pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0082457**
Facility Type	**Industrial**	APS ID	**21569**
Major / Minor	**Minor**	Authorization ID	**1339102**

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

Applicant and Facility Information

Applicant Name	**Alexandria Borough Water Authority Huntingdon County**	Facility Name	**Alexandria Borough Water System**
Applicant Address	PO Box 336, 7561 Bridge Street, Suite 3	Facility Address	Reservoir Circle Road
	Alexandria, PA 16611-0336		Alexandria, PA 16611
Applicant Contact	Kenneth Bost	Facility Contact	Brian Hetrick
Applicant Phone	(814) 669-4441	Facility Phone	(814) 669-9029
Client ID	53083	Site ID	251133
SIC Code	4911	Municipality	Porter Township
SIC Description	Trans. & Utilities - Electric Services	County	Huntingdon
Date Application Received	January 5, 2021	EPA Waived?	Yes
Date Application Accepted	January 14, 2021	If No, Reason	

Purpose of Application: NPDES Permit Renewal.

Summary of Review

Alexandria Borough Water Authority has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit. The permit was last reissued on June 22, 2016 and became effective on July 1, 2016. The permit expired on June 30, 2021 but the terms and conditions of the permit have been extended since that time.

Alexandria Borough Water Authority owns, operates, and maintains the discharge of treated backwash filtered and clean-in-place (CIP) water from the existing water treatment plant located in Porter Township, Huntingdon County. The facility has a design average annual flow of 0.008 MGD. The hydraulic design capacity is 0.0188 MGD.

WQM Part II No. 3104201 original was issued on July 06, 2004.

Sludge use and disposal description and location(s): N/A due to the solid disposed at landfill.

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

Approve	Deny	Signatures	Date
X		*Hilaryle* Hilary H. Le / Environmental Engineering Specialist	October 01, 2021
X		*Maria D. Bebenek for* Daniel W. Martin, P.E. / Environmental Engineer Manager	October 15, 2021

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.008
Latitude	40º 31' 4.91"	Longitude	-78º 8' 12.72"
Quad Name	Spruce Creek	Quad Code	
Wastewater Description:	Filter Backwash and Cleaning		
Receiving Waters	Robinson Run (WWF, MF)	Stream Code	16067
NHD Com ID	65606878	RMI	3.69 miles
Drainage Area	1.71 mi.^{2}	Yield (cfs/mi^2)	See comments below
Q_{7-10} Flow (cfs)	See comments below	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	992	Slope (ft/ft)	
Watershed No.	11-A	Chapter 93 Class.	WWF, MF
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	Mifflintown Boro Municipal Authority, Juniata County		
PWS Waters	Juniata River	Flow at Intake (cfs)	
PWS RMI	37 miles	Distance from Outfall (mi)	Approximate 72 miles

Changes Since Last Permit Issuance:

Drainage Area
The discharge is to Robinson Run at RMI 3.69 miles. A drainage area upstream of the discharge is estimated to be 1.71 mi.^{2}, according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/.

Streamflow
The nearest downstream USGS Streamgage is 01559000 in Juniata River near Huntingdon, PA. The drainage area at this Streamgage is 817 mi.^{2}. Stream data provided Q_{7-10}, to be 131 cfs, respectively. The drainage area at discharge point is found to be 1.71 mi^2 according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/) which results in a Q_{7-10} low flow yield of 0.05 cfs/mi.^{2}. This information is used to obtain a chronic or 30-day (Q_{30-10}), and an acute or 1-day (Q_{1-10}) exposure stream flow for the discharge point as follows (Guidance No. 391-2000-023):

Low Flow Yield = 131 cfs / 817 mi.^{2} ≈ 0.16 cfs/mi.^{2}
Q_{7-10} discharge = 0.16 cfs/mi.^{2} x D.A discharge = 0.16 cfs/mi.^{2} x 1.71 mi.^{2} = 0.27 cfs
Q_{30-10} = 1.36 * 0.27 cfs ≈ 0.37 cfs
Q_{1-10} = 0.64 * 0.27 cfs ≈ 0.17 cfs

The resulting dilution ratio (under Q_{7-10} conditions) is: Q_{stream} / $Q_{discharge}$ = 0.27 cfs / [0.008 MGD * (1.55 cfs/MGD)] = 21.8:1

Robinson Run
25 Pa Code § 93.9n classifies Robinson Run as Warm-Water & Migratory Fishes (WWF & MF) surface water. Based on the 2020 Integrated Report, Robinson Run, (Assessment ID 15401), is not impaired. A TMDL currently does not exist for this stream segment, therefore, no TMDL has been taken into consideration during this review.

