

Northwest Regional Office CLEAN WATER PROGRAM

Application Type
Facility Type
Major / Minor

Minor

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

 Application No.
 PA0090719

 APS ID
 992754

 Authorization ID
 1272464

Applicant Name		na County Municipal ce Authority	Facility Name	Robindale Heights STP	
Applicant Address	602 K	olter Road	Facility Address	84 Edgewood Lane	
	Indian	na, PA 15701		Seward, PA 15954	
Applicant Contact	Tricia Lefko		Facility Contact	Tricia Lefko	
Applicant Phone	(724) 349-6640		Facility Phone	(724) 349-6640	
Client ID	38534	1	Site ID	247668	
Ch 94 Load Status	Not O	verloaded	Municipality	East Wheatfield Township	
Connection Status	No Lir	mitations	County	Indiana County	
Date Application Rece	eived	April 19, 2019	EPA Waived?	No	
Date Application Accepted May 8, 2019		May 8, 2019	If No, Reason	TMDL	

Summary of Review

Act 14 - Proof of Notification was submitted and received.

A Part II Water Quality Management permit is not required at this time.

The applicant should be able to meet the limits of this permit, which will continue to protect the uses of the receiving stream.

I. OTHER REQUIREMENTS:

A. Stormwater into sewers

D. Effluent Chlorine Optimization and Minimization

B. Right of way

E. Batch discharges

C. Solids handling

F. Ultraviolet (UV) Light Disinfection Reporting

SPECIAL CONDITIONS:

II. Solids Management

There are 20 open violations in eFacts associated with the subject Client ID (38534) as of 2/12/2021 (see Attachment 3).

Approve	Deny	Signatures	Date	
V	Stephen A. McCauley		2/12/2021	
^		Stephen A. McCauley, E.I.T. / Environmental Engineering Specialist	2/12/2021	
V	Justin C. Dickey		2/18/2021	
Justin C. Dickey, P.E. / Environ		Justin C. Dickey, P.E. / Environmental Engineer Manager	2/16/2021	

Discharge, Receiving Waters and Water Supply Infor	mation			
Outfall No. 001	Design Flow (MGD)	0.035		
Latitude <u>40° 25' 23.23"</u>	Longitude	-79º 01' 15.90"		
Quad Name	Quad Code			
Wastewater Description: Sewage Effluent				
Unnamed Tributary to the Conemaugh River (CWF)	Stream Code	N/A		
NHD Com ID <u>123721632</u>	RMI	N/A		
Drainage Area 1.59	Yield (cfs/mi²)	0.1		
Q ₇₋₁₀ Flow (cfs) 0.159	Q ₇₋₁₀ Basis	calculated		
Elevation (ft) 1102	Slope (ft/ft)	0.01240		
Watershed No. 18-D	Chapter 93 Class.	CWF		
Existing Use	Existing Use Qualifier			
Exceptions to Use	Exceptions to Criteria			
Assessment Status Attaining Use(s)				
Cause(s) of Impairment				
Source(s) of Impairment				
TMDL Status Final, 1/29/2010*	Kiskiminetas- Name River Waters			
Background/Ambient Data	Data Source			
pH (SU) -				
Temperature (°F)	-	<u> </u>		
Hardness (mg/L)	-			
Other: -	_			
Nearest Downstream Public Water Supply Intake	Buffalo Township Municipal Au	thority Freeport		
PWS Waters _ Allegheny River	Flow at Intake (cfs) 2,576			
PWS RMI 30.0	Distance from Outfall (mi)	73.0		

Sludge use and disposal description and location(s): Sludge is not used. It is disposed of at an approved landfill.

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

^{* -} There is a TMDL for metals in the Kiskiminetas-Conemaugh River watersheds. The contribution for metals from a sewage plant of this nature is expected to be less than water quality criteria and therefore would not contribute to the stream impairment. While the receiving stream segment is currently attaining its uses, per the SOP, annual monitoring is recommended for Total Aluminum, Total Iron, and Total Manganese to establish data to ensure there are no impacts on the quality of the receiving stream.

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.

Narrative: This Fact Sheet details the determination of draft NPDES permit limits for an existing discharge of 0.035 MGD of treated sewage from a Publicly Owned Treatment Works (POTW) in East Wheatfield Township, Indiana County.

Treatment permitted under WQM Permit 3280408 consists of: A comminutor with bypass bar screen, a 12,000 gallon aerated flow equalization basin, a flow regulator box, a 35,460 gallon aeration tank, a final clarifier, and Ultraviolet (UV) light disinfection. Sludge handling consists of a 5,690 gallon aerobic digestor.

1. Streamflow:

Conemaugh River at Seward, PA (USGS Gage 03041500):

Drainage Area: 715 sq. mi. (USGS StreamStats)

Q₇₋₁₀: <u>167</u> cfs (USGS StreamStats)

Yieldrate: <u>0.23</u> cfsm (calculated)

Unnamed Tributary to the Conemaugh River:

Yieldrate: <u>0.23</u> cfsm (calculated above)

Drainage Area: <u>1.8</u> sq. mi. (USGS StreamStats)

 Q_{7-10} : of (calculated)

% of stream allocated: 100% Basis: No nearby discharges

2. Wasteflow:

Maximum discharge: 0.035 MGD = 0.054 cfs

Runoff flow period: 24 hours Basis: Runoff flow for a Municipal STP

There is more than 3 parts stream flow (Q7-10) to 1 part effluent (design flow). Therefore, per the SOP, the treatment requirements in document number 391-2000-014, titled, "Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers", dated April 12, 2008, will not be implemented in this NPDES Permit.

3. Parameters:

The following parameters were evaluated: pH, Total Suspended Solids, Fecal Coliform, Phosphorus, NH₃-N, CBOD₅, Dissolved Oxygen, and Total Residual Chlorine. NH₃-N, CBOD₅, and Dissolved Oxygen were evaluated using WQM 7.0 at the discharge point.

а. <u>рН</u>

Between 6.0 and 9.0 at all times

Basis: Application of Chapter 93.7 technology-based limits. The measurement frequency was

previously set to 1/day as recommended in the SOP, based on Table 6-3 in the "Technical

Guidance for the Development and Specification of Effluent Limitations"

(362-0400-001), which will be retained.

b. <u>Total Suspended Solids</u>

Limits are 30 mg/l as a monthly average and 60 as a daily maximum.

Basis: Application of Chapter 92a47 technology-based limits

c. <u>Fecal Coliform</u>

05/01 - 09/30: <u>200/100ml</u> (monthly average geometric mean)

1,000/100ml (instantaneous maximum)

10/01 - 04/30: <u>2,000/100ml</u> (monthly average geometric mean)

10,000/100ml (instantaneous maximum)

Basis: Application of Chapter 92a47 technology-based limits

d. Phosphorus

Limit necessary due to:

Discharge to lake, pond, or impoundment

Discharge to stream

Basis: N/A

Basis: Chapter 96.5 does not apply. However, the previous monitoring for Total Phosphorus will

be retained in accordance with the SOP, based on Chapter 92a.61.

e. Total Nitrogen

The previous monitoring for Total Nitrogen will be retained in accordance with the SOP, based on Chapter 92a.61.

f. Ammonia-Nitrogen (NH₃-N)

Median discharge pH to be used: 7.0 Standard Units (S.U.)

