pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0254711**
Facility Type	**Storm Water**	APS ID	**979116**
Major / Minor	**Minor**	Authorization ID	**1248634**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**Great Southern Wood Preserving, Inc.**	Facility Name	**Great Southern Wood - Fombell Facility**
Applicant Address	115 West Road	Facility Address	115 West Road
	Fombell, PA 16123-1425		Fombell, PA 16123-1425
Applicant Contact	Chris Burgess	Facility Contact	Chris Burgess
Applicant Phone	724-452-6161	Facility Phone	724-452-6161
Client ID	295015	Site ID	466768
SIC Code	2491	Municipality	Marion Township
SIC Description	Manufacturing - Wood Preserving	County	Beaver
Date Application Received	October 16, 2018	EPA Waived?	Yes
Date Application Accepted	May 16, 2019	If No, Reason	

Purpose of Application: Renewal of NPDES permit for the discharge of stormwater associated with wood preservation, treating, and distribution facility.

Summary of Review

Background

The Department received an NPDES permit application from Great Southern Wood Preserving, Inc. on October 16, 2018 to renew coverage of the discharge from its Great Southern Wood – PA facility in Marion Township of Beaver County. The facility operates as a pressure treated wood processing facility with an SIC Code 2491 (Wood Preserving). The current NPDES permit was issued on March 3, 2014 and expired on March 31, 2019.

Property and Operations

The Great Southern Wood property is 15 acres and consists of a lumber storage and drip pad building, a maintenance shop, an office building, treated and untreated lumber storage areas, a lumber stacker building, and a detention pond. The facility is used for wood preservation, treating and distribution. In the lumber storage and drip pad building, lumber is pressure treated in one of two pressurized cylinders. Vacuum pressure is applied to the lumber first to remove any moisture and air. The lumber is then treated with a pressurized copper azole and mold inhibitor solution. Any unused solution is filtered and reused. Fresh treated lumber is stored indoors for 48 hours, before being moved to the outside storage lot. The facility is designed to capture all leaked fluids, including the entire volume of the storage tanks, in the event of a tank rupture. The processing building is built on a sloped concrete pad to allow for the capture of fluids. Engineered wood is stored under cover in the engineered wood product storage area. All other lumber materials are stored uncovered.

Since the previous permit cycle, Great Southern Wood has paved the entire storage yard of the facility. An 80-foot long subsurface storage tank for stormwater was also added beneath the treated lumber storage yard on the eastern side of the

Approve	Deny	Signatures	Date
X		Lauren Nolfi, E.I.T. / Environmental Engineering Specialist	December 14, 2021
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	December 21, 2021

Summary of Review

facility. A dry sweeper is used for daily yard sweeping. Filtration inlets are used in all catch basins and should be checked daily and replaced as needed.

Outfalls

Great Southern Wood discharges stormwater through Outfalls 001-006. Outfalls 001-006 discharge to Connoquenessing Creek, designated in 25 PA Code Chapter 93 as a Warm Water Fishery (WWF) in Watershed 20-C. Outfall 001 conveys stormwater from a 178,178 ft^2 drainage area consisting of treated and untreated lumber storage, maintenance shop, diesel tanks and waste oil tanks. Outfall 002 conveys stormwater from a 97,286 ft^2 drainage area consisting of treated and untreated lumber storage at the western portion of the site. Outfall 003 conveys stormwater from a 146,696 ft^2 drainage area consisting of treated and untreated lumber storage at the eastern portion of the site. Stormwater collects in the facility's retention pond prior to discharging at Outfall 003. Outfalls 004 and 005 each convey stormwater from a 18,450 ft^2 area consisting of roof drains of the lumber storage and drip pad and storage tanks building. Outfall 006 was added in 2016 as a stormwater outfall in the northeastern corner of the facility and added to the permit for this permit cycle. The outfall conveys stormwater runoff from a 69,664 ft^2 drainage area consisting of treated and untreated lumber storage areas.

Elevated Total Suspended Solids and pH Levels

As seen in the Compliance History DMR summary section below, Great Southern Wood exceeded its effluent limits on November 23, 2020 for pH and total suspended solids (TSS) and for failure to collect samples at the required frequency. A review of the facility's compliance history and reported analytical results submitted with the NPDES permit application show occasional elevated concentrations of chemical oxygen demand (COD), biological oxygen demand, total suspended solids, copper, and pH at all outfalls.

Great Southern Wood's response to the violations on November 23, 2020 stated that the storage yard had yet to be fully paved at the time of the violations and was influenced by the characteristics of gravel and gravel dust being carried by surface drainage and onsite vehicle traffic into the outfall drainage basins. Since paving completion, TSS excursions have been reduced and pH has been in compliance since the second quarter of 2019. Increased yard sweeping has been implemented to further reduce TSS and keep pH within range.

The Department has increased the sampling frequency to 1/month for all parameters so that sufficient data is generated to reliably compare sampling data with effluent limitations and benchmark values and determine whether additional BMPs or the development of a Corrective Action Plan will be necessary.

Public Participation

Act 14 notifications were sent to Marion Township on October 9, 2018 via certified mail.

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.

