8.8	8.3	8.4	8.4	8.5	8.4	8.3
DO (mg/L) Instantaneous Minimum	11.48	10.74	9.09	7.88	7.47	6.97	5.86	7.25	6.72	9.39	10.55	11.94
TRC (mg/L) Average Monthly	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TRC (mg/L) Instantaneous Maximum	0.010	0.010	0.020	0.010	0.010	0.030	0.010	0.020	0.030	0.020	0.010	0.010
CBOD5 (mg/L) Average Monthly	8.5	7.9	4.2	2.3	< 2.1	2.4	< 2.6	2.2	< 3.1	3.6	6.0	10.6
TSS (mg/L) Average Monthly	< 5.8	< 4.0	< 4.8	< 4.0	< 4.0	< 4.0	< 4.0	< 4.3	< 5.2	< 4.0	6.3	4.6
Fecal Coliform (No./100 ml) Geometric Mean	5	< 1	2	< 1	< 1	< 2	< 3	< 1	< 2	< 1	< 4	5
Fecal Coliform (No./100 ml) Instantaneous Maximum	23	2	3	< 1	2	4	20	< 1	4	< 1	19	6
Nitrate-Nitrite (lbs/day) Daily Maximum		0.7						0.8				
Nitrate-Nitrite (mg/L) Daily Maximum		38.4						20				
Total Nitrogen (lbs/day) Daily Maximum		0.7						0.8				
Ammonia (mg/L) Average Monthly	< 0.1	< 0.11	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.16	< 0.1	< 0.1	< 0.1

TKN (lbs/day) Daily Maximum		0.02						< 0.03				
TKN (mg/L) Daily Maximum		1						< 0.7				
Total Phosphorus (lbs/day) Daily Maximum		0.09						0.1				
Total Phosphorus (mg/L) Daily Maximum		5.23						2.48				

Existing Effluent Limitations and Monitoring Requirements

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 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	0.012	XXX	0.038	1/day	Grab
CBOD5 Nov 1 - Apr 30	XXX	XXX	XXX	20.0	XXX	40	2/month	8-Hr Composite
CBOD5 May 1 - Oct 31	XXX	XXX	XXX	10.0	XXX	20	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	20.0	XXX	40	2/month	8-Hr Composite
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
Nitrate-Nitrite	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/6 months	8-Hr Composite
Total Nitrogen	XXX	Report Daily Max	XXX	XXX	XXX	XXX	1/6 months	Calculation
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	4.5	XXX	9	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	1.5	XXX	3	2/month	8-Hr Composite
TKN	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/6 months	8-Hr Composite
Total Phosphorus	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/6 months	8-Hr Composite

Compliance Sampling Location: Outfall 001

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .019125
Latitude 40º 7' 18.91" **Longitude** -76º 45' 31.01"
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 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 output indicated that existing summer WQBEL of 10 mg/L for CBOD5 is still appropriate. The output also indicated that the existing summer WQBEL of 1.5 mg/L for NH3-N is still protective of water quality.

A minimum of 5.0 mg/L for DO is an existing effluent limit and will remain unchanged in the draft permit as recommended by DEP's SOP. This requirement has also been assigned to other sewage facilities in the region. 5.0 mg/L is taken directly from 25 Pa. Code § 93.7(a) and it is also determined to be appropriate according to water quality modeling.

The monitoring frequency and sample type for NH3-N, CBOD5 and DO are proposed to remain unchanged.

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 existing limits of 0.012 mg/L (average monthly) and 0.038 mg/L (IMAX) are still protective of water quality.

Toxics

DEP's NPDES permit application for minor sewages (less than 1.0 MGD) does not require sampling for heavy metals including Total Copper, Total Lead, and Total Zinc.

Best Professional Judgment (BPJ) Limitations

Total Phosphorus & Total Nitrogen

DEP's SOP no. BPNPSM-PMT-033 recommends monitoring requirements for Total Nitrogen for all sewage facilities. Therefore, routine monitoring for TKN, Nitrate-Nitrite, and TN are recommended to continue in this permit as previously permitted.