Basis: default value used in the absence of data

Discharge temperature: <u>25°C</u> (default value used in the absence of data)

Median stream pH to be used: 7.0 Standard Units (S.U.)

Basis: default value used in the absence of data

Stream Temperature: 20°C (default value used for CWF modeling)

Background NH₃-N concentration: 0.1 mg/l

Basis: Default value.

Calculated NH₃-N Summer limits: 8.9 mg/l (monthly average)

17.8 mg/l (instantaneous maximum)

Calculated NH₃-N Winter limits: <u>25.0</u> mg/l (monthly average)

50.0 mg/l (instantaneous maximum)

Result: WQ modeling resulted in the summer water quality-based limits above (see Attachment 3), which are less stringent than the previous NPDES Permit. The winter limits are calculated as three times the summer limits, but since the technology-based limits are more protective, they will be used.

Since the previously set summer limits of 5.0 mg/l monthly average and 10.0 mg/l instantaneous

maximum are attainable based on eDMR data, they will be retained.

g.	CBOD ₅		
	Median discharge pH to be used:	<u>7.0</u>	Standard Units (S.U.)
		В	asis: default value used in the absence of data
	Discharge temperature:	<u>25°C</u>	(default value used in the absence of data)
	Median stream pH to be used:	<u>7.0</u>	Standard Units (S.U.)
		В	asis: default value used in the absence of data
	Stream Temperature:	<u>20°C</u>	(default value used for CWF modeling)
	Background CBOD₅ concentration:	2.0	mg/l
		В	asis: Default value
	CBOD₅ Summer limits:	<u>25.0</u>	mg/l (monthly average)
		<u>50.0</u>	mg/l (instantaneous maximum)
	CBOD ₅ Winter limits:	<u>25.0</u>	mg/l (monthly average)
	Dec la MO es leller es la l'est	<u>50.0</u>	mg/l (instantaneous maximum)
			ed summer limits above (see Attachment 1), which are less Permit. The winter limits are calculated as three times the
			ogy-based limits are more protective, they will be used. Since the mg/l monthly average and 32.0 mg/l instantaneous maximum are
	attainable based on eDMR		
h.	Dissolved Oxygen (DO)		
		ed in efflu	ent to protect all aquatic life
			WF, WWF, or TSF
			o discharge falling under guidance document 391-2000-014 ge going to a naturally reproducing salmonid stream
	Discussion: The Dissolved Oxyger	n minimur	m of 4.0 mg/l will be retained with this renewal. The technology-
	based minimum of 4.0) mg/l is re	ecommended by the WQ Model (see Attachment 1) and the SOP
			he authority of Chapter 92a.61. The measurement frequency recommended in the SOP, based on Table 6-3 in the "Technical
	Guidance for the Deve	-	and Specification of Effluent Limitations" (362-0400-001), which
	will be retained.		
i.	Total Residual Chlorine (TRC)		
	-		used for disinfection, limits for TRC are not necessary. UV ned with this renewal. The measurement frequency was
	previously set to 1/d	lay as rec	ommended in the SOP, based on Table 6-3 in the "Technical
	<u>Guidance for the De</u> <u>will be retained.</u>	evelopmer	nt and Specification of Effluent Limitations" (362-0400-001), which
	_	monthly a	average)
	<u> </u>	•	eous maximum)

Basis: N/A

j. Influent Total Suspended Solids and BOD₅

Monitoring for these two parameters will be retained as recommended in the SOP for POTWs, and as authorized under Chapter 92a.61.

k. Anti-Backsliding

Since all the permit limits in this renewal are the same or more restrictive than the previous NPDES Permit, anti-backsliding is not applicable.

4. Reasonable Potential Analysis for Receiving Stream:

A Reasonable Potential Analysis was performed in accordance with State practices for Outfall 001 by first using the Toxics Screening Analysis Spreadsheet to determine which parameters should be modeled using the PentoxSD program. Based on the Toxics Screening Analysis Spreadsheet (see Attachment 2), the following parameters were modeled for Outfall 001 in the PentoxSD program (se Attachment 3):

Hexavalent Chromium, Total Lead, and Total Silver.

Median stream pH to be used: 7.0 Standard Units (S.U.)

Stream hardness to be used: 100 mg/l

Basis: <u>Default value (pH) and TMDL (hardness)</u>

Median discharge pH to be used: 7.0 Standard Units (S.U.)

Discharge hardness to be used: 100 mg/l

Basis: eDMR (pH) and default value (hardness)

Result: No additional limits will be required for this renewal permit.

5. Reasonable Potential for Downstream Public Water Supply (PWS):

Nearest Downstream potable water supply (PWS):	Buffalo Township Municipal Authority Freepo				
Distance downstream from the point of discharge:	73.0 miles (approximate)				
☑ No limits necessary☐ Limits needed					
Basis: Significant dilution available.					

6. Flow Information:

The Robindale Heights STP receives 100% of its flow from the East Wheatfield Township, which consists of 100% separate sewers.

7. Attachment List:

Attachment 1 - WQ Modeling Printouts

Attachment 2 - Toxics Screening Analysis Spreadsheet

Attachment 3 - Pentox Modeling Printouts

Attachment 4 - Open Violations For Client in Efacts

(The Attachments above can be found at the end of this document)

Compliance History

DMR Data for Outfall 001 (from January 1, 2020 to December 31, 2020)