Conclusion

Draft permit issuance is recommended.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001 - 006	Design Flow (MGD)	0
Latitude	See Table 1	Longitude	See Table 1
Quad Name	Zelienople	Quad Code	1204
Wastewater Description:	Stormwater runoff from untreated lumber storage, maintenance shop with diesel storage, and waste oil tanks; roof drainage from wood treatment building.		
Receiving Waters	Connoquenessing Creek (WWF)	Stream Code	34025
NHD Com ID	126223510	RMI	15.83
Drainage Area	See Table 1	Yield (cfs/mi^2)	See Table 1
Q_{7-10} Flow (cfs)	See Table 1	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	876	Slope (ft/ft)	0.001955
Watershed No.	20-C	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	PA American Water Company Ellwood City		
PWS Waters	Slippery Rock Creek	Flow at Intake (cfs)	8.05
PWS RMI	0.19	Distance from Outfall (mi)	11.7

Changes Since Last Permit Issuance: Outfall 006 was added in 2016 as a stormwater outfall in the northeastern corner of the facility and added to the permit. The outfall conveys stormwater runoff from treated and untreated lumber storage areas.

Other Comments:

The USGS Stream Stats Data for the drainage area is displayed in Attachment A.

Outfall locations for the above-mentioned outfalls are displayed below in Table 1.

Table 1: Stormwater Outfall Locations

Outfall	Latitude	Longitude	Drainage Area (mi^2)	Q_{7-10} Flow (cfs)	Yield (cfs/mi^2)
001	40º 47' 48.24"	-80º 10' 05.54"	0.06	0.000234	0.0039
002	40º 47' 45.84"	-80º 10' 14.37"	0.07	0.000287	0.0041
003	40º 47' 48.18"	-80º 10' 02.39"	0.04	0.000131	0.0033
004	40º 47' 47.69"	-80º 10' 08.50"	0.06	0.000248	0.0041
005	40º 47' 47.33"	-80º 10' 10.35"	0.07	0.000665	0.0095
006	40º 47' 48.17"	-80º 10' 03.86"	0.04	0.000131	0.0033

Compliance History

DMR Data for Outfall 001 (from October 1, 2020 to September 30, 2021)

Parameter	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20
Flow (MGD) Daily Average		0.028			0.056			0.049			0.0126	
Flow (MGD) Daily Maximum		E			0.056			0.049			0.014	
pH (S.U.) Minimum		7.49			7.17			7.12			6.97	
pH (S.U.) Maximum		E			7.51			7.64			7.34	
BOD5 (mg/L) Average Monthly		41.4			29.1			39.68			27.15	
BOD5 (mg/L) Daily Maximum		E			38.7			41			36.9	
COD (mg/L) Average Monthly		121			95.6			198			67.3	
COD (mg/L) Daily Maximum		E			109			207			90.7	
TSS (mg/L) Average Monthly		13			22.5			32.7			18.5	
TSS (mg/L) Daily Maximum		E			23			37			25	
Oil and Grease (mg/L) Average Monthly		< 5.0			< 5.0			< 5.0			< 5.3	
Oil and Grease (mg/L) Daily Maximum		E			< 5.0			< 5.7			< 5.7	
Total Arsenic (mg/L) Average Monthly		< 0.010			< 0.01			< 0.010			< 0.010	
Total Arsenic (mg/L) Daily Maximum		E			< 0.01			< 0.010			< 0.010	
Total Chromium (mg/L) Average Monthly		0.004			0.003			0.010			0.004	
Total Chromium (mg/L) Daily Maximum		E			0.003			0.014			0.005	
Total Copper (mg/L) Average Monthly		0.908			1.127			2.03			1.805	
Total Copper (mg/L) Daily Maximum		E			1.81			3.05			2.52	

DMR Data for Outfall 002 (from October 1, 2020 to September 30, 2021)

Parameter	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20
Flow (MGD) Daily Average		0.007			0.026			0.027			0.0067	
Flow (MGD) Daily Maximum		0.043			0.026			0.027			0.0072	
pH (S.U.) Minimum		7.69			7.60			7.06			7.15	
pH (S.U.) Maximum		7.5			7.67			7.77			7.92	
BOD5 (mg/L) Average Monthly		23.1			21.55			18.2			5.3	
BOD5 (mg/L) Daily Maximum		< 4.0			23.1			21.7			6.6	
COD (mg/L) Average Monthly		72.0			67.15			70.85			27.6	
COD (mg/L) Daily Maximum		17			97.8			92			36.7	
TSS (mg/L) Average Monthly		10.0			7.0			32.5			14.5	
TSS (mg/L) Daily Maximum		6.5			9.0			40			22.0	
Oil and Grease (mg/L) Average Monthly		< 5.0			< 5.0			< 5.0			< 5.3	
Oil and Grease (mg/L) Daily Maximum		< 5.0			< 5.0			< 5.0			< 5.7	
Total Arsenic (mg/L) Average Monthly		< 0.010			< 0.01			< 0.010			< 0.010	
Total Arsenic (mg/L) Daily Maximum		< 0.010			< 0.01			< 0.010			< 0.010	
Total Chromium (mg/L) Average Monthly		< 0.002			0.003			0.006			0.002	
Total Chromium (mg/L) Daily Maximum		< 0.002			0.004			0.006			0.003	
Total Copper (mg/L) Average Monthly		0.093			0.133			0.222			0.232	
Total Copper (mg/L) Daily Maximum		0.016			0.187			0.231			0.236	

DMR Data for Outfall 003 (from October 1, 2020 to September 30, 2021)

