Pennsylvania Department of Environmental Protection

Southcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0020826**
Facility Type	**Municipal**	APS ID	**276438**
Major / Minor	**Major**	Authorization ID	**1380800**

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Dover Township York County**	Facility Name	**Dover Township STP**
Applicant Address	2480 W Canal Road	Facility Address	851 Graffius Road
	Dover, PA 17315-3410		York, PA 17404
Applicant Contact	Laurel Oswalt	Facility Contact	Christian Jordan
Applicant Phone	(717) 292-3634	Facility Phone	(717) 292-3634
Client ID	74735	Site ID	451710
Ch 94 Load Status	Not Overloaded	Municipality	Dover Township
Connection Status	No Limitations	County	York
Date Application Received	December 30, 2021	EPA Waived?	No
Date Application Accepted	January 10, 2022	If No, Reason	Major Facility, Pretreatment, Significant CB Discharge

Purpose of Application: NPDES Renewal - Authorization to discharge to Little Conewago Creek in Watershed 7F.

Summary of Review

Dover Township has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of a NPDES permit for the Dover STP. The permit was last reissued on June 2, 2017 with an effective date of July 1, 2017. The permit expired on June 30, 2022 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): Synagro

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	March 26, 2025
x		*Daniel W. Martin* Daniel W. Martin, P.E. / Environmental Engineer Manager	April 3, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	8
Latitude	40º 0' 43.93"	Longitude	-76º 48' 1.89"
Quad Name	Dover	Quad Code	1831
Wastewater Description:	Sewage Effluent		
Receiving Waters	Little Conewago Creek (TSF)	Stream Code	08309
NHD Com ID	57467393	RMI	11.42
Drainage Area	29.7	Yield (cfs/mi^2)	0.0441
Q_{7-10} Flow (cfs)	1.31	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	347.57	Slope (ft/ft)	
Watershed No.	7-F	Chapter 93 Class.	TSF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	PATHOGENS		
Source(s) of Impairment	SOURCE UNKNOWN		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Wrightsville Water Supply Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	43.54	Distance from Outfall (mi)	27.65

Drainage Area

The discharge is to the Little Conewago Creek at RMI 11.42. The drainage area upstream of the discharge point is determined to be 29.7 sq.mi. according to USGS PA StreamStats available at https://streamstats.usgs.gov/ss/.

Stream Flow

The previous renewal estimated the Q_{7-10} flow and background/ambient data of the receiving water from USGS Gage No. 01574000 and WQN No. 210. The reviewer notes that Gage No. 01574000 and WQN No. 210 are both located on West Conewago Creek near Manchester, PA and no correlation has been established between Outfall 001 and the monitoring sites on West Conewago Creek. As such, USGS StreamStats has been used to estimate the Q_{7-10} flow in the Little Conewago Creek and default values of 7.0 pH, 20°C receiving water temperature, and 100 mg/L alkalinity have been used in this renewal. According to StreamStats, the Little Conewago Creek watershed has a Q_{7-10} of 1.31cfs. This information was used to obtain a LFY, a chronic 30-day (Q_{30-10}) and acute (Q_{1-10}) exposure stream flows for the discharge point as follows (Guidance No. 391-2000-023).

Q_{7-10} = 1.31 cfs
Q_{30-10} = 1.36 * 1.31 cfs = 1.7816 cfs
Q_{1-10} = 0.64 * 1.31 cfs = 0.8384 cfs
LFY = 1.31 cfs/1.3 mi^2 = 0.0441 cfs/mi^2

Little Conewago Creek

25 Pa Code §93.9 classifies the receiving water, Little Conewago Creek, with a TSF Existing Use designation. 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. The discharge is in a stream segment listed as not attaining use; the cause of the impairment has been identified as pathogens (see *Local Watershed TMDL* below).

Local Watershed Total Maximum Daily Loads (TMDLs)

According to PA's 2024 Integrated Water Quality Monitoring and Assessment Report, Little Conewago Creek in the vicinity of the proposed point of discharge is impaired for recreation due to an unknown source of pathogens. The recreation impairment is listed as Category 5 in the 2024 Integrated Report, indicating that the water is impaired for one or more uses by a pollutant that requires the development of a TMDL. No TMDL has been developed to date.

Public Water Supply Intake

The nearest downstream public water supply intake is the Wrightsville Water Supply Company. intake located on the Susquehanna River approximately 27 miles from the 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.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	N/A
Latitude	40º 0' 47.48"	Longitude	-76º 48' 8.90"
Quad Name	Dover	Quad Code	1831
Wastewater Description:	Stormwater		
Receiving Waters	Fox Run (TSF, MF)	Stream Code	08387
NHD Com ID	57467391	RMI	0.2100
Drainage Area	14.2 mi^2	Yield (cfs/mi^2)	0.0259
Q_{7-10} Flow (cfs)	0.368	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	350	Slope (ft/ft)	
Watershed No.	7-F	Chapter 93 Class.	TSF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Wrightsville Water Supply Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	43.54	Distance from Outfall (mi)	~27 miles

Changes Since Last Permit Issuance: N/A

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	N/A
Latitude	40º 0' 44.13"	Longitude	-76º 48' 6.62"
Quad Name	Dover	Quad Code	1831
Wastewater Description:	Stormwater		
Receiving Waters	Little Conewago Creek (TSF, MF)	Stream Code	08309
NHD Com ID	57467393	RMI	11.35
Drainage Area	29.7	Yield (cfs/mi^2)	0.0441
Q_{7-10} Flow (cfs)	1.31	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	347.57	Slope (ft/ft)	
Watershed No.	7-F	Chapter 93 Class.	TSF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	FLOW REGIME MODIFICATION, SILTATION		
Source(s) of Impairment	RURAL (RESIDENTIAL AREAS), SITE CLEARANCE (LAND DEVELOPMENT OR REDEVELOPMENT)		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Wrightsville Water Supply Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	43.54	Distance from Outfall (mi)	~27 miles

Changes Since Last Permit Issuance: The previous receiving water for Outfall 003 in the previous renewal was listed as Fox Run. Based on the Latitude and Longitude provided, the receiving water has been changed to Little Conewago Creek in this renewal.

Treatment Facility Summary				
Treatment Facility Name: Dover Township STP				
WQM Permit No.	**Issuance Date**			
6708410 A-1	May 8, 2024			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary With Phosphorus Reduction	Oxidation Ditch	Ultraviolet	8.0
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
8.0		Not Overloaded	Aerobic Digestion	Land Application

General Description

This facility is considered a major sewage facility with an annual average flow of 8.0 MGD. The facility currently serves municipalities including Dover Township (44%), Conewago Township (2%), Manchester Township (18%), and West Manchester Township (36%). All sewer systems are 100% separated. There are three (3) outfalls located onsite; Outfall 001 for treated sewage, Outfalls 002 and 003 for stormwater. The treatment process, according to the renewal application, is as follows:

> Mechanical Fine Screen → Influent Pumping Station → Aerated Grit Chambers (2) → Oxidation Ditches (4) → Final Clarifiers (5) → Ultraviolet Disinfection (3) → Post Aeration → Outfall 001 to Little Conewago Creek

Dover Township currently utilizes sludge thickeners (2), aerobic digesters (3) and centrifuges (2) for the biosolids treatment process. Ferric chloride (40%) is introduced to facilitate phosphorus removal. About 360 tons/year of dry sludge is expected to be produced from this facility and about 0.433 tons/year of dry sludge is currently hauled from other sources (New Life for Girls STP and Regent Acres MHP STP). Any sludge processed from this facility is hauled off by a contractor and will be land applied (i.e., DEP Permit No. PAG-08-3825, *issued 8/17/2018*).

Industrial User Contribution

According to the application, a significant number of industrial/commercial users currently contributing wastewater to the sewer system: A full list can be found in the application.