Parameter	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20	JAN-20
Flow (MGD)												
Average Monthly	0.01	0.011	0.01	0.01	0.009	0.008	0.009	0.014	0.012	0.013	0.019	0.016
Flow (MGD)												
Daily Maximum	0.012	0.013	0.01	0.011	0.01	0.01	0.009	0.015	0.016	0.015	0.025	0.016
pH (S.U.)												
Minimum	6.6	7.1	6.6	6.7	6.9	7.0	6.9	6.9	6.6	6.8	7.0	7.1
pH (S.U.)												
Maximum	7.2	8.2	7.7	7.5	8.1	8.0	7.8	7.6	7.5	7.1	7.2	7.2
DO (mg/L)												
Minimum	6.0	5.4	6.2	5.5	6.1	4.0	6.1	4.1	6.5	6.3	4.8	6.34
CBOD5 (lbs/day)												
Average Monthly	0.6	< 0.3	0.5	< 0.2	0.7	0.7	0.8	< 0.4	0.7	< 0.5	< 0.5	< 0.5
CBOD5 (mg/L)												
Average Monthly	7.7	< 3.1	5.9	< 3.0	8.7	10.1	11.7	< 3.5	7.7	< 4.2	< 3.0	< 3.8
CBOD5 (mg/L)												
Instantaneous Maximum	9.86	3.12	6.7	3.0	10.2	15.6	12.5	4.0	9.51	5.4	< 3.0	4.64
BOD5 (lbs/day)												
Raw Sewage Influent												
Average Monthly	20	25.0	34	13	15	12	28	37	15	22	22	25
BOD5 (mg/L)												
Raw Sewage Influent												
Average Monthly	241	258	436	176	186	164	404	318	189.7	192	152	196
BOD5 (mg/L)												
Raw Sewage Influent												
Instantaneous Maximum	261	276	668	213	197	194	462	391	315	243	173	240
TSS (lbs/day)												
Average Monthly	1.6	1.6	1.2	< 0.2	2.3	1.1	1.1	0.7	0.6	< 0.3	< 0.5	1.0
TSS (lbs/day)												
Raw Sewage Influent												
Average Monthly	8.0	17	22	8.0	17	1.1	10	31	10	14	15	24
TSS (mg/L)									_		_	
Average Monthly	20	16.0	15	< 3.0	29	14	15	6.0	8	< 3.0	< 3	5
TSS (mg/L)												
Raw Sewage Influent		1-0			0.15	l					400	
Average Monthly	90	172	285	109	215	14	147	263	121	124	120	184
TSS (mg/L)	1											
Instantaneous Maximum	24.8	19.2	17	3.6	34.5	21	18.8	6.4	12.4	3.6	4.4	7.2

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TSS (mg/L)												
Raw Sewage Influent												
Instantaneous Maximum	100	228	398	142	262	21	158	386	180	172	180	240
Fecal Coliform (No./100 ml)												
Geometric Mean	33	74	7	< 3.0	204	101	554	< 2.0	< 1.0	< 49	< 1.0	< 1.0
Fecal Coliform (No./100 ml)												
Instantaneous Maximum	46.5	2419	10.8	11	2419.5	2419	791	4.1	1.0	2419	< 1.0	< 1.0
Ammonia (lbs/day)												
Average Monthly	< 0.008	< 0.01	0.1	< 0.008	< 0.2	0.3	0.4	< 0.1	< 0.06	0.06	< 0.02	< 0.09
Ammonia (mg/L)												
Average Monthly	< 0.1	< 0.01	1.8	< 0.1	< 2.8	4.9	5.0	< 1.2	< 0.8	0.6	< 0.1	< 0.07
Ammonia (mg/L)												
Instantaneous Maximum	< 0.1	< 0.01	1.9	< 0.1	5.4	5.67	5.1	2.3	1.599	1.0	0.132	1.291
UV Dosage (mjoules/cm²)												
Average Monthly	5.5	8.1	6.9	7.6	7.1	7.1	6.5	8.8	8.7	9.2	8.6	6.5
UV Dosage (mjoules/cm²)												
Instantaneous Maximum	8.4	9.3	9.0	9.2	9.2	9.3	9.3	11.2	10.3	10.1	10.5	8

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.

			Monitoring Requirements					
Parameter	Mass Units	(lbs/day) ⁽¹⁾		Concentrat	tions (mg/L)		Minimum ⁽²⁾	Required
Farameter	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum	Measurement Frequency	Sample Type
		Report						
Flow (MGD)	Report	Wkly Avg	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	1/day	Grab
DO	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
CBOD5 Nov 1 - Apr 30	7.0	XXX	XXX	25.0	XXX	50.0	2/month	Grab
CBOD5 May 1 - Oct 31	5.0	XXX	XXX	16.0	XXX	32.0	2/month	Grab
BOD5								
Raw Sewage Influent	Report	XXX	XXX	Report	XXX	Report	2/month	Grab
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	Report	2/month	Grab
TSS	9.0	XXX	XXX	30.0	XXX	60.0	2/month	Grab
Total Nitrogen	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	4.4	XXX	XXX	15.0	XXX	30.0	2/month	Grab
Ammonia-Nitrogen May 1 - Oct 31	1.5	XXX	XXX	5.0	XXX	10.0	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	Grab
Total Aluminum	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite
Total Iron	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	8-Hr Composite

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

		Effluent Limitations							
Parameter	Mass Units	Mass Units (lbs/day) (1)		Concentrat	Minimum ⁽²⁾	Required			
Farameter	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum	Measurement Frequency	Sample Type	
				Report				8-Hr	
Total Manganese	XXX	XXX	XXX	Annl Avg	XXX	XXX	1/year	Composite	
UV Dosage (mjoules/cm²)	XXX	XXX	XXX	Report	XXX	Report	1/day	Metered	

Compliance Sampling Location: Outfall 001, after Ultraviolet (UV) light disinfection.

Flow, Total Nitrogen, Total Phosphorus, Total Aluminum, Total Iron, Total Manganese, and UV Dosage are monitor only based on Chapter 92a.61. Monitoring for influent BOD5 and influent Total Suspended Solids is based on Chapter 92a.61. The limits for pH are technology-based on Chapter 93.7. The limits for CBOD5, Total Suspended Solids, Dissolved Oxygen, and Fecal Coliform are technology based on Chapter 92a.47. The limits for Ammonia-Nitrogen are water quality-based on Chapter 93.7.

Attachment 1

WQM 7.0 Effluent Limits

	SWP Basin	Stream Code		Stream Name	<u>e</u> .		
	18D	45000	Ti	rib 45000 to Conema	ugh River		
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)
0.290	Robindale	PA0090719z	0.035	CBOD5	25		
				NH3-N	8.9	17.8	
				Dissolved Oxygen			4

WQM 7.0 D.O.Simulation

SWP Basin St	ream Code			Stream Name	
18D	45000		Trib 450	00 to Conemaugh Ri	ver
<u>RMI</u>	Total Discharge	Flow (mgd	<u>) Ana</u>	lysis Temperature (°C)	Analysis pH
0.290	0.035	5		21.270	7.000
Reach Width (ft)	Reach Dep	oth (ft)		Reach WDRatio	Reach Velocity (fps)
6.296	0.393	3		16.011	0.086
Reach CBOD5 (mg/L)	Reach Kc (<u>1/days)</u>	<u>R</u>	each NH3-N (mg/L)	Reach Kn (1/days)
7.84	1.174	all more		2.26	0.772
Reach DO (mg/L)	Reach Kr (Kr Equation	Reach DO Goal (mg/L)
7.165	24.31	2		Owens	6
Reach Travel Time (days)		Subreach	Results		
0.206	Tra∨Time	CBOD5	NH3-N	D.O.	
	(days)	(mg/L)	(mg/L)	(mg/L)	
	0.021	7.64	2.23	7.50	
	0.041	7.45	2.19	7.72	
	0.062	7.26	2.16	7.86	
	0.082	7.08	2.12	7.95	
	0.103	6.90	2.09	8.01	
	0.124	6.72	2.06	8.05	
	0.144	6.55	2.02	8.05	
	0.165	6.39	1.99	8.05	
	0.185	6.23	1.96	8.05	
	0.206	6.07	1.93	8.05	

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
18D	45000	Trib 45000 to Conemaugh River

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.29) Robindale	8.53	24.56	8.53	24.56	0	0
LIO NI (Navania Allaaati						
H3-N (Chronic Allocati		Raseline	Multiple	Multiple	Critical	Percent
НЗ-N (RMI	Chronic Allocati	ons Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction

Dissolved Oxygen Allocations

		CBC	<u>DD5</u>	<u>NH</u> :	<u>3-N</u>	Dissolved	<u>Oxygen</u>	Critical	Percent
RM	II Discharge Name	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Reach	Reduction
	0.29 Robindale	25	25	8.9	8.9	4	4	0	0

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 Hydrodynamic Outputs

	SW	P Basin	Strea	m Code				Stream	<u>Name</u>			
		18D	4	5000			Trib 4500	0 to Co	nemaugh	River		
RMI	Stream Flow	PWS With	Net Stream Flow	Disc Analysis Flow	Reach Slope	Depth	Width	W/D Ratio	Velocity	Reach Trav Time	Analysis Temp	Analysis pH
	(cfs)	(cfs)	(cfs)	(cfs)	(ft/ft)	(ft)	(ft)		(fps)	(days)	(°C)	
Q7-1	0 Flow											
0.290	0.16	0.00	0.16	.0541	0.01241	.393	6.3	16.01	0.09	0.206	21.27	7.00
Q1-1	0 Flow											
0.290	0.10	0.00	0.10	.0541	0.01241	NA	NA	NA	0.07	0.245	21.74	7.00
Q30-	10 Flow	,										
0.290	0.22	0.00	0.22	.0541	0.01241	NA	NA	NA	0.10	0.180	21.00	7.00

Input Data WQM 7.0

					шр	ut Date	A 00 CC 1	11 7 .0						
	SWP Basin	107000000		Stre	eam Name		RMI		evation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PW Withdi (mg	rawal	Appl FC
	18D	450	000 Trib 4:	5000 to C	onemaugh	River	0.2	90	1102.00	1.59	0.00000	li.	0.00	✓
					St	ream Dat	a							
Design	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	Tem	<u>Tributary</u> np pH	Ter	<u>Strean</u> np	<u>1</u> pH	
Cond.	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	(°C)	(°C	C)		
27-10 21-10 230-10	0.100	0.00 0.00 0.00	0.00 0.00 0.00	0.000 0.000 0.000	0.000	0.0	0.00	0.0	00 2	0.00 7.	00 2	20.00	7.00	
					D	ischarge l	Data							
			Name	Per	rmit Numbe	Disc	Permitt Disc Flow (mgd	Dis Flo	sc Res	Dis erve Ter ctor (°C	np j	risc pH		
		Robir	ndale	PA	0090719z	0.0350	0.000	0.0	0000	0.000 2	25.00	7.00		
					P	arameter l	Data							
				Paramete	r Name			Trib Conc	Stream Conc	Fate Coef				
				a amete	Hallie	(m	g/L) (r	mg/L)	(mg/L)	(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				

Page 2 of 2

Input Data WQM 7.0

					6,414,647	.		5.00 5 5.00						
	SWP Basin			Stre	eam Name		RMI	Ele	evation (ft)	Drainage Area (sq mi)	Slop (ft/ft	With	NS drawal ngd)	App FC
	18D	450	000 Trib 4	5000 to C	onemaugh F	River	0.0	00	1083.00	1.66	3 0.000	000	0.00	V
					St	ream Dat	a							
Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	n Tem	<u>Tributary</u> np pH	1	<u>Strea</u> Temp	m pH	
Conu.	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	(°C	:)		(°C)		
ଇ7-10 ଇ1-10 ଇ30-10	0.100	0.00 0.00 0.00	0.00 0.00 0.00	0.000 0.000 0.000	0.000	0.0	0.00	0.0	00 2	0.00 7	.00	20.00	7.00	
					Di	scharge I	Data							
			Name	Per	rmit Number	Disc	Permitt Disc Flow (mgd	Dis Flo	sc Res	erve Te ictor	isc mp C)	Disc pH		
						0.0000	0.000	0.0	0000	0.000	0.00	7.00	-	
					Pa	arameter l	Data							
)	Paramete	r Name			Trib Conc	Stream Conc	Fate Coef				
	_					(m	g/L) (r	mg/L)	(mg/L)	(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				

Attachment 2

TOXICS SCREENING ANALYSIS WATER QUALITY POLLUTANTS OF CONCERN VERSION 2.7

 Facility:
 Robindale Heights STP
 NPDES Permit No.:
 PA0090719
 Outfall:
 001

 Analysis Hardness (mg/L):
 100
 Discharge Flow (MGD):
 0.035
 Analysis pH (SU):
 7