Historically, an average monthly Total Phosphorus limit of 2.0 mg/L was recommended in NPDES permits, per DEP phosphorus guidance 391-2000-018, to control phosphorus effluent levels for any facilities that are expected to contribute 0.25% or more of the total phosphorus loading of the entire basin. DEP has previously determined that this facility does not meet the criteria for requiring a TP limit. It is recommended to maintain the existing bi-annual sampling and reporting requirement as in previous permits.

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).

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, annual E. Coli monitoring has been proposed in this permit. The collection method will be via grab sample.

Chesapeake Bay TMDL

The Department formulated a strategy in April 2007, to comply with the EPA's and Chesapeake Bay Foundation's requirements to reduce point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP) to the Bay. In the Strategy, sewage dischargers have been prioritized by Central Office based on their delivered TN loadings to the Bay. The highest priority (Phases 1, 2, and 3) dischargers received annual loading caps based on their design flow on August 29, 2005 and concentrations of 6 mg/l TN and 0.8 mg/l TP. Phase 4 (0.2 -0.4mgd) and Phase 5 (below 0.2mdg) facilities were required to monitor and report TN and TP during permit renewal at a monitoring frequency following Table 6-3 of DEP's Technical Guidance for Development and Specification of effluent Limitations (No. 362-0400-001).

EPA published the Chesapeake Bay Total Maximum Daily Load (TMDL) in December of 2010. Despite extensive restoration efforts during the past 25 years, the TMDL was prompted by insufficient progress and continued poor water quality in the Chesapeake Bay and its tidal tributaries.

In order to address the TMDL, Pennsylvania developed, in addition to the Bay Strategy, a Chesapeake Watershed Implementation Plan (WIP) Phase 1 in January 2011 and Phase 2 in March 2012. In accordance with the Phase 2 WIP and its supplement, re-issuing permits for significant dischargers follow the same phased approach formulated in the original Bay strategy, whilst Phase 4 and Phase 5 will be required to monitor and report TN and TP during permit renewal.

The Phase 3 WIP categorizes this facility as a phase 5 non-significant sewage facility that has a design flow less than 0.2 MGD but greater than 0.002 MGD. The WIP recommends monitoring and reporting for Total Nitrogen and Total Phosphorus throughout the permit term at a frequency of no less than annual. The monitoring of these pollutants once every six months will be written in the permit in conformity with other permits issued in the region.

Monitoring Frequency and Sample Type

The facility currently is required to collect 8-hr composite effluent samples of non-Bay parameters twice a month, which is consistent with DEP Guidance 362-0400-001 (Table 6-3).

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. This approach is in accordance with 40 CFR §122.44(l(1).

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.