Public Water Supply
The closest downstream public water supply intake from the discharge point is for the Mifflintown Borough water supply in Juniata River in Mifflintown Borough, Juniata County. The distance from the discharge to the intake is approximately 72 miles. The discharge will not impact the intake because of the distance, dilution, and effluent limits.

Treatment Facility Summary

Treatment Facility Name: Alexandria Ws

WQM Permit No.	Issuance Date
3104201	7/06/2004

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Industrial	Primary	Sedimentation Tanks	No Disinfection	0.008

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0188		Not Overloaded	Drying	Combination of methods

Changes Since Last Permit Issuance:

Public Water Supply Water Treatment Facility providing water filtration via membrane filtration, disinfection via chlorination and distribution. Wastewater is generated from filter backwashing, periodic chemical clean-in-place (CIP) and from instrumentation and floor drain discharges. All waste watered is collected via the wastewater holding tank where supernatant is decanted to the NPDES discharge and solids are pump, when needed, to the sand drying beds.

The chemicals use Sodium Hydroxide (caustic Soda) 25% cleaning chemical for CIP, Zinc Orthophosphate for corrosion inhibitor, Liqui-chlor (12.5%) liquid sodium hypochlorite for disinfection, and Citric Acid for CIP.

Compliance History	
Summary of DMRs:	The DMRs reported from August 1, 2020 to July 31, 2021 are summarized in the Table below (Page # 4).
Summary of Inspections:	**03/21/2019:** Mr. Clark, DEP WQS, conducted compliance evaluation inspection. Effluent and receiving stream looked clear. The field test for TRC was slightly over the permit limit but there was no discharge during the inspection. There were no violations noted during inspection. **01/24/2018:** Mr. Clark, DEP WQS, conducted compliance evaluation inspection. Effluent and receiving stream looked clear. The field test for pH and TRC results were within permit limits. There were no violations noted during inspection. The recommendation was needed to record individual grab times for 8-hours composite sample. **01/20/2017:** Mr. Clark, DEP WQS, conducted compliance evaluation inspection. Effluent and receiving stream looked clear. The field test for pH and TRC results were within permit limits. There were no violations noted during inspection.
Other Comments:	There were no open violations associated with the permittee or the facility's safety drinking water on 3/27/2021.

Other Comments:

Compliance History

DMR Data for Outfall 001 (from August 1, 2020 to July 31, 2021)

Parameter	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20
Flow (MGD) Average Monthly	0.003795	0.003562	0.003565	0.003671	0.003314	0.003684	0.004007	0.003820	0.003981	0.004293	0.004163	0.004105
Flow (MGD) Daily Maximum	0.005655	0.004216	0.004117	0.004169	0.003801	0.004117	0.004162	0.004059	0.004177	0.005713	0.006634	0.004895
pH (S.U.) Minimum	6.89	7.19	7.05	6.65	6.73	6.85	6.90	6.94	7.02	7.26	7.65	7.01
pH (S.U.) Maximum	8.07	8.06	8.03	8.12	8.06	7.31	7.39	8.06	7.35	8.16	8.12	7.96
TRC (mg/L) Average Monthly	0.14	0.11	0.13	0.11	0.11	0.13	0.13	0.13	0.14	0.15	0.12	0.13
TRC (mg/L) Instantaneous Maximum	0.37	0.21	0.39	0.15	0.15	0.36	0.31	0.26	0.36	0.39	0.16	0.24
TSS (lbs/day) Average Monthly	0.7412	0.2804	0.3593	0.1976	0.0431	0.0661	0.3467	0.3290	0.2111	0.24165	0.2014	0.13825
TSS (lbs/day) Daily Maximum	0.9156	0.3543	0.4453	0.3728	0.0634	0.0672	0.4196	0.3332	0.3483	0.3323	0.2048	0.1880
TSS (mg/L) Average Monthly	24.9	9.80	12.40	7.8	1.40	2.00	10.20	10.05	6.10	6.80	6.10	4.40
TSS (mg/L) Daily Maximum	33.0	12.00	16.40	13.2	2.00	2.00	12.40	10.5	10.0	9.00	6.20	6.60