Parameter	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20
Flow (MGD) Daily Average		0.014			0.050			0.022				
Flow (MGD) Daily Maximum		0.084			0.050			0.022				
pH (S.U.) Minimum		7.45			7.51			9.20				
pH (S.U.) Maximum		7.65			8.06			9.20				
BOD5 (mg/L) Average Monthly		45.7			26.15			35.6				
BOD5 (mg/L) Daily Maximum		26.1			32.3			35.6				
COD (mg/L) Average Monthly		121			121.05			65.0				
COD (mg/L) Daily Maximum		61.6			199			65.0				
TSS (mg/L) Average Monthly		25			10.75			6.0				
TSS (mg/L) Daily Maximum		26			14.5			6.0				
Oil and Grease (mg/L) Average Monthly		< 5			< 5.15			< 5.0				
Oil and Grease (mg/L) Daily Maximum		< 5			< 5.15			< 5.0				
Total Arsenic (mg/L) Average Monthly		< 0.010			< 0.01			< 0.010				
Total Arsenic (mg/L) Daily Maximum		< 0.010			< 0.01			< 0.010				
Total Chromium (mg/L) Average Monthly		0.004			0.0085			0.009				
Total Chromium (mg/L) Daily Maximum		0.002			0.011			0.009				
Total Copper (mg/L) Average Monthly		0.617			0.1535			0.034				
Total Copper (mg/L) Daily Maximum		0.688			0.217			0.034				

DMR Data for Outfall 005 (from October 1, 2020 to September 30, 2021)

Parameter	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20
Flow (MGD) Daily Average		0.004			0.008			0.005				
Flow (MGD) Daily Maximum		0.025			0.008			0.005				
pH (S.U.) Minimum		7.77			7.30			8.12				
pH (S.U.) Maximum		7.70			7.56			8.12				
BOD5 (mg/L) Average Monthly		17.9			< 20.0			13.4				
BOD5 (mg/L) Daily Maximum		< 4.0			< 20.0			13.4				
COD (mg/L) Average Monthly		61			44.35			66.5				
COD (mg/L) Daily Maximum		6.13			67.4			66.5				
TSS (mg/L) Average Monthly		11.5			21.0			22.0				
TSS (mg/L) Daily Maximum		< 5.0			21.0			22.0				
Oil and Grease (mg/L) Average Monthly		< 5			< 5.0			< 5.0				
Oil and Grease (mg/L) Daily Maximum		< 5			< 5.0			< 5.0				
Total Arsenic (mg/L) Average Monthly		< 0.010			< 0.01			< 0.010				
Total Arsenic (mg/L) Daily Maximum		< 0.010			< 0.01			< 0.010				
Total Chromium (mg/L) Average Monthly		0.004			0.214			0.004				
Total Chromium (mg/L) Daily Maximum		< 0.002			0.214			0.004				
Total Copper (mg/L) Average Monthly		0.127			0.214			0.108				
Total Copper (mg/L) Daily Maximum		0.039			0.214			0.108				

Compliance History

Effluent Violations for Outfall 001, from: August 1, 2020 To: June 30, 2021

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	03/31/21	Avg Mo	32.7	mg/L	30	mg/L

Effluent Violations for Outfall 002, from: August 1, 2020 To: June 30, 2021

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	03/31/21	Avg Mo	32.5	mg/L	30	mg/L

Effluent Violations for Outfall 003, from: August 1, 2020 To: June 30, 2021

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
pH	03/31/21	Max	9.20	S.U.	9.0	S.U.

Summary of Inspections:

The last inspection conducted by the Department was on August 7, 2020 by Amanda Schmidt as a compliance evaluation. Two violations were noted for effluent exceedances of pH and TSS limits and for failure to collect samples at the required frequency. The violations were resolved on February 25, 2021. Amanda noted the following observations during the inspection: an 80-foot-long subsurface storage tank for stormwater located beneath the independent yard was being replaced with a larger plastic tank connected to the retention pond; most of the lot surface has been paved, except for a portion of the independent yard.

Great Southern Wood responded to the violations on November 23, 2020 with the following:

- The storage yard had yet to be fully paved and were influenced by the characteristics of gravel and gravel dust being carried by surface drainage and onsite vehicle traffic into the outfall drainage basins. Since paving completion, TSS excursions have been reduced and pH has been in compliance since Q2 2019. Increased storage yard sweeping has been implemented to further reduce TSS and keep pH within range.
- The facility implemented a calendar prompt to alert staff in the quarterly monitoring period to collect the required stormwater samples.

Other Comments:

Monitoring data from the past three years shows effluent violations for the parameters TSS and pH at Outfalls 001, 002, and 003 on March 31, 2021. TSS violations show the average monthly limit of 30.0 was exceeded with sample concentrations of 32.7 mg/L and 32.5 mg/L. Since the monitoring frequency is 1/quarter and the maximum daily limit of 60.0 was not exceeded, these violations are not significant.

Great Southern Wood has no open violations.

Development of Effluent Limitations

Outfall No. 001-006 **Average Flow (MGD)** 0
Latitude See Table 2 **Longitude** See Table 2
Wastewater Description: See Table 2

Outfalls 001-006 discharge stormwater from treated and untreated lumber storage areas of the facility, maintenance shop, diesel tanks, waste oil tanks, and roof drains of the wood treatment building. Outfall locations and wastewater descriptions for each outfall are listed below in Table 2.

Table 2: Stormwater Outfall Locations and Description

Outfall	Latitude	Longitude	Wastewater Description
001	40º 47' 48.24"	-80º 10' 05.54"	Stormwater runoff from treated and untreated lumber storage area, maintenance shop, diesel tanks, and waste oil tanks.
002	40º 47' 45.84"	-80º 10' 14.37"	Stormwater runoff from treated and untreated lumber storage area at western portion of the site.
003	40º 47' 48.18"	-80º 10' 02.39"	Stormwater runoff from treated and untreated lumber storage area at eastern portion of the site.
004	40º 47' 47.69"	-80º 10' 08.50"	Stormwater runoff from roof drains of the lumber storage and drip pad and storage tanks building.
005	40º 47' 47.33"	-80º 10' 10.35"	Stormwater runoff from roof drains of the lumber storage and drip pad and storage tanks building.
006	40º 47' 48.17"	-80º 10' 03.86"	Stormwater runoff from treated and untreated lumber storage area.