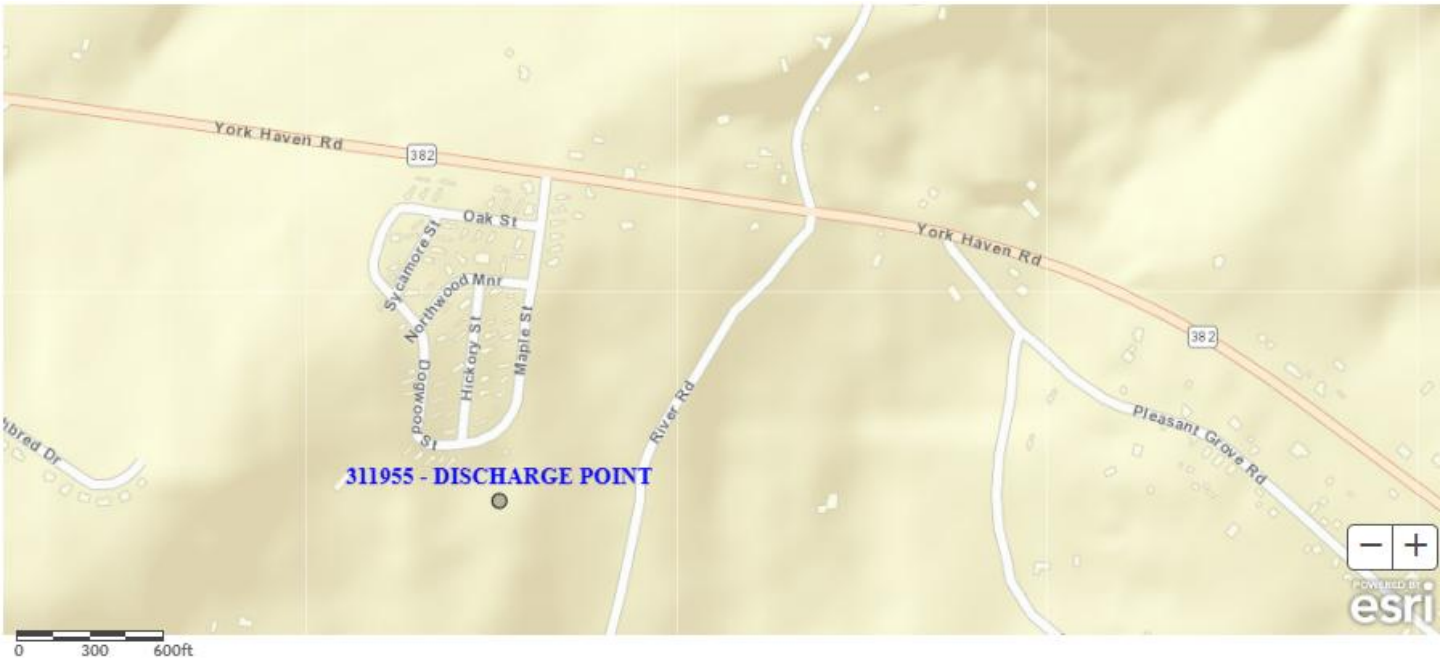
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 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	0.012	XXX	0.038	1/day	Grab
CBOD5 Nov 1 - Apr 30	XXX	XXX	XXX	20.0	XXX	40	2/month	8-Hr Composite
CBOD5 May 1 - Oct 31	XXX	XXX	XXX	10.0	XXX	20	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	20.0	XXX	40	2/month	8-Hr Composite
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
Nitrate-Nitrite	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/6 months	8-Hr Composite
Total Nitrogen	XXX	Report Daily Max	XXX	XXX	XXX	XXX	1/6 months	Calculation
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	4.5	XXX	9	2/month	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	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Ammonia May 1 - Oct 31	XXX	XXX	XXX	1.5	XXX	3	2/month	8-Hr Composite
TKN	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/6 months	8-Hr Composite
Total Phosphorus	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/6 months	8-Hr Composite

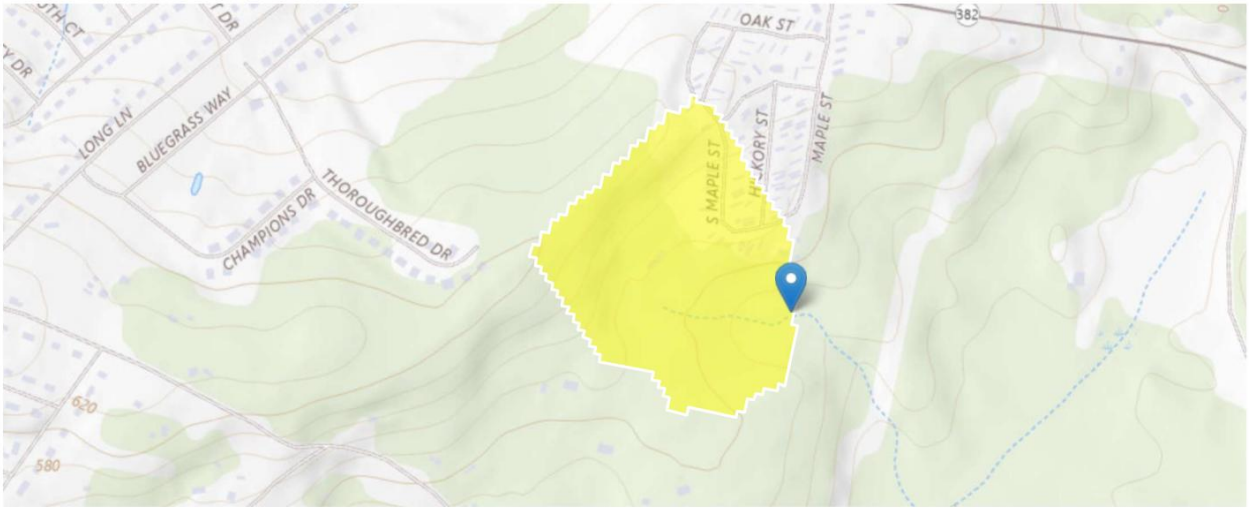
Compliance Sampling Location: Outfall 001

