Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0034614**
Facility Type	**Non-Municipal**	APS ID	**1120593**
Major / Minor	**Minor**	Authorization ID	**1497157**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**DP 116 LLC**	Facility Name	**Mountain Pines Resort STP**
Applicant Address	333 N Bedford Road	Facility Address	1662 Indian Creek Valley Road
	Mount Kisco, NY 10549-1158		Champion, PA 15622-3057
Applicant Contact	Forrest Johnson	Facility Contact	
Applicant Phone	(724) 455-7411	Facility Phone	
Client ID	353389	Site ID	336171
Ch 94 Load Status	Not Overloaded	Municipality	Saltlick Township
Connection Status		County	Fayette
Date Application Received	August 16, 2024	EPA Waived?	Yes
Date Application Accepted	August 30, 2024	If No, Reason	
Purpose of Application	Renewal of an NPDES Minor Permit		

Summary of Review

DP 116 LLC in Fayette County has applied for renewal of the Mountain Pines Resort STP, an NPDES Minor Sewage facility.

Sewage to the plant is treated by bar screening, extended aeration, clarification, filtration, and UV Disinfection.

Act 14 Notification was provided to Saltlick Township, and Fayette County in the April 10, 2024 letters to each entity.

Sludge use and disposal description and location: Sludge is stored on-site in a 10,000-gallon holding tank. Top Septic of Fayette County was identified as the sludge hauler.

Issuance of the Draft Permit is recommended.

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	Return	Deny	Signatures	Date
x			John Price Jack Price / Environmental Engineering Specialist	November 20, 2025
x			Mahbuba Iasmin Mahbuba Iasmin, Ph.D., P.E./Environmental Engineer Manager	November 26, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.035
Latitude	40º 3' 42.543"	Longitude	-79º 21' 42.236"
Quad Name	4079A3	Quad Code	Seven Springs
Wastewater Description:	Sewage Effluent		
Receiving Waters	Indian Creek (HQ-CWF)	Stream Code	38235
NHD Com ID	69915897	RMI	19.56
Drainage Area	31.6	Yield (cfs/mi^2)	0.0253
Q_{7-10} Flow (cfs)	0.801	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1442.01	Slope (ft/ft)	0.00397
Watershed No.	19-E	Chapter 93 Class.	HQ-CWF
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	

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

Nearest Downstream Public Water Supply Intake	Indian Creek Valley Water Authority (0.400 MGD)		
PWS Waters	Mill Run Reservoir	Flow at Intake (cfs)	3.59
PWS RMI	4.87	Distance from Outfall (mi)	14.4 River Miles

Changes Since Last Permit Issuance:

No changes to the watershed have occurred since the previous authorization.

A new WQM 7.0 Model was run. The model included all sewage discharges in the reach due to the high-quality stream. No changes to permit limitations resulted from the new model.

Construction and startup of the new facility occurred during the previous permit term. Chlorine disinfection is no longer used.

Monitoring of *E. Coli* has been added to effluent limitations.

Other Comments: Effect on the nearest downstream PWS is negligible due to the size of this discharge relative to the streamflow and the greater than 10-mile distance from the intake.

River miles determined from Gazetteer of PA Streams on eMapPA.

Treatment Facility Summary

Treatment Facility Name: Mountain Pines Resort STP

WQM Permit No.	Issuance Date	Description
2673408	07/18/1973	Construct original facility.
2673408 A-1	02/06/2020	Construct new facility to treat for this discharge.

Treatment at the facility consists of:

- Bar screening of influent to the plant;
- A 100,000-gallon equalization tank system, divided into a 30,000-gallon system that smooths out daily flows and a 70,000-gallon system that handles peak flows;
- A 40,000-gallon extended aeration system;
- Two clarifiers with a volume of 3,905 gallons each;
- Three filter units for treatment of TSS;
- A 10,000-gallon sludge holding tank;
- A 100,000 gallon-per-day capacity UV disinfection system, with post aeration.

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary With Ammonia Reduction	Extended Aeration	Ultraviolet	0.035

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.035	70	Not Overloaded	Dewatering	Other WWTP

Changes Since Last Permit Issuance: WQM Permit 2673408 A-1 authorized the construction of a facility to replace the original treatment plant and was issued simultaneously with the previous NPDES authorization. The new facility was constructed during the permit term and is now operational.

Compliance History

DMR Data for Outfall 001 (from July 1, 2024 to June 30, 2025)

Parameter	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24
Flow (MGD) Average Monthly	0.018	0.027	0.004	0.005	0.015	0.005	0.011	0.013	0.005	0.011	0.012	0.011
pH (S.U.) Instantaneous Minimum	6.6	7.1	7.6	7.7	7.1	7.1	7.4	7.3	6.7	6.3	6.0	6.8
pH (S.U.) Instantaneous Maximum	8.0	7.9	8.4	8.3	8.3	8.5	8.4	8.3	8.1	8.4	8.0	8.1
DO (mg/L) Instantaneous Minimum	4.6	4.7	5.2	9.2	10.1	9.6	9.9	7.2	4.7	4.2	4.3	4.3
$CBOD_5$ (mg/L) Average Monthly	2.4	2.0	5.6	< 2.0	2.6	2.0	3.2	2.0	2.0	2.2	2.0	2.0
$CBOD_5$ (mg/L) Instantaneous Maximum	2.7	2.0	6.4	< 2.0	3.2	2.0	4.3	2.0	2.0	2.3	2.0	2.0
BOD_5 (mg/L) Raw Sewage Influent Daily Maximum							< 13.9					
TSS (mg/L) Average Monthly	6.0	5.0	9.0	10.0	5.0	8.5	25.0	8.0	5.0	5.0	5.0	9.5
TSS (mg/L) Raw Sewage Influent Daily Maximum							26					
TSS (mg/L) Instantaneous Maximum	7.0	5.0	13.0	10.0	5.0	12.0	26.0	8.0	5.0	5.0	5.0	14.0
Oil and Grease (mg/L) Average Monthly	< 5	5	5.1	5.0	< 5	< 5.2	< 5.0	5.0	< 5.2	< 5.0	5	< 6
Oil and Grease (mg/L) Instantaneous Maximum	< 5.0	5.4	5.2	< 5.0	< 5.6	< 5.4	< 5.0	5.0	< 5.3	< 5.0	5.0	< 6.0
Fecal Coliform (No./100 ml) Geometric Mean	8	2.4	4	< 1	1	< 1	1.0	3.3	2.8	190	51	9

Fecal Coliform (No./100 ml) Instantaneous Maximum	19	3	15	< 1	1	< 1	1.0	11	4	225	372	28
UV Transmittance (%) Daily Minimum	53.5	60.0	60.4	68.1	31.3	31.3	50.7	66.2	63.0	61.4	45.4	30.7
Total Nitrogen (mg/L) Daily Maximum							20.2					
Ammonia (mg/L) Average Monthly	0.3	0.16	3.0	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.5	0.4
Ammonia (mg/L) Raw Sewage Influent Daily Maximum							9.5					
Ammonia (mg/L) Instantaneous Maximum	0.4	0.17	5.8	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.5	0.4
Total Phosphorus (mg/L) Daily Maximum							9.6					
Total Alkalinity (mg/L) Raw Sewage Influent Daily Maximum							116					