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.008
Latitude 40º 31' 5.27" **Longitude** -78º 8' 11.97"
Wastewater Description: Filter Backwash and Cleaning

Technology-Based Limitations

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

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Technology based (BAT) effluent limits for water treatment plant wastewater discharges are presented in the Department's October 1997 guidance document entitled "Technology-based control requirements for water treatment plant wastes (DEP Document number 362-2183-003, 10-01-1997, page 34)" as follows:

Parameter	Monthly Average (mg/l)	Daily Max (mg/l)
Suspended Solids	30.0	60.0
Iron (total)	2.0	4.0
Aluminum (total)	4.0	8.0
Manganese (total)	1.0	2.0
Flow	Monitor	----
pH	6.0-9.0 at all time	----
Total Residual Chlorine [(1)]	0.5	1.0

[(1)] The technology limit for TRC is required by Sections 93.5 of Title 25 of the Department's Regulations. Refer to Section 93.5 and the Implementation Guidance-Total Residual Chlorine (TRC) Regulation for details on how to impose TRC limitations.

Best Professional Judgment (BPJ) Limitations:
This water treatment plant doesn't use chemical coagulation/precipitation for treatment purposes. Chlorine is the only chemical that is used prior to filtration. In the CIP, citric acid and caustic soda is used which is eventually being neutralized before discharge. Therefore, 1997 technology-based limits for Total Iron, Total Aluminum, and Total Manganese limits are not applicable to this facility. This is consistent with the previous permit.

Total Residual Chlorine (TRC):
Based on the attached TRC Excel Spreadsheet calculator, which uses the equations and calculations from the Department's May 1, 2003 "Implementation Guidance for Total Residual Chlorine" (ID No. 391-2000-015), the facility's discharge must meet a monthly average limit of 0.5 mg/L and an instantaneous maximum limit of 1.6 mg/L. However, the existing limits of 0.5 mg/L monthly average & 1.0 mg/L IMAX were more stringent and will remain in the proposed permit. Recent DMRs and inspection reports show that the facility has been consistently achieving these limits.

Total Suspended Solids (TSS):
There is no water quality criterion for TSS. Therefore, Technology-based limitation will govern. The existing limits of 30.0 mg/L average monthly, 60.0 mg/l daily maximum, and 75.0 mg/L instantaneous maximum will remain in the proposed permit based on the minimum level of effluent quality attainable by secondary treatment, 25 Pa. Code § 92a.47 and 40CFR 133.102(b). The minimum monitoring frequency will remain the same as 2/month.

Chemical Additives Analysis:
Chemical name of the application (page 6) indicates that the facility is currently using chemical additives as follows: Sodium Hydroxide (Caustic Soda) 25%, Zinc Orthophosphate, Liquichlor (12.5%) liquid sodium hypochlorite, and Citric Acid. These chemical additives are generally used for cleaning purposes. The application also indicates that none of these chemical additives are expected to be present in the effluent; accordingly, there is no potential for toxicity in the effluent in regard to these chemical additives. Part C of the draft permit will contain standard "chemical additives" conditions.

Stormwater:
There is no stormwater outfall associated with this facility.

Toxics:
DEP utilizes a Toxics Management Spreadsheet (last modified on March 2021 ver. 1.3) to facilitate calculations necessary for completing a reasonable potential analysis and determining WQBELs for toxic pollutants. The worksheet output indicates that there are no toxic pollutants of concern. Additionally, since there is no industrial or commercial user contributing industrial wastewater to the sewer system and no known environmental concern associated with any toxic pollutants within this watershed, therefore, there are no monitoring & reporting requirements necessary.

