

Application Type Renewal  
Facility Type Non-Municipal  
Major / Minor Minor

## NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No. PA0085723  
APS ID 834593  
Authorization ID 1434652

### Applicant and Facility Information

Applicant Name <u>The York Water Co.</u>	Facility Name <u>SYC WWTP Exit II Land Venture Ind Park</u>
Applicant Address <u>130 E Market Street</u> <u>York, PA 17401-1219</u>	Facility Address <u>142 Industrial Road</u> <u>Glen Rock, PA 17327</u>
Applicant Contact <u>Vaughn Wenger</u>	Facility Contact <u>Vaughn Wenger</u>
Applicant Phone <u>(717) 718-7544</u>	Facility Phone <u>(717) 845-3601</u>
Client ID <u>69800</u>	Site ID <u>237420</u>
Ch 94 Load Status <u>Not Overloaded</u>	Municipality <u>Springfield Township</u>
Connection Status <u>No Limitations</u>	County <u>York</u>
Date Application Received <u>March 31, 2023</u>	EPA Waived? <u>Yes</u>
Date Application Accepted <u>April 19, 2023</u>	If No, Reason <u></u>
Purpose of Application <u>Renewal of existing NPDES permit</u>	

### Summary of Review

The York Water Company (YWC) has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit for the SYC Exit II Land Venture Ind Park STP. The permit was last reissued to YWC on September 27, 2018 and amended on February 28, 2019. The permit expired on September 30, 2023 but the terms and conditions of the permit have been administratively extended since that time.

Based on the review outlined in this fact sheet, it is recommended that the permit be drafted and a notice of the draft permit be published in the *Pennsylvania Bulletin* for public comments for 30 days. A file review of documents associated with the discharge or permittee may be available at the PA DEP southcentral regional office (SCRO), 909 Elmerton Avenue, Harrisburg, PA 17110. To make an appointment for file reviews, contact the SCRO file review coordinator at 717.705.4700.

Sludge use and disposal description and location(s): Hauled offsite to Smith's Disposal Facility (Adams County).

#### 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		Aaron Baar Aaron Baar / Project Manager	September 25, 2024
x		Maria D. Bebenek for Daniel W. Martin, P.E. / Environmental Engineer Manager	September 26, 2024

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.08
Latitude	39° 49' 13.89"	Longitude	-76° 41' 15.71"
Quad Name		Quad Code	
Wastewater Description:		Sewage Effluent	
Receiving Waters	Seaks Run (HQ-CWF, MF)	Stream Code	08129
NHD Com ID	57473071	RMI	3.47
Drainage Area	0.28 sq. mi.	Yield (cfs/mi <sup>2</sup> )	0.080
Q <sub>7-10</sub> Flow (cfs)	0.0224	Q <sub>7-10</sub> Basis	USGS StreamStats
Elevation (ft)	777.45	Slope (ft/ft)	
Watershed No.	7-H	Chapter 93 Class.	HQ-CWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	See below		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	The York Water Company		
PWS Waters	South Branch Codorus Creek	Flow at Intake (cfs)	
PWS RMI	0.30	Distance from Outfall (mi)	16

Changes Since Last Permit Issuance: No changes since the last issuance of the this NPDES permit.

#### Drainage Area

The discharge is to Seaks Run at RMI 3.47. A drainage area upstream of the discharge is determined to be 0.28 sq. mi. according to USGS PA StreamStats available at <https://streamstats.usgs.gov/ss/>.

#### Stream Flow

According to StreamStats, the watershed has a Q<sub>7-10</sub> of 0.0224 cfs. This information was used to obtain a LFY, a chronic 30-day (Q<sub>30-10</sub>) and acute (Q<sub>1-10</sub>) exposure stream flows for the discharge point as follows (Guidance No. 391-2000-023).

$$\begin{aligned}
 Q_{7-10} &= 0.0224 \text{ cfs} \\
 Q_{30-10} &= 1.36 * 0.0224 \text{ cfs} = 0.0305 \text{ cfs} \\
 Q_{1-10} &= 0.64 * 0.0224 \text{ cfs} = 0.0143 \text{ cfs} \\
 LFY &= 0.0224 \text{ cfs} / 0.28 \text{ mi}^2 = 0.080 \text{ cfs/mi}^2
 \end{aligned}$$

#### Seaks Run

25 Pa Code §93.9 classifies the receiving water, Seaks Run, with a HQ-CWF, MF designation. The discharge is in a stream segment listed as not attaining use (recreation) in the 2024 Integrated Report; the source of the impairment has been identified as an unknown source of pathogens. Effluent limits for this discharge have been developed to ensure that existing in-stream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

*Local Watershed Total Maximum Daily Loads (TMDLs)*

According to PA's 2024 Integrated Water Quality Monitoring and Assessment Report, Seaks Run in the vicinity of the point of discharge is impaired for recreation (pathogens) due to an unknown source. The recreation impairment is listed as Category 5 in the 2024 integrated report, indicating that Seaks Run is impaired for one or more uses by a pollutant that require the development of a TMDL. A TMDL for this waterway has not been developed to date.

*Public Water Supply Intake*

The nearest downstream public water supply intake is The York Water Co. on the South Branch of the Codorus Creek in York County, approximately 16 miles downstream of this discharge. Considering the distance and nature, the discharge is not expected to significantly affect the water supply.

*Class A Wild Trout Streams*

The receiving stream is not a Class A Wild Trout stream; therefore, no Class A Wild Trout Fishery is impacted by this discharge.

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Southern York Wastewater Facilities				
<b>WQM Permit No.</b>	<b>Issuance Date</b>			
WQM 6793404 T-1	March 6, 2014			
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	UV Disinfection	0.08
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.08	136	Not Overloaded		Other WWTP

The York Water Company owns and operates the sanitary wastewater treatment facility located in Springfield Township, York County. This NPDES permit covers discharges of sewage treated by the Southern York STP. The facility serves portions of Springfield Township and Shrewsbury Township; all sewer systems are 100% separated. With an annual average design flow 0.080 MGD and a hydraulic design capacity of 0.080 MGD, this facility utilizes an extended aeration system consisting of The WWTP train is as follows:

EQ Tank (4) ⇒ Aeration Tank (12 tanks, 2 trains) ⇒ Secondary Clarifier (4 tanks) ⇒ Tertiary Filter (1) ⇒ UV Disinfection (1) ⇒ Discharge

Chemical additions to the treatment process include soda ash (alkalinity) and PACL 2040 (phosphorus precipitation). Waste sludge from the STP is hauled offsite to Smith's Disposal Facility (Adams County).. There are numerous industrial/commercial users contributing sewage to the sewer system.

Compliance History	
<b>Summary of DMRs:</b>	DMR results for the past year are presented below.
<b>Summary of Inspections:</b>	<p>Since the last renewal of the facility's NPDES permit, the following inspections have been logged:</p> <p>February 6, 2020: A CEI was conducted by Austen Randecker. No violations were noted. An operational recommendation was made to flow proportion the effluent composite sampler.</p> <p>June 23, 2020: An administrative inspection was conducted by phone by Austen Randecker. No violations were noted.</p>

Other Comments: As of September 25, 2024, there are no open violations associated with this facility

Existing Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Monthly	Annual	Monthly	Monthly Average	Maximum	Instant. Maximum		
Total Nitrogen (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Ammonia (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Phosphorus (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation

Compliance Sampling Location: Outfall 001

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	7.0	XXX	XXX	XXX	1/day	Grab
CBOD5	Report	Report	XXX	6.2	XXX	12.4	2/month	8-Hr Composite
TSS	Report	Report	XXX	10.0	XXX	20.0	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
UV Intensity (mW/cm <sup>2</sup> )	XXX	XXX	Report	Report	XXX	Report	Continuous	Recorded
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Nitrate-Nitrite (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Nitrogen (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Ammonia Nov 1 - Apr 30	Report	XXX	XXX	4.5	XXX	9.0	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	Report	XXX	XXX	1.5	XXX	3.0	2/month	8-Hr Composite
Ammonia (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TKN (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus	Report	XXX	XXX	1.0	XXX	2.0	2/month	8-Hr Composite
Total Phosphorus (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation

Compliance Sampling Location: Outfall 001

**Compliance History**

**DMR Data for Outfall 001 (from August 1, 2023 to July 31, 2024)**

Parameter	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23
Flow (MGD) Average Monthly	0.015	0.022	0.17	0.025	0.020	0.022	0.041	0.045	0.020	0.018	0.014	0.014
Flow (MGD) Daily Maximum	0.029	0.055	0.039	0.095	0.033	0.030	0.225	0.169	0.059	0.035	0.028	0.024
pH (S.U.) Instantaneous Minimum	7.51	7.45	7.36	7.42	7.44	7.66	7.45	7.56	7.29	7.39	7.25	7.19
pH (S.U.) Instantaneous Maximum	8.36	8.35	8.47	8.48	8.34	8.22	8.3	8.38	8.33	8.43	8.31	8.59

**NPDES Permit Fact Sheet**  
**SYC WWTP Exit II Land Venture Ind Park**

**NPDES Permit No. PA0085723**

DO (mg/L) Instantaneous Minimum	8.09	8.37	8.86	9.43	10.44	10.7	10.65	10.08	9.49	8.85	8.4	8.33
CBOD5 (lbs/day) Average Monthly	< 0.3	< 0.8	< 0.4	< 1.1	< 0.3	< 0.4	< 0.8	< 0.8	< 0.3	< 0.2	< 0.3	< 0.3
CBOD5 (lbs/day) Weekly Average	< 0.3	1.3	0.4	< 1.9	< 0.3	< 0.5	< 1.1	< 0.9	< 0.4	< 0.2	< 0.4	< 0.3
CBOD5 (mg/L) Average Monthly	< 2.4	< 2.9	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4
CBOD5 (mg/L) Instantaneous Maximum	< 2.4	3.3	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4
TSS (lbs/day) Average Monthly	0.2	0.3	0.20	0.5	0.3	0.3	0.6	0.3	0.1	0.1	0.2	0.2
TSS (lbs/day) Weekly Average	0.3	0.4	0.3	0.8	0.4	0.5	1.0	0.4	0.2	0.1	0.2	0.3
TSS (mg/L) Average Monthly	2.0	1.0	1.5	1.0	2.0	1.5	1.5	1.0	1.0	1.0	2.0	2.0
TSS (mg/L) Instantaneous Maximum	3.0	1.0	2.0	1.0	3.0	2.0	2.0	1.0	1.0	1.0	2.0	3.0
Fecal Coliform (No./100 ml) Geometric Mean	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 18
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 1	2	< 1	136	< 1	2	< 1	< 1	3	< 1	2	308
UV Intensity (mW/cm²) Instantaneous Minimum	10	8	3	4	6	4	6	9	14	20	23.0	21
UV Intensity (mW/cm²) Average Monthly	12	14	8	6	10	7	8	13	19	24	25.0	25
UV Intensity (mW/cm²) Instantaneous Maximum	14	21	33	9	17	12	12	17	25	27	28.0	28
Nitrate-Nitrite (mg/L) Average Monthly	29	33	32	26	32	30	25	26	32	31	31.0	36.0
Nitrate-Nitrite (lbs) Total Monthly	107	246	155	274	131	152	248	265	137	66	116	113.0
Total Nitrogen (mg/L) Average Monthly	< 29.0	< 33.0	< 32.0	< 27.5	< 34.0	< 30.5	< 25.0	< 26.0	< 32.5	< 31.0	< 31.0	< 36.0
Total Nitrogen (lbs) Total Monthly	< 109	< 250	< 157	< 303	< 141	< 155	< 252	< 270	< 139	< 68	< 118	< 115

**NPDES Permit Fact Sheet**  
**SYC WWTP Exit II Land Venture Ind Park**

**NPDES Permit No. PA0085723**

Total Nitrogen (lbs) Total Annual											1655	
Ammonia (lbs/day) Average Monthly	< 0.01	< 0.03	< 0.02	< 0.30	< 0.01	< 0.02	< 0.07	< 0.03	< 0.02	< 0.01	< 0.01	< 0.01
Ammonia (mg/L) Average Monthly	< 0.1	< 0.1	< 0.1	< 0.4	< 0.1	< 0.1	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ammonia (mg/L) Instantaneous Maximum	< 0.1	< 0.1	< 0.1	0.7	< 0.1	0.1	0.5	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Ammonia (lbs) Total Monthly	< 0.4	< 0.8	< 0.5	< 9.0	< 0.4	< 0.6	< 2.1	< 1.1	< 0.5	< 0.2	< 0.4	< 0.3
Ammonia (lbs) Total Annual											42	
TKN (mg/L) Average Monthly	< 0.5	< 0.5	< 0.5	< 1.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
TKN (lbs) Total Monthly	< 2	< 4	< 2	< 31	< 11	< 2	< 5	< 5	< 2	< 1	< 2.0	< 2.0
Total Phosphorus (lbs/day) Average Monthly	0.02	0.06	0.05	0.14	< 0.01	0.02	< 0.04	< 0.04	< 0.02	< 0.3	< 0.01	0.02
Total Phosphorus (mg/L) Average Monthly	0.2	0.2	0.3	0.3	< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.18
Total Phosphorus (mg/L) Instantaneous Maximum	0.2	0.3	0.4	0.3	< 0.1	0.2	< 0.1	< 0.1	< 0.1	< 0.1	0.1	0.25
Total Phosphorus (lbs) Total Monthly	0.6	1.8	1.4	4.1	< 0.3	0.6	< 1.1	< 1.1	< 0.5	< 0.3	< 0.4	0.5
Total Phosphorus (lbs) Total Annual											12	

Development of Effluent Limitations

Outfall No. 001  
 Latitude 39° 49' 9.00"  
 Wastewater Description: Sewage Effluent  
 Design Flow (MGD) .08  
 Longitude -76° 41' 18.00"

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 <sub>5</sub>	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: These standards apply, subject to water quality analysis and BPJ where applicable.

Water Quality-Based Limitations

CBOD<sub>5</sub>, NH<sub>3</sub>-N and Dissolved Oxygen (DO)

WQM 7.0 version 1.0b is a water quality model designed to assist DEP to determine appropriate permit requirements for CBOD<sub>5</sub>, NH<sub>3</sub>-N and DO. DEP's guidance no. 391-2000-007 provides the technical methods contained in WQM 7.0 for conducting wasteload allocation and for determining recommended NPDES effluent limits for point source discharges.

The model was utilized, and the model output indicated that existing WQBEL for CBOD<sub>5</sub> and ammonia are still appropriate and protective of water quality.

Existing mass reporting requirements for CBOD<sub>5</sub> and TSS are proposed to be eliminated in the renewed permit since the given facility is not a POTW.

The model indicates that the existing DO limit of 7.0 mg/L is still protective of water quality as well.

Toxics

Due to the presence of commercial and industrial discharges tributary to the treatment plant, a reasonable potential (RP) analysis was done for Total Copper, Total Lead and Total Zinc using the sampling results provided with the application. The Department's Toxics Management Spreadsheet (Version 1.3) was used to perform the RP analysis for these parameters at a pH of 7.0 and a discharge hardness of 100 mg/L. The analysis indicated that a monitor and report requirement is recommended for Total Copper.

☒ Recommended WQBELs & Monitoring Requirements

No. Samples/Month: 4

Pollutants	Mass Limits		Concentration Limits				Governing WQBEL	WQBEL Basis	Comments
	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units			
Total Copper	Report	Report	Report	Report	Report	mg/L	0.011	CFC	Discharge Conc > 10% WQBEL (no RP)

As such, weekly monitoring and reporting requirement for Total Copper is proposed in this renewal via grab sample. This sampling frequency is in conformity with DEP's Technical Guidance for the Development and Specification of Effluent Limitations (PA Doc. No. 362-0400-001), Table 6-3 (plant design flow = 0.01 to 1.0 mgd).

All model inputs and outputs are included at the end of this fact Sheet.

#### *E. Coli Monitoring*

In conformity with the Department's *Establishing Effluent Limitations for Individual Sewage Permits* (SOP No. BCW-PMT-033) and as authorized by § 92a.61 of the PA Code, quarterly E. Coli monitoring has been proposed in this permit. The collection method will be via grab sample.

### **Best Professional Judgment (BPJ) Limitations**

#### *Ultraviolet Disinfection*

The existing UV system is equipped with a intensity sensor; therefore, UV intensity is proposed to be continued as the monitoring parameter for the UV system. The reporting requirement has been updated in this renewal to be 1/day (from continuous) in order to clarify the reporting frequency expected.

#### *Total Phosphorus & Total Nitrogen*

DEP's SOP no. BPNPSM-PMT-033 (Establishing Effluent Limitations for Individual Sewage Permits) recommends monitoring requirements for Total Phosphorus and Total Nitrogen for all sewage facilities. Therefore, a routine monitoring for TKN, Nitrate-Nitrite, and TN are recommended to be continued in this permit. Sampling frequency for TKN, Nitrate-Nitrite, TN, and TP are currently required 2/month. No change is proposed in this renewal.

### **Additional Considerations**

#### *Flow Monitoring*

The requirement to monitor the volume of effluent will remain in the permit per 40 CFR § 122.44(i)(1)(ii).

#### *Chesapeake Bay TMDL*

The Department formulated a strategy in April 2007, to comply with the EPA's and Chesapeake Bay Foundation's requirements to reduce point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP) to the Bay. In the Strategy, sewage dischargers have been prioritized by Central Office based on their delivered TN loadings to the Bay. The highest priority (Phases 1, 2, and 3) dischargers received annual loading caps based on their design flow on August 29, 2005 and concentrations of 6 mg/l TN and 0.8 mg/l TP. Phase 4 (0.2 -0.4mgd) and Phase 5 (below 0.2mgd) facilities were required to monitor and report TN and TP during permit renewal at a monitoring frequency following Table 6-3 of DEP's Technical Guidance for Development and Specification of effluent Limitations (No. 362-0400-001).

EPA published the Chesapeake Bay Total Maximum Daily Load (TMDL) in December of 2010. Despite extensive restoration efforts during the past 25 years, the TMDL was prompted by insufficient progress and continued poor water quality in the Chesapeake Bay and its tidal tributaries.

In order to address the TMDL, Pennsylvania developed, in addition to the Bay Strategy, a Chesapeake Watershed Implementation Plan (WIP) Phase 1 in January 2011, Phase 2 in March 2012 and Phase 3 in December 2019. In accordance with the Phase 3 WIP, re-issuing permits for significant dischargers follow the same phased approach formulated in the original Bay strategy, whilst Phase 4 and Phase 5 will be required to monitor and report TN and TP during permit renewal.

The Phase 3 WIP categorizes this facility as a phase 5 non-significant sewage facility that has a design flow less than 0.2 MGD but greater than 0.002 MGD. The WIP recommends monitoring and reporting for Total Nitrogen and Total Phosphorus throughout the permit term at a frequency no less than annual. As discussed previously, 2/month testing of these pollutants is proposed in this permit.

#### *Monitoring Frequency and Sample Type*

Unless discussed otherwise above, the permit's monitoring frequency and sample type for all parameters will remain unchanged from the last permit renewal.

*Antidegradation Requirements*

All effluent limitations and monitoring requirements have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

*Anti-backsliding Requirement*

All effluent limits proposed in this fact sheet are as stringent as effluent limits specified in the existing permit renewal. This approach is in accordance with 40 CFR §122.44(l)(1).

*Annual Fees*

An annual fee clause was added to the permit in accordance with 25 Pa. Code § 92a.62. The facility covered by the permit is *classified in the Minor Sewage Facility  $\geq 0.05$  and  $< 1$  MGD fee category, which has an annual fee of \$1000.*

**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 001**, Effective Period: **Permit Effective Date** through **Permit Expiration Date**.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Monthly	Annual	Monthly	Monthly Average	Maximum	Instant. Maximum		
Total Nitrogen (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Ammonia (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Phosphorus (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation

Compliance Sampling Location: Outfall 001

**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 001, Effective Period: Permit Effective Date through Permit Expiration Date.**

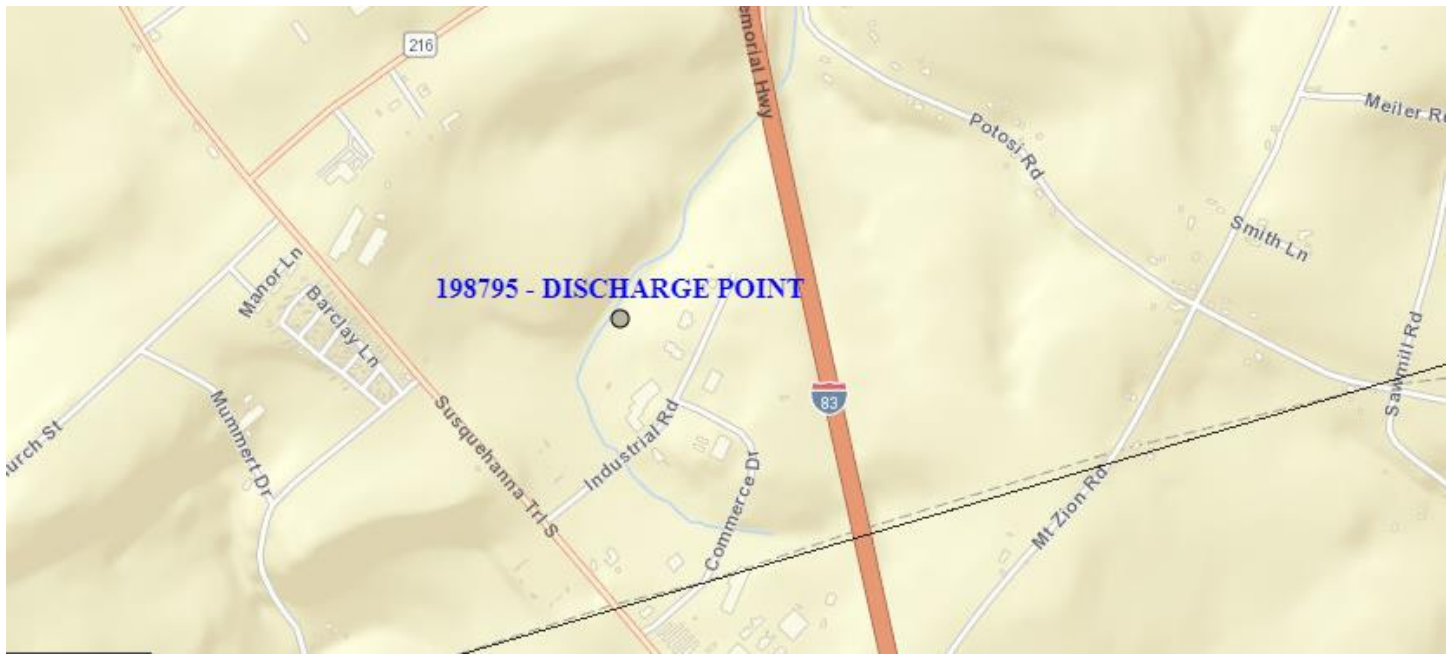
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	7.0	XXX	XXX	XXX	1/day	Grab
CBOD5	XXX	XXX	XXX	6.2	XXX	12.4	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	10.0	XXX	20	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	XXX	XXX	Report	1/quarter	Grab
UV Intensity (mW/cm <sup>2</sup> )	XXX	XXX	Report	Report	XXX	Report	1/day	Recorded
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Nitrate-Nitrite (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation

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

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	4.5	XXX	9	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	1.5	XXX	3	2/month	8-Hr Composite
Ammonia (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
TKN (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus	XXX	XXX	XXX	1.0	XXX	2	2/month	8-Hr Composite
Total Phosphorus (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Copper, Total	XXX	XXX	XXX	Report	XXX	Report	1/week	Grab

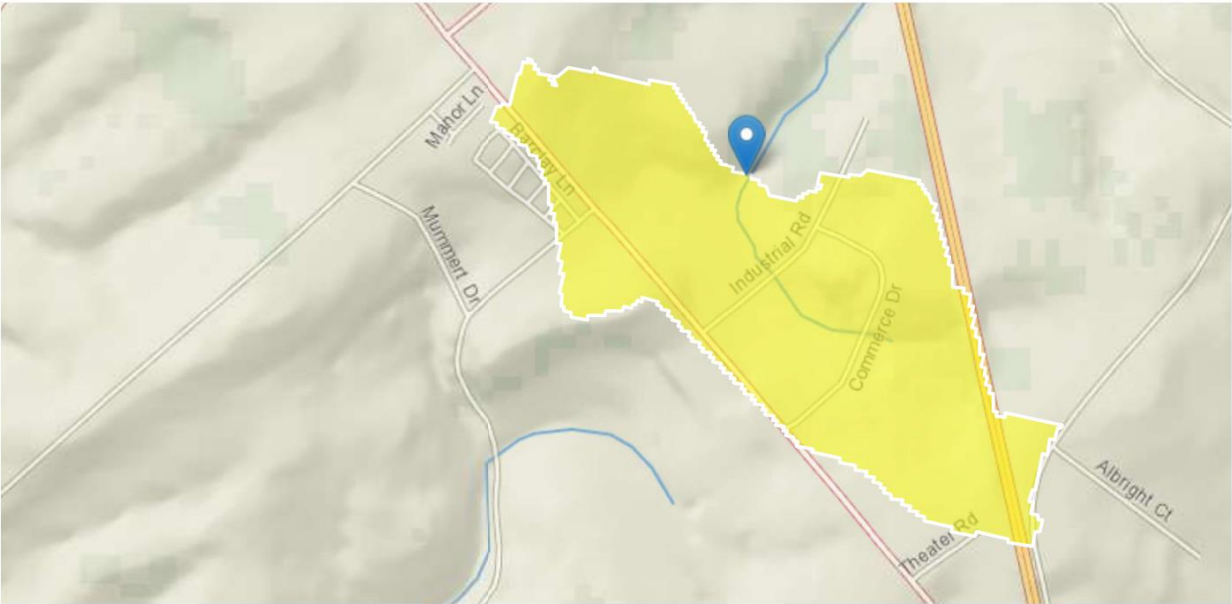
Compliance Sampling Location: Outfall 001

Tools and References Used to Develop Permit	
<input checked="" type="checkbox"/>	WQM for Windows Model (see Attachment [REDACTED])
<input checked="" type="checkbox"/>	Toxics Management Spreadsheet (see Attachment [REDACTED])
<input type="checkbox"/>	TRC Model Spreadsheet (see Attachment [REDACTED])
<input type="checkbox"/>	Temperature Model Spreadsheet (see Attachment [REDACTED])
<input type="checkbox"/>	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
<input checked="" type="checkbox"/>	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
<input type="checkbox"/>	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
<input type="checkbox"/>	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
<input type="checkbox"/>	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
<input type="checkbox"/>	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
<input type="checkbox"/>	Pennsylvania CSO Policy, 386-2000-002, 9/08.
<input checked="" type="checkbox"/>	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
<input type="checkbox"/>	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
<input checked="" type="checkbox"/>	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
<input type="checkbox"/>	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
<input type="checkbox"/>	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
<input type="checkbox"/>	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
<input type="checkbox"/>	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
<input type="checkbox"/>	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
<input type="checkbox"/>	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
<input type="checkbox"/>	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
<input type="checkbox"/>	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
<input type="checkbox"/>	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
<input type="checkbox"/>	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
<input type="checkbox"/>	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, 386-2000-020, 10/97.
<input type="checkbox"/>	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
<input type="checkbox"/>	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, 386-2000-010, 3/1999.
<input type="checkbox"/>	Design Stream Flows, 386-2000-003, 9/98.
<input type="checkbox"/>	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
<input type="checkbox"/>	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
<input type="checkbox"/>	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
<input type="checkbox"/>	SOP: [REDACTED]
<input type="checkbox"/>	Other: [REDACTED]



StreamStats Report

Region ID: PA  
Workspace ID: PA20240925113050489000  
Clicked Point (Latitude, Longitude): 39.81999, -76.68820  
Time: 2024-09-25 07:31:11 -0400



+ Collapse All

> Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	3.9437	degrees
DRNAREA	Area that drains to a point on a stream	0.28	square miles
ROCKDEP	Depth to rock	5	feet
URBAN	Percentage of basin with urban development	2.0577	percent

> Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.28	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	3.9437	degrees	1.7	6.4

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ROCKDEP	Depth to Rock	5	feet	4.13	5.21
URBAN	Percent Urban	2.0577	percent	0	89

Low-Flow Statistics Disclaimers [Low Flow Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Low-Flow Statistics Flow Report [Low Flow Region 1]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.0569	ft <sup>3</sup> /s
30 Day 2 Year Low Flow	0.0761	ft <sup>3</sup> /s
7 Day 10 Year Low Flow	0.0224	ft <sup>3</sup> /s
30 Day 10 Year Low Flow	0.0318	ft <sup>3</sup> /s
90 Day 10 Year Low Flow	0.0547	ft <sup>3</sup> /s

*Low-Flow Statistics Citations*

**Stuckey, M.H., 2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (<http://pubs.usgs.gov/sir/2006/5130/>)**

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

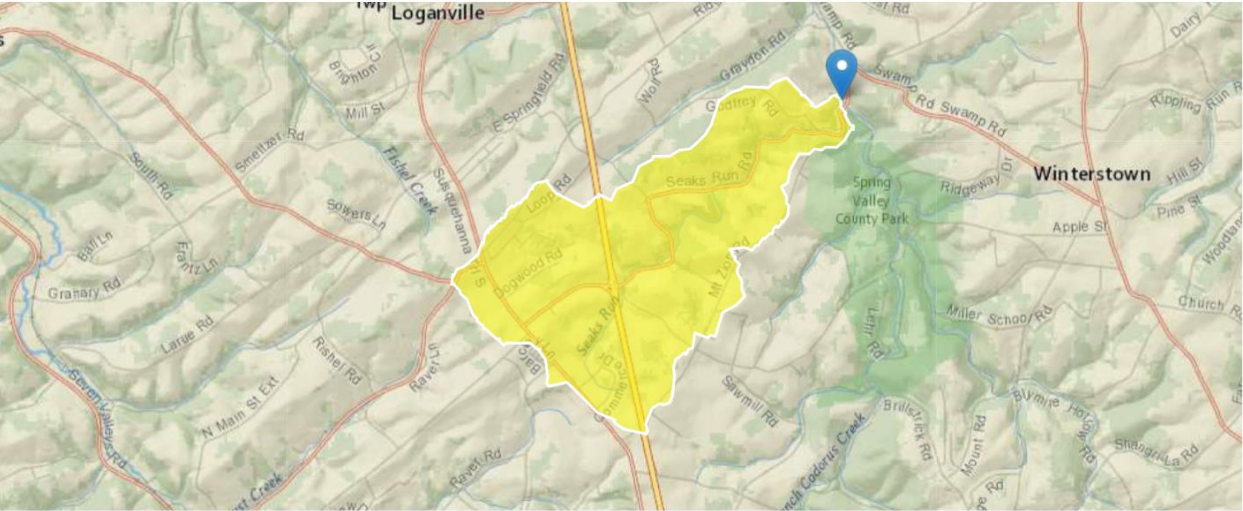
Application Version: 4.24.0

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

StreamStats Report

Region ID: PA  
Workspace ID: PA20240925113849166000  
Clicked Point (Latitude, Longitude): 39.84645, -76.65380  
Time: 2024-09-25 07:39:09 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	6.0406	degrees
DRNAREA	Area that drains to a point on a stream	3.22	square miles
ROCKDEP	Depth to rock	4.8	feet
URBAN	Percentage of basin with urban development	1.5401	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	3.22	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	6.0406	degrees	1.7	6.4
ROCKDEP	Depth to Rock	4.8	feet	4.13	5.21
URBAN	Percent Urban	1.5401	percent	0	89

Low-Flow Statistics Disclaimers [Low Flow Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Low-Flow Statistics Flow Report [Low Flow Region 1]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.95	ft <sup>3</sup> /s
30 Day 2 Year Low Flow	1.16	ft <sup>3</sup> /s
7 Day 10 Year Low Flow	0.467	ft <sup>3</sup> /s
30 Day 10 Year Low Flow	0.591	ft <sup>3</sup> /s
90 Day 10 Year Low Flow	0.816	ft <sup>3</sup> /s

*Low-Flow Statistics Citations*

**Stuckey, M.H., 2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (<http://pubs.usgs.gov/sir/2006/5130/>)**

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.24.0

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

WQM 7.0 Effluent Limits

SWP Basin		Stream Code		Stream Name			
07H		8129		SEAKS RUN			
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)
3.470	SYC Exit II	PA0085723	0.080	CBOD5	25		
				NH3-N	1.82	3.64	
				Dissolved Oxygen			6

### WQM 7.0 Wasteload Allocations

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>
07H	8129	SEAKS RUN

#### **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
	3.470 SYC Exit II	11.56	12.9	11.56	12.9	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
	3.470 SYC Exit II	1.46	1.82	1.46	1.82	0	0

#### **Dissolved Oxygen Allocations**

RMI	Discharge Name	<u>CBOD5</u>		<u>NH3-N</u>		<u>Dissolved Oxygen</u>		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
	3.47 SYC Exit II	25	25	1.82	1.82	6	6	0	0

### WQM 7.0 D.O.Simulation

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>		
07H	8129	SEAKS RUN		
<u>RMI</u>	<u>Total Discharge Flow (mgd)</u>	<u>Analysis Temperature (°C)</u>	<u>Analysis pH</u>	
3.470	0.080	24.234	7.000	
<u>Reach Width (ft)</u>	<u>Reach Depth (ft)</u>	<u>Reach WDRatio</u>	<u>Reach Velocity (fps)</u>	
3.713	0.386	9.622	0.102	
<u>Reach CBOD5 (mg/L)</u>	<u>Reach Kc (1/days)</u>	<u>Reach NH3-N (mg/L)</u>	<u>Reach Kn (1/days)</u>	
21.48	0.940	1.54	0.970	
<u>Reach DO (mg/L)</u>	<u>Reach Kr (1/days)</u>	<u>Kr Equation</u>	<u>Reach DO Goal (mg/L)</u>	
6.344	30.268	Owens	6	
<u>Reach Travel Time (days)</u>	<b>Subreach Results</b>			
2.078	TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
	0.208	16.94	1.26	7.30
	0.416	13.36	1.03	7.55
	0.623	10.54	0.84	7.64
	0.831	8.31	0.69	7.64
	1.039	6.55	0.56	7.64
	1.247	5.17	0.46	7.64
	1.455	4.08	0.38	7.64
	1.662	3.22	0.31	7.64
	1.870	2.54	0.25	7.64
	2.078	2.00	0.20	7.64

### WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	<input checked="" type="checkbox"/>
WLA Method	EMPR	Use Inputted W/D Ratio	<input type="checkbox"/>
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	<input type="checkbox"/>
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	<input checked="" type="checkbox"/>
D.O. Saturation	90.00%	Use Balanced Technology	<input checked="" type="checkbox"/>
D.O. Goal	6		

WQM 7.0 Hydrodynamic Outputs

SWP Basin		Stream Code				Stream Name						
07H		8129				SEAKS RUN						
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)	
Q7-10 Flow												
3.470	0.02	0.00	0.02	.1238	0.01227	.386	3.71	9.62	0.10	2.078	24.23	7.00
Q1-10 Flow												
3.470	0.01	0.00	0.01	.1238	0.01227	NA	NA	NA	0.10	2.145	24.48	7.00
Q30-10 Flow												
3.470	0.03	0.00	0.03	.1238	0.01227	NA	NA	NA	0.11	2.016	24.01	7.00

### 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
07H	8129	SEAKS RUN	3.470	777.45	0.28	0.00000	0.00	<input checked="" type="checkbox"/>

#### Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary		Stream	
	(cfsm)	(cfs)	(cfs)						Temp (°C)	pH	Temp (°C)	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
SYC Exit II	PA0085723	0.0800	0.0800	0.0800	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	5.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

### 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
07H	8129	SEAKS RUN	0.001	552.76	3.22	0.00000	0.00	<input checked="" type="checkbox"/>

#### Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	pH	Stream Temp (°C)	pH
	(cfsm)	(cfs)	(cfs)									
Q7-10	0.100	0.00	0.47	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	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	25.00	0.00	0.00	0.70



Toxics Management Spreadsheet  
 Version 1.3, March 2021

## Discharge Information

Instructions Discharge Stream

Facility: York Water Company - SYC Exit II NPDES Permit No.: PA0085723 Outfall No.: 001

Evaluation Type: Custom / Additives Wastewater Description: Treated Sewage

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q <sub>7-10</sub>	Q <sub>h</sub>
0.08	100	7						

Discharge Pollutant	Units	Max Discharge Conc	0 if left blank		0.5 if left blank		0 if left blank			1 if left blank	
			Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Total Copper	mg/L	< 0.005									
Total Lead	mg/L	< 0.001									
Total Zinc	mg/L	0.009									



Toxics Management Spreadsheet  
 Version 1.3, March 2021

## Stream / Surface Water Information

York Water Company - SYC Exit II, NPDES Permit No. PA0085723, Outfall 001

Instructions Discharge Stream

Receiving Surface Water Name: No. Reaches to Model: 1

- ☒ Statewide Criteria  
☐ Great Lakes Criteria  
☐ ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi <sup>2</sup> )*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	008129	3.47	777.45	0.28			Yes
End of Reach 1	008129	0.01	552.76	3.22			Yes

**Q<sub>7-10</sub>**

Location	RMI	LFY (cfs/mi <sup>2</sup> )*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	3.47	0.1	0.0224									100	7		
End of Reach 1	0.01	0.1	0.467												

**Q<sub>h</sub>**

Location	RMI	LFY (cfs/mi <sup>2</sup> )*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	3.47														
End of Reach 1	0.01														



Toxics Management Spreadsheet  
Version 1.3, March 2021

## Model Results

York Water Company - SYC Exit II, NPDES Permit No. PA0085723, Outfall 001

Instructions

Results

RETURN TO INPUTS

SAVE AS PDF

PRINT

All Inputs Results Limits

☐ Hydrodynamics

☒ Wasteload Allocations

☒ AFC

CCT (min): 0.017 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Copper	0	0		0	13.439	14.0	16.5	Chem Translator of 0.96 applied
Total Lead	0	0		0	64.581	81.6	96.4	Chem Translator of 0.791 applied
Total Zinc	0	0		0	117.180	120	142	Chem Translator of 0.978 applied

☒ CFC

CCT (min): 0.017 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.00

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Copper	0	0		0	8.956	9.33	11.0	Chem Translator of 0.96 applied
Total Lead	0	0		0	2.517	3.18	3.76	Chem Translator of 0.791 applied
Total Zinc	0	0		0	118.139	120	142	Chem Translator of 0.986 applied

☒ THH

CCT (min): 0.017 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Copper	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	

☒ CRL

CCT (min): 0.174 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Copper	0	0		0	N/A	N/A	N/A	

Total Lead	0	0	0	0	N/A	N/A	N/A	N/A	
Total Zinc	0	0	0	0	N/A	N/A	N/A	N/A	

☒ Recommended WQBELs & Monitoring Requirements

No. Samples/Month: 4

Pollutants	Mass Limits			Concentration Limits				Governing WQBEL	WQBEL Basis	Comments
	AML (lbs/day)	MDL (lbs/day)	Report	AML	MDL	IMAX	Units			
	Report	Report	Report	Report	Report	Report	mg/L	0.011	CFC	Discharge Conc > 10% WQBEL (no RP)
Total Copper										

☒ Other Pollutants without Limits or Monitoring

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Lead	N/A	N/A	Discharge Conc < TQL
Total Zinc	120	µg/L	Discharge Conc ≤ 10% WQBEL