Stormwater Monitoring

In addition to Outfall 001, the following is a list of outfalls receiving only stormwater drained from the property:

Stormwater Outfalls	Coordinates	Receiving Water(s)
002	40°00’48”, -76°48’10”	Little Conewago Creek
003	40°00’44”, -76°48’06”	Fox Run

The permittee, according to the renewal application, is currently implementing the following Best Management Practices (BMPs) to prevent potential pollutants in stormwater: *Manage sludge in accordance with all applicable permit requirements, store chemicals in secure areas on impervious surfaces away from storm drains, design wastewater facilities to prevent run-on and avoid stormwater commingling with sanitary wastewater and efficiently use herbicides. All storage tanks have secondary containment structures along with spill kits and other materials to aid in containing and eliminating spills if one were to occur.*

Compliance History	
Summary of DMRs:	DMR results for the past year are presented below.
Summary of Inspections:	Since the last renewal of the facility's NPDES permit, the following incidents and inspections have been logged: August 30, 2023: A routine CEI was conducted by Shawn Lesitsky. No new violations are noted. The following open violations were documented: 1. 25 Pa. Code 92a.41(a)(12): Failure to notify DEP of planned physical changes to a facility This non-noncompliance was previously documented in the 2021 and 2022 inspection reports. This is an ongoing occurrence and not documentation of a new violation. This will be addressed with the issuance of a WQM Part II permit. A WQM Part II permit application has been received. 2. 25 Pa. Code 92a.47(c): Discharges from an SSO are prohibited. SSO occurred on Dover Township's line but was caused by the MHPs contributing collection system in Conewago Township. Wet weather SSO's occurred on 9/1/2021. 3. P.L. 1987, No. 394, Sec 611: Failure to comply with the terms and conditions of a WQM permit This non-noncompliance was previously documented in the 2021 and 2022 inspection reports. This is an ongoing occurrence and not documentation of a new violation. This will be addressed with the issuance of a WQM Part II permit. A WQM Part II permit application has been received. Recommendations were made to increase the capacity of the backup power system and to obtain appropriate WQM Part II permits from the Department. March 14, 2023: An overflow at an unidentified manhole on the perimeter fence of the treatment plant overflowed, releasing an estimated 100,000 gallons of sewage into the Little Conewago Creek. A NOV was issued for the overflow on November 2, 2023. June 21, 2022: A routine CEI was conducted by Cody Hoy. A violation was noted for failure to apply for and/or obtain a WQM permit for the construction of sewage or industrial waste facilities. A NOV was issued for the overflow on September 7, 2022. August 17, 2021: A routine CEI was conducted by Heather Dock. No new violations are noted. The following open violations were documented: 1. 25 Pa. Code 91.21: Failure to apply for and/or obtain a WQM permit for the construction or installation of facilities or equipment Headworks screen installed without permit amendment. 2. 25 Pa. Code 92a.41(a)(13): Unauthorized bypass occurred During power outage on 8/13/21, full biological treatment was not able to be provided by the oxidation ditches. 3. 25 Pa. Code 92a.47(c): Discharges from an SSO are prohibited. 4. 25 Pa. Code 92a.61(c): Failure to monitor pollutants as required by the NPDES permit. Sample location includes all hauled-in wastes as well as any return lines, when appropriate. Location is representative of the true loading on the plant. 5. P.L. 1987, No. 394, Sec 611: Failure to comply with the terms and conditions of a WQM permit Headworks screen installed without permit amendment.

Other Comments: As of March 26, 2025, there are no open violations associated with this facility.

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
	Monthly	Annual	Monthly	Monthly Average	Maximum	Instant. Maximum		
Total Nitrogen (lbs) Effluent Net	XXX	146117 Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
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) Effluent Net	XXX	19482 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

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	Weekly Average	Minimum	Average Monthly	Daily 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	5.0	XXX	XXX	XXX	1/day	Grab
CBOD5 Nov 1 - Apr 30	1334	2000	XXX	20.0	30.0 Wkly Avg	40	5/week	24-Hr Composite
CBOD5 May 1 - Oct 31	667	1000	XXX	10.0	15.0 Wkly Avg	20	5/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	5/week	24-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	5/week	24-Hr Composite
TSS	2000	3000	XXX	30.0	45.0 Wkly Avg	60	5/week	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	3/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	3/week	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Recorded
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-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) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Ammonia Nov 1 - Apr 30	300	XXX	XXX	4.5	XXX	9	5/week	24-Hr Composite

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Ammonia May 1 - Oct 31	100	XXX	XXX	1.5	XXX	3	5/week	24-Hr Composite
Ammonia (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TKN (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus	133	XXX	XXX	2.0	XXX	4	5/week	24-Hr Composite
Total Phosphorus (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation

Compliance Sampling Location: Outfall 001

Compliance History

DMR Data for Outfall 001 (from February 1, 2024 to January 31, 2025)

Parameter	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24	MAR-24	FEB-24
Flow (MGD) Average Monthly	2.53	2.98	2.65	2.7	2.74	4.0	2.917	3.2	3.9	7.5	4.0	3.7
Flow (MGD) Daily Maximum	3.24	6.28	3.88	3.9	3.97	11.6	3.335	4.2	4.9	27.9	9.3	5.2
pH (S.U.) Minimum	6.1	6.3	6.3	6.4	6.4	6.5	6.3	6.2	6.4	6.2	6.1	6.2
pH (S.U.) Instantaneous Maximum	7.0	6.4	7.0	7.1	7.1	7.2	7.2	7.0	7.0	6.9	7.5	6.9
DO (mg/L) Minimum	8.2	7.6	7.0	6.5	6.2	5.9	6.5	6.2	7.5	5.0	6.3	8.1
CBOD5 (lbs/day) Average Monthly	< 42	57	< 44	< 44	< 50	< 79	< 49	< 53	< 63	< 171	< 72	< 63
CBOD5 (lbs/day) Weekly Average	< 49	88	< 49	< 57	< 65	< 166	< 54	< 58	< 69	< 485	< 109	81
CBOD5 (mg/L) Average Monthly	< 2	2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
CBOD5 (mg/L) Weekly Average	< 2	2	< 2	< 2	< 3	< 3	< 2	< 2	< 2	< 3	< 3	2
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	5744	7119	5501	5185	< 4877	5982	< 5256	< 5856	5665	< 5715	< 3386	3145
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum	8190	21168	8817	7117	7599	21188	7528	7402	7828	13642	7113	6383
BOD5 (mg/L) Raw Sewage Influent Average Monthly	274	281	253	240	< 218	185	< 214	< 220	181	< 129	< 112	102
TSS (lbs/day) Average Monthly	< 46	73	< 48	< 45	< 46	< 125	< 54	< 53	< 66	< 451	< 134	< 70
TSS (lbs/day) Raw Sewage Influent Average Monthly	7527	9134	6358	6022	6762	7177	7606	8192	6864	9235	5408	4015

TSS (lbs/day) Raw Sewage Influent Daily Maximum	11277	66820	9609	12565	11624	20376	13550	16805	17936	26503	16636	10403
TSS (lbs/day) Weekly Average	< 52	148	< 58	< 57	< 47	< 380	< 60	< 58	< 69	< 1707	< 366	< 104
TSS (mg/L) Average Monthly	< 2	3	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 4	< 3	< 2
TSS (mg/L) Raw Sewage Influent Average Monthly	360	308	295	280	295	226	313	311	222	200	179	133
TSS (mg/L) Weekly Average	< 2	4	< 2	< 2	< 2	< 6	< 2	< 2	< 2	< 10	< 7	< 3
Fecal Coliform (CFU/100 ml) Geometric Mean	< 2	3	2	3	7	9	7	< 3	< 3	< 3	< 2	< 2
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	7	10	5	7	20	115	38	6	54	11	4	5
UV Transmittance (%) Minimum	14.14	15.74	12.57	5.65	7.3	13.1	1.1	9.9	10.43	4.38	23.88	16.65
Nitrate-Nitrite (mg/L) Average Monthly	5.58	3.13	4.26	4.94	5.61	4.74	5.69	3.81	4.13	4.06	4.94	4.76
Nitrate-Nitrite (lbs) Total Monthly	3591	2490	2735	3419	3868	4476	4229	3042	4047	5923	5004	4294
Total Nitrogen (mg/L) Average Monthly	6.95	5.07	5.38	5.749	6.41	5.68	6.439	4.88	4.91	5.27	5.97	5.82
Total Nitrogen (lbs) Effluent Net Total Monthly	4471	4151	3479	3963	4414	5776	4799	3897	4816	8915	6111	5384
Total Nitrogen (lbs) Total Monthly	4471	4151	3479	3963	4414	5776	4799	3897	4816	8915	6111	5384
Total Nitrogen (lbs) Effluent Net Total Annual					< 71222							
Total Nitrogen (lbs) Total Annual					< 71222							
Ammonia (lbs/day) Average Monthly	< 12	31	< 7	0.9	1	< 14	1	2	< 1	< 30	< 9	< 21
Ammonia (mg/L) Average Monthly	< 0.6	1.1	< 0.3	0.04	0.1	< 0.2	0.1	0.1	< 0.03	< 0.3	< 0.2	< 0.6
Ammonia (lbs) Total Monthly	< 361	975	< 207	27	37	< 426	44	51	< 31	< 901	< 285	< 623

Ammonia (lbs) Total Annual					< 5828							
TKN (mg/L) Average Monthly	1.37	1.94	1.11	0.81	0.8	0.95	< 0.75	1.07	0.79	1.21	< 1.03	1.06
TKN (lbs) Total Monthly	886	1646	770	543	546	979	< 561	860	771	2992	< 1120	1132
Total Phosphorus (lbs/day) Average Monthly	3	4	15	23	22	35	28	25	21	50	33	29
Total Phosphorus (mg/L) Average Monthly	0.1	0.1	0.7	1.1	1.0	1.0	1.2	0.9	0.7	0.9	1.0	0.9
Total Phosphorus (lbs) Effluent Net Total Monthly	78	130	436	722	674	1097	872	747	651	1492	1035	828
Total Phosphorus (lbs) Total Monthly	78	130	436	722	674	1097	872	747	651	1492	1035	828
Total Phosphorus (lbs) Effluent Net Total Annual					11336							
Total Phosphorus (lbs) Total Annual					11336							

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 8
Latitude 40º 0' 44.18" **Longitude** -76º 48' 2.05"
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: These standards apply, subject to water quality analysis and BPJ where applicable.