TMS PA0082457
Alexandria WTP.pdf

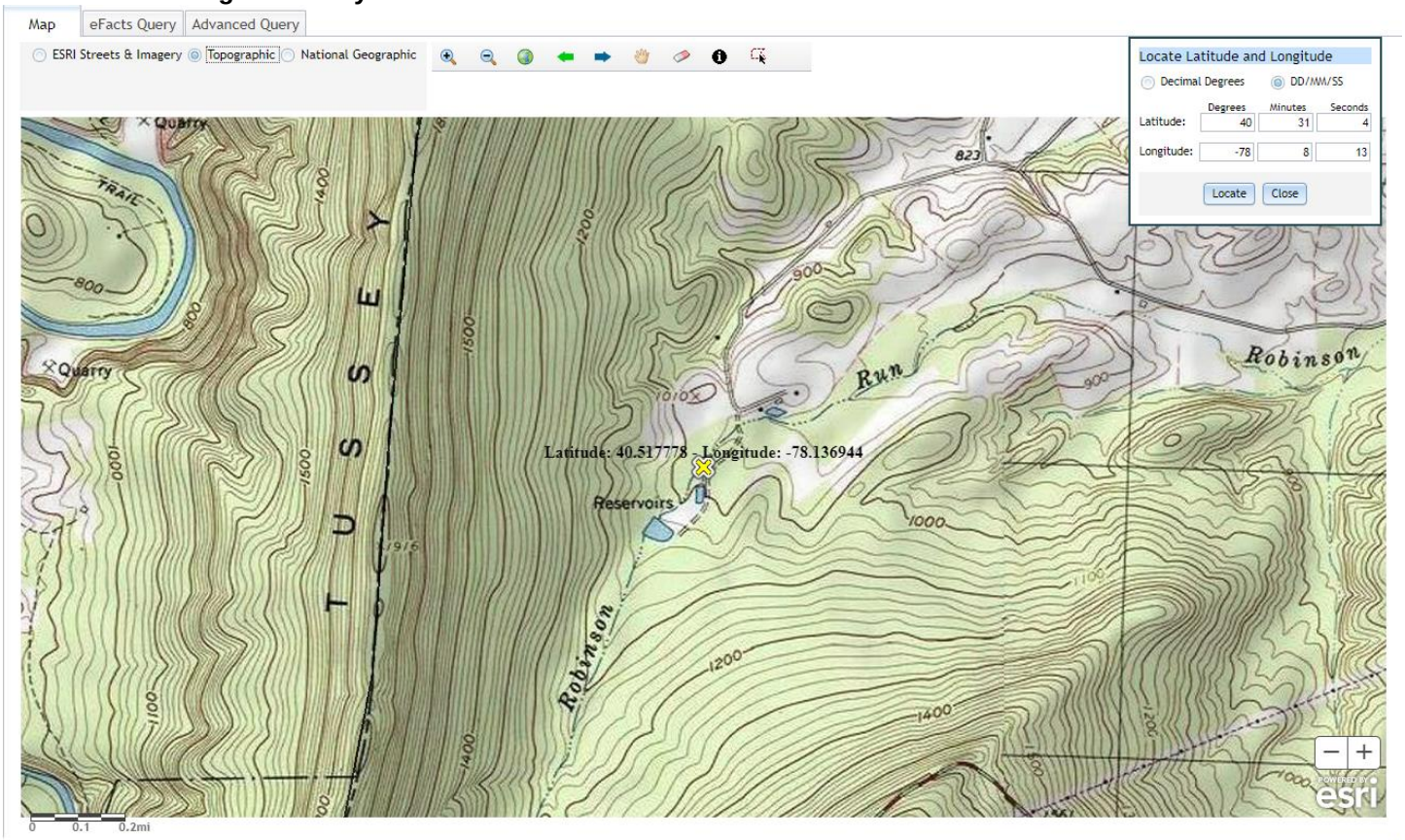
Chemical Additives Analysis:
Module 1 Section Chemical Additives of the application indicates that the facility is currently using chemical additives as follows: Sodium Hydroxide (Caustic Soda) (25%), Zinc Orthophosphate, Liqui-chlor (12.5%) liquid sodium hypochlorite, and Citric Acid. These chemical additives are generally used for cleaning purposes. The application (Module 1) also indicates that none of these chemical additives are expected to be present in the effluent; accordingly, there is no potential for toxicity in the effluent in regard to these chemical additives. Part C of the draft permit will contain standard "chemical additives" conditions.

Antidegradation (93.4):
The effluent limits for this discharge have been developed to ensure that existing in-stream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. No High-Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

303d Listed Streams:
The discharge is not located on a 303d listed stream segment. The stream segment that receives the discharge is listed as attaining its used for aquatic life and fish consumption.