 Stream Flow, Q₇₋₁₀ (cfs):
 0.41
 0.41
 0.41
 0.41
 0.41

	Parameter		aximum Concentration in	Most Stringent	Candidate for	Most Stringent	Screening
	Takel Dissakus d Calida	< A	pplication or DMRs (μg/L) 500000.0000000000	Criterion (µg/L)	PENTOXSD Modeling?	WQBEL (µg/L)	Recommendation
_	Total Dissolved Solids Chloride	<	250000.000000000	500000 250000	No No	•	
dnois	Bromide	<	N/A	N/A	No		Monitor
,	Sulfate	<	250000.000000000	250000	No		TOTO THE OTHER
_	Total Aluminum	<	750.000000000	750	No		
	Total Antimony	<	5.600000000	5.6	No		
	Total Arsenic	<	10.000000000	10	No		
	Total Barium	<	2400.000000000	2400	No		
	Total Beryllium	<	N/A	N/A	No		
	Total Boron	<	1600.000000000	1600	No		
	Total Cadmium	<	0.271000000	0.271	No		
	Total Chromium	<	N/A	N/A	No		
	Hexavalent Chromium	<	10.400000000	10.4	Yes	40.921	Monitor
	Total Cobalt	<	19.000000000	19	No		
7	Total Copper	<	9.300000000	9.3	No		
ੜੇ	Free Available Cyanide	<	5.20000000	5.2	No		
2	Free Available Cyanide Total Cyanide Dissolved Iron	<	N/A	N/A	No		
9		<	300.000000000	300	No		
	Total Iron	<	1500.000000000	1500	No	40.555	N. 1 S. 1
	Total Lead	<	3.200000000	3.2	Yes	12.525	Monitor
	Total Manganese	<	1000.000000000	1000	No State State		
	Total Mercury	<	0.050000000	0.05	No (Value < QL)		
	Total Nickel	٧ ٧	52.200000000	52.2 5	No No		4
	Total Phenols (Phenolics)	<	5.00000000 5.00000000	5.0	No (Value < QL) No (Value < QL)		
	Total Selenium Total Silver	<	3.800000000	3.8	Yes	9.549	Monitor
	Total Thallium	<	0.240000000	0.24	No (Value < QL)	9.549	WINTING
	Total Zinc	<	119.80000000	119.8	No (Value < QL)		
	Total Molybdenum	<	N/A	N/A	No		
	Acrolein	<	3.00000000	3	No		
	Acrylonitrile	<	0.051000000	0.051	No (Value < QL)		
	Berzene	<	1.20000000	1.2	No		
	Bromoform	<	4.30000000	4.3	No		
	Carbon Tetrachloride	<	0.23000000	0.23	No (Value < QL)		
	Chlorobenzene	<	130.000000000	130	No		
	Chlorodibromomethane	<	0.40000000	0.4	No (Value < QL)		
	Chloroethane	<	N/A	N/A	No		
	2-Chloroethyl Vinyl Ether	<	3500.000000000	3500	No		
	Chloroform	<	5.700000000	5.7	No		
	Dichlorobromomethane	<	0.550000000	0.55	No		
	1,1-Dichloroethane	<	N/A	N/A	No		
7	1,2-Dichloroethane	<	0.380000000	0.38	No (Value < QL)		
	1,1-Dichloroethylene	<	33.000000000	33	No		
Group	1,2-Dichloropropane	<	2200.000000000	2200	No		
5		<	0.340000000	0.34	No (Value < QL)		
	1,4-Dioxane	<	N/A	N/A	No No		
	Ethylbenzene	<	530.000000000	530	No No		4
	Methyl Bromide Methyl Chloride	<	47.000000000 5500.000000000	47 5500	No No		
	Methylene Chloride	<	4.600000000	4.6	No No		
	1,1,2,2-Tetrachloroethane	< <	0.170000000	0.17	No (Value < QL)		
	Tetrachloroethylene	<	0.69000000	0.17	No (Value VQL)		
	Toluene	· ·	330.00000000	330	No No		
	1,2-trans-Dichloroethylene	<	140.000000000	140	No No		
	1,1,1-Trichloroethane	<	610.000000000	610	No		
	1,1,2-Trichloroethane	<	0.590000000	0.59	No		
	Trichloroethylene	<	2.500000000	2.5	No		
	Vinyl Chloride	<	0.025000000	0.025	No (Value < QL)		
	2-Chlorophenol	<	81.000000000	81	No		
	2,4-Dichlorophenol	<	77.000000000	77	No		
	2,4-Dimethylphenol	<	130.000000000	130	No		
	4,6-Dinitro-o-Cresol	<	13.000000000	13	No		
4	2,4-Dinitrophenol	<	69.000000000	69	No		
7	2-Nitrophenol	<	1600.000000000	1600	No		
drous	4-Nitrophenol	<	470.000000000	470	No		
-	p-Chloro-m-Cresol	<	30.000000000	30	No		
	Pentachlorophenol	<	0.270000000	0.27	No (Value < QL)		

	2000	72		100000000000000000000000000000000000000	177		
	Phenol	<	10400.000000000	10400	No	_	
	2,4,6-Trichlorophenol	<	1.400000000	1.4	No (Value < QL)		
	Acenaphthene	<	17.000000000	17	No		
	Acenaphthylene	<	N/A	N/A	No		
	Anthracene	<	8300.000000000	8300	No		
	Benzidine	<	0.00086000	0.000086	No (Value < QL)		
	Benzo(a)Anthracene	<	0.003800000	0.0038	No (Value < QL)		
	Benzo(a)Pyrene	<	0.003800000	0.0038	No (Value < QL)	1	
	3,4-Benzofluoranthene	<	0.003800000	0.0038	No (Value < QL)		
	Benzo(ghi)Perylene	<	N/A	N/A	No		
	Benzo(k)Fluoranthene	<	0.003800000	0.0038	No (Value < QL)		
	Bis(2-Chloroethoxy)Methane	<	N/A	N/A	No No		
	Bis(2-Chloroethyl)Ether	<	0.030000000	0.03	No (Value < QL)		
	Bis(2-Chloroisopropyl)Ether	<	1400.00000000	1400	No (Value V QL)		
		_					
	Bis(2-Ethylhexyl)Phthalate	<	1.200000000	1.2	No (Value < QL)		
	4-Bromophenyl Phenyl Ether	<	54.000000000	54	No		
	Butyl Benzyl Phthalate	<	35.000000000	35	No		
	2-Chloronaphthalene	<	1000.000000000	1000	No		
	4-Chlorophenyl Phenyl Ether	<	N/A	N/A	No		
	Chrysene	<	0.003800000	0.0038	No (Value < QL)	•	
	Dibenzo(a,h)Anthrancene	<	0.003800000	0.0038	No (Value < QL)		
	1,2-Dichlorobenzene	<	160.000000000	160	No		
	1,3-Dichlorobenzene	<	69.000000000	69	No		
,	1,4-Dichlorobenzene	<	150.000000000	150	No		İ
,		<	0.021000000	0.021	No (Value < QL)		
	Diethyl Phthalate	<	800.000000000	800	No (Value V (2L)		
	Dimethyl Phthalate	<	500.000000000	500	No No		
	Dimetriyi i nitridiate	<		21	No No		
	Di-n-Butyl Phthalate		21.000000000				
	2,4-Dinitrotoluene	<	0.050000000	0.05	No (Value < QL)		
	2,6-Dinitrotoluene	<	0.050000000	0.05	No (Value < QL)		
	Di-n-Octyl Phthalate	<	N/A	N/A	No		
	1,2-Diphenylhydrazine	<	0.036000000	0.036	No (Value < QL)		
	Fluoranthene	<	40.00000000	40	No		
	Fluorene	<	1100.000000000	1100	No		
	Hexachlorobenzene	<	0.000280000	0.00028	No (Value < QL)		
	Hexachlorobutadiene	<	0.440000000	0.44	No (Value < QL)		
	Hexachlorocyclopentadiene	<	1.00000000	1	No (Value < QL)		
	Hexachloroethane	<	1.400000000	1.4	No (Value < QL)		
	Indeno(1,2,3-cd)Pyrene	<	0.003800000	0.0038	No (Value < QL)		
	Isophorone	<	35.000000000	35	No (Value Val)		
	Naphthalene	_	43.000000000	43	No		
		<		17	No		
	Nitrobenzene	<	17.000000000				
	n-Nitrosodimethylamine	<	0.000690000	0.00069	No (Value < QL)		
	n-Nitrosodi-n-Propylamine	<	0.005000000	0.005	No (Value < QL)		
	n-Nitrosodiphenylamine	<	3.300000000	3.3	No (Value < QL)		
	Phenanthrene	<	1.00000000	1	No (Value < QL)		
	Pyrene	<	830.000000000	830	No		4
	1,2,4-Trichlorobenzene	<	26.000000000	26	No		
	Aldrin	<	0.000049000	0.000049	No (Value < QL)		
	alpha-BHC	<	0.002600000	0.0026	No (Value < QL)		
	beta-BHC	<	0.009100000	0.0091	No (Value < QL)		
	gamma-BHC	<	0.098000000	0.098	No	1	
	delta BHC	<	N/A	N/A	No		
	Chlordane	<	0.000800000	0.0008	No (Value < QL)		1
	4,4-DDT	<	0.000220000	0.00022	No (Value < QL)		
	4,4-DDF	<	0.000220000	0.00022	No (Value < QL)		
0	304501 WOMENTON	<		SADATSKNID-006F	Marie Company Company		
2	4,4-DDD	-	0.000310000	0.00031	No (Value < QL)		ļ
5	Dieldrin	<	0.000052000	0.000052	No (Value < QL)		
9		<	0.056000000	0.056	No		ļ
	beta-Endosulfan	<	0.056000000	0.056	No		
	Endosulfan Sulfate	<	N/A	N/A	No		
	Endrin	<	0.036000000	0.036	No (Value < QL)		
	Endrin Aldehyde	<	0.290000000	0.29	No		
	Heptachlor	<	0.000079000	0.000079	No (Value < QL)		
	Heptachlor Epoxide	<	0.00039000	0.000039	No (Value < QL)		
	Toxaphene	<	0.000200000	0.0002	No (Value < QL)		
	2,3,7,8-TCDD	<	0.00000005	0.000000005	No (Value < QL)		
	Gross Alpha (pCi/L)	<	N/A	N/A	No		
	Total Beta (pCi/L)	<	N/A	N/A	No		
5	Radium 226/228 (pCi/L)	<	N/A	N/A	No		
2	Total Strontium	<	4000.000000000	4000	No		
,	Total Uranium	<	N/A	N/A	No		
	rotal Oralium	-	INIPA	IWA	140		
			2				

Attachment 3

PENTOXSD Analysis Results

Recommended Effluent Limitations

SWP Basin	Stream Code:		Stream Name:	
18D	45000	Trib 4	5000 to Conemaugh River	
RMI	Name	Permit Number	Disc Flow (mgd)	
0.29	Robindale	PA0090719z	0.0350	

	Effluent Limit		Max. Daily	Most Stringent		
Parameter	(µg/L)	Governing Criterion	Limit (µg/L)	WQBEL (µg/L)	WQBEL Criterion	
CHROMIUM, VI	10.4	INPUT	16.226	40.921	CFC	
LEAD	3.2	INPUT	4.993	12.525	CFC	
SILVER	3.8	INPUT	5.929	9.549	AFC	

RMI

Name

Permit Number

PENTOXSD Analysis Results

Wasteload Allocations

Parameter Stream Stream Trib Fate WQC WQ Obj (μg/L) (μ	0.29	Robindale	PA0090719z						
Parameter				A	AFC				
Parameter	Q7-	10: CCT (min)	1.1 PMF	1	Analysis p	он 7	Analysis	Hardness	100
LEAD		Parameter					WQC		WLA
SILVER		, arameter				0001	(µg/L)		(µg/L)
SILVER		LEAD							321.40
CHROMIUM, VI			Dissolved				.791 applied.		
CHROMIUM, VI		SILVER						3.784	14.898
Dissolved WQC. Chemical translator of 0.982 applied. CFC									
CCT (min)		CHROMIUM, VI	10.70	(5)	10.70	(52)			64.139
OC: CCT (min) 1.1 PMF 1 Analysis pH 7 Analysis Hardness 100 Parameter Stream Conc. (μg/L) Stream Conc. (νg/L) Trib Conc. Coef (μg/L) WQC WQC WQC Obj (μg/L) WQC (μg/L) WQC (μg/L)			Dissolved			slator of 0	.982 applied.		
Parameter									
Parameter	17-10 :	CCT (min)	1.1 PM	F 1	Analysis p	oH 7	Analysis	Hardness	100
LEAD		Parameter	Conc.		Conc.			Obj	
Dissolved WQC. Chemical translator of 0.791 applied. NA NA NA NA NA NA CHROMIUM, VI Dissolved WQC. Chemical translator of 0.962 applied. THH			(µg/L)		(µg/L)		(µg/L)	(µg/L)	(µg/L)
SILVER		LEAD	0	0	0	0	2.517	3.182	12.525
CHROMIUM, VI			Dissolved	WQC. C	nemical tran	slator of 0	.791 applied.		
10: CCT (min) 1.1 PMF NA NA NA NA NA NA NA N		SILVER	0	0	0	0	NA	NA	NA
10: CCT (min) 1.1 PMF NA Analysis pH NA Analysis Hardness NA Parameter Stream Cup/L) CV Conc (μg/L) Fate (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) LEAD 0 0 0 0 NA		CHROMIUM, VI	0	0	0	0	10	10.395	40.921
10: CCT (min) 1.1 PMF NA Analysis pH NA Analysis Hardness NA Parameter Stream Conc (μg/L)			Dissolved	WQC. C	nemical tran	slator of 0	.962 applied.		
Parameter Stream Conc (μg/L) Stream Conc (μg/L) Trib Conc (μg/L) Fate Coef (μg/L) WQC (μg/L) WQ (μg/L) WLA Obj				T	НН				
Parameter Conc (μg/L) CV (μg/L) Coef (μg/L) Obj (μg/L) (μg/L) Obj (μg/L) (μg/L) Obj (μg/L) (μg/L) Obj (μg/L) (μg/L) (μg/L) Obj (μg/L) (μg/L) (μg/L) Obj (μg/L) (μg/L) NA	Q7-10:	CCT (min)	1.1 PMF	NA	Analysis	pH NA	Analysis	Hardness	NA
LEAD 0 0 0 0 NA NA NA SILVER 0 0 0 0 NA NA NA CHROMIUM, VI 0 0 0 0 NA NA NA CCT (min) 0.498 PMF 1 Trib Fate Conc Conc Coef (μg/L) WQC WQ WLA (μg/L) WLA (μg/L) Parameter Conc (μg/L) CV (μg/L) Coef (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) LEAD 0 0 0 0 NA NA NA SILVER 0 0 0 0 NA NA NA		120					WQC		WLA
LEAD 0 0 0 0 NA NA NA SILVER 0 0 0 0 NA NA NA CHROMIUM, VI 0 0 0 0 NA NA NA CCT (min) 0.498 PMF 1 Stream Conc Conc Conc Coef (μg/L) Trib Conc Coef (μg/L) WQC WQ WLA (μg/L) WQC (μg/L) WQC (μg/L) WQL (μg/L) WLA (μg/L) NA NA <td< td=""><td></td><td>Parameter</td><td></td><td>CV</td><td></td><td>Coef</td><td>(ua/L)</td><td></td><td>(ug/L)</td></td<>		Parameter		CV		Coef	(ua/L)		(ug/L)
SILVER 0 0 0 0 NA NA NA NA CHROMIUM, VI 0 0 0 0 NA NA NA NA CCT (min) 0.498 PMF 1 Parameter Stream CV Conc Conc (µg/L) COnc (µg/L) (µg/L) (µg/L) (µg/L) (µg/L) (µg/L) LEAD 0 0 0 0 NA NA NA NA SILVER 0 0 0 0 0 NA NA NA NA			(µg/L)		(µg/L)		(µg/L)	(µg/L)	(µg/L)
CHROMIUM, VI 0 0 0 0 NA NA NA CRL CCT (min) 0.498 PMF 1 Trib Fate WQC WQ WLA Parameter Conc (μg/L) CV (μg/L) Coef (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) LEAD 0 0 0 0 NA NA NA SILVER 0 0 0 0 NA NA NA		LEAD	0	0	0	0	NA	NA	NA
CRL CCT (min) 0.498 PMF 1 Parameter Stream Conc (μg/L) Stream CV (μg/L) Trib Conc Coef (μg/L) Fate (μg/L) WQC (μg/L) WQ (μg/L) WLA (μg/L) LEAD 0 0 0 0 NA NA NA SILVER 0 0 0 0 NA NA NA		SILVER	0	o	0	0	NA	NA	NA
CRL CCT (min) 0.498 PMF 1 Parameter Stream Conc (μg/L) Stream CV (μg/L) Trib Conc Coef (μg/L) Fate (μg/L) WQC (μg/L) WQ (μg/L) WLA (μg/L) LEAD 0 0 0 0 NA NA NA SILVER 0 0 0 0 NA NA NA									
CCT (min) 0.498 PMF 1 Parameter Stream Conc (μg/L) Stream CON CV Conc (μg/L) Trib Conc (μg/L) Fate Coef (μg/L) WQC (μg/L) WQ Obj (μg/L) WLA Obj (μg/L) LEAD 0 0 0 0 NA NA NA SILVER 0 0 0 0 NA NA NA		CHROMIUM, VI	0	0	0	0	NA	NA	NA
CCT (min) 0.498 PMF 1 Parameter Stream Conc (μg/L) Stream CON CV Conc (μg/L) Trib Conc (μg/L) Fate Coef (μg/L) WQC (μg/L) WQ Obj (μg/L) WLA Obj (μg/L) LEAD 0 0 0 0 NA NA NA SILVER 0 0 0 0 NA NA NA				,	~DI.				
Parameter Conc (μg/L) CV (μg/L) Coef (μg/L) Obj (μg/L) (μg/L) Obj (μg/L) (μg/L) (μg/L) (μg/L) NA NA NA SILVER 0 0 0 0 NA NA NA NA	Qh:	CCT (min)	0.498 PM I		-116				
(μg/L) (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) (μg/L) LEAD 0 0 0 NA NA NA SILVER 0 0 0 NA NA NA		₩					WQC		WLA
LEAD 0 0 0 0 NA NA NA SILVER 0 0 0 0 NA NA NA		Parameter		CV		Coef	(ug/L)		(ua/L\
SILVER 0 0 0 0 NA NA NA			(µg/L)		(µg/L)		(µg/L)	(µg/L)	(µg/L)
		LEAD	0	0	0	0	NA	NA	NA
		SILVER	0	0	0	0	NA	NA	NA
y, February 12, 2021 Version 2.0d									
	iday, Feb	oruary 12, 2021			Version 2	2.0d			

PENTOXSD Analysis Results

Wasteload Allocations

RMI	Name	Permit Number						
0.29	Robindale	PA0090719z						
	CHROMIUM, VI	0	0	0	0	NA	NA	N/

PENTOXSD Analysis Results

Hydrodynamics

<u>s</u>	WP Basir	1	Stream	n Code:			<u>Stream</u>	n Name	i,				
	18D		45	000		Trib 4	5000 to (Conemau	ıgh River				
RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope	Depth (ft)	Width (ft)	WD Ratio	Velocity (fps)	Reach Trav Time (days)	CMT (min)		
3.00			Q7-10 Hydrodynamics										
0.290	0.159	0	0.159	0.05414	0.0124	0.3932	6.2963	16.011	0.0861	0.2059	1.1		
0.000	0.166	0	0.166	NA	0	0	0	0	0	0	NA		
			Qh Hydrodynamics										
0.290	1.4894	0	1.4894	0.05414	0.0124	0.9397	6.2963	6.7003	0.2609	0.0679	.498		
0.000	1.5465	0	1.5465	NA	0	0	0	0	0	0	NA		

PENTOXSD

Modeling Input Data

Stre Co		Elevati (ft)		rainage Area (sq mi)	Slope	PWS (m	With gd)		Apply FC		_			
45	000 0.29	110	2.00	1.59	0.00000)	0.00			V				
							Stream D	ata						
	LFY	Trib Flow	Strear Flow		Rch Width	Rch Depth	Rch Velocity	Rch Trav Time	<u>Tributa</u> Hard	<u>ry</u> pH	<u>Strear</u> Hard	<u>n</u> pH	<u>Analysi</u> Hard	<u>is</u> pH
	(cfsm)	(cfs)	(cfs))	(ft)	(ft)	(fps)	(days)	(mg/L)		(mg/L)		(mg/L)	
Q7-10	0.1	0		0	0 0	0	0	0	100	7	100	7	0	0
Qh		0		0	0 0	0	0	0	100	7	0	0	0	0
*							Discharge I	Data						*
	Name	Pern Num		xisting F Disc Flow	Permitted Disc Flow	Design Disc Flow	Reserve Factor		CFC PMF	THH PMF	CRL PMF	Disc Hard	Disc pH	
				(mgd)	(mgd)	(mgd)						(mg/L)		
3.5	Robindale	PA0090	0719z	0.035	0	0	0	0	0	0	0	100	7	
						P	arameter [Data						
	Parameter	Name		Disc Cond		C	y Hour	y Con	c CV	Fate Coe		Crit Mod	Conc	
				(µg/L)	1985 - 0001 - 1	38.0		(µg/	30	1-10	0.0	15-	(µg/L)	
	OMIUM, VI			10.4			.5 0.5			0	0	1	0	
LEAD SILVE				3.2 3.8			.5 0.6 .5 0.6			0 0	0	1	0	

