pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0029831**
Facility Type	**Non-Municipal**	APS ID	**1052473**
Major / Minor	**Minor**	Authorization ID	**1377626**

Applicant and Facility Information

Applicant Name	**Sullivan County School District**	Facility Name	**Sullivan County School District Treatment Plant**
Applicant Address	PO Box 240	Facility Address	PO Box 240
	Laporte, PA 18626-0240		Laporte, PA 18626-0240
Applicant Contact	Douglas Linder, Business Manager	Facility Contact	Douglas Linder
Applicant Phone	(570) 928-8194	Facility Phone	(570) 928-8194
Client ID	41765	Site ID	519271
Ch 94 Load Status	Not Overloaded	Municipality	Laporte Borough
Connection Status	No Limitations	County	Sullivan
Date Application Received	November 29, 2021	EPA Waived?	Yes
Date Application Accepted	December 1, 2021	If No, Reason	

Purpose of Application: Renewal of a NPDES Permit

Summary of Review

The subject facility is a wastewater treatment plant serving the school complex in Laporte Borough, Sullivan County.

A map of the discharge location is attached.

Sludge use and disposal description and location(s): The facility's sludge is transferred to other WWTPs for further processing. Per the application 0.01 dry tons were disposed in the previous year.

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
✓		*Keith C. Allison* Keith C. Allison / Project Manager	May 6, 2022
✓		*Nicholas W. Hartranft* Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	May 9, 2022

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.018
Latitude	41º 25' 24.79"	Longitude	-76º 30' 18.26"
Quad Name	Eagles Mere, PA	Quad Code	0733
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Mill Creek (EV (existing use))	Stream Code	20346
NHD Com ID	66909189	RMI	0.85 (@ discharge) 0.73 (@POFU)
Drainage Area	0.19 (@ discharge) 0.41 (@POFU)	Yield (cfs/mi^2)	0.0504
Q_{7-10} Flow (cfs)	0.0207 (@POFU)	Q_{7-10} Basis	Gage 0155250, Muncy Creek @ Sonestown, PA
Elevation (ft)	1880 (@ discharge) 1797 (@POFU)	Slope (ft/ft)	0.003
Watershed No.	10-B	Chapter 93 Class.	CWF
Existing Use	EV (EXCEPTIONAL VALUE)	Existing Use Qualifier	RBP - Antidegradation
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Attaining Use(s)		
Nearest Downstream Public Water Supply Intake	PA American Water Co. @ Milton, PA		
PWS Waters	West Branch Susquehanna River	Flow at Intake (cfs)	682
PWS RMI	10.5	Distance from Outfall (mi)	63

Changes Since Last Permit Issuance: None. The above stream and drainage characteristics were determined for the previous review and remain adequate.

Other Comments: The discharge is to an ephemeral stream. The point of first use (POFU) was previously determined to be 0.12 miles downstream in the same UNT to Mill Creek.

DEP has evaluated information indicating that the existing use of the receiving waters is different than the designated use under 25 Pa. Code § 93.9. In developing the draft NPDES permit, DEP is proposing to protect the existing use of the receiving waters. Following DEP's notice of the receipt of the application and the draft permit in the Pennsylvania Bulletin, DEP will accept written comments during the public comment period regarding DEP's tentative determination to protect the existing use. DEP will make a final determination on existing use protection for the receiving waters as part of the final permit action. The EV existing use has been in place since before the existing permit.

No downstream water supply is expected to be affected by the discharge at this time with the limitations and monitoring proposed.

Compliance History

DMR Data for Outfall 001 (from April 1, 2021 to March 31, 2022)

Parameter	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21	JUN-21	MAY-21	APR-21
Flow (MGD) Average Monthly	0.0041	0.0034	0.0029	0.0024	0.0031	0.0020	0.0014	0.0012	0.0009	0.0009	0.0036	0.0018
Flow (MGD) Daily Maximum	0.0115	0.0091	0.0067	0.0080	0.0083	0.0068	0.0047	0.0042	0.0047	0.0046	0.0085	0.0063
pH (S.U.) Minimum	6.4	6.4	6.2	6.3	6.2	6.3	6.3	6.3	6.3	6.3	6.4	6.4
pH (S.U.) Instantaneous Maximum	7.2	7.5	7.5	7.4	7.5	7.1	7.4	7.4	7.5	7.4	7.1	7.4
DO (mg/L) Minimum	7.0	6.9	6.9	6.1	6.1	6.1	6.0	6.0	6.0	6.1	6.0	6.0
TRC (mg/L) Average Monthly	< 0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
TRC (mg/L) Instantaneous Maximum	0.02	0.04	0.03	0.03	0.04	0.05	0.04	0.03	0.01	0.03	0.03	0.04
CBOD5 (mg/L) Average Monthly	< 5.59	3.0	10.5	4.5	2.0	6.5	2.0	2.0	2.0	2.0	4.0	2.0
TSS (mg/L) Average Monthly	20.0	21.0	9.0	12.0	7.5	6.5	6.0	4.0	5.0	5.0	5.0	4.0
Fecal Coliform (No./100 ml) Geometric Mean	1087	2	1	8	1	1	1	1	1	1	1	1
Fecal Coliform (No./100 ml) Instantaneous Maximum	2419.6	3	1	60	1	1	1	3	1	1	1	1
Ammonia (mg/L) Average Monthly	1.507	2.3	5.4	7.56	2.1	0.26	0.33	0.12	0.28	0.10	0.10	0.06

Compliance History, Cont'd	
Summary of Inspections:	The facility has been inspected approximately annually by the Department over the past permit term. The most recent inspection on February 2, 2022 identified no violations at the time of inspection.
Other Comments:	A query in WMS found no open violations in eFACTS for the Sullivan County School District.

Treatment Facility Summary

Treatment Facility Name: Sullivan County School District Treatment Plant

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Chlorine With Dechlorination	0.018

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.018	38	Not Overloaded	None	Landfill

Changes Since Last Permit Issuance: None

Other Comments: Treatment consists of a comminutor, manual bar screen, one aeration tank, two clarifiers, hypochlorite disinfection with chlorine contact tank, erosion dechlorinator, and sludge holding tank.

Existing Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	5/week	Grab
DO	XXX	XXX	Report	XXX	XXX	XXX	5/week	Grab
TRC	XXX	XXX	XXX	0.02	XXX	0.05	5/week	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	XXX	60	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.5	XXX	19	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6	2/month	8-Hr Composite

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.018
Latitude 41º 25' 24.80" **Longitude** -76º 30' 18.60"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

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

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

Comments: The above limitations are applicable and included in the existing permit except for a more stringent TRC limit as explained below.

Water Quality-Based Limitations

DO, CBOD5 and NH3-N

The WQM7.0 model allows the Department to evaluate point source discharges of dissolved oxygen (DO), carbonaceous BOD ($CBOD_5$), and ammonia-nitrogen (NH_3-N) into free-flowing streams and rivers. To accomplish this, the model simulates two basic processes: the mixing and degradation of NH_3-N in the stream and the mixing and consumption of DO in the stream due to the degradation of $CBOD_5$ and NH_3-N. WQM7.0 modeling was performed for the previous review at the POFU showing the $CBOD_5$ technology-based limits noted above with a water quality-based limit of 3.0 mg/L for ammonia-nitrogen are adequate to protect the receiving stream. The previous modeling run is attached (Attachment B).

Total Residual Chlorine

A 0.2 mg/L monthly average was included in the last renewal and previously a 0.05 mg/L Instantaneous Maximum was established to protect the existing stream use consistent with 25 PA Code 93.4c and are more stringent than the tech-based limitation noted above. The existing limits will remain.

Discharge to Dry or Intermittent Stream

The existing permit does not contain any additional limitations established under the Department's *Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales and Storm Sewers* guidance document (391-2000-014). The current version of the guidance prescribes additional and more stringent limitations for new or expanded discharges that include a $CBOD_5$ limit of 10 mg/L, TSS limit of 10 mg/L, DO minimum of 6 mg/L, TN limit of 5 mg/L, and TP limit of 0.5 mg/L. These additional limitations will not be required at this time for this existing discharge.

Antidegradation

Because no new or increased discharges are proposed the antidegradation requirements of 25 PA Code 93.4c and the Antidegradation Best Available Combination of Technologies (ABACT) requirements as listed in the Department's Antidegradation Implementation Guidance (391-0300-002) are not applicable at this time.