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

Anti-Backsliding:
All proposed limitations and monitoring requirements established based on BPJ, water quality, and state/federal effluent standards meet the anti-backsliding requirements found in 40 CFR § 122.44(l)(1) and (2). These proposed limitations and monitoring requirements specified in the draft permit are at least as stringent as requirements/conditions specified in the current NPDES permit.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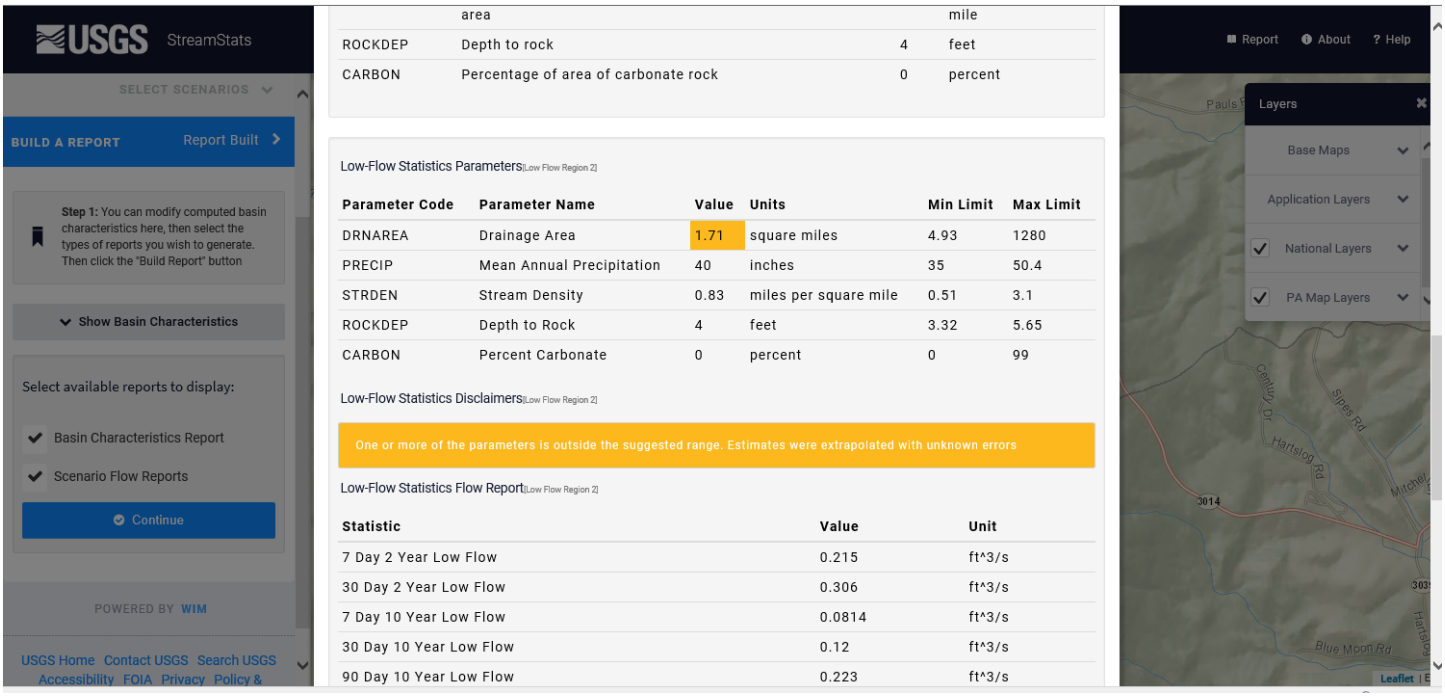
USGS StreamStats
SELECT SCENARIOS
BUILD A REPORT
Report Built
Step 1: You can modify computed basin characteristics here, then select the types of reports you wish to generate. Then click the "Build Report" button
Show Basin Characteristics
Select available reports to display:
Basin Characteristics Report
Scenario Flow Reports
Continue
POWERED BY WIM
USGS Home Contact USGS Search USGS
Accessibility FOIA Privacy Policy &
area mile
ROCKDEP Depth to rock 4 feet
CARBON Percentage of area of carbonate rock 0 percent
Low-Flow Statistics Parameters[Low Flow Region 2]
Parameter Code | Parameter Name | Value | Units | Min Limit | Max Limit
DRNAREA | Drainage Area | 1.71 | square miles | 4.93 | 1280
PRECIP | Mean Annual Precipitation | 40 | inches | 35 | 50.4
STRDEN | Stream Density | 0.83 | miles per square mile | 0.51 | 3.1
ROCKDEP | Depth to Rock | 4 | feet | 3.32 | 5.65
CARBON | Percent Carbonate | 0 | percent | 0 | 99
Low-Flow Statistics Disclaimers[Low Flow Region 2]
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 2]
Statistic | Value | Unit
7 Day 2 Year Low Flow | 0.215 | ft^3/s
30 Day 2 Year Low Flow | 0.306 | ft^3/s
7 Day 10 Year Low Flow | 0.0814 | ft^3/s
30 Day 10 Year Low Flow | 0.12 | ft^3/s
90 Day 10 Year Low Flow | 0.223 | ft^3/s
Report
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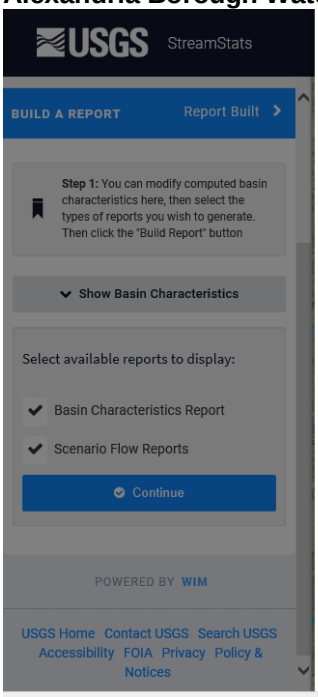
National Layers
PA Map Layers
Century Dr
Hartslog Rd
Blue Moon Rd
3014
Leaflet