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Stre		Elevati (ft)	Aı	nage rea mi)	Slope	PWS (m	With gd)		A	pply FC				
45	0.00	108	3.00	1.66	0.00000	l	0.00			✓	-			
							Stream D	ata						
	LFY	Trib Flow	Stream Flow	WD Ratio	Rch Width	Rch Depth	Rch Velocity	Rch Trav Time	<u>Tributa</u> Hard	<u>ry</u> pH	<u>Strear</u> Hard	<u>n</u> pH	<u>Analys</u> Hard	<u>is</u> pH
	(cfsm)	(cfs)	(cfs)		(ft)	(ft)	(fps)	(days)	(mg/L)		(mg/L)	g	(mg/L)	
Q7-10	0.1	0	0	0	0	0	0	0	100	7	100	7	0	0
Qh		0	0	0	0	0	0	0	100	7	0	0	0	0
×)ischarge	Data						
	Name	Perm Numl		sc	ermitted Disc Flow	Design Disc Flow	Reserve Factor		CFC PMF	THH PMF	CRL PMF	Disc Hard	Disc pH	
			(mg	gd) (mgd)	(mgd)						(mg/L)		
			C)	0	0	0	0	0	0	0	100	7	_
						Р	arameter I	Data						
	Parameter N	lame		Disc Conc	Trib Cond	C	y Hour	ly Con	c CV	Fate Coe		Crit Mod	Max Disc Conc	
CHBC	MIUM, VI			(µg/L) 0	(µg/L 0	.)	.5 0.5	(µg/ 5 0	L) 0	0	0	1	(µg/L) 0	- 32
LEAD	IVII O IVI, VI			0	0	0.			0	0	0	1	0	
SILVE	R			0	0	0.			0	0	0	1	0	

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Attachment 4

WATER MANAGEMENT SYSTEM OPEN VIOLATIONS BY CLIENT

pennsylvania
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

Client ID: 38534 Client: All

Open Violations: 20

LIENTID	CLIENT	PF ID	FACILITY	PF KIND	PF STATUS	INSP PROGRAM	PROGRAM SPECIFIC ID	INSP ID	VIOLATION ID	INSPECTION	VIOLATION DATE	VIOLATION	VIOLATION	PF INSPECTOR	INSP REGI
38534	INDIANA CNTY MUNI SVC		ICMSA CHERRYTREE		Active	Safe Drinking Water	5320007	2481043	758538	PF	04/27/2016	B5OLD2	FAILED TO OBTAIN A PERMIT, INNOVATIVE	THOMAS, JOHN	NWR
30334	AUTH	240311	ICWISA CHERRYTREE	Community	Active	Sale Dilliking vvaler	3320007	2401043	736336	FF	04/27/2016	BSOLDZ	TECHNOLOGY PERMIT, MAJOR PERMIT AMENDMENT, OR EMERGENCY PERMIT.	THOWAS, JOHN	NVVIS
38534	INDIANA CNTY MUNI SVC AUTH	240311	ICMSA CHERRYTREE	Community	Active	Safe Drinking Water	5320007	2983666	873820	PF	09/09/2019	45	Failure to Address a Significant Deficiency	THOMAS, JOHN	NWR
38534	INDIANA CNTY MUNI SVC AUTH	252656	ICMSA ROSSITER	Community	Active	Safe Drinking Water	5320034	2983682	873823	PF	09/09/2019	45	Failure to Address a Significant Deficiency	THOMAS, JOHN	NWR
38534	INDIANA CNTY MUNI SVC AUTH	252741	ICMSA ARCADIA	Community	Active	Safe Drinking Water	5320041	2474455	756873	PF	04/13/2016	B3OLD	FAILED TO RESPOND TO PRIMARY MCL OR TREATMENT TECHNIQUE VIOLATION (INCLUDES: REPORTING TO DEP, PUBLIC NOTIFICATION, INVESTIGATION OF CAUSE/CORRECTIVE	THOMAS, JOHN	NWR
38534	INDIANA CNTY MUNI SVC AUTH	252741	ICMSA ARCADIA	Community	Active	Safe Drinking Water	5320041	2983677	873821	PF	09/10/2019	45	Failure to Address a Significant Deficiency	THOMAS, JOHN	NWR
88534	INDIANA CNTY MUNI SVC AUTH	564512	CHERRY TREE STP	Sewage Publicly Owned (Muni)	Active	WPC NPDES	PA0218839	3053531	888337	PF	07/07/2020	92A.61(C)	NPDES - Failure to monitor pollutants as required by the NPDES permit	ALCORN, CLARISSA	NCR
8534	INDIANA CNTY MUNI SVC AUTH	240311	ICMSA CHERRYTREE	Community	Active	Safe Drinking Water	SM1929402	2921448	859277	PF	08/19/2019	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWR
38534	INDIANA CNTY MUNI SVC AUTH	240311	ICMSA CHERRYTREE	Community	Active	Safe Drinking Water	SM1929404	2921449	859278	PF	08/19/2019	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWR
88534	INDIANA CNTY MUNI SVC AUTH	240311	ICMSA CHERRYTREE	Community	Active	Safe Drinking Water	SM1938660	2959550	868225	PF	11/18/2019	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWR
38534	INDIANA CNTY MUNI SVC AUTH	240311	ICMSA CHERRYTREE	Community	Active	Safe Drinking Water	SM1938662	2959551	868226	PF	11/18/2019	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWR
38534	INDIANA CNTY MUNI SVC AUTH	252656	ICMSA ROSSITER	Community	Active	Safe Drinking Water	SM1938672	2957792	867863	PF	11/13/2019	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWR
38534	INDIANA CNTY MUNI SVC AUTH	240311	ICMSA CHERRYTREE	Community	Active	Safe Drinking Water	SM2009924	2997811	877068	PF	02/14/2020	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWR
38534	INDIANA CNTY MUNI SVC AUTH	240311	ICMSA CHERRYTREE	Community	Active	Safe Drinking Water	SM2009926	2997812	877069	PF	02/14/2020	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWR
88534	INDIANA CNTY MUNI SVC AUTH	240311	ICMSA CHERRYTREE	Community	Active	Safe Drinking Water	SM2022290	3032646	884679	PF	05/14/2020	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWR
8534	INDIANA CNTY MUNI SVC AUTH	240311	ICMSA CHERRYTREE	Community	Active	Safe Drinking Water	SM2022292	3032649	884680	PF	05/14/2020	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWR
8534	INDIANA CNTY MUNI SVC AUTH	252656	ICMSA ROSSITER	Community	Active	Safe Drinking Water	SM2022297	3045577	886887	PF	06/17/2020	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWR
8534	INDIANA CNTY MUNI SVC AUTH	525147	ICMSA CROOKED CREEK	Community	Active	Safe Drinking Water	SM2022305	3032653	884681	PF	05/14/2020	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	CROW, MELISSA	NWR
8534	INDIANA CNTY MUNI SVC AUTH	240311	ICMSA CHERRYTREE	Community	Active	Safe Drinking Water	SM2030989	3069683	891804	PF	08/20/2020	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWR
8534	INDIANA CNTY MUNI SVC AUTH	252656	ICMSA ROSSITER	Community	Active	Safe Drinking Water	SM2043264	3097832	897816	PF	10/26/2020	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWF
88534	INDIANA CNTY MUNI SVC AUTH	252741	ICMSA ARCADIA	Community	Active	Safe Drinking Water	SM2043267	3107723	899438	PF	11/13/2020	02	EXCEEDED THE CHEMICAL AVERAGE MAXIMUM CONTAMINANT LEVEL	THOMAS, JOHN	NWR