Water Quality-Based Limitations

CBOD5, NH3-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 CBOD5, NH3-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 using data derived by USGS StreamStats. The model output indicated that the existing effluent limits for NH3-N and CBOD5 are still protective of water quality; therefore, no changes are recommended for these parameters.

The model did determine that that the facility's existing DO limits of 5 mg/L is no longer protective of water quality. An updated limit of 6.0 mg/L is proposed in this permit. A review of the facility's DMR over the last year indicates that the as-built facility met the proposed limit on a minimum DO basis in 10 of the preceding 12 months. Section IV(G) of the Standard Operating Procedure (SOP) for Clean Water Program - New and Reissuance Sewage Individual NPDES Permit Applications (SOP No. BCW-PMT-002, Revised February 3, 2022, Version 2.0) states that, "For WQBELs and other TBELs in which the permittee has demonstrated its ability to comply by meeting the proposed limit at least 75% of the time considering existing performance data, no compliance schedule should be established in the draft permit." In accordance with the SOP, no schedule to meet the new DO limit is proposed.

Toxics

A reasonable potential (RP) analysis was done for all priority pollutants using the sampling results provided with the application. The Department's Toxics Management Spreadsheet (Version 1.4) was used to perform the RP analysis for these parameters at a pH of 7.47 and a discharge hardness of 196 mg/L. The initial analysis indicated that limits for 25 toxic compounds were needed to be protective of water quality (see attached letter at the end of this report). In June 2024. the permittee was given the opportunity to collect additional data such that the mean value could be modelled rather than the maximum reported value. The permittee provided the data from the additional sampling effort in February 2025. The distribution of all parameter data sets was determined using the Department's TOXCONC spreadsheet and the model was updated with the mean value and the CV value for the resampled parameters. The revised model output recommended the following limits and monitoring requirements:

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

Pollutants	*Mass Limits* AML (lbs/day)	*Mass Limits* MDL (lbs/day)	*Concentration Limits* AML	*Concentration Limits* MDL	*Concentration Limits* IMAX	*Concentration Limits* Units	Governing WQBEL	WQBEL Basis	Comments
Total Copper	Report	Report	Report	Report	Report	mg/L	0.018	CFC	Discharge Conc > 10% WQBEL (no RP)
Free Cyanide	0.3	0.55	4.42	8.17	11.1	µg/L	4.42	THH	Discharge Conc ≥ 50% WQBEL (RP)
Dissolved Iron	Report	Report	Report	Report	Report	µg/L	332	THH	Discharge Conc > 10% WQBEL (no RP)
Total Zinc	Report	Report	Report	Report	Report	mg/L	0.21	AFC	Discharge Conc > 10% WQBEL (no RP)

The model recommendations have been included in the draft permit. The only parameter with proposed limits, Free Cyanide, was based on a data set of 20 samples. Of the 20 samples, the average (3.43 µg/L) was below the proposed limit of 4.42 µg/L and 19 out of 20 (95%) of the individual 24-hour composite samples were below the proposed MDL. Section IV(G) of the Standard Operating Procedure (SOP) for Clean Water Program - New and Reissuance Sewage Individual NPDES Permit Applications (SOP No. BCW-PMT-002, Revised February 3, 2022, Version 2.0) states that, "For WQBELs and other TBELs in which the permittee has demonstrated its ability to comply by meeting the proposed limit at least 75% of the time considering existing performance data, no compliance schedule should be established in the draft permit." In accordance with the SOP, no schedule to meet the new Free Cyanide limits is proposed.

The sampling interval for the parameters above is proposed as weekly 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 5.0 to 25.0 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, monthly E. Coli monitoring has been proposed monthly in this permit. The collection method will be via grab sample.

Best Professional Judgment (BPJ) Limitations

Total Phosphorus & Total Nitrogen

DEP's SOP no. BPNPSM-PMT-033 (Establishing Effluent Limitations for Individual Sewage Permits) recommends monitoring requirements for Total Nitrogen for all sewage facilities. Therefore, routine monitoring for TKN, Nitrate-Nitrite, and TN are recommended to be continued in this permit. Sampling frequency for TKN, Nitrate-Nitrite, and TN, are currently required 5/week, which is not consistent with Table 6.3 in DEP's Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (PA Doc. No. 362-0400-001). A sampling frequency of 1/day is proposed in this permit in accordance with the Technical Guidance Document 362-0400-001. The proposed change is also consistent with other similarly sized facilities in the region.

Historically, an average monthly Total Phosphorus limit of 2.0 mg/L was recommended in NPDES permits, per DEP phosphorus guidance 391-2000-018, to control phosphorus effluent levels for any facilities that are expected to contribute 0.25% or more of the total phosphorus loading of the entire basin. DEP has previously determined that this facility meets the criteria, and as a result, the limit has been continuously imposed in the permit. It is therefore recommended to maintain this limit in the draft permit. Similar to Total Nitrogen, the monitoring frequency is proposed to increase from 5x/week to 1/day.

Ultraviolet Disinfection

The existing UV system upstream of Outfall 001 is equipped with a transmittance sensor; therefore, UV transmittance is proposed to be continued as the monitoring parameter for the UV system.

PFAS-Related Compounds

In accordance with the Department's Standard Operating Procedure for Establishing Effluent Limitations for Individual Sewage Permits (SOP No. BCW-PMT-033, Final November 9, 2012, Revised February 5, 2024, Version 2.0) no qualifying criteria to justify the monitoring of PFAS compounds exists.

TDS / Sulfate / Chloride / Bromide / 1,4-Dioxane:

Total Dissolved Solids (TDS) and its major constituents including sulfate, chloride, and bromide have emerged as pollutants of concern in several major watersheds in the Commonwealth. The conservative nature of these solids allows them to accumulate in surface waters and they may remain a concern even if the immediate downstream public water supply is not directly impacted. Under the authority of § 92a.61, statewide guidance distributed by the Department's Central Office on January 23, 2014 stated the following:

For point source discharges and upon issuance or reissuance of an individual NPDES permit:

- *Where the concentration of TDS in the discharge exceeds 1,000 mg/L, or the net TDS load from a discharge exceeds 20,000 lbs/day, and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for TDS, sulfate, chloride, and bromide. Discharges of 0.1 MGD or less should monitor and report for TDS, sulfate, chloride, and bromide if the concentration of TDS in the discharge exceeds 5,000 mg/L.*

- *Where the concentration of bromide in a discharge exceeds 1 mg/L and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for bromide. Discharges of 0.1 MGD or less should monitor and report for bromide if the concentration of bromide in the discharge exceeds 10 mg/L.*

- *Where the concentration of 1,4-dioxane (CAS 123-91-1) in a discharge exceeds 10 µg/L and the discharge flow exceeds 0.1 MGD, Part A of the permit should include monitor and report for 1,4-dioxane. Discharges of 0.1 MGD or less should monitor and report for 1,4-dioxane if the concentration of 1,4-dioxane in the discharge exceeds 100 µg/L.*

The table below compares the above thresholds for monitoring requirements with the concentrations documented in the current application:

Department Monitoring Thresholds and Expected Discharge Concentrations for TDS and Related Parameters

Parameter	Threshold for Discharges >0.1 MGD	Threshold for Discharges ≤0.1 MGD	Max. Concentration in Application
TDS	1,000 mg/L or 20,000 lbs/day	5,000 mg/L	556 mg/L / 38196 lbs/day
Sulfate	NA	NA	28.1 mg/L / 2976 lbs/day
Chloride	NA	NA	65.5 mg/L / 7252 lbs/day
Bromide	1 mg/L	10 mg/L	<0.2 mg/L
1,4-Dioxane	10 µg/L	100 µg/L	< 3 µg/L

Based on the sampling results in the application (TDS loadings in excess of 20,000 lbs/day) monitor and report requirements for TDS, sulfate, chloride, and bromide are proposed in the draft permit. The sampling frequency proposed is weekly in conformity with DEP's Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits (PA Doc. No. 362-0400-001).