Technology-Based Limitations

Great Southern Wood is not subject to Federal Effluent Limitation Guideline (ELGs) as the SIC code is not listed under 40 CFR parts 405 through 471. Outfalls 001-006 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfalls discharge stormwater. The SIC code for the site is 2491 (Wood Preserving) and the corresponding appendix that would apply to the facility is Appendix D of the PAG-03 General Permit. Appendix D reporting requirements are in Table 3 below.

Table 3: PAG-03 Appendix D Monitoring Requirements

Parameters	Average Monthly (mg/L)	Maximum Daily (mg/L)	Benchmark Values (mg/L)	Monitoring Requirements	
				Monitoring Frequency	Sample Type
pH (S.U.)	-	Monitor & Report	-	1/6 Months	Grab
Chemical Oxygen Demand	-	Monitor & Report	120	1/6 Months	Grab
Total Suspended Solids	-	Monitor & Report	100	1/6 Months	Grab
Pentachlorophenol	-	Monitor & Report	-	1/6 Months	Grab
Total Arsenic	-	Monitor & Report	-	1/6 Months	Grab
Total Chromium	-	Monitor & Report	-	1/6 Months	Grab
Total Copper	-	Monitor & Report	-	1/6 Months	Grab

Department guidance recommends establishing “pH requirements of 6.0 (minimum) and 9.0 S.U. (maximum) for all industrial waste process and non-process discharges (25 Pa. Code §§ 92a.48(a)(2) and 95.2), unless the application manager determines there is no potential for the facility’s operations to affect the pH of influent (source) waters. Consider applying these requirements for industrial stormwater discharges where control of effluent pH is desired (e.g., stormwater discharges from concrete batch facilities). A maximum limit exceeding 9.0 S.U. may be granted in certain cases in

accordance with 25 Pa. Code § 95.2(1)." The facility has had a history of exceeding both 6.0 S.U. and 9.0 S.U. pH requirements at Outfalls 001 – 005 from 2017-2021. Therefore, a daily minimum of 6.0 S.U. and an instantaneous maximum (IMAX) of 9.0 S.U. will be imposed at all outfalls.

Water Quality-Based Effluent Limitations (WQBELs)

Water quality analyses are typically performed under low-flow (Q_{7-10}) conditions. Stormwater discharges occur at variable rates and frequencies but not however during Q_{7-10} conditions. Since the discharges from Great Southern Wood are composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations are not proposed.

Reported analytical results submitted with the NPDES permit application for Outfalls 001-006 showed elevated concentrations of COD, BOD, TSS, and copper at Outfall 001 and Outfall 003. Great Southern Wood also reported samples with pH values below 6.0 at all outfalls and above 9.0 at Outfall 003. A summary of the maximum (and minimum for pH) discharge concentrations collected during the last three years is shown in Table 4.

Table 4 - DMR Discharge Concentrations ($^{mg}/_{L}$)

Parameter	Outfall 1	Outfall 2	Outfall 3	Outfall 4	Outfall 5
Chemical Oxygen Demand (COD)	207	97.8	199	-	72.8
Biological Oxygen Demand (BOD)	71	23.1	35.6	-	21
Total Suspended Solids (TSS)	104	60	338	-	44
Total Arsenic	0.013	<0.01	<0.01	-	<0.01
Total Chromium	0.014	0.006	0.025	-	0.214
Total Copper	3.05	0.236	0.8	-	0.214
Oil and Grease	<5.9	<5.9	<5.9	-	<5.9
pH (S.U.)	3.97	4.01	4.02/ 9.20	-	4.01

Based on the above pollutant discharge concentrations reported to the Department on DMRs for this site and to ensure that adequate BMPs are in place and effective, the Department has included benchmark values from the EPA's Multisector General Permit document in Part C of the Draft Permit. The benchmark values are included in Table 6.

Anti-Backsliding

The effluent limitations and monitoring requirements in Table 3 below are from the current permit, issued on March 3, 2014. Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l).

Table 5: Current Permit Effluent Limitations

Parameters	Average Monthly	Maximum Daily	Units	Monitoring Requirements	
				Monitoring Frequency	Sample Type
Flow	Report	Report	MGD	2/quarter	Estimated
pH	Not less than 6.0 nor greater than 9.0		S.U.	2/quarter	Grab
Total Suspended Solids	30	60	mg/L	2/quarter	Grab
Oil and Grease	15	30	mg/L	2/quarter	Grab
BOD_5	Report	Report	mg/L	2/quarter	Grab
Chemical Oxygen Demand	Report	Report	mg/L	2/quarter	Grab
Total Arsenic	Report	Report	mg/L	2/quarter	Grab
Total Chromium	Report	Report	mg/L	2/quarter	Grab
Total Copper	Report	Report	mg/L	2/quarter	Grab

Final Effluent Monitoring and Limitations

Effluent limitations applicable at Outfalls 001-006 are the most stringent of Technology-Based Effluent Monitoring and Limitations and the current permit's effluent monitoring and limitations. The proposed effluent limitations and monitoring requirements for Outfalls 001-006 are displayed in Table 6 below.