PRECIP	Mean Annual Precipitation	39	inches
STRDEN	Stream Density -- total length of streams divided by drainage area	1.79	miles per square mile
ROCKDEP	Depth to rock	4.8	feet
CARBON	Percentage of area of carbonate rock	34.57	percent

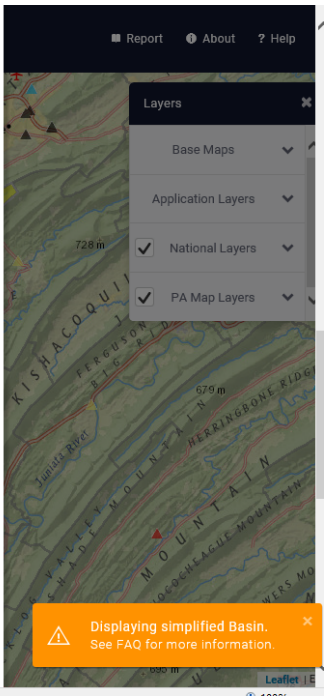
Low-Flow Statistics Parameters[100 Percent (816 square miles) Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	817	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	39	inches	35	50.4
STRDEN	Stream Density	1.79	miles per square mile	0.51	3.1
ROCKDEP	Depth to Rock	4.8	feet	3.32	5.65
CARBON	Percent Carbonate	34.57	percent	0	99

Low-Flow Statistics Flow Report[100 Percent (816 square miles) Low Flow Region 2]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	SEp
7 Day 2 Year Low Flow	185	ft^3/s	38	38
30 Day 2 Year Low Flow	215	ft^3/s	33	33
7 Day 10 Year Low Flow	131	ft^3/s	51	51
30 Day 10 Year Low Flow	151	ft^3/s	46	46
90 Day 10 Year Low Flow	181	ft^3/s	36	36



TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

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

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 6.978	1.3.2.iii	WLA cfc = 6.796
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 2.600	5.1d	LTA_cfc = 3.951

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.500	BAT/BPJ
		INST MAX LIMIT (mg/l) = 1.635	

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

Existing Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/week	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.0	1/day	Grab
TSS	Report	Report	XXX	30	60	75	2/month	8-Hr Composite

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" (362-0400-001), 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	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/week	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.0	1/day	Grab
TSS	Report	Report	XXX	30.0	60.0	75.0	2/month	8-Hr Composite

Compliance Sampling Location:

Other Comments:

	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: