Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0092894**
Facility Type	**Non-Municipal**	APS ID	**1098400**
Major / Minor	**Minor**	Authorization ID	**1457563**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Consol PA Coal Co. LLC**	Facility Name	**Bailey Mine**
Applicant Address	1000 Consol Energy Drive	Facility Address	332 Enon Church Road
	Canonsburg, PA 15317-6506		West Finley, PA 15377-2119
Applicant Contact	Robert Baldwin	Facility Contact	Jeff Ambrose
Applicant Phone	(724) 485-3437	Facility Phone	724-416-8323
Client ID	259457	Site ID	261050
Ch 94 Load Status	Not Overloaded	Municipality	Richhill Township
Connection Status		County	Greene
Date Application Received	October 5, 2023	EPA Waived?	Yes
Date Application Accepted	October 5, 2023	If No, Reason	

Purpose of Application: Renewal of NPDES permit

Summary of Review

The permittee has applied for a renewal of NPDES Permit No. PA0092894 on October 5, 2023. NPDES Permit No. PA0092894 was previously issued by the PA Department of Environmental Protection (DEP) on June 1, 2019 and expired on March 31, 2024.

Sewage from this facility is treated through an aeration basin, clarifier, dosing tank, sand filtration bed, and chlorination.

The applicant is currently enrolled in and will continue to use eDMR.

The applicant has complied with Act 14 Notifications and no comments were received.

Draft Permit issuance 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	Deny	Signatures	Date
X		Jordan T Coldsmith Jordan Coldsmith / Environmental Engineering Specialist	October 15, 2024
X		Mahbuba Iasmin Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineering Manager	October 28, 2024

Discharge, Receiving Waters and Water Supply Information

Outfall No.	004	Design Flow (MGD)	.05
Latitude	39º 58' 18.76"	Longitude	-80º 25' 31.46"
Quad Name	Wind Ridge	Quad Code	39080H4
Wastewater Description:	Sewage Effluent		

Receiving Waters	Enlow Fork (TSF)	Stream Code	32644
NHD Com ID	73871262	RMI	9.51
Drainage Area	15.3	Yield (cfs/mi^2)	0.016
Q_{7-10} Flow (cfs)	0.247	Q_{7-10} Basis	USGS StreamStat
Elevation (ft)	1288	Slope (ft/ft)	
Watershed No.	20-E	Chapter 93 Class.	TSF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	HABITAT ALTERATIONS, SILTATION		
Source(s) of Impairment	SUBSURFACE (HARDROCK) MINING, SUBSURFACE (HARDROCK) MINING		
TMDL Status	**None**	Name	**N/A**

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

Nearest Downstream Public Water Supply Intake	Outside of PA		
PWS Waters	Outside of PA	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	Outside of PA

Changes Since Last Permit Issuance: None

Other Comments: N/A

Treatment Facility Summary

Treatment Facility Name: Bailey Deep Mine Main Portal STP

WQM Permit No.	Issuance Date
3099402	08/18/1999

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary With Ammonia Reduction	Extended Aeration	No Disinfection	0.05

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.05	83.4	Not Overloaded		

Changes Since Last Permit Issuance: None

Other Comments: Treatment process consists of:

- Aeration Basin
- Clarifier
- Dosing Tank
- Sand Filtration Bed
- Chlorination

Compliance History

Operations Compliance Check Summary Report

Facility: Baileys Mine Main Portal STP

NPDES Permit No.: PA0092894

Compliance Review Period: 10/1/19-10/9/24

Inspection Summary:

INSPECTED DATE	INSP TYPE	AGENCY	INSPECTION RESULT DESC
07/21/2020	Administrative/File Review	PA Dept of Environmental Protection	No Violations Noted
09/29/2021	Compliance Evaluation	PA Dept of Environmental Protection	Administratively Closed

Violation Summary:

No violations noted during review period.

Open Violations by Client ID:

No open violations for Client ID 259457 for Clean Water Program, but 35 open violations exist for Air Quality, Safe Drinking Water, Oil & Gas and Mining Programs:

INSP PROGRAM	PROGRAM SPECIFIC ID	INSP ID	VIOLATION ID	VIOLATION DATE	VIOLATION CODE	VIOLATION
Oil & Gas	059-02117	2980875	874236	01/08/2020	OGA3220(A)	PLUGGING REQUIREMENTS - Failure to plug the well upon abandoning it.
Oil & Gas	059-28185	3321217	950141	02/11/2022	102.4(b)1	EROSION AND SEDIMENT CONTROL REQUIREMENTS - Person conducting earth disturbance activity failed to implement and maintain E & S BMPs to minimize the potential for accelerated erosion and sedimentation.