A Part C condition is included in the Draft Permit requiring submission of a Corrective Action Plan when there are two consecutive exceedances of the benchmark values. The benchmark values are displayed below in Table 6 and included in the Part C condition. These values are from EPA'S Multisector General Permit document and are not effluent limitations. Exceedance of the benchmark values is not a violation. If there are two consecutive exceedances of the benchmark value, a Corrective Action Plan must be conducted to evaluate site stormwater controls and BMPs. Benchmark monitoring is a feedback tool, along with routine inspections and visual assessments, for assessing the effectiveness of stormwater controls and BMPs. An exceedance of the benchmark provides permittees with an indication that the facility's controls may not be sufficiently controlling pollutants in stormwater.

The sampling frequency will be 1/ month for all parameters so that sufficient data is generated to reliably compare sampling data with effluent limitations and benchmark values.

Table 6: Final Permit Effluent Limitations

Parameters	Maximum Daily (mg/L)	Benchmark Values (mg/L)	Monitoring Requirements	
			Monitoring Frequency	Sample Type
Flow	Monitor & Report	-	1/month	Estimated
pH	Not less than 6.0 nor greater than 9.0	-	1/month	Grab
Total Suspended Solids	60.0	-	1/month	Grab
BOD_5	Report	30	1/month	Grab
Chemical Oxygen Demand	Report	120	1/month	Grab
Pentachlorophenol	Report	-	1/month	Grab
Total Arsenic	Report	0.15	1/month	Grab
Total Chromium	Report	-	1/month	Grab
Total Copper	Report	0.00519	1/month	Grab

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, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 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, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 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, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other:

Attachments

Attachment A: StreamStats Report for Outfalls 001-006

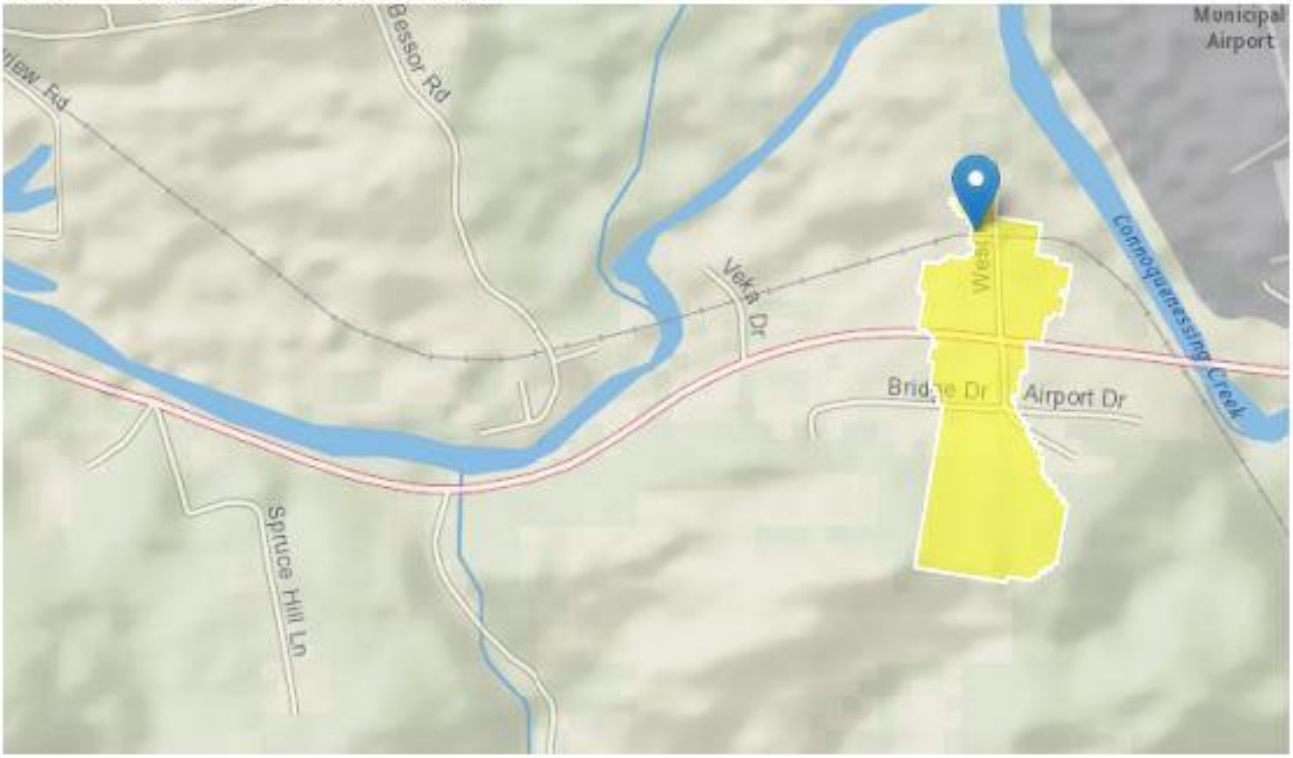
Attachment B: EPA 2021 Multi-Sector General Permit Benchmark Values

ATTACHMENT A:

StreamStats Report for Outfalls 001-006

StreamStats Report

Region ID: PA
Workspace ID: PA20210830131514685000
Clicked Point (Latitude, Longitude): 40.79690, -80.16814
Time: 2021-08-30 09:15:33 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0601	square miles
ELEV	Mean Basin Elevation	1021	feet

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0601	square miles	2.26	1400

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ELEV	Mean Basin Elevation	1021	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

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 4]