Compliance History

Operations Compliance Check Summary Report

Facility: MTN Pines STP

NPDES Permit No.: PA0034614

Compliance Review Period: 07/01/2024-06/30/2025

Inspection Summary:

INSP ID	INSPECTED DATE	INSP TYPE	INSPECTION RESULT DESC	INSPECTOR
3832358	09/09/2024	Routine/Partial Inspection	No Violations Noted	MILSOP, LISA
3597629	08/02/2023	Administrative/File Review	Violation(s) Noted	OPILA, TAMI
3539467	04/12/2023	Administrative/File Review	No Violations Noted	MILSOP, LISA
3539499	04/12/2023	Compliance Evaluation	Violation(s) Noted	MILSOP, LISA
3415219	08/26/2022	Routine/Partial Inspection	No Violations Noted	MILSOP, LISA
3415204	08/11/2022	Routine/Partial Inspection	No Violations Noted	MILSOP, LISA
3401061	07/28/2022	Follow-up Inspection	No Violations Noted	MILSOP, LISA
3400816	07/05/2022	Routine/Partial Inspection	Violation(s) Noted	MILSOP, LISA
3193608	05/11/2021	Routine/Partial Inspection	No Violations Noted	MILSOP, LISA
3128362	12/23/2020	Routine/Partial Inspection	No Violations Noted	MILSOP, LISA
3092067	10/02/2020	Routine/Partial Inspection	No Violations Noted	MILSOP, LISA
3089232	09/08/2020	Routine/Partial Inspection	Violation(s) Noted	MILSOP, LISA
3089015	07/28/2020	Routine/Partial Inspection	No Violations Noted	MILSOP, LISA
3088986	07/06/2020	Routine/Partial Inspection	Violation(s) Noted	MILSOP, LISA

Violation Summary:

VIOL ID	VIOLATION DATE	VIOLATION TYPE	VIOLATION TYPE DESC	RESOLVED DATE
896062	07/06/2020	92A.44	NPDES - Violation of effluent limits in Part A of permit	10/05/2020
896158	09/08/2020	92A.44	NPDES - Violation of effluent limits in Part A of permit	10/05/2020
963531	07/05/2022	92A.41(A)5	NPDES - Failure to properly operate and maintain all facilities which are installed or used by the permittee to achieve compliance	06/23/2025
991717	04/12/2023	252.4(A)	NPDES - Failure to utilize an accredited environmental laboratory for testing or analysis of environmental samples	04/12/2023
8154613	08/02/2023	92A.62	NPDES - Failure to pay annual fee	08/30/2023

Open Violations by Client ID:

No open violations for Client ID.

Enforcement Summary:

ENF ID	ENF TYPE	ENF CREATION DATE	VIOLATIONS	# OF VIOLATIONS	PENALTY AMOUNT	AMOUNT RECEIVED	ENF FINALSTATUS	ENF CLOSED DATE
389105	NOV	10/05/2020	92A.44	1			Administrative Close Out	07/06/2022
386762	NOV	07/07/2020	92A.61(C)	1			Administrative Close Out	07/06/2022
389141	NOV	10/05/2020	92A.44	1			Administrative Close Out	07/06/2022
387011	NOV	07/17/2020	92A.44	1			Administrative Close Out	07/06/2022
405918	NOV	08/02/2022	92A.41(A)5	1				
414972	CACP	04/19/2023	92A.44	2	$16,000.00	$16,000.00	Comply/Closed	03/21/2023
418567	NOV	08/09/2023	92A.62	1			Comply/Closed	08/30/2023

DMR Violation Summary:

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	12/31/24	Avg Mo	25.0	mg/L	10.0	mg/L
TSS	12/31/24	IMAX	26.0	mg/L	20.0	mg/L

Compliance Status:

Facility does not currently have any open violations or pending enforcements. A final compliance status will be determined at permit issuance.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.035
Latitude 40º 3' 42.543" **Longitude** -79º 21' 42.00"
Wastewater Description: Sewage Effluent

Technology-Based Effluent Limitations (TBELs)

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:

WQM 7.0 was used to model the effect of the discharge on concentrations of $CBOD_5$, Dissolved Oxygen, and Ammonia-Nitrogen. The WQM 7.0 Report demonstrates that TBELs are sufficient, however there are other considerations with this authorization due to the High Quality designation of the receiving stream.

Water Quality-Based Limitations (WQBELs)

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
Dissolved Oxygen	4.0 (min)	Average Monthly	WQM 7.0 Version 1.1
$CBOD_5$	25.0	Average Monthly	WQM 7.0 Version 1.1
Ammonia-Nitrogen	25.0	Average Monthly	WQM 7.0 Version 1.1

Comments:

The evaluation of the receiving stream assumed the most conservative conditions where each discharge to the stream was included in the WQM 7.0 run. A USGS StreamStats report was used to obtain a stream flow for each node. To prevent the model from considering the flow rate from each discharge as a contribution to stream flow, the stream flow at each node was fixed to the $Q_{7\text{-}10}$ value in the USGS StreamStats report.

Table 3 of Chapter 93 contains the water quality criteria for streams. The 7-day minimum value for Dissolved Oxygen of 6.0 mg/L was selected. This discharge does not cause the in-stream DO to drop below 6.0 mg/L.

The following table lists the other discharges analyzed. For the purposes of this authorization, a conservative effluent limitation equivalent to the Technology-Based Effluent Limitations was assumed for each discharge.

Permit No.	Description	RMI	Discharge Flow (mgd)
PA0096164	Living Treasures STP	21.79	0.014
PA0034614	Mtn Pines STP	19.56	0.035
PA0096733	Pleasant View STP	19.12	0.025
PA0098345	Plaza STP	18.89	0.008

The WQM 7.0 model demonstrates that the discharge does not violate water quality standards, however there are other considerations due to the designation of the receiving waters as High-Quality.

Antidegradation of High Quality Waters

Definitions for HQ and EV were adopted into Pennsylvania's water quality standards regulation and published in the Pennsylvania Bulletin on September 8, 1979 (9 Pa.B. 3051). The facility was first built in 1973. When the status as a HQ stream was determined, the facility was already discharging and is considered part of the ambient stream conditions. SEJ is not required.

Anti-Degradation Best Available Combination of Technology (ABACT)

Outfall 001 discharges to a High-Quality stream. The following Antidegradation Best Available Combination of Technologies (ABACT) effluent limits, at a minimum, will be established based on the requirements in Chapter 9 and Appendix B of DEP's "Water Quality Antidegradation Implementation Guidance" (Doc. No. 391-0300-002; November 29, 2003).