Additional Considerations

Flow Monitoring

The requirement to monitor the flow rate of the effluent will remain in the draft 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 0.2mdg) 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 1 sewage facility with the following cap loads:

NPDES Permit No.	Phase	Facility	Latest Permit Issuance Date	Permit Expiration Date	Cap Load Compliance Start Date	TN Cap Load (lbs/yr)	TN Offsets Included in Cap Load (lbs/yr)	TP Cap Load (lbs/yr)	TN Delivery Ratio	TP Delivery Ratio
PA0020826	1	Dover Township Sewer Authority	6/2/2017	6/30/2022	10/1/2010	146,117	-	19,482	0.961	0.436

Monitoring Frequency and Sample Type

The testing frequency of CBOD5, TSS, Ammonia and Total Phosphorus are proposed to be increased from 5x/week to 1/day in accordance with Table 6-3 of DEP's Technical Guidance for Development and Specification of effluent Limitations (No. 362-0400-001).

The testing frequency of Fecal Coliforms is proposed to be increased from 3x/week to 1/day in accordance with Table 6-3 of DEP's Technical Guidance for Development and Specification of effluent Limitations (No. 362-0400-001).

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.

Stormwater

Stormwater discharges from any POTWs (SIC Code 4952) described in 40 CFR § 122.26(b)(14)(ix) require coverage under an NPDES permit. In general, DEP's standard Part C stormwater requirements and site-specific best management practices (BMPs) are included in the permit for those POTWs. The following BMPs listed in Appendix J of the NPDES PAG-03 General Stormwater Permit will be included in Part C of the draft permit for Outfalls 002 and 003:

1. Manage sludge in accordance with all applicable permit requirements.
2. Store chemicals in secure areas on impervious surfaces away from storm drains.
3. Consider routing stormwater contaminated within the treatment facility to the treatment facility or cover exposed materials (i.e., from the following areas: grit, screenings and other solids handling, storage or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station).

Anti-backsliding Requirement

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

Annual Fees

An annual fee clause is continued in the permit in accordance with 25 Pa. Code § 92a.62. The facility covered by the permit is classified in the Major Sewage Facility >=5 MGD fee category, which has an annual fee of $5,000.

Mass Loading Limitations

Unless stated otherwise in this fact sheet, mass loading effluent limits are calculated based on the formula: design flow (average annual) (MGD) x concentration limit (mg/L) at design flow x conversion factor (8.34).

Compliance Schedule

The Department has previously noted that influent into the STP is currently sampled after treatment has commenced and after return flows have been combined into the influent flow. This is a violation of your NPDES permit, which requires the sampling of the raw influent into the plant. On April 11, 2024, Township officials proposed the following schedule to address the issue (see email attached to the end of this report):

Complete Project Design..... 8/30/2024
Submit WQM Permitting..... 9/30/2024
Bid Project (Dates for bidding and construction are contingent on obtaining WQM Permit by this date).... 4/30/2025
Begin Construction..... 6/1/2025
Complete Construction..... 2/28/2026

To date, the proposed work has not been permitted or built. In order to bring the facility into compliance, the following compliance schedule is proposed to be included as a special condition in this permit:

1. Complete Project Design within 30 days of issuance of the final NPDES Permit
2. Submission of an administratively and technically complete WQM Permit Amendment application within 60 days after issuance of final NPDES Permit
3. Bid project within 30 days of issuance of the WQM Permit Amendment
4. Award bid to preferred contractor(s) within 60 days of issuance of the WQM Permit Amendment
5. Begin Construction within 90 days of issuance of the WQM Permit Amendment
6. Achieve substantial completion of construction within 180 days of the commencement of construction.

Whole Effluent Toxicity (WET)

For Outfall 001, ☐ **Acute** ☒ **Chronic** WET Testing was completed:

☒ For the permit renewal application (4 tests).
☐ Quarterly throughout the permit term.
☐ Quarterly throughout the permit term and a TIE/TRE was conducted.
☐ Other:

The dilution series used for the tests was: 100%, 95%, 90%, 45%, and 23%. The Target Instream Waste Concentration (TIWC) to be used for analysis of the results is: 90.

Summary of Four Most Recent Test Results

TST Data Analysis

(NOTE – In lieu of recording information below, the application manager may attach the DEP WET Analysis Spreadsheet).

Test Date	*Ceriodaphnia* Results (Pass/Fail)		*Pimephales* Results (Pass/Fail)	
	Survival	Reproduction	Survival	Growth
See attached DEP WET Analysis Spreadsheet				

***** *A "passing" result is that in which the replicate data for the TIWC is not statistically significant from the control condition. This is exhibited when the calculated t value ("T-Test Result") is greater than the critical t value. A "failing" result is exhibited when the calculated t value ("T-Test Result") is less than the critical t value.*

Is there reasonable potential for an excursion above water quality standards based on the results of these tests? (*NOTE – In general, reasonable potential is determined anytime there is at least one test failure in the previous four tests).*

☒ **YES** ☐ **NO**

Comments: PMFa and PMFc from Toxic Management Spreadsheet results.

WET Limits

Has reasonable potential been determined? ☒ YES ☐ NO

Will WET limits be established in the permit? ☒ YES ☐ NO

If WET limits will be established, identify the species and the limit values for the permit (TU).

Ceriodaphnia dubia (survival and reproduction). Proposed TUc is 1.1

If WET limits will not be established, but reasonable potential was determined, indicate the rationale for not establishing WET limits:

N/A

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) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Monthly	Annual	Monthly	Monthly Average	Maximum	Instant. Maximum		
Total Nitrogen (lbs) Effluent Net	XXX	146117 Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
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) Effluent Net	XXX	19482 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) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Daily 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	6.0	XXX	XXX	XXX	1/day	Grab
CBOD5 Nov 1 - Apr 30	1334	2000	XXX	20.0	30.0 Wkly Avg	40	1/day	24-Hr Composite
CBOD5 May 1 - Oct 31	667	1000	XXX	10.0	15.0 Wkly Avg	20	1/day	24-Hr Composite
BOD5 Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	5/week	24-Hr Composite
TSS Raw Sewage Influent	Report	Report Daily Max	XXX	Report	XXX	XXX	5/week	24-Hr Composite
TSS	2000	3000	XXX	30.0	45.0 Wkly Avg	60	1/day	24-Hr Composite
Total Dissolved Solids	Report	Report	XXX	Report Daily Max	Report Avg Mo	XXX	1/week	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/day	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/day	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	Report	Report	XXX	1/month	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Recorded
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite

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

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
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) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Ammonia Nov 1 - Apr 30	300	XXX	XXX	4.5	XXX	9	1/day	24-Hr Composite
Ammonia May 1 - Oct 31	100	XXX	XXX	1.5	XXX	3	1/day	24-Hr Composite
Ammonia (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
TKN	XXX	XXX	XXX	Report	XXX	XXX	2/week	24-Hr Composite
TKN (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus	133	XXX	XXX	2.0	XXX	4	1/day	24-Hr Composite
Total Phosphorus (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus (lbs) Effluent Net	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Copper	Report	Report Daily Max	XXX	Report	Report	XXX	1/week	24-Hr Composite
Free Cyanide (ug/L)	0.3	0.55 Daily Max	XXX	4.42	8.17	11.1	1/week	24-Hr Composite
Dissolved Iron (ug/L)	Report	Report Daily Max	XXX	Report	Report	XXX	1/week	24-Hr Composite
Sulfate, Total	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Zinc, Total	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Chloride	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite

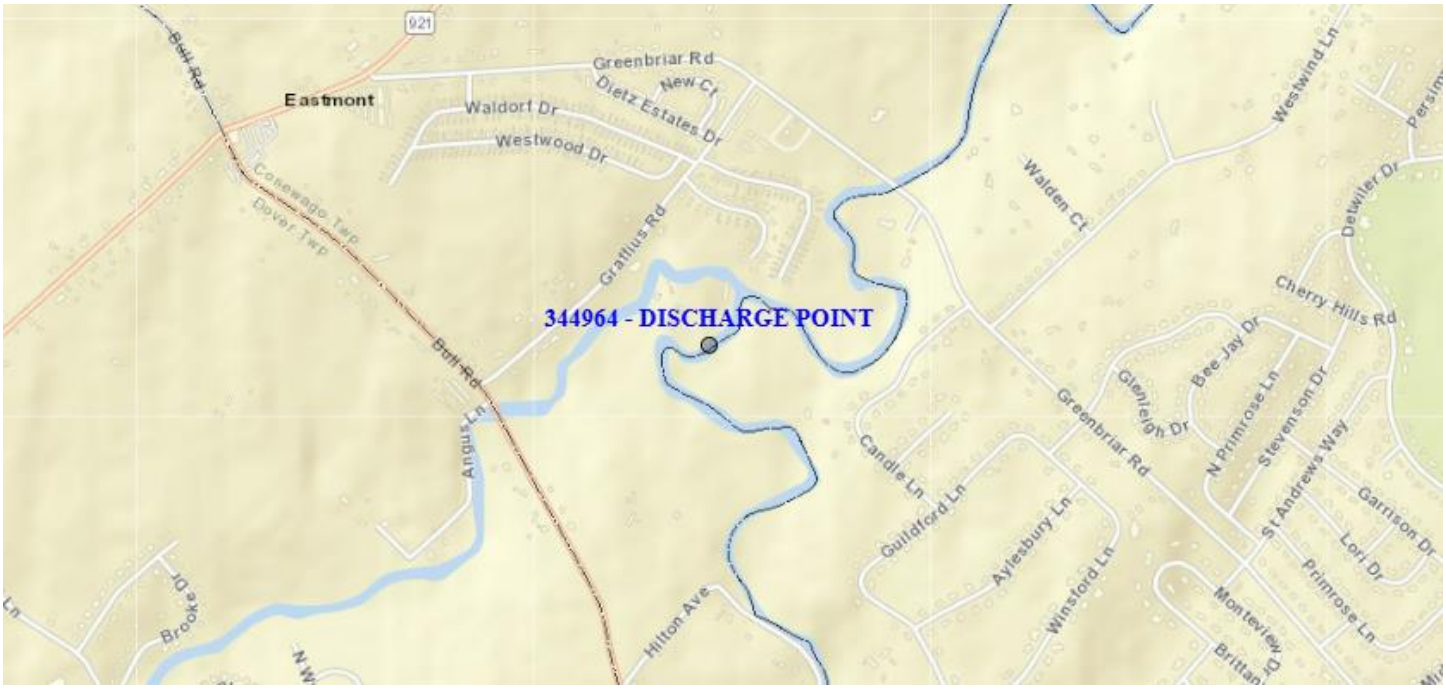
Outfall 001, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Weekly Average	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Bromide	Report	Report	XXX	Report	Report	XXX	1/week	24-Hr Composite
Chronic WET - Ceriodaphnia Survival (TUc)	XXX	XXX	XXX	XXX	1.1	XXX	See Permit	24-Hr Composite
Chronic WET - Ceriodaphnia Reproduction (TUc)	XXX	XXX	XXX	XXX	1.1	XXX	See Permit	24-Hr Composite

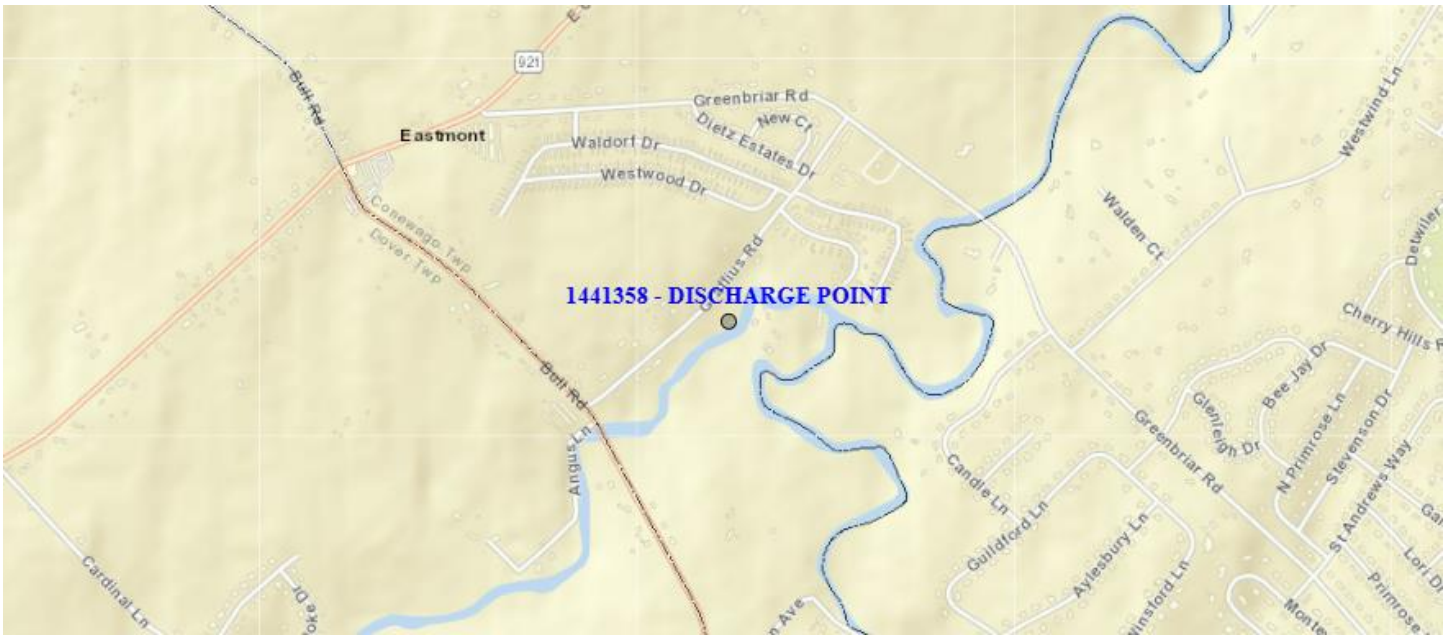
Compliance Sampling Location: Outfall 001