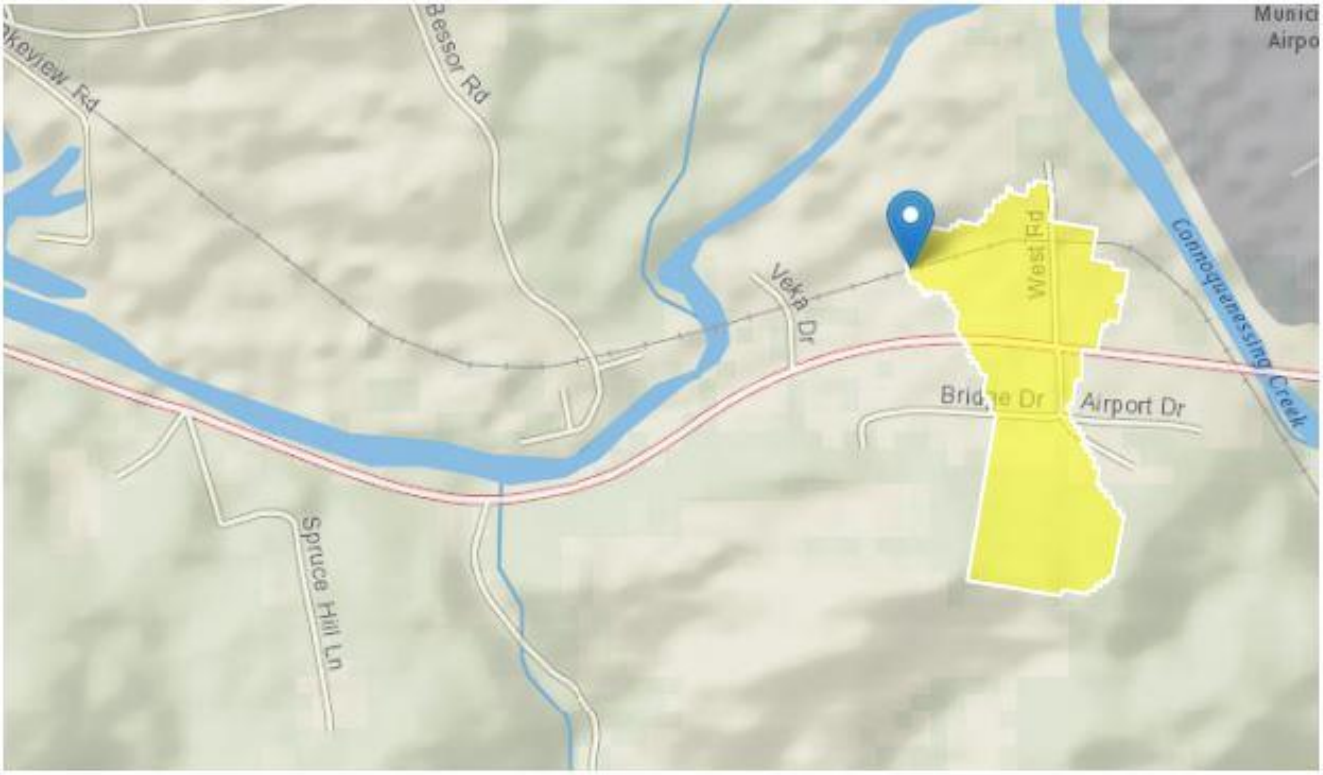
Statistic	Value	Unit
7 Day 2 Year Low Flow	0.000997	ft^3/s
30 Day 2 Year Low Flow	0.00217	ft^3/s
7 Day 10 Year Low Flow	0.000234	ft^3/s
30 Day 10 Year Low Flow	0.00061	ft^3/s
90 Day 10 Year Low Flow	0.00138	ft^3/s

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/)

StreamStats Report

Region ID: PA
Workspace ID: PA20210830132909984000
Clicked Point (Latitude, Longitude): 40.79640, -80.17076
Time: 2021-08-30 09:29:29 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0715	square miles
ELEV	Mean Basin Elevation	1001	feet

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0715	square miles	2.26	1400

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ELEV	Mean Basin Elevation	1001	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

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 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.0012	ft^3/s
30 Day 2 Year Low Flow	0.00258	ft^3/s
7 Day 10 Year Low Flow	0.000287	ft^3/s
30 Day 10 Year Low Flow	0.000736	ft^3/s
90 Day 10 Year Low Flow	0.00164	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/)

StreamStats Report

Region ID: PA
Workspace ID: PA20210830134545673000
Clicked Point (Latitude, Longitude): 40.79676, -80.16779
Time: 2021-08-30 09:46:04 -0400

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0371	square miles
ELEV	Mean Basin Elevation	1049	feet

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0371	square miles	2.26	1400

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ELEV	Mean Basin Elevation	1049	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

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 4]