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:


York Haven Rd
382
Oak St
Sycamore St
Northwood Mnr
Dogwood St
Hickory St
Maple St
River Rd
York Haven Rd
382
Pleasant Grove Rd
311955 - DISCHARGE POINT
0
300
600ft
esri

StreamStats Report

Region ID: PA
Clicked Point (Latitude, Longitude): 40.12145, -76.75860
Time: 2026-03-10 07:39:08 -0400



StreamStats Update

Starting with version 4.30.0, the StreamStats application uses services that were redeveloped with open-source software components. Users may observe minor variations in computed results when compared to those from previous versions. These differences are expected and do not reflect errors in the underlying data or analytical methods. Users are advised to consider these potential variations when interpreting or comparing results generated across different versions of StreamStats. Please email streamstats@usgs.gov with any questions or concerns. A full list of changes can be found at **https://www.usgs.gov/streamstats/news/streamstats-data-updates-open-source-code-release (https://www.usgs.gov/streamstats/news/streamstats-data-updates-open-source-code-release)** .

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	4.6525	degrees
DRNAREA	Area that drains to a point on a stream	0.04	square miles
ROCKDEP	Depth to rock	4.9	feet
URBAN	Percentage of basin with urban development	16.2566	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
BSLOPD	Mean Basin Slope degrees	4.6525	degrees	1.7	6.4
DRNAREA	Drainage Area	0.04	square miles	4.78	1150

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ROCKDEP	Depth to Rock	4.9	feet	4.13	5.21
URBAN	Percent Urban	16.2566	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	0.0118	ft^3/s
30 Day 2 Year Low Flow	0.0156	ft^3/s
7 Day 10 Year Low Flow	0.00471	ft^3/s
30 Day 10 Year Low Flow	0.00669	ft^3/s
90 Day 10 Year Low Flow	0.011	ft^3/s

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: 4.31.1
SSHydro Services Version: 1.1.1
SSDelineate Services Version: 1.0.1
NSS Services Version: 2.2.1
GageStats Services Version: 1.2.1
Pourpoint Services Version: 1.2.0
Batch Processor Version: 1.6.1

StreamStats Report

Region ID: PA
Clicked Point (Latitude, Longitude): 40.11886, -76.75622
Time: 2026-03-10 07:40:15 -0400

StreamStats Update

Starting with version 4.30.0, the StreamStats application uses services that were redeveloped with open-source software components. Users may observe minor variations in computed results when compared to those from previous versions. These differences are expected and do not reflect errors in the underlying data or analytical methods. Users are advised to consider these potential variations when interpreting or comparing results generated across different versions of StreamStats. Please email streamstats@usgs.gov with any questions or concerns. A full list of changes can be found at **https://www.usgs.gov/streamstats/news/streamstats-data-updates-open-source-code-release (https://www.usgs.gov/streamstats/news/streamstats-data-updates-open-source-code-release)** .

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	5.1507	degrees
DRNAREA	Area that drains to a point on a stream	0.08	square miles
ROCKDEP	Depth to rock	4.9	feet
URBAN	Percentage of basin with urban development	9.995	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
BSLOPD	Mean Basin Slope degrees	5.1507	degrees	1.7	6.4
DRNAREA	Drainage Area	0.08	square miles	4.78	1150
ROCKDEP	Depth to Rock	4.9	feet	4.13	5.21
URBAN	Percent Urban	9.995	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	0.0241	ft^3/s
30 Day 2 Year Low Flow	0.031	ft^3/s
7 Day 10 Year Low Flow	0.01	ft^3/s
30 Day 10 Year Low Flow	0.0138	ft^3/s
90 Day 10 Year Low Flow	0.0214	ft^3/s

Low-Flow Statistics Citations

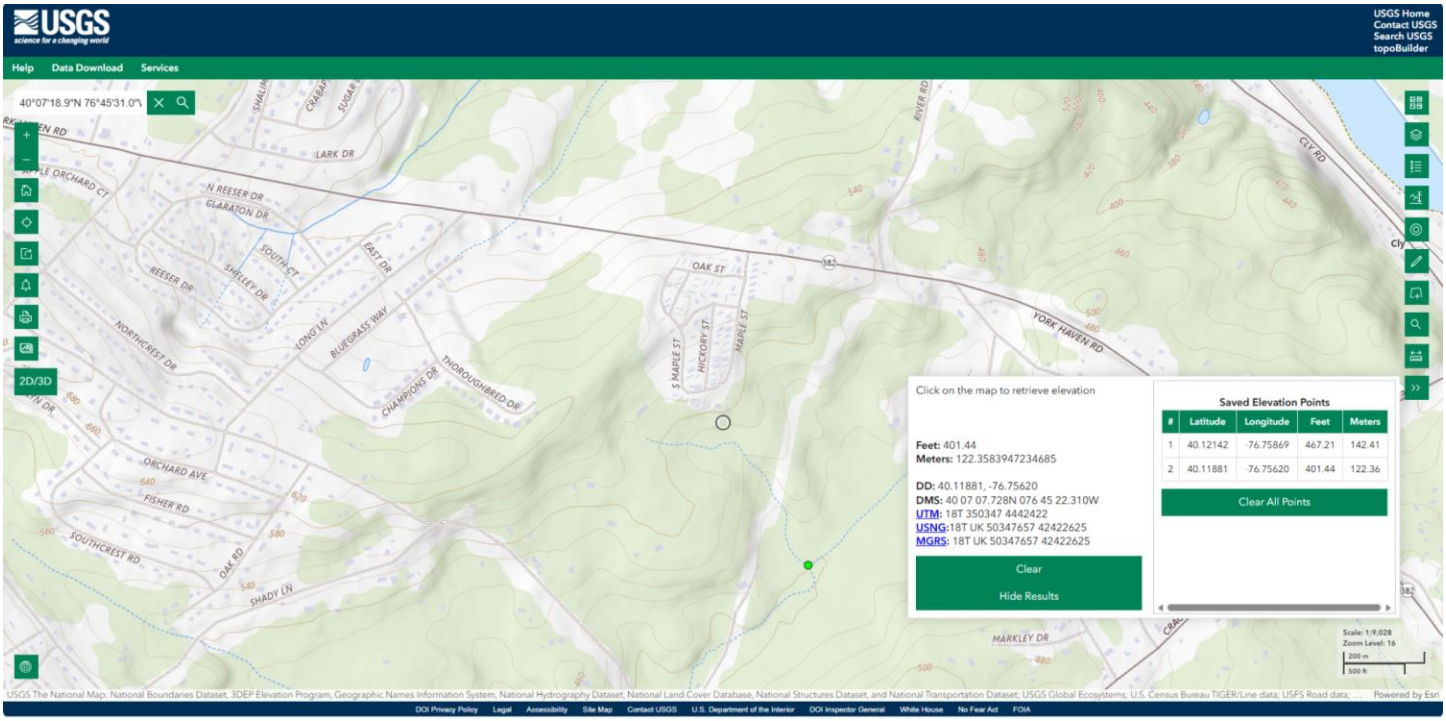
Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.31.1
SSHydro Services Version: 1.1.1
SSDelineate Services Version: 1.0.1
NSS Services Version: 2.2.1
GageStats Services Version: 1.2.1
Pourpoint Services Version: 1.2.0
Batch Processor Version: 1.6.1

TRC_CALC

	B	C	D	E	F	G
2	**TRC EVALUATION**					
3	Input appropriate values in B4:B8 and E4:E7					
4	0.04	= Q stream (cfs)		0.5	= CV Daily	
5	0.00471	= 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	0.012	= 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 = 1.770		1.3.2.iii	WLA cfc = 1.718
12	PENTOXSD TRG	5.1a	LTAMULT afc = 0.373		5.1c	LTAMULT cfc = 0.581
13	PENTOXSD TRG	5.1b	LTA_afc= 0.660		5.1d	LTA_cfc = 0.999
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) = 0.012		BAT/BPJ	
18			INST MAX LIMIT (mg/l) = 0.039			

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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LARK DR
N REESER DR
GLARATON DR
SOUTH CT
EAST DR
REESER DR
SHELLEY DR
NORTHCREST DR
LONG LN
BLUEGRASS WAY
CHAMPIONS DR
THOROUGHBRED DR
OAK ST
S MAPLE ST
HICKORY ST
MAPLE ST
RIVER RD
CLY RD
YORK HAVEN RD
ORCHARD AVE
FISHER RD
SOUTHCREST RD
OAK RD
SHADY LN
MARKLEY DR
2D/3D
Click on the map to retrieve elevation
Feet: 401.44
Meters: 122.3583947234685
DD: 40.11881, -76.75620
DMS: 40 07 07.728N 076 45 22.310W
UTM: 18T 350347 4442422
USNG:18T UK 50347657 42422625
MGRS: 18T UK 50347657 42422625
Clear
Hide Results
Saved Elevation Points
Latitude Longitude Feet Meters
1 40.12142 -76.75869 467.21 142.41
2 40.11881 -76.75620 401.44 122.36
Clear All Points
Scale: 1:9,028
Zoom Level: 16
200 m
500 ft
USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data;
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U.S. Department of the Interior
DOI Inspector General
White House
No Fear Act
FOIA

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
07F	8450	Trib 08450 of Conewago Creek

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)
0.250	Northwood Manor	PA0081337	0.019	CBOD5	10		
				NH3-N	1.5	3	
				Dissolved Oxygen			5

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
07F	8450	Trib 08450 of Conewago Creek

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
0.250	Northwood Manor	11.07	3	11.07	3	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
0.250	Northwood Manor	1.37	1.5	1.37	1.5	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)		
0.25	Northwood Manor	10	10	1.5	1.5	5	5	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
07F	8450	Trib 08450 of Conewago Creek

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
0.250	0.019	25.000	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
1.272	0.345	3.687	0.078
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
8.90	1.444	1.29	1.029
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
5.445	31.691	Owens	5
Reach Travel Time (days)			
0.195			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.019	8.59	1.27	6.36
0.039	8.29	1.24	6.87
0.058	8.00	1.22	7.16
0.078	7.73	1.19	7.33
0.097	7.46	1.17	7.43
0.117	7.20	1.15	7.50
0.136	6.95	1.12	7.54
0.156	6.71	1.10	7.54
0.175	6.47	1.08	7.54
0.195	6.25	1.06	7.54

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	1.4204	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	5		

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
07F	8450	Trib 08450 of Conewago Creek

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												
0.250	0.00	0.00	0.00	.0296	0.05003	.345	1.27	3.69	0.08	0.195	25.00	7.00
Q1-10 Flow												
0.250	0.00	0.00	0.00	.0296	0.05003	NA	NA	NA	0.08	0.200	25.00	7.00
Q30-10 Flow												
0.250	0.01	0.00	0.01	.0296	0.05003	NA	NA	NA	0.08	0.189	25.00	7.00

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	8450	Trib 08450 of Conewago Creek	**0.250**	467.21	0.04	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	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Northwood Manor	PA0081337	0.0191	0.0191	0.0191	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	10.00	2.00	0.00	1.50
Dissolved Oxygen	5.00	8.24	0.00	0.00
NH3-N	1.50	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
07F	8450	Trib 08450 of Conewago Creek	**0.001**	401.44	0.08	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	0.01	0.00	0.000	0.000	0.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	0.00	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