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

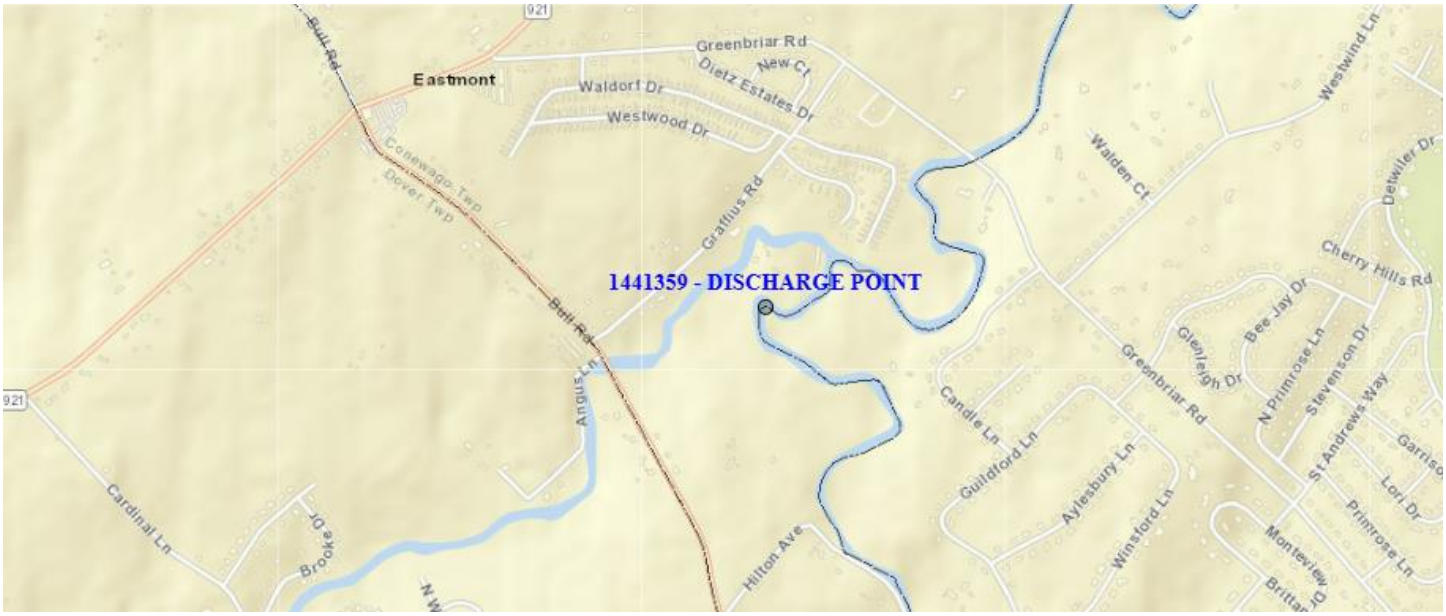
Outfall 001



Outfall 002



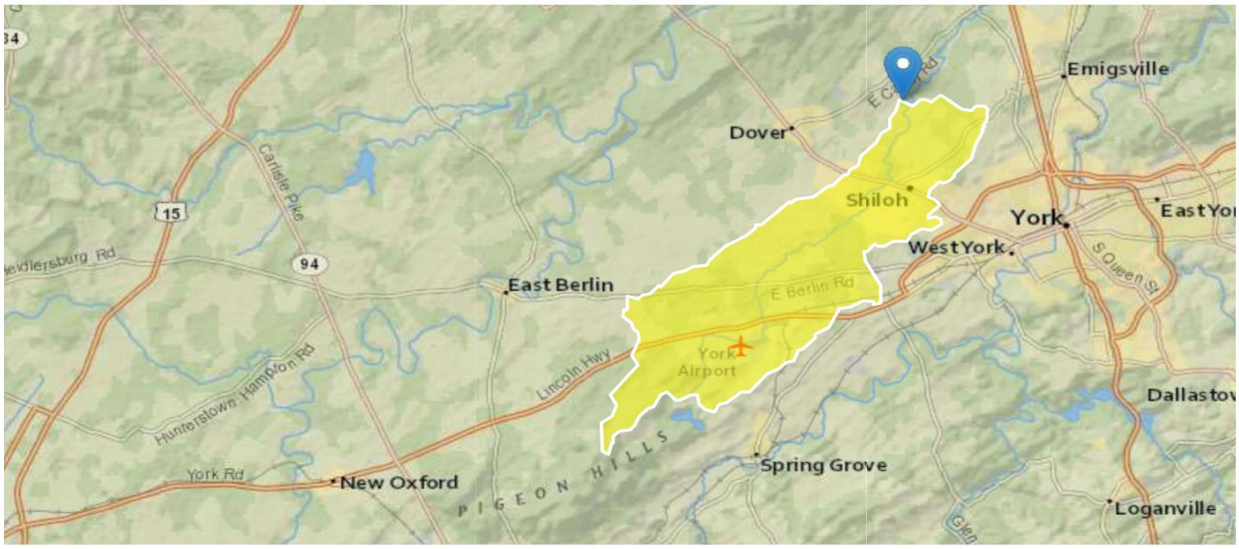
Outfall 003


1441359 - DISCHARGE POINT
Eastmont
Greenbriar Rd
New Ct
Dietz Estates Dr
Waldorf Dr
Westwood Dr
Conewago Twp
Dover Twp
Graffius Rd
Bull Rd
Angus Ln
Walden Ct
Westwind Ln
Detwiler Dr
Cherry Hills Rd
Bee Jay Dr
Glenleigh Dr
Greenbriar Rd
N Primrose Ln
Stevenson Dr
St Andrews Way
Candle Ln
Guildford Ln
Aylesbury Ln
Winsford Ln
Hilton Ave
Cardinal Ln
Brookside Dr
Primrose Ln
Lori Dr
Montevieu
921

Outfall 001

StreamStats Report

Region ID: PA
Workspace ID: PA20240604121905831000
Clicked Point (Latitude, Longitude): 40.01223, -76.80055
Time: 2024-06-04 08:19:27 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	2.8759	degrees
DRNAREA	Area that drains to a point on a stream	29.7	square miles
ROCKDEP	Depth to rock	4.5	feet
URBAN	Percentage of basin with urban development	11.3216	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	29.7	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	2.8759	degrees	1.7	6.4

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ROCKDEP	Depth to Rock	4.5	feet	4.13	5.21
URBAN	Percent Urban	11.3216	percent	0	89

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

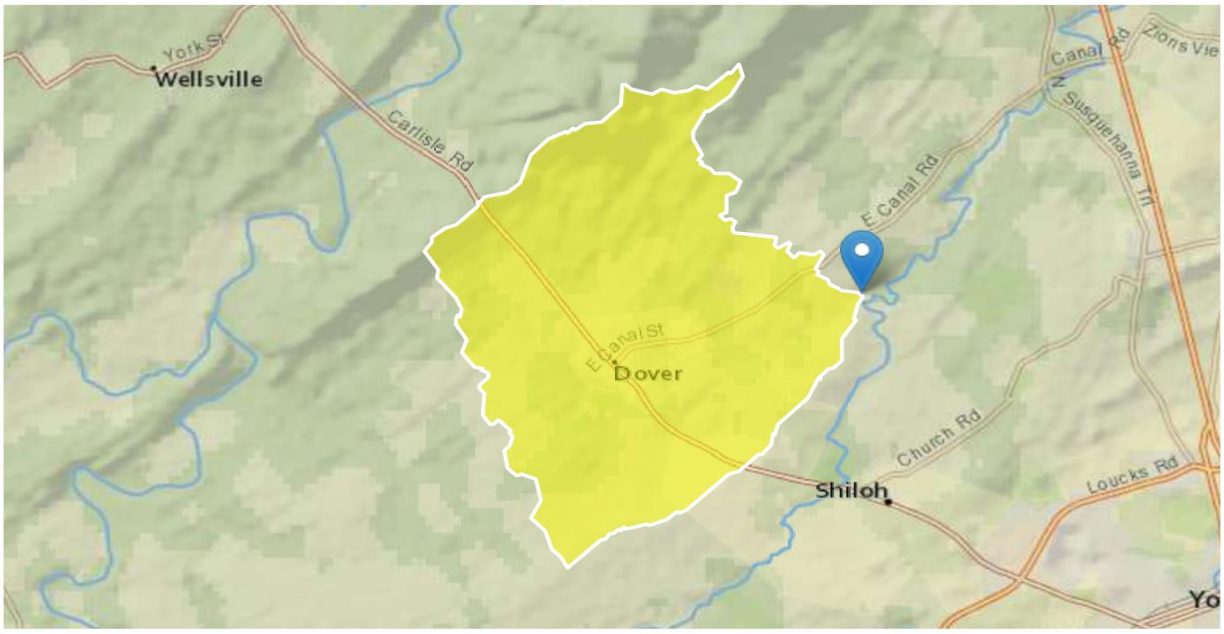
PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	3.18	ft^3/s	46	46
30 Day 2 Year Low Flow	4.68	ft^3/s	38	38
7 Day 10 Year Low Flow	1.31	ft^3/s	51	51
30 Day 10 Year Low Flow	1.98	ft^3/s	46	46
90 Day 10 Year Low Flow	3.89	ft^3/s	41	41

Outfall 002

StreamStats Report

Region ID: PA
Workspace ID: PA20250326132250619000
Clicked Point (Latitude, Longitude): 40.01327, -76.80246
Time: 2025-03-26 09:23:22 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	3.2883	degrees
DRNAREA	Area that drains to a point on a stream	14.2	square miles
ROCKDEP	Depth to rock	4	feet
URBAN	Percentage of basin with urban development	7.1635	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
BSLOPD	Mean Basin Slope degrees	3.2883	degrees	1.7	6.4
DRNAREA	Drainage Area	14.2	square miles	4.78	1150
ROCKDEP	Depth to Rock	4	feet	4.13	5.21
URBAN	Percent Urban	7.1635	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.

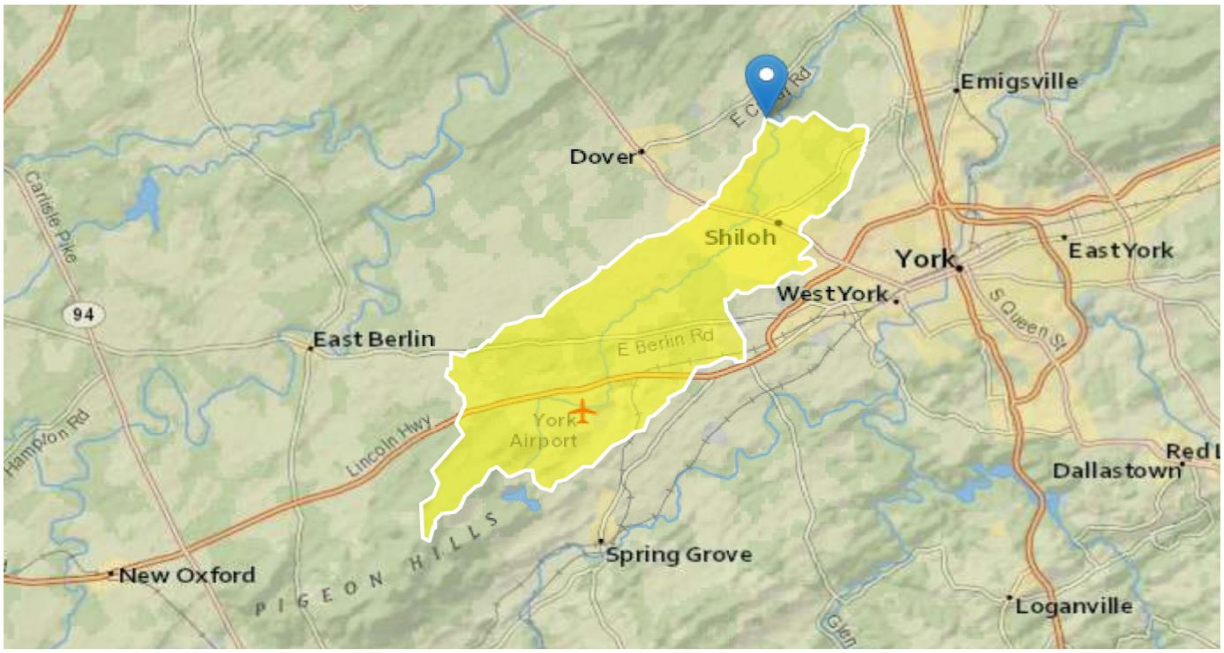
Low-Flow Statistics Flow Report [Low Flow Region 1]

Statistic	Value	Unit
7 Day 2 Year Low Flow	1	ft^3/s
30 Day 2 Year Low Flow	1.55	ft^3/s
7 Day 10 Year Low Flow	0.368	ft^3/s
30 Day 10 Year Low Flow	0.595	ft^3/s
90 Day 10 Year Low Flow	1.21	ft^3/s

Outfall 003

StreamStats Report

Region ID: PA
Workspace ID: PA20250326132931314000
Clicked Point (Latitude, Longitude): 40.01235, -76.80175
Time: 2025-03-26 09:29:59 -0400



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Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	2.8755	degrees
DRNAREA	Area that drains to a point on a stream	29.7	square miles
ROCKDEP	Depth to rock	4.5	feet
URBAN	Percentage of basin with urban development	11.3221	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
BSLOPD	Mean Basin Slope degrees	2.8755	degrees	1.7	6.4
DRNAREA	Drainage Area	29.7	square miles	4.78	1150
ROCKDEP	Depth to Rock	4.5	feet	4.13	5.21
URBAN	Percent Urban	11.3221	percent	0	89

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

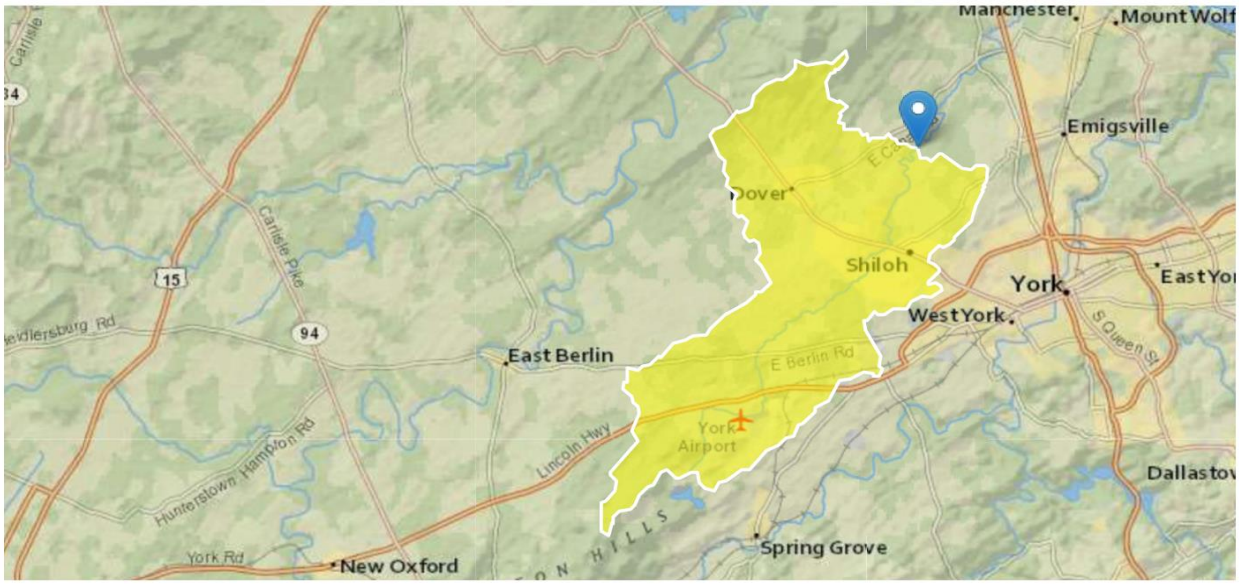
PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	3.18	ft^3/s	46	46
30 Day 2 Year Low Flow	4.68	ft^3/s	38	38
7 Day 10 Year Low Flow	1.31	ft^3/s	51	51
30 Day 10 Year Low Flow	1.98	ft^3/s	46	46
90 Day 10 Year Low Flow	3.89	ft^3/s	41	41

Downsteram Reach

StreamStats Report

Region ID: PA
Workspace ID: PA20240604122053207000
Clicked Point (Latitude, Longitude): 40.01647, -76.79381
Time: 2024-06-04 08:21:15 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	3.0119	degrees
DRNAREA	Area that drains to a point on a stream	44.2	square miles
ROCKDEP	Depth to rock	4.4	feet
URBAN	Percentage of basin with urban development	9.9842	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 1]

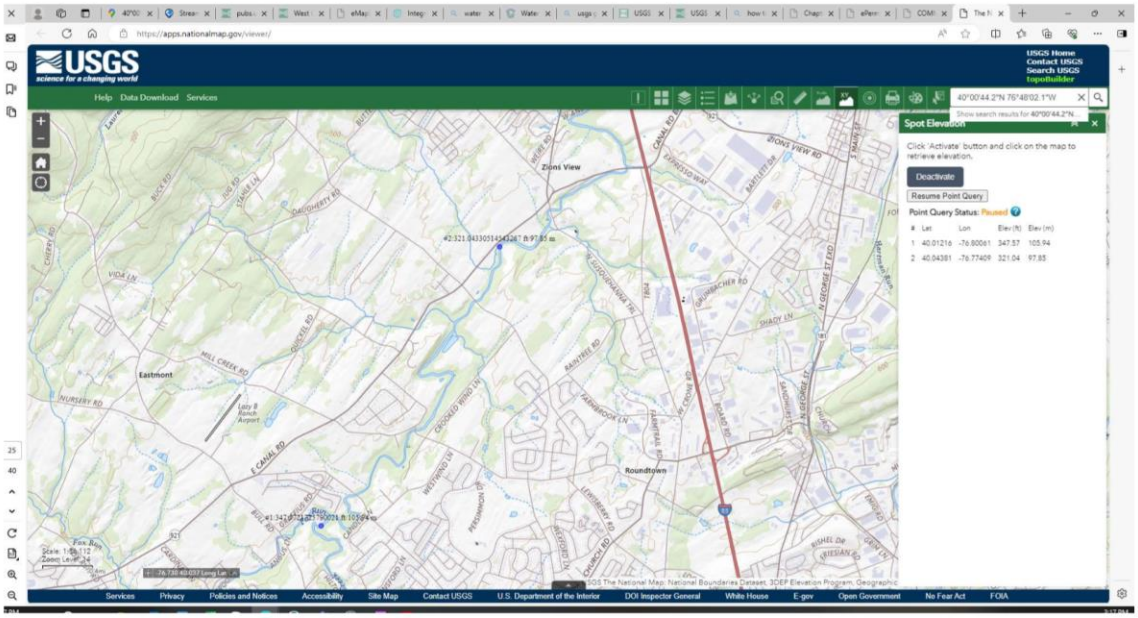
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	44.2	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	3.0119	degrees	1.7	6.4

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
ROCKDEP	Depth to Rock	4.4	feet	4.13	5.21
URBAN	Percent Urban	9.9842	percent	0	89

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

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	4.46	ft^3/s	46	46
30 Day 2 Year Low Flow	6.56	ft^3/s	38	38
7 Day 10 Year Low Flow	1.85	ft^3/s	51	51
30 Day 10 Year Low Flow	2.79	ft^3/s	46	46
90 Day 10 Year Low Flow	5.43	ft^3/s	41	41



WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
07F	8309	LITTLE CONEWAGO 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)
11.420	Dover STP	PA0020826	8.000	CBOD5	19.52		
				NH3-N	1.5	3	
				Dissolved Oxygen			6

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
07F	8309	LITTLE CONEWAGO 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
11.420	Dover STP	11.22	11.6	11.22	11.6	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
11.420	Dover STP	1.4	1.5	1.4	1.5	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
11.42	Dover STP	19.52	19.52	1.5	1.5	6	6	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
07F	8309	LITTLE CONEWAGO CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
11.420	8.000	24.752	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
41.341	0.741	55.760	0.425
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
18.65	1.164	1.42	1.009
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
6.111	18.960	Tsivoglou	6
Reach Travel Time (days)			
0.124			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.012	18.32	1.40	6.08
0.025	17.99	1.39	6.06
0.037	17.67	1.37	6.05
0.049	17.36	1.35	6.06
0.062	17.05	1.34	6.07
0.074	16.75	1.32	6.09
0.087	16.45	1.30	6.11
0.099	16.16	1.29	6.13
0.111	15.87	1.27	6.16
0.124	15.59	1.25	6.19

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

SWP Basin	Stream Code	Stream Name
07F	8309	LITTLE CONEWAGO 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												
11.420	0.65	0.00	0.65	12.376	0.00584	.741	41.34	55.76	0.42	0.124	24.75	7.00
Q1-10 Flow												
11.420	0.41	0.00	0.41	12.376	0.00584	NA	NA	NA	0.42	0.125	24.84	7.00
Q30-10 Flow												
11.420	0.88	0.00	0.88	12.376	0.00584	NA	NA	NA	0.43	0.122	24.67	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
07F	8309	LITTLE CONEWAGO CREEK	**11.420**	347.57	29.70	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	0.022	0.00	0.65	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
Dover STP	PA0020826	8.0000	8.0000	8.0000	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	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
07F	8309	LITTLE CONEWAGO CREEK	**10.560**	321.04	44.20	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	0.022	0.00	0.96	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