Chesapeake Bay/Nutrient Requirements

According to the Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, this facility is an existing Phase 5 Chesapeake Bay sewage discharger that is not expanding, and therefore requires no nutrient loading limits but does require Total Nitrogen and Total Phosphorus monitoring. Nutrient monitoring has not been included in the previous couple of permit cycles based on regular nutrient monitoring conducted from 2007-2008. Because no recent regular monitoring has been performed annual monitoring for Total Nitrogen and Total Phosphorus will be included at this time consistent with the phase III WIP Wastewater Implementation Plan. Application sampling was at 26.4 mg/L and 4.1 mg/L for Total Nitrogen and Total Phosphorus, respectively.

Toxics Management

No further "Reasonable Potential Analysis" was performed for this minor sewage facility to determine additional parameters as possible candidates for limitations or monitoring.

Best Professional Judgment (BPJ) Limitations

Comments: None needed beyond the limitations mentioned above.

Anti-Backsliding

No proposed limitations have been made less stringent consistent with the anti-backsliding provisions of the Clean Water Act and 40 CFR 122.44(l).

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	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	5/week	Grab
Dissolved Oxygen	XXX	XXX	Report	XXX	XXX	XXX	5/week	Grab
Total Residual Chlorine (TRC)	XXX	XXX	XXX	0.02	XXX	0.05	5/week	Grab
Carbonaceous Biochemical Oxygen Demand (CBOD5)	XXX	XXX	XXX	25.0	XXX	50	2/month	8-Hr Composite
Total Suspended Solids	XXX	XXX	XXX	30.0	XXX	60	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/year	Grab
Total Nitrogen	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/year	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	9.5	XXX	19	2/month	8-Hr Composite
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6	2/month	8-Hr Composite
Total Phosphorus	XXX	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: The existing 5/week monitoring for pH, DO, and TRC is adequate for this facility serving a school complex with a satisfactory compliance history consistent with Footnote 3 of Table 6-3 of the Department's *Technical Guidance for the Development and Specifications of Effluent Limitations and Other Permit Conditions* document (362-0400-001) which states "For schools, flow, pH and D.O. should be monitored daily throughout the school year except for holidays and weekends unless public events are scheduled on holidays, weekends or during the summer." Annual Total Nitrogen and Total Phosphorus monitoring are now included as mentioned above. Annual E. Coli monitoring is also now included consistent with current Department policy and recent changes to Chapter 93 of the Department's regulations.

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment **B**)
☐	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: Establishing Effluent Limitations for Individual Sewage Permits, rev. 3/24/21
☐	Other:

Attachments:

A. Discharge Location Map
B. WQM7.0 Modeling Run

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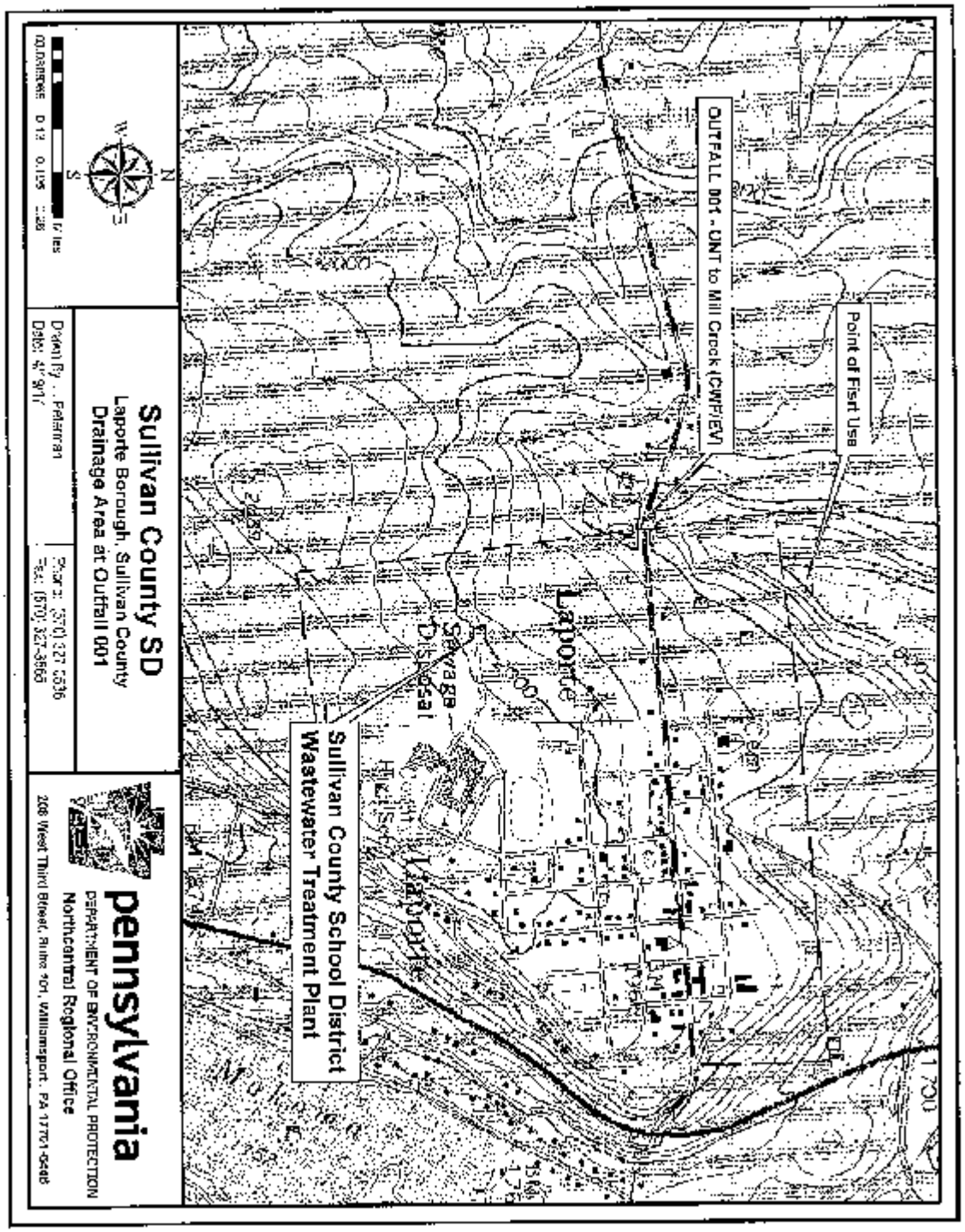

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Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
10B	20346	Trib 20346 to Mill Creek	**0.730**	1797.00	0.41	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.100	0.00	0.02	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Sullivan County	PA0029831	0.0180	0.0180	0.0180	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	4.00	0.00	0.00	0.70

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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
10B	20346	Trib 20346 to Mill Creek	**0.001**	1672.00	5.93	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.100	0.00	0.30	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	0.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
10B	20346	Trib 20346 to Mill Creek

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
0.730	0.02	0.00	0.02	.0278	0.03247	.318	2.78	8.74	0.05	0.812	22.87	7.00
Q1-10 Flow												
0.730	0.01	0.00	0.01	.0278	0.03247	NA	NA	NA	0.05	0.891	23.39	7.00
Q30-10 Flow												
0.730	0.03	0.00	0.03	.0278	0.03247	NA	NA	NA	0.06	0.750	22.49	7.00

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WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	5		

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
10B	20346	Trib 20346 to Mill Creek

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.730	Sullivan County	7.58	8	7.58	8	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.730	Sullivan County	1.6	3.22	1.6	3.22	0	0

Dissolved Oxygen Allocations

		CBOD5		NH3-N		Dissolved Oxygen			
RMI	Discharge Name	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Critical Reach	Percent Reduction
0.73	Sullivan County	25	25	3.22	3.22	3	3	0	0

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WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
10B	20346	Trib 20346 to Mill Creek

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
0.730	0.018	22.868	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
2.780	0.318	8.736	0.055
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
15.19	1.331	1.85	0.873
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
5.236	27.617	Owens	5
Reach Travel Time (days)			
0.812			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.081	13.43	1.72	7.07
0.162	11.87	1.60	7.40
0.244	10.49	1.49	7.55
0.325	9.28	1.39	7.68
0.406	8.20	1.30	7.78
0.487	7.25	1.21	7.82
0.568	6.41	1.13	7.82
0.650	5.66	1.05	7.82
0.731	5.01	0.98	7.82
0.812	4.43	0.91	7.82

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
10B	20346	Trib 20346 to Mill Creek

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
0.730	Sullivan County	PA0029831	0.018	CBOD5	25		
				NH3-N	3.22	6.44	
				Dissolved Oxygen			3