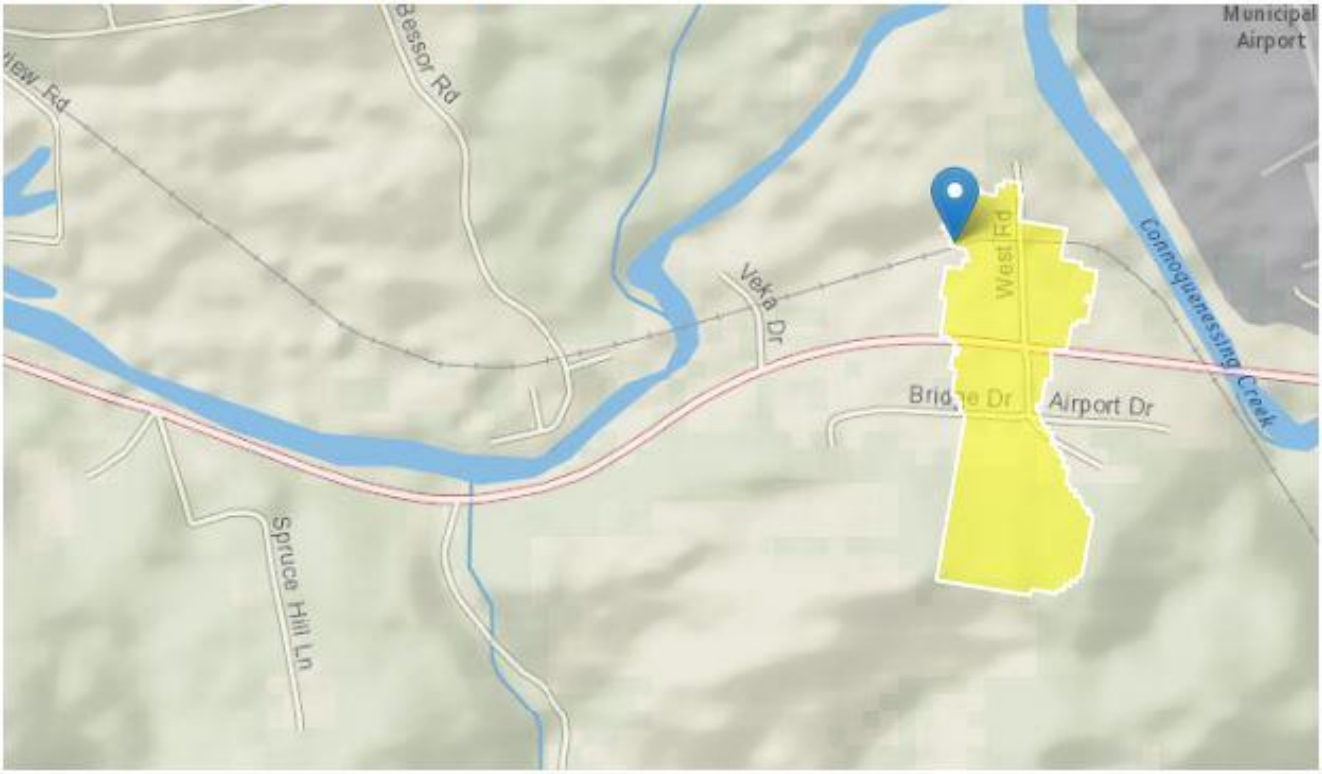
Statistic	Value	Unit
7 Day 2 Year Low Flow	0.000589	ft^3/s
30 Day 2 Year Low Flow	0.00131	ft^3/s
7 Day 10 Year Low Flow	0.000131	ft^3/s
30 Day 10 Year Low Flow	0.000355	ft^3/s
90 Day 10 Year Low Flow	0.000827	ft^3/s

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/)

StreamStats Report

Region ID: PA
Workspace ID: PA20210831133415740000
Clicked Point (Latitude, Longitude): 40.79680, -80.16912
Time: 2021-08-31 09:34:35 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0631	square miles
ELEV	Mean Basin Elevation	1015	feet

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0631	square miles	2.26	1400

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ELEV	Mean Basin Elevation	1015	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

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 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.00105	ft^3/s
30 Day 2 Year Low Flow	0.00228	ft^3/s
7 Day 10 Year Low Flow	0.000248	ft^3/s
30 Day 10 Year Low Flow	0.000643	ft^3/s
90 Day 10 Year Low Flow	0.00145	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/)

StreamStats Report

Region ID: PA
Workspace ID: PA20210831134018461000
Clicked Point (Latitude, Longitude): 40.79664, -80.16962
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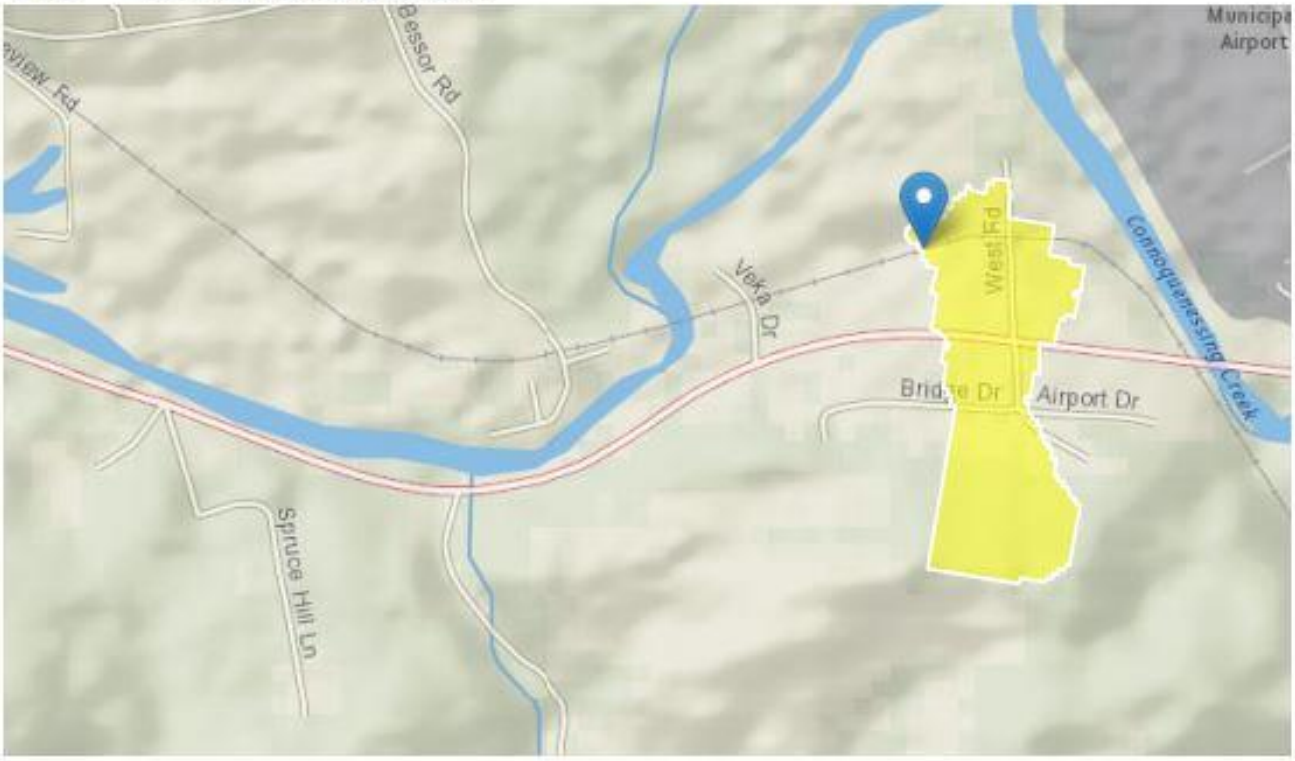