Oil & Gas	059-28185	3321217	950142	02/11/2022	102.11(a)1	GENERAL REQUIREMENTS – BMP AND DESIGN STANDARDS - Person failed to design, implement and maintain E & S BMPs to minimize the potential for accelerated erosion and sedimentation to protect, maintain, reclaim and restore water quality and existing and designated uses.
Oil & Gas	059-28185	3321217	950143	02/11/2022	78.53	EROSION AND SEDIMENT CONTROL - Operator failed to design, implement and maintain best management practices and an erosion and sediment control plan in accordance with 25 Pa. Code Chapter 102, during and after earthmoving or soil disturbing activities, including the activities related to siting, drilling, completing, producing, servicing and plugging, constructing, utilizing and restoring the site and access road.
Oil & Gas	059-28185	3321217	950144	02/11/2022	102.4(b)2	EROSION AND SEDIMENT CONTROL REQUIREMENTS - Person conducting earth disturbance activity failed to develop and implement a required written E & S Plan.
Oil & Gas	059-28185	3321217	950145	02/11/2022	102.22(b)1	SITE STABILIZATION – TEMPORARY STABILIZATION – Permitee failed to temporarily stabilize the site to protect it from accelerated erosion and sedimentation where cessation of earth disturbance activities exceeded 4 days.
MING DMS Bituminous Mine Safety	2024-02	3787712	8204323	10/15/2024	316-G	(g) Explosion-tested compartments.--All explosion-tested compartments and packing glands shall be maintained as approved by the department.

MING DMS Bituminous Mine Safety	2024-02	3787712	8204325	10/15/2024	308	Section 308. Capacity. All electrical apparatus and conductors shall be sufficient in size and power for the work they may be called upon to do and, as prescribed in this act, be efficiently covered or safeguarded. The electrical apparatus and conductors shall be installed, operated and maintained to reduce danger from accidental shock or fire to the minimum and shall be constructed and operated so that the rise in temperature caused by ordinary operation will not injure the insulating materials. Where these conditions are not met, affected equipment shall be removed from service until corrective action is taken.
Air Quality	25-1402386-1	3493301	8164019	10/18/2022	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8165052	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172080	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.

Air Quality	25-1402386-1	3644601	8172081	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172082	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172083	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172084	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172085	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.

Air Quality	25-1402386-1	3644601	8172086	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172087	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172088	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172089	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172090	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.

Air Quality	25-1402386-1	3644601	8172091	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172092	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172093	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172094	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
Air Quality	25-1402386-1	3644601	8172095	09/07/2023	127.25	Construction, Modification, Reactivation and Operation of Sources, Plan Approval Requirements, Compliance requirement. Failure to Operate and maintain a source or control device in accordance with the specifications.
MING Coal Regulatory	30841316	1586418	504391	12/12/2006	89.52(C)	Discharging water that does not meet water quality limits
MING Coal Regulatory	30841317	3627752	8161606	10/11/2023	89.142A.F.1	Failure to rehabilitate, restore, replace or compensate the owner for damage to structures

MING Coal Regulatory	30841317	3627770	8161613	10/11/2023	89.142A.E	Failure to repair damage to surface lands
Safe Drinking Water	5300305	3488335	982329	01/17/2023	C1A	FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS
Safe Drinking Water	5300305	3488335	982330	01/17/2023	C1A	FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS
Oil & Gas	OGO-31846	3331615	947334	02/17/2022	102.22(b)1	SITE STABILIZATION – TEMPORARY STABILIZATION – Permitee failed to temporarily stabilize the site to protect it from accelerated erosion and sedimentation where cessation of earth disturbance activities exceeded 4 days.
Oil & Gas	OGO-31846	3454171	974891	11/04/2022	OGA3259(2I)	UNLAWFUL CONDUCT - Conducting a drilling or production activity that is contrary to the 2012 Oil and Gas Act, 25 Pa. Code Chapter 78, DEP order, or a term or condition of the well permit.
Oil & Gas	OGO-31846	3454171	974892	11/04/2022	102.5(c)	PERMIT REQUIREMENTS – Person conducting earth disturbance activity associated with oil and gas activities involving 5 acres or more of earth disturbance over the life of the project failed to obtain an E & S Permit prior to commencing the earth disturbance activity.
Oil & Gas	OGO-38810	3762583	8187279	05/07/2024	78.91(a)	PLUGGING - GENERAL PROVISIONS - Upon abandoning a well, the owner or operator failed to plug the well to stop the vertical flow of fluids or gas within the well bore under 25 Pa. Code §§ 78.92—78.98 or an approved alternate method.