Parameter	Treatment Process Performance Expectations (mg/L)		
	<2,000 gpd	**2,000-50,000 gpd**	>50,000 gpd
$CBOD_5$ (May 1 – Oct. 31)	10	**10**	10
$CBOD_5$ (Nov. 1 – Apr. 30)	20	**20**	10
Suspended Solids	20	**10**	10
NH_3-N (May 1 – Oct. 31)	5.0	**3.0**	1.5
NH_3-N (Nov. 1 – Apr. 30)	15.0	**9.0**	4.5
Effective disinfection	Disinfection should be accomplished using a method that leaves no detectable residual. Disinfection using ultra-violet light or other non-chlorine based systems is encouraged and must be considered.		
Other parameters, as needed	*Determined by the size and characteristics of the proposed discharge, may include – NO_2/NO_3-N, Total Phosphorus, Copper, Lead, Zinc*		

Ultraviolet Disinfection

Ultraviolet (UV) disinfection is used therefore Total Residual Chlorine (TRC) limits are not applicable. Routine monitoring of UV intensity is at the same monitoring frequency that is used for TRC.

(*Section I.A, Note 4, SOP for Clean Water Program, Establishing Effluent Limitations for Individual Sewage Permits, Final November 9, 2012, Revised March 24, 2021, Version 1.9* and *25 PA Code 92a.61(b)*.)

Anti-Backsliding

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard of water quality standard.

Previous limits can be used pursuant to EPA's anti-backsliding regulation. Reissued permits. (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued. Interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.

(40 CFR 122.44 (l)(2) Establishing limitations, standards, and other permit conditions., 40 CFR Ch. I (7-1-21 Edition))

No permits limits have been made less stringent in the renewal draft permit. Existing limits will be re-imposed.

Other Limitations

There are several limitations to be re-imposed under the anti-backsliding analysis. This section briefly reiterates the rationale for these limitations.

Effluent Oil and Grease

The previous permit requires Oil and Grease to be sampled. An inspection conducted by DEP on July 18, 2018 in response to a complaint revealed the discharge contained floating materials, scum, sheen, foam, oil, grease or substances that produced an observable change in the receiving stream. Part A, Additional Requirement 1.b of the draft and final permits contain language that prohibits Oil and Grease in amounts that cause a film or sheen upon or discoloration of the creek or adjoining shoreline, or effluent concentrations that exceed 15 mg/l as a daily average or 30 mg/l at any time (25 Pa. Code § 92a.47(a)(7), § 95.2(2)). The Oil and Grease limit is a standard condition in all NPDES permits. The previous permit also structured to require oil and grease be sampled 2/month to have a means to verify effluent concentrations do not exceed 15 mg/l as an average monthly or 30 mg/l as an instantaneous maximum.

Influent BOD_5, TSS, Ammonia-Nitrogen, and Alkalinity

The previous NPDES permit requires annual influent concentrations be reported for BOD_5, Total Suspended Solids, Ammonia-Nitrogen, and Alkalinity. DEP suggested during review of the most recent WQM Permit application that actual organic loadings be used to size the new plant, but the permittee's December 13, 2019 response stated such data is not available because the NPDES permit issued on December 11, 2014 does not require influent testing. The renewal permit will contain influent sampling to verify that design assumptions continue to be met for this facility discharging to a HQ stream.

Part C of the redraft NPDES permit includes Total Residual Chlorine language. Although the permittee proposes UV disinfection at the new facility, Part C adds a requirement that the permittee notify DEP prior to initiating use of chlorine for cleaning or other purposes and monitor TRC concentrations in the effluent on each day in which chlorine is used. The results shall be submitted as an attachment to the DMR.

Additional Considerations

Sewage discharges will include monitoring, at a minimum, for *E. Coli*, in new and reissued permits, with a monitoring frequency of 1/year for design flows <0.05 MGD.

(*Note 12 SOP-Establishing Effluent Limitations for Individual Sewage Permits Final November 9, 2012, Revised February 5, 2024, Version 2.0.* and *25 PA Code 92a.61(b).)*

Nutrient monitoring is required by the SOP for Effluent Limitations for Individual Sewage Permits. Monitoring is included to establish the nutrient load from the wastewater treatment facility and the impacts that load may have on the quality of the receiving stream(s). The receiving stream is not listed as impaired for nutrients, therefore at the discretion of the application manager, a monitoring frequency less than the equivalent of conventional pollutants in Table 6-3 of the Permit Writer's Manual has been selected.

(*Section I.A, Note 7 & 8, SOP for Clean Water Program, Establishing Effluent Limitations for Individual Sewage Permits, Final November 9, 2012, Revised March 24, 2021, Version 1.9* and *25 PA Code 92a.61(b)*.)

Rounding-Off Mathematical Values. Section 5 C.2. of the Permit Writers Manual contains general guidelines for rounding conventional and toxic pollutants, with instructions to round down to the nearest decimal place indicated. Non-conventional pollutants not listed as toxic are rounded according to other procedures.

General Magnitude	Conventional Pollutants	Toxic Pollutants
<0.01	to nearest 0.001	to nearest 0.001
0.01 - 0.1	to nearest 0.01	to nearest 0.01
0.1 - 1.0	to nearest 0.1	to nearest 0.01

1.0 - 10.0	to nearest 0.5	to nearest 0.01
10.0 - 60.0	to nearest 1.0	to nearest 0.01
60.0 or greater	to nearest 5.0	to nearest 0.10

(Department Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits, Updated June 28, 2023 (Document No. 362-0400-001))

Section 2.C of the Permit Writers Manual contains the procedure for converting average monthly effluent limitations to average weekly, maximum daily, and instantaneous maximum effluent limitations. The average monthly limit is multiplied according to the following chart:

Discharge Solution	Parameters	Average Weekly	Maximum Daily	Instantaneous Maximum Multiplier
Sewage	All	1.5		2.0
Industrial	All		2.0	2.5*

(Department Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits, Updated June 28, 2023 (Document No. 362-0400-001))

Table 5-3: Methods of Expressing Effluent Limits for Sewage Discharges

Discharge Situation	Mass Loadings (lbs/day)			Concentrations (mg/L)				
	Average Monthly	Average Weekly[3]	Maximum Daily	Average Monthly	Average Weekly	Maximum Daily	Instant Maximum[4]	Limit On Flow[6]
A. POTW DISCHARGES:								
1. Technology Based concentration limits	x	x[3]		x	x[3]		x	Yes
2. Water Quality Based limits	x	x[3]		x	x[3]		x	Yes
3. Water Quality Based limits (Toxics)	x		x	x		x		
B. NON-POTW DISCHARGES:								
1. Technology Based concentration limits	x[5]			x			x	Yes
2. Water Quality based limits	x[5]			x			x	Yes

1. This table is for all pollutants, conventional, non-conventional, toxic and all other pollutants that may be regulated by the permit. (Also refer to the toxics management strategy when specifying toxic WQBELs.)

2. X indicates need for an effluent limitation.

3. Only CBOD and TSS limitation.

4. Only include Instantaneous maximum limitations on the DMR forms if grab a sample is specified in the permit, otherwise do not include instantaneous maximum limitations on the DMR.

   Also, the permit page could include the following language for when composite samples are required "Instantaneous maximum limitations are imposed to allow for a grab sample to be collected by the appropriate regulatory agency to determine compliance. The permittee does not have to monitor for the instantaneous maximum limitations, however, if grab samples are collected by the permittee, the results must be reported."

5. This is for all sewage permits with design flow greater than 100,000 gpd since 25 Pa. Code § 94.13 requires flow monitoring.

6. The maximum monthly average flow limitation is the permitted flow that is to be placed in the NPDES permit. Generally, the annual average flow (AAF) is to be used for water quality modeling and to be used to determine the allowable mass loading in NPDES permits (i.e., AAF x 8.34 x mg/l = #/day) (Refer to the Domestic Wastewater Facilities Manual).

(Department Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits, Updated June 28, 2023 (Document No. 362-0400-001))

Monitoring frequency for the proposed effluent limits are based upon Table 6-3, Self-Monitoring Requirements for Sewage Dischargers.

Table 6-3 – Self-Monitoring Requirements for SEWAGE Discharges

Plant Design Flow (MGD)	Flow Monitoring	C-BOD_5 or BOD_5	Suspended Solids	pH	Fecal Coliform	Chlorine Residual	NH_3-N	Phosphorus	DO	Toxics
Single Residence (Individual Permit)	2/year by estimate	2/year*	2/year*	1/month*	2/year*	1/month*	2/year*	2/year*	2/year*	N/A
.0005 to .002	weekly, using average pump rate or weir (a)	1/month*	1/month*	daily*	1/month*	daily*	1/month*	1/month*	daily*	N/A
.002 to .01	weekly, using average pump rate or weir (a)	2/month*	2/month*	daily*	2/month*	daily*	2/month*	2/month*	daily*	N/A
0.01 to 0.1	**weekly, using average pump rate or weir (a)**	**2/month***	**2/month***	**daily***	**2/month***	**daily***	**2/month***	**2/month***	**Daily***	**1/week***
0.1 to 1.0	meter	1/week**	1/week**	daily*	1/week*	daily*	1/week**	1/week**	daily*	1/week****
1.0 to 5.0	meter	2/week***	2/week***	daily*	2/week*	daily*	2/week***	2/week***	daily*	1/week****
5.0 to 25.0	meter	daily***	daily***	daily*	daily*	1/shift*	daily***	daily***	daily*	1/week****
over 25.0	meter	daily***	daily***	1/shift*	daily*	1/shift*	1/shift***	1/shift***	1/shift*	1/week****

* Grab sample-these should be most representative of the effluent and are to be taken at a time when the normal daily maximum flow would reach the sampling point.

** 8-hour composite sample.

*** 24-hour composite sample.

**** Same sample type as for Industrial Process Wastewater (See Table 6-4).

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	Average Monthly	Daily Maximum	Maximum	Instant. Maximum		
Flow (MGD)	0.035	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	4.0 Inst Min	XXX	XXX	XXX	1/day	Grab
$CBOD_5$ Nov 1 - Apr 30	XXX	XXX	20.0	XXX	XXX	40.0	2/month	Grab
$CBOD_5$ May 1 - Oct 31	XXX	XXX	10.0	XXX	XXX	20.0	2/month	Grab
BOD_5 Raw Sewage Influent	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
TSS Raw Sewage Influent	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
TSS	XXX	XXX	10.0	XXX	XXX	20.0	2/month	Grab
Oil and Grease	XXX	XXX	XXX	15.0 Avg Mo	XXX	30.0	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/year	Grab
UV Transmittance (%)	XXX	XXX	Report Inst Min	XXX	XXX	XXX	1/day	Measured
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab

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

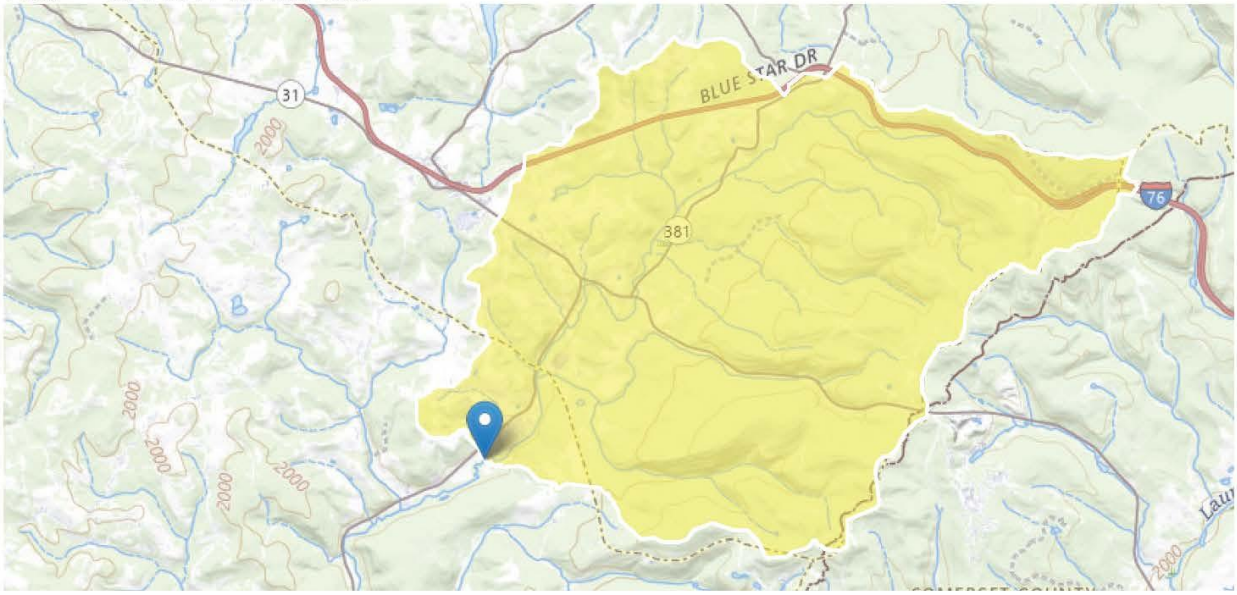
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Average Monthly	Daily Maximum	Maximum	Instant. Maximum		
Ammonia-Nitrogen Raw Sewage Influent	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	9.0	XXX	XXX	18.0	2/month	Grab
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	3.0	XXX	XXX	6.0	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
Total Alkalinity Raw Sewage Influent	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Attachment 1-USGS StreamStats Reports

StreamStats Report @ CNP MTN PLAZA STP

Region ID: PA
Workspace ID: PA20250819171243493000
Clicked Point (Latitude, Longitude): 40.05866, -79.37068
Time: 2025-08-19 13:13:05 -0400



@ PA0098345 Outlet Elevation: 1426.16'

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	32.9	square miles
ELEV	Mean Basin Elevation	2107	feet
OUTLETXA83	X coordinate of the outlet, in NAD_1983_Albers,meters	-116948.0168	meters
OUTLETYA83	Y coordinate of the outlet, in NAD_1983_Albers, meters	118434.1168	meters