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0651	square miles
ELEV	Mean Basin Elevation	1011	feet

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0651	square miles	2.26	1400

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ELEV	Mean Basin Elevation	1011	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

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 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.00108	ft^3/s
30 Day 2 Year Low Flow	0.00235	ft^3/s
7 Day 10 Year Low Flow	0.000257	ft^3/s
30 Day 10 Year Low Flow	0.000665	ft^3/s
90 Day 10 Year Low Flow	0.00149	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/)

StreamStats Report

Region ID: PA
Workspace ID: PA20210831134435485000
Clicked Point (Latitude, Longitude): 40.79676, -80.16782
Time: 2021-08-31 09:44:56 -0400

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0371	square miles
ELEV	Mean Basin Elevation	1049	feet

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.0371	square miles	2.26	1400

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ELEV	Mean Basin Elevation	1049	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

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 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.000589	ft^3/s
30 Day 2 Year Low Flow	0.00131	ft^3/s
7 Day 10 Year Low Flow	0.000131	ft^3/s
30 Day 10 Year Low Flow	0.000355	ft^3/s
90 Day 10 Year Low Flow	0.000827	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/)

ATTACHMENT B:

EPA 2021 Multi-Sector General Permit Benchmark Values

4.2.2.2 Summary of the 2021 MSGP Benchmark Thresholds

The Table 4-2 presents the 2021 MSGP's freshwater and saltwater benchmark thresholds. Sector-specific benchmark requirements are detailed in Part 8. Values match the original units found in the source documents, detailed in the corresponding section of the fact sheet.

Table 4-2 2021 MSGP Benchmark Thresholds

Pollutant		2021 MSGP Benchmark Threshold
Total Recoverable Aluminum (T)		1,100 µg/L
Total Recoverable Beryllium		130 µg/L
Biochemical Oxygen Demand (5-day)		30 mg/L
pH		6.0 – 9.0 s.u.
Chemical Oxygen Demand		120 mg/L
Total Phosphorus		2.0 mg/L
Total Suspended Solids (TSS)		100 mg/L
Nitrate and Nitrite Nitrogen		0.68 mg/L
Turbidity		50 NTU
Total Recoverable Antimony		640 µg/L
Ammonia		2.14 mg/L
Total Recoverable Cadmium	Freshwater[a]	1.8 µg/L
	Saltwater	33 µg/L
Total Recoverable Copper	Freshwater	5.19 µg/L
	Saltwater	4.8 µg/L
Total Recoverable Cyanide	Freshwater	22 µg/L
	Saltwater	1 µg/L
Total Recoverable Mercury	Freshwater	1.4 µg/L
	Saltwater	1.8 µg/L
Total Recoverable Nickel	Freshwater[a]	470 µg/L
	Saltwater	74 µg/L
Total Recoverable Selenium	Freshwater	1.5 µg/L for still/standing (lentic) waters 3.1 µg/L for flowing (lotic) waters
	Saltwater	290 µg/L
Total Recoverable Silver	Freshwater[a]	3.2 µg/L
	Saltwater	1.9 µg/L
Total	Freshwater[a]	120 µg/L

Pollutant		2021 MSGP Benchmark Threshold
Recoverable Zinc	Saltwater	90 µg/L
Total Recoverable Arsenic	Freshwater	150 µg/L
	Saltwater	69 µg/L
Total Recoverable Lead	Freshwater[a]	82 µg/L
	Saltwater	210 µg/L

[a] These pollutants are dependent on water hardness where discharged into freshwaters. The freshwater benchmark value listed is based on a hardness of 100 mg/L. When a facility analyzes receiving water samples for hardness, the operator must use the hardness ranges provided in Table 1 in Appendix J of the 2021 MSGP and in the appropriate tables in Part 8 of the 2021 MSGP to determine applicable benchmark values for that facility. Benchmark thresholds for discharges of these pollutants into saline waters are not dependent on receiving water hardness and do not need to be adjusted.