Enforcement Summary:

No Enforcements executed during review period

Effluent Violation Summary:

MON_PD	OUTFALL	PARAMETER	SAMPLE	PERMIT	UNIT	STAT_BASE_CODE	FACILITY_COMMENTS
Jul-23	4	Carbonaceous Biochemical Oxygen Demand (CBOD5)	45.5	40	mg/L	Instantaneous Maximum	We recently cleaned the Sand bed, and believe this was the cause. We came back into compliance.
Oct-21	4	Carbonaceous Biochemical Oxygen Demand (CBOD5)	29.4	20	mg/L	Average Monthly	Maintenance being performed at the STP may have affected the CBOD result
Oct-21	4	Carbonaceous Biochemical Oxygen Demand (CBOD5)	43.6	40	mg/L	Instantaneous Maximum	Maintenance being performed at the STP may have affected the CBOD result.

Compliance Status: Facility is generally in compliance with no open violations or pending enforcements.

Completed by: Amanda Illar **Completed date:** 10/17/24

Compliance History

DMR Data for Outfall 004 (from September 1, 2023 to August 31, 2024)

Parameter	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23
Flow (MGD) Average Monthly	0.00147	0.01	0.013	0.011	0.007	0.012	0.015	0.01	0.01	0.01	0.003	0.005
pH (S.U.) Instantaneous Minimum	7.16	7.45	7.65	7.1	7.52	7.28	6.84	6.71	7.10	7.20	7.31	7.59
pH (S.U.) Instantaneous Maximum	7.86	7.85	7.73	8.24	8.38	7.91	8.0	7.98	7.83	8.3	8.16	7.95
DO (mg/L) Instantaneous Minimum	4.9	5.4	7.5	6.7	7.0	7.2	8.2	7.9	9.2	8.6	4.7	5.2
TRC (mg/L) Average Monthly	0.05	0.08	0.025	0.04	0.04	0.05	0.02	0.03	0.03	0.02	0.02	0.03
TRC (mg/L) Instantaneous Maximum	0.11	0.40	0.04	0.09	0.15	0.71	0.11	0.12	0.27	0.03	0.06	0.08
CBOD5 (mg/L) Average Monthly	< 2.0	< 2.0	< 2.00	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.07	< 2.0	< 2.0	< 2.7
CBOD5 (mg/L) Instantaneous Maximum	< 2.0	< 2.0	< 2.00	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.14	< 2.0	< 2.0	3.33
TSS (mg/L) Average Monthly	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
TSS (mg/L) Instantaneous Maximum	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Fecal Coliform (No./100 ml) Geometric Mean	< 5.0	< 5	< 5.0	< 5	< 1	< 1	< 5	< 1	< 1	< 1	< 1	< 1
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 5.0	< 5	< 5.0	< 5	< 1	< 1	5	< 1	< 1	< 1	< 1	< 1
Total Nitrogen (mg/L) Daily Maximum									7.01			

Ammonia (mg/L) Average Monthly	< 0.1	< 4.0	< 0.121	< 0.10	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Ammonia (mg/L) Instantaneous Maximum	< 0.25	< 4.0	0.142	0.11	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
Total Phosphorus (mg/L) Daily Maximum									0.83			

Development of Effluent Limitations

Outfall No. 004 **Design Flow (MGD)** .05
Latitude 39º 58' 18.76" **Longitude** -80º 25' 31.46"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

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

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Water Quality-Based Limitations

The discharge was evaluated using WQM7.0 to determine the $CBOD_5$, ammonia nitrogen, and dissolved oxygen parameters. The model results show less restrictive limits for ammonia-nitrogen. The limits evaluated for CBOD5 and DO are the same as previous imposed permit limits.

TRC was evaluated using the TRC Spreadsheet. The limits evaluated were found to be the same as the previously imposed limits.

To comply with anti-backsliding regulations, the previous, more restrictive limits will again be imposed for Ammonia-Nitrogen for the facility.

Parameter	Limit (mg/l)	SBC	Model
DO	4	Inst Min.	WQM 7
Ammonia-Nitrogen (May 1 – Oct 31)	7.83 15.66	Average Monthly IMAX	WQM 7
Ammonia-Nitrogen (Nov 1 – Apr 30)	23.54 47.08	Average Monthly IMAX	WQM 7
$CBOD_5$	25.0 50.0	Average Monthly IMAX	WQM 7
TRC	0.5 1.6	Average Monthly IMAX	TRC Spreadsheet

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 40 CFR 122.44 (l) 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.

No permit limits and/or monitoring requirements have been relaxed in this permit cycle.

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 facilities with design flows of 0.002 – 0.05 MGD.

An annual sampling frequency for total phosphorus and total nitrogen will again be imposed per 25 PA Code §92a.61.

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 004, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	0.05	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
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5 Nov 1 - Apr 30	XXX	XXX	XXX	25.0	XXX	50.0	2/month	Grab
CBOD5 May 1 - Oct 31	XXX	XXX	XXX	20.0	XXX	40.0	2/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	12.0	XXX	24.0	2/month	Grab

Outfall 004, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	4.0	XXX	8.0	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 004

Other Comments: None

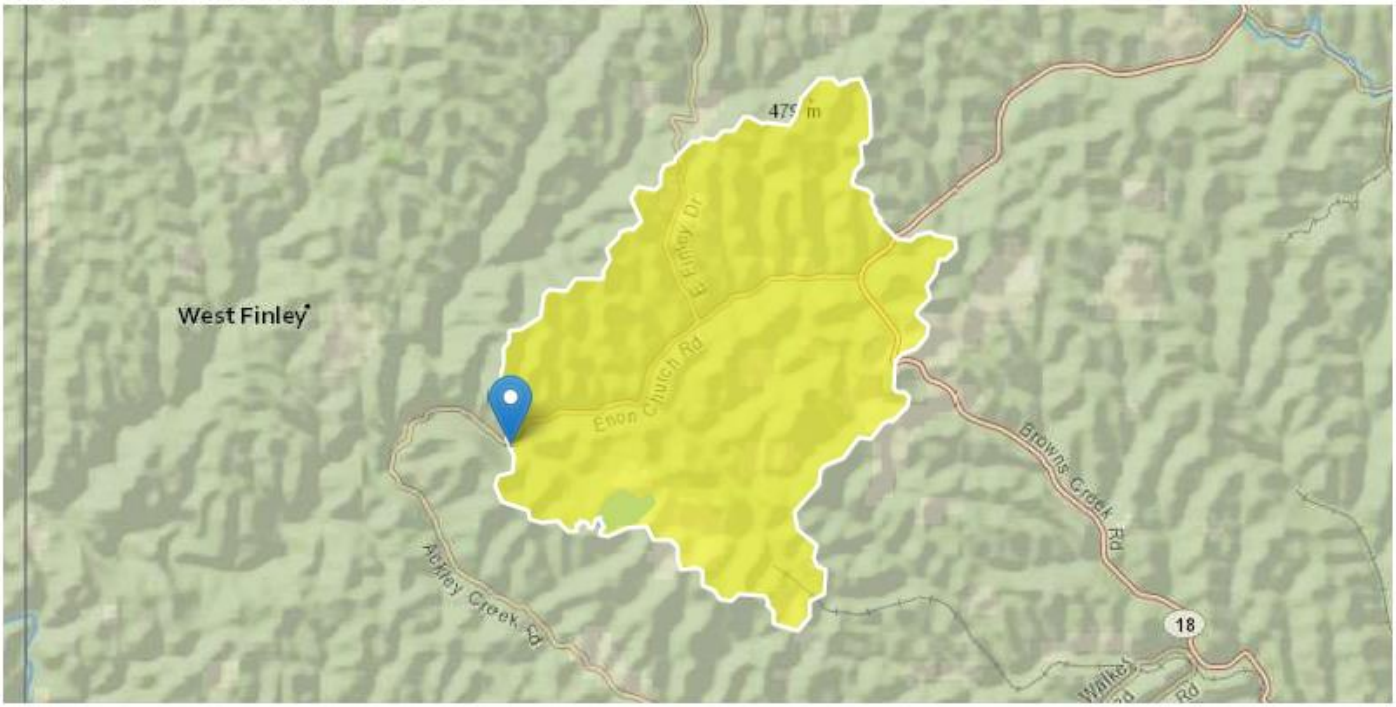
Pennsylvania
Department of
Environmental Protection

Attachment 1
Upstream StreamStat

Pennsylvania
Department of
Environmental Protection

StreamStats Report

Region ID: PA
Workspace ID: PA20241002172855028000
Clicked Point (Latitude, Longitude): 39.97219, -80.42370
Time: 2024-10-02 13:29:19 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	15.3	square miles
ELEV	Mean Basin Elevation	1288	feet

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	15.3	square miles	2.26	1400
ELEV	Mean Basin Elevation	1288	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	0.666	ft^3/s	43	43
30 Day 2 Year Low Flow	1.14	ft^3/s	38	38
7 Day 10 Year Low Flow	0.247	ft^3/s	66	66
30 Day 10 Year Low Flow	0.434	ft^3/s	54	54
90 Day 10 Year Low Flow	0.79	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/)

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Attachment 2
Downstream StreamStat

Pennsylvania
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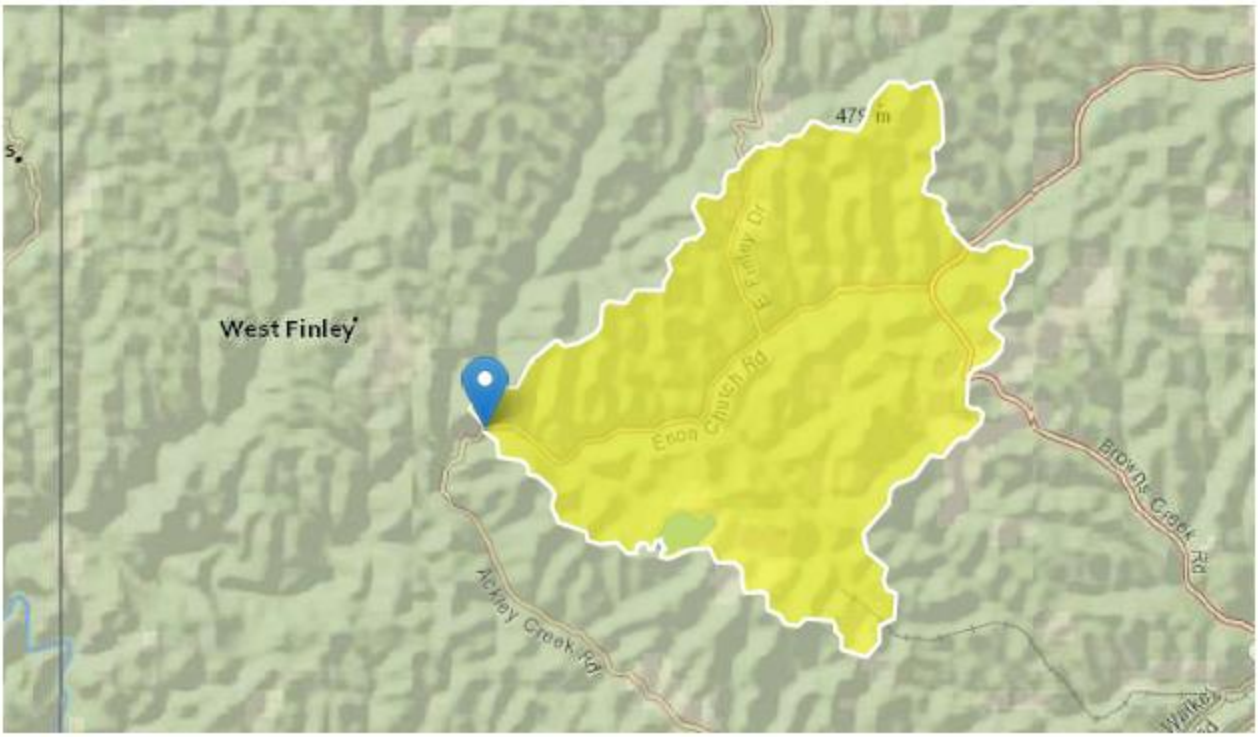
StreamStats Report

Region ID: PA
Workspace ID: PA20241008141911249000
Clicked Point (Latitude, Longitude): 39.97712, -80.43913
Time: 2024-10-08 10:19:41 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	16.1	square miles
ELEV	Mean Basin Elevation	1283	feet

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	16.1	square miles	2.26	1400
ELEV	Mean Basin Elevation	1283	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	0.704	ft^3/s	43	43
30 Day 2 Year Low Flow	1.2	ft^3/s	38	38
7 Day 10 Year Low Flow	0.263	ft^3/s	66	66
30 Day 10 Year Low Flow	0.459	ft^3/s	54	54
90 Day 10 Year Low Flow	0.833	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/)

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Attachment 3
Summer WQM7 Results

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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
20E	32644	ENLOW FORK	**9.510**	1288.00	15.30	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	0.016	0.25	0.00	0.000	0.000	10.0	0.00	0.00	25.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Bailey Mine	PA0092894	0.0500	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	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
20E	32644	ENLOW FORK

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												
9.510	0.25	0.00	0.25	.0773	0.00095	.473	12.88	27.22	0.05	1.137	23.82	7.00
Q1-10 Flow												
9.510	0.16	0.00	0.16	.0773	0.00095	NA	NA	NA	0.04	1.362	23.37	7.00
Q30-10 Flow												
9.510	0.34	0.00	0.34	.0773	0.00095	NA	NA	NA	0.06	0.993	24.07	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	6		

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
20E	32644	ENLOW FORK

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
9.510	Bailey Mine	12.67	38.89	12.67	38.89	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
9.510	Bailey Mine	1.45	7.83	1.45	7.83	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)		
9.51	Bailey Mine	25	25	7.83	7.83	4	4	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
20E	32644	ENLOW FORK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
9.510	0.050	23.819	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
12.879	0.473	27.223	0.054
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
7.43	0.865	1.85	0.939
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
7.240	13.379	Owens	6
Reach Travel Time (days)			
1.137			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.114	6.61	1.66	7.20
0.227	5.88	1.49	7.31
0.341	5.23	1.34	7.43
0.455	4.65	1.21	7.55
0.569	4.14	1.08	7.66
0.682	3.68	0.97	7.69
0.796	3.27	0.88	7.69
0.910	2.91	0.79	7.69
1.024	2.59	0.71	7.69
1.137	2.30	0.64	7.69

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
20E	32644	ENLOW FORK

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)
9.510	Bailey Mine	PA0092894	0.050	CBOD5	25		
				NH3-N	7.83	15.66	
				Dissolved Oxygen			4

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Attachment 4
Winter WQM7 Results

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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
20E	32644	ENLOW FORK	**9.510**	1288.00	15.30	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	0.032	0.25	0.00	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
Bailey Mine	PA0092894	0.0500	0.0000	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	12.51	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
20E	32644	ENLOW FORK

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												
9.510	0.25	0.00	0.25	.0773	0.00095	.473	12.88	27.22	0.05	1.137	7.36	7.00
Q1-10 Flow												
9.510	0.16	0.00	0.16	.0773	0.00095	NA	NA	NA	0.04	1.362	8.26	7.00
Q30-10 Flow												
9.510	0.34	0.00	0.34	.0773	0.00095	NA	NA	NA	0.06	0.993	6.85	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	6		

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
20E	32644	ENLOW FORK

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
9.510	Bailey Mine	24.1	50	24.1	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
9.510	Bailey Mine	4.36	23.54	4.36	23.54	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)		
9.51	Bailey Mine	25	25	23.54	23.54	4	4	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
20E	32644	ENLOW FORK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
9.510	0.050	7.363	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
12.879	0.473	27.223	0.054
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
7.43	1.054	5.56	0.265
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
10.499	9.056	Owens	6
Reach Travel Time (days)			
1.137			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.114	6.95	5.40	10.54
0.227	6.50	5.24	10.60
0.341	6.08	5.08	10.66
0.455	5.68	4.93	10.72
0.569	5.32	4.79	10.78
0.682	4.97	4.64	10.79
0.796	4.65	4.51	10.79
0.910	4.35	4.37	10.79
1.024	4.06	4.24	10.79
1.137	3.80	4.12	10.79

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
20E	32644	ENLOW FORK

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)
9.510	Bailey Mine	PA0092894	0.050	CBOD5	25		
				NH3-N	23.54	47.08	
				Dissolved Oxygen			4