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	32.9	square miles	2.26	1400

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ELEV	Mean Basin Elevation	2107	feet	1050	2580

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

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

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	2.4	ft^3/s	43	43
30 Day 2 Year Low Flow	4.07	ft^3/s	38	38
7 Day 10 Year Low Flow	0.838	ft^3/s	66	66
30 Day 10 Year Low Flow	1.45	ft^3/s	54	54
90 Day 10 Year Low Flow	2.85	ft^3/s	41	41

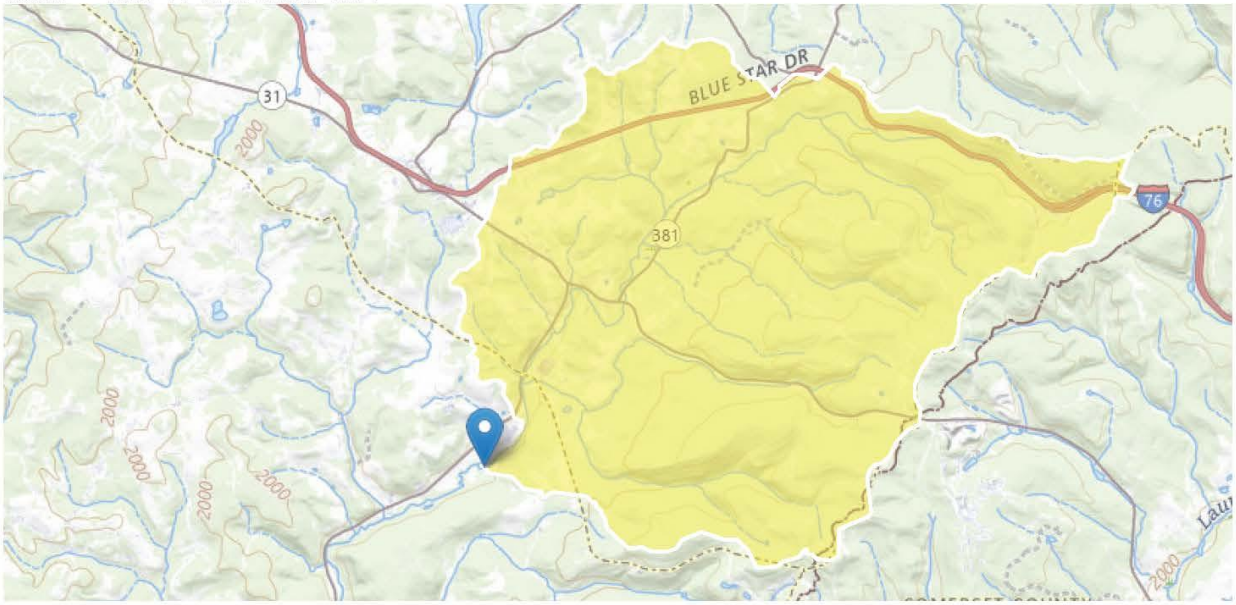
Low-Flow Statistics Citations

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 @ Pleasant View MHP STP

Region ID: PA
Workspace ID: PA20250819171718002000
Clicked Point (Latitude, Longitude): 40.05860, -79.36721
Time: 2025-08-19 13:17:39 -0400



@ PA0096733 Outlet Elevation 130.98

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	31.8	square miles
ELEV	Mean Basin Elevation	2123	feet
OUTLETXA83	X coordinate of the outlet, in NAD_1983_Albers,meters	-116641.2231	meters
OUTLETYA83	Y coordinate of the outlet, in NAD_1983_Albers, meters	118426.3378	meters

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	31.8	square miles	2.26	1400
ELEV	Mean Basin Elevation	2123	feet	1050	2580

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

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

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	2.33	ft^3/s	43	43
30 Day 2 Year Low Flow	3.95	ft^3/s	38	38
7 Day 10 Year Low Flow	0.807	ft^3/s	66	66
30 Day 10 Year Low Flow	1.4	ft^3/s	54	54
90 Day 10 Year Low Flow	2.76	ft^3/s	41	41

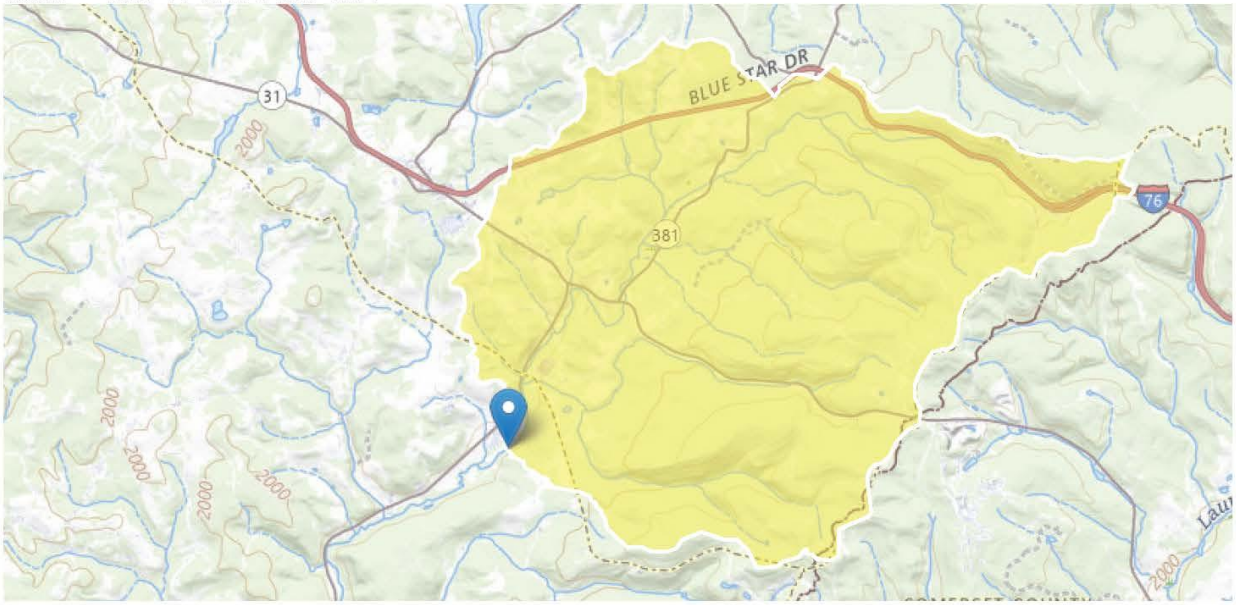
Low-Flow Statistics Citations

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 @ MTN PINES RESORT STP

Region ID: PA
Workspace ID: PA20250819173444358000
Clicked Point (Latitude, Longitude): 40.06183, -79.36182
Time: 2025-08-19 13:35:06 -0400



Report @ PA0034614 Outlet Elevation 1442.01'

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	31.6	square miles
ELEV	Mean Basin Elevation	2127	feet
OUTLETXA83	X coordinate of the outlet, in NAD_1983_Albers,meters	-116180.6914	meters
OUTLETYA83	Y coordinate of the outlet, in NAD_1983_Albers, meters	118782.9892	meters

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	31.6	square miles	2.26	1400
ELEV	Mean Basin Elevation	2127	feet	1050	2580

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

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

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	2.31	ft^3/s	43	43
30 Day 2 Year Low Flow	3.93	ft^3/s	38	38
7 Day 10 Year Low Flow	0.801	ft^3/s	66	66
30 Day 10 Year Low Flow	1.4	ft^3/s	54	54
90 Day 10 Year Low Flow	2.75	ft^3/s	41	41

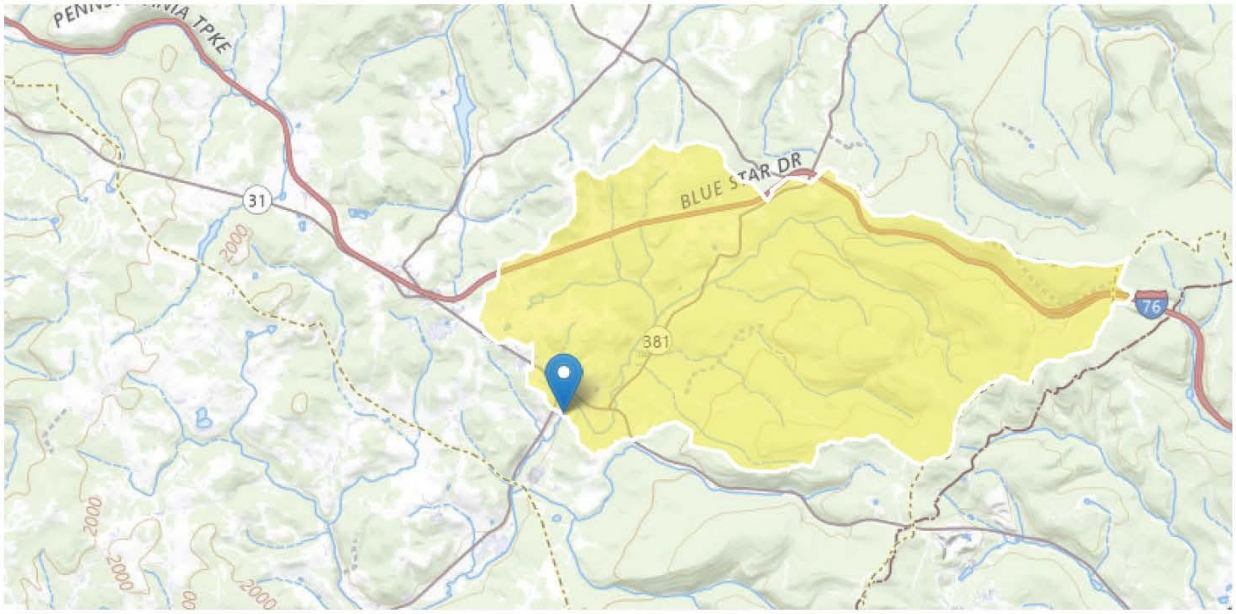
Low-Flow Statistics Citations

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 @ LIVING TREASURES II STP

Region ID: PA
Workspace ID: PA20250819175110617000
Clicked Point (Latitude, Longitude): 40.08699, -79.34689
Time: 2025-08-19 13:51:32 -0400



@ PA0096164 Outlet Elevation: 1490.33'

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	19.1	square miles
ELEV	Mean Basin Elevation	2077	feet
OUTLETXA83	X coordinate of the outlet, in NAD_1983_Albers,meters	-114856.7467	meters
OUTLETYA83	Y coordinate of the outlet, in NAD_1983_Albers, meters	121549.4097	meters

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	19.1	square miles	2.26	1400
ELEV	Mean Basin Elevation	2077	feet	1050	2580

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

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

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	1.28	ft^3/s	43	43
30 Day 2 Year Low Flow	2.22	ft^3/s	38	38
7 Day 10 Year Low Flow	0.425	ft^3/s	66	66
30 Day 10 Year Low Flow	0.767	ft^3/s	54	54
90 Day 10 Year Low Flow	1.54	ft^3/s	41	41

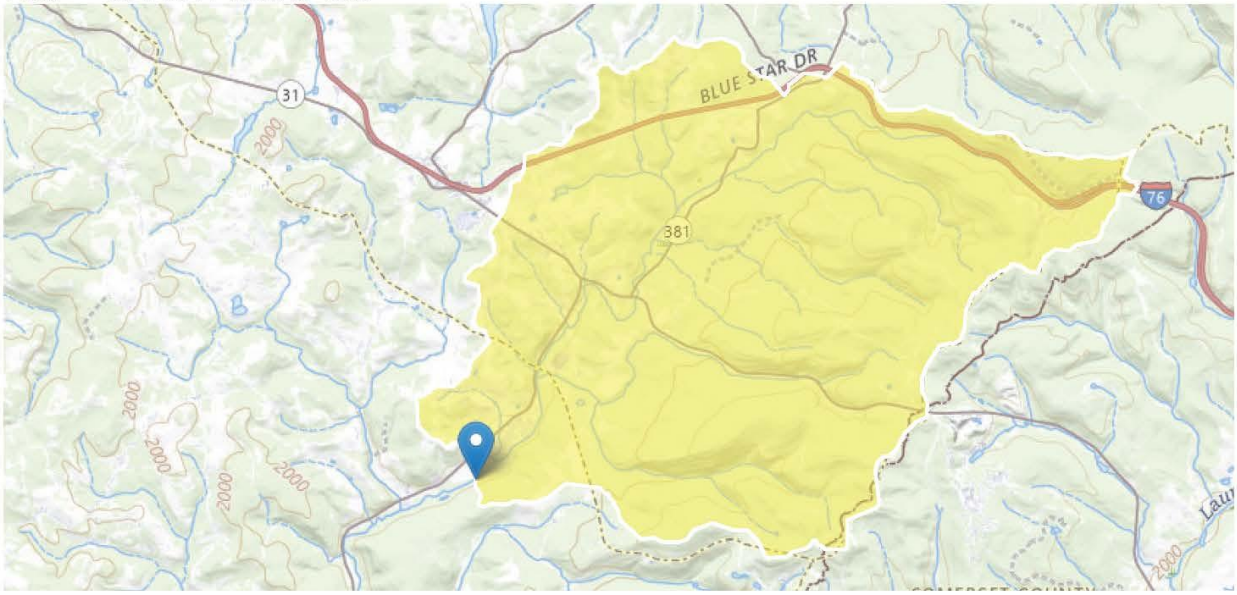
Low-Flow Statistics Citations

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-Downstream

Region ID: PA
Workspace ID: PA20250819170325073000
Clicked Point (Latitude, Longitude): 40.05502, -79.37287
Time: 2025-08-19 13:03:46 -0400



Downstream of Last Point of Discharge Outlet Elevation: 1419.37'

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	33.4	square miles
ELEV	Mean Basin Elevation	2100	feet
OUTLETXA83	X coordinate of the outlet, in NAD_1983_Albers,meters	-117129.2126	meters
OUTLETYA83	Y coordinate of the outlet, in NAD_1983_Albers, meters	118034.5319	meters

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	33.4	square miles	2.26	1400

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ELEV	Mean Basin Elevation	2100	feet	1050	2580

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

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

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	2.44	ft^3/s	43	43
30 Day 2 Year Low Flow	4.13	ft^3/s	38	38
7 Day 10 Year Low Flow	0.852	ft^3/s	66	66
30 Day 10 Year Low Flow	1.48	ft^3/s	54	54
90 Day 10 Year Low Flow	2.89	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

Attachment 2-WQM Report
Summer

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19E	38235	INDIAN CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
19.120	0.073	20.000	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
10.013	1.001	10.000	0.092
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
3.75	0.736	2.32	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
7.581	4.379	Owens	5
Reach Travel Time (days)			
0.153			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.015	3.71	2.29	7.51
0.031	3.67	2.27	7.45
0.046	3.62	2.24	7.40
0.061	3.58	2.22	7.35
0.076	3.54	2.20	7.30
0.092	3.50	2.17	7.26
0.107	3.47	2.15	7.22
0.122	3.43	2.13	7.19
0.137	3.39	2.11	7.16
0.153	3.35	2.08	7.14

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
18.890	0.081	20.000	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
10.334	1.033	10.000	0.090
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
3.58	0.657	2.30	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
7.163	4.079	Owens	5
Reach Travel Time (days)			
0.338			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.034	3.50	2.25	7.08
0.068	3.42	2.20	7.01
0.101	3.35	2.15	6.97
0.135	3.27	2.10	6.93
0.169	3.20	2.05	6.91
0.203	3.13	2.00	6.90
0.237	3.06	1.95	6.89
0.271	3.00	1.91	6.89
0.304	2.93	1.86	6.90
0.338	2.87	1.82	6.92

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19E	38235	INDIAN CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
21.790	0.014	20.000	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
8.078	0.808	10.000	0.069
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
3.10	0.223	1.20	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.922	5.380	Owens	5
Reach Travel Time (days)			
1.969			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.197	2.97	1.04	8.24
0.394	2.84	0.91	8.24
0.591	2.72	0.79	8.24
0.788	2.60	0.69	8.24
0.985	2.49	0.60	8.24
1.181	2.38	0.52	8.24
1.378	2.28	0.46	8.24
1.575	2.18	0.40	8.24
1.772	2.09	0.35	8.24
1.969	2.00	0.30	8.24

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
19.560	0.049	20.000	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
9.818	0.982	10.000	0.091
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
3.42	0.597	1.70	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.372	4.501	Owens	5
Reach Travel Time (days)			
0.296			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.030	3.36	1.67	8.24
0.059	3.30	1.63	8.12
0.089	3.25	1.60	8.03
0.118	3.19	1.57	7.95
0.148	3.13	1.53	7.88
0.178	3.08	1.50	7.83
0.207	3.02	1.47	7.79
0.237	2.97	1.44	7.76
0.266	2.92	1.41	7.73
0.296	2.87	1.38	7.71

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
19E	38235	INDIAN 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
21.790	Lvg Treasur STP	9.67	50	9.67	50	0	0
19.560	MTN Pines STP	9.67	50	9.67	50	0	0
19.120	Pleasant Vw STP	9.67	50	9.67	50	0	0
18.890	CNP MTN STP	9.67	50	9.67	50	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
21.790	Lvg Treasur STP	1.92	25	1.92	25	0	0
19.560	MTN Pines STP	1.92	25	1.92	25	0	0
19.120	Pleasant Vw STP	1.92	25	1.92	25	0	0
18.890	CNP MTN STP	1.92	25	1.92	25	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)		
21.79	Lvg Treasur STP	25	25	25	25	4	4	0	0
19.56	MTN Pines STP	25	25	25	25	4	4	0	0
19.12	Pleasant Vw STP	25	25	25	25	4	4	0	0
18.89	CNP MTN STP	25	25	25	25	4	4	0	0

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
19E	38235	INDIAN 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												
21.790	0.43	0.00	0.43	.0217	0.00410	.808	8.08	10	0.07	1.969	20.00	7.00
19.560	0.80	0.00	0.80	.0758	0.00475	.982	9.82	10	0.09	0.296	20.00	7.00
19.120	0.81	0.00	0.81	.1129	0.00397	1.001	10.01	10	0.09	0.153	20.00	7.00
18.890	0.84	0.00	0.84	.125	0.00257	1.033	10.33	10	0.09	0.338	20.00	7.00
Q1-10 Flow												
21.790	0.28	0.00	0.28	.0217	0.00410	NA	NA	NA	0.05	2.491	20.00	7.00
19.560	0.51	0.00	0.51	.0758	0.00475	NA	NA	NA	0.07	0.370	20.00	7.00
19.120	0.52	0.00	0.52	.1129	0.00397	NA	NA	NA	0.07	0.189	20.00	7.00
18.890	0.54	0.00	0.54	.125	0.00257	NA	NA	NA	0.07	0.417	20.00	7.00
Q30-10 Flow												
21.790	0.58	0.00	0.58	.0217	0.00410	NA	NA	NA	0.08	1.670	20.00	7.00
19.560	1.09	0.00	1.09	.0758	0.00475	NA	NA	NA	0.11	0.252	20.00	7.00
19.120	1.10	0.00	1.10	.1129	0.00397	NA	NA	NA	0.11	0.131	20.00	7.00
18.890	1.14	0.00	1.14	.125	0.00257	NA	NA	NA	0.11	0.290	20.00	7.00

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

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
19E	38235	INDIAN CREEK	**18.390**	1419.37	33.40	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	0.100	0.00	0.85	0.000	0.000	10.0	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	20.00	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	4.00	9.17	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19E	38235	INDIAN CREEK	**18.890**	1426.16	32.90	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	0.100	0.00	0.84	0.000	0.000	10.0	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
CNP MTN STP	PA0O98345	0.0078	0.0078	0.0000	0.000	20.00	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	4.00	9.17	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19E	38235	INDIAN CREEK	**19.120**	1430.98	31.80	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	0.100	0.00	0.81	0.000	0.000	10.0	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
Pleasant Vw STP	PA0O96733	0.0240	0.0240	0.0000	0.000	20.00	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	4.00	9.17	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19E	38235	INDIAN CREEK	**19.560**	1442.01	31.60	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	0.100	0.00	0.80	0.000	0.000	10.0	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
MTN Pines STP	PA0O34614	0.0350	0.0350	0.0000	0.000	20.00	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	4.00	9.17	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19E	38235	INDIAN CREEK	**21.790**	1490.33	19.10	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	0.100	0.00	0.43	0.000	0.000	10.0	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
Lvg Treasur STP	PA0O96164	0.0140	0.0140	0.0000	0.000	20.00	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	4.00	9.17	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
19E	38235	INDIAN 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)
21.790	Lvg Treasur STP	PA0O96164	0.014	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

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)
19.560	MTN Pines STP	PA0O34614	0.035	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

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)
19.120	Pleasant Vw STP	PA0O96733	0.024	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

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)
18.890	CNP MTN STP	PA0O98345	0.008	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

Attachment 2-WQM Report
Winter

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
19E	38235	INDIAN CREEK	**21.790**	1490.33	19.10	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	0.100	0.00	0.86	0.000	0.000	10.0	0.00	0.00	5.00	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
Lvg Treasur STP	PA0O96164	0.0140	0.0140	0.0000	0.000	15.00	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	4.00	12.80	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19E	38235	INDIAN CREEK	**19.560**	1442.01	31.60	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	0.100	0.00	1.60	0.000	0.000	10.0	0.00	0.00	5.00	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
MTN Pines STP	PA0O34614	0.0350	0.0350	0.0000	0.000	15.00	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	4.00	12.80	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19E	38235	INDIAN CREEK	**19.120**	1430.98	31.80	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	0.100	0.00	1.62	0.000	0.000	10.0	0.00	0.00	5.00	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
Pleasant Vw STP	PA0O96733	0.0240	0.0240	0.0000	0.000	15.00	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	4.00	12.80	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19E	38235	INDIAN CREEK	**18.890**	1426.16	32.90	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	0.100	0.00	1.68	0.000	0.000	10.0	0.00	0.00	5.00	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
CNP MTN STP	PA0O98345	0.0078	0.0078	0.0000	0.000	15.00	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	4.00	12.80	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
19E	38235	INDIAN CREEK	**18.390**	1419.37	33.40	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	0.100	0.00	1.70	0.000	0.000	10.0	0.00	0.00	5.00	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	4.00	12.80	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

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	1.36	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
19E	38235	INDIAN 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												
21.790	0.86	0.00	0.86	.0217	0.00410	.936	9.36	10	0.10	1.354	5.25	7.00
19.560	1.60	0.00	1.60	.0758	0.00475	1.132	11.32	10	0.13	0.206	5.45	7.00
19.120	1.62	0.00	1.62	.1129	0.00397	1.15	11.5	10	0.13	0.107	5.65	7.00
18.890	1.68	0.00	1.68	.125	0.00257	1.186	11.86	10	0.13	0.238	5.69	7.00
Q1-10 Flow												
21.790	0.55	0.00	0.55	.0217	0.00410	NA	NA	NA	0.08	1.725	5.38	7.00
19.560	1.02	0.00	1.02	.0758	0.00475	NA	NA	NA	0.10	0.261	5.69	7.00
19.120	1.04	0.00	1.04	.1129	0.00397	NA	NA	NA	0.10	0.135	5.98	7.00
18.890	1.08	0.00	1.08	.125	0.00257	NA	NA	NA	0.10	0.299	6.04	7.00
Q30-10 Flow												
21.790	1.17	0.00	1.17	.0217	0.00410	NA	NA	NA	0.12	1.144	5.18	7.00
19.560	2.18	0.00	2.18	.0758	0.00475	NA	NA	NA	0.15	0.174	5.34	7.00
19.120	2.20	0.00	2.20	.1129	0.00397	NA	NA	NA	0.15	0.091	5.49	7.00
18.890	2.28	0.00	2.28	.125	0.00257	NA	NA	NA	0.15	0.203	5.52	7.00

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
19E	38235	INDIAN 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
21.790	Lvg Treasur STP	20.59	50	20.59	50	0	0
19.560	MTN Pines STP	20.59	50	20.59	50	0	0
19.120	Pleasant Vw STP	20.59	50	20.59	50	0	0
18.890	CNP MTN STP	20.59	50	20.59	50	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
21.790	Lvg Treasur STP	4.08	25	4.08	25	0	0
19.560	MTN Pines STP	4.08	25	4.08	25	0	0
19.120	Pleasant Vw STP	4.08	25	4.08	25	0	0
18.890	CNP MTN STP	4.08	25	4.08	25	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)		
21.79	Lvg Treasur STP	25	25	25	25	4	4	0	0
19.56	MTN Pines STP	25	25	25	25	4	4	0	0
19.12	Pleasant Vw STP	25	25	25	25	4	4	0	0
18.89	CNP MTN STP	25	25	25	25	4	4	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19E	38235	INDIAN CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
21.790	0.014	5.246	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
9.359	0.936	10.000	0.101
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.56	0.243	0.61	0.225
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
12.584	3.712	Owens	5
Reach Travel Time (days)			
1.354			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.135	2.52	0.60	11.38
0.271	2.48	0.58	11.38
0.406	2.44	0.56	11.38
0.542	2.40	0.54	11.38
0.677	2.36	0.53	11.38
0.812	2.32	0.51	11.38
0.948	2.28	0.50	11.38
1.083	2.24	0.48	11.38
1.219	2.21	0.47	11.38
1.354	2.17	0.45	11.38

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
19.560	0.049	5.452	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
11.325	1.132	10.000	0.131
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.83	0.463	1.05	0.228
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
11.770	4.175	Tsivoglou	5
Reach Travel Time (days)			
0.206			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.021	2.82	1.04	11.32
0.041	2.80	1.04	11.32
0.062	2.79	1.03	11.32
0.082	2.78	1.03	11.32
0.103	2.76	1.02	11.32
0.123	2.75	1.02	11.32
0.144	2.74	1.01	11.32
0.165	2.72	1.01	11.32
0.185	2.71	1.00	11.32
0.206	2.70	1.00	11.32

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
19E	38235	INDIAN CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
19.120	0.073	5.652	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
11.501	1.150	10.000	0.131
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
3.17	0.599	1.50	0.232
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
11.182	3.515	Tsivoglou	5
Reach Travel Time (days)			
0.107			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.011	3.16	1.50	11.20
0.021	3.15	1.49	11.22
0.032	3.14	1.49	11.23
0.043	3.13	1.49	11.25
0.054	3.11	1.48	11.26
0.064	3.10	1.48	11.26
0.075	3.09	1.47	11.26
0.086	3.08	1.47	11.26
0.097	3.07	1.47	11.26
0.107	3.06	1.46	11.26

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
18.890	0.081	5.693	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
11.860	1.186	10.000	0.128
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
3.17	0.587	1.57	0.233
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
11.266	2.234	Tsivoglou	5
Reach Travel Time (days)			
0.238			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.024	3.15	1.56	11.25
0.048	3.13	1.56	11.25
0.071	3.11	1.55	11.24
0.095	3.08	1.54	11.24
0.119	3.06	1.53	11.23
0.143	3.04	1.52	11.23
0.167	3.02	1.51	11.23
0.190	3.00	1.50	11.22
0.214	2.97	1.50	11.22
0.238	2.95	1.49	11.22

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
19E	38235	INDIAN 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)
21.790	Lvg Treasur STP	PA0O96164	0.014	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

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)
19.560	MTN Pines STP	PA0O34614	0.035	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

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)
19.120	Pleasant Vw STP	PA0O96733	0.024	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

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)
18.890	CNP MTN STP	PA0O98345	0.008	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4