June 6, 2024
VIA ELECTRONIC MAIL

Dear Permittee:

The Department of Environmental Protection (DEP) has reviewed your NPDES permit application and has reached a preliminary finding that new or more stringent water quality-based effluent limitations (WQBELs) for toxic pollutant(s) should be established in the permit. This finding is based on DEP's assessment that reasonable potential exists to exceed water quality criteria under Chapter 93 in the receiving waters during design flow conditions. The following WQBELs are anticipated based on the information available to DEP during its review:

Outfall No.	Pollutant	Average Monthly (μg/L)	Maximum Daily (μg/L)	IMAX (μg/L)
001	Total Antimony	Report	Report	Report
001	Total Arsenic	Report	Report	Report
001	Hexavalent Chromium	10.4	16.2	26.0
001	Total Cobalt	Report	Report	Report
001	Total Copper	17.3	26.9	43.1
001	Free Cyanide	4.01	6.25	10.0
001	Dissolved Iron	Report	Report	Report
001	Total Nickle	Report	Report	Report
001	Total Selenium	Report	Report	Report
001	Total Silver	13.0	13.0	13.0
001	Total Thallium	0.24	0.38	0.6
001	Total Zinc	Report	Report	Report
001	Acrolein	3.0	3.01	3.01
001	Benzene	0.59	0.92	1.48
001	Carbon Tetrachloride	0.41	0.64	1.02
001	Dichlorobromomethane	0.97	1.51	2.43
001	1,2-Dichloropropane	0.92	1.43	2.3
001	1,3-Dichloropropylene	0.28	0.43	0.69
001	1,1,2,2-Tetrachloroethane	0.2	0.32	0.51
001	1,1,2-Trichloroethane	0.56	0.88	1.4

001	Trichloroethylene	0.61	0.96	1.53
001	Vinyl Chloride	0.02	0.032	0.051
001	Hexachlorobutadiene	0.01	0.016	0.026
001	1,2,4-Trichlorobenzene	0.07	0.11	0.18
001	Toxaphene	0.0002	0.0003	0.0005

Attached is a survey that DEP requests that you complete and return to DEP in 30 days. Completion of this survey will help DEP develop the draft NPDES permit and allow DEP to understand your current capabilities or plans to treat or control these pollutant(s). If you decide not to complete and return the survey, DEP will proceed with developing the draft NPDES permit based on all available information and certain assumptions. Your response to this notice does not constitute an official comment for DEP response but will be taken under consideration. When the draft NPDES permit is formally noticed in the *Pennsylvania Bulletin*, you may make official comments for DEP's further consideration and response.

In addition to completion of the survey, you may elect to collect a minimum of four (4) additional effluent samples, as 24-hour composites, and have the samples analyzed for the pollutant(s) identified above, using a quantitation limit (QL) that is no greater than the Target QLs identified in the permit application. The samples should be collected at least one week apart. If you elect this option, please check the appropriate box on the survey and return the survey to DEP. Review of your application will remain on hold until the additional sampling results are provided to DEP.

Please contact me if you have any questions about this information or the attached survey.

Sincerely,

Aaron Baar
Project Manager
Clean Water Program

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Discharge Information

Instructions | Discharge | Stream

Facility: **Dover Township STP** NPDES Permit No.: **PA0020826** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** 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_{7-10}	Q_h
8	196	7.47						

					0 if left blank		*0.5 if left blank*		*0 if left blank*			*1 if left blank*	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L		546									
	Chloride (PWS)	mg/L		67.9									
	Bromide	mg/L	<	0.2									
	Sulfate (PWS)	mg/L		28.6									
	Fluoride (PWS)	mg/L											
Group 2	Total Aluminum	µg/L		16									
	Total Antimony	µg/L	<	0.5635			0.2312						
	Total Arsenic	µg/L	<	1.099			0.4097						
	Total Barium	µg/L		54.4									
	Total Beryllium	µg/L	<	0.5									
	Total Boron	µg/L		120									
	Total Cadmium	µg/L	<	0.2									
	Total Chromium (III)	µg/L		5									
	Hexavalent Chromium	µg/L	<	0.4690884			1.0005						
	Total Cobalt	µg/L	<	0.83									
	Total Copper	mg/L		0.0065492			0.2071						
	Free Cyanide	µg/L	<	7.1477793			1.149						
	Total Cyanide	µg/L		79									
	Dissolved Iron	µg/L	<	33.369			0.2647						
	Total Iron	µg/L		83									
	Total Lead	µg/L	<	1									
	Total Manganese	µg/L		11.1									
	Total Mercury	µg/L		0.0011									
	Total Nickel	µg/L	<	2.1378			0.3483						
	Total Phenols (Phenolics) (PWS)	µg/L		5									
	Total Selenium	µg/L	<	0.9139			0.1287						
	Total Silver	µg/L	<	0.33									
	Total Thallium	µg/L	<	0.16									
	Total Zinc	mg/L		0.0351497			0.3778						
	Total Molybdenum	µg/L		10									
	Acrolein	µg/L	<	1.67333									
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<	5									
	Benzene	µg/L	<	0.24667									
	Bromoform	µg/L	<	1									

Group 3	Carbon Tetrachloride	µg/L	<	0.292									
	Chlorobenzene	µg/L	<	0.27									
	Chlorodibromomethane	µg/L	<	0.20928571									
	Chloroethane	µg/L	<	1									
	2-Chloroethyl Vinyl Ether	µg/L	<	5									
	Chloroform	µg/L	<	0.5									
	Dichlorobromomethane	µg/L	<	0.27									
	1,1-Dichloroethane	µg/L	<	1									
	1,2-Dichloroethane	µg/L	<	0.18									
	1,1-Dichloroethylene	µg/L	<	1									
	1,2-Dichloropropane	µg/L	<	0.31357143									
	1,3-Dichloropropylene	µg/L	<	0.44642857									
	1,4-Dioxane	µg/L	<	3									
	Ethylbenzene	µg/L	<	1									
	Methyl Bromide	µg/L	<	1									
	Methyl Chloride	µg/L	<	1									
	Methylene Chloride	µg/L	<	1									
	1,1,2,2-Tetrachloroethane	µg/L	<	0.40857143									
	Tetrachloroethylene	µg/L	<	1									
	Toluene	µg/L	<	1									
	1,2-trans-Dichloroethylene	µg/L	<	1									
	1,1,1-Trichloroethane	µg/L	<	1									
	1,1,2-Trichloroethane	µg/L	<	0.18357143									
	Trichloroethylene	µg/L	<	0.35571429									
	Vinyl Chloride	µg/L	<	0.46928571									
Group 4	2-Chlorophenol	µg/L	<	2.9									
	2,4-Dichlorophenol	µg/L	<	2.9									
	2,4-Dimethylphenol	µg/L	<	2.9									
	4,6-Dinitro-o-Cresol	µg/L	<	5.7									
	2,4-Dinitrophenol	µg/L	<	5.7									
	2-Nitrophenol	µg/L	<	2.9									
	4-Nitrophenol	µg/L	<	2.9									
	p-Chloro-m-Cresol	µg/L	<	2.9									
	Pentachlorophenol	µg/L	<	1.1									
	Phenol	µg/L	<	7.7									
	2,4,6-Trichlorophenol	µg/L	<	2.9									
Group 5	Acenaphthene	µg/L	<	1.4									
	Acenaphthylene	µg/L	<	1.4									
	Anthracene	µg/L	<	1.4									
	Benzidine	µg/L	<	3.8									
	Benzo(a)Anthracene	µg/L	<	1.4									
	Benzo(a)Pyrene	µg/L	<	1.4									
	3,4-Benzofluoranthene	µg/L	<	1.4									
	Benzo(ghi)Perylene	µg/L	<	1.4									
	Benzo(k)Fluoranthene	µg/L	<	1.4									
	Bis(2-Chloroethoxy)Methane	µg/L	<	2.9									
	Bis(2-Chloroethyl)Ether	µg/L	<	2.9									
	Bis(2-Chloroisopropyl)Ether	µg/L	<	2.9									
	Bis(2-Ethylhexyl)Phthalate	µg/L	<	2.9									
	4-Bromophenyl Phenyl Ether	µg/L	<	2.9									
	Butyl Benzyl Phthalate	µg/L	<	2.9									
	2-Chloronaphthalene	µg/L	<	2.9									
	4-Chlorophenyl Phenyl Ether	µg/L	<	2.9									
	Chrysene	µg/L	<	1.4									
	Dibenzo(a,h)Anthrancene	µg/L	<	1.4									
	1,2-Dichlorobenzene	µg/L	<	1									
	1,3-Dichlorobenzene	µg/L	<	1									
	1,4-Dichlorobenzene	µg/L	<	1									
	3,3-Dichlorobenzidine	µg/L	<	2.9									
	Diethyl Phthalate	µg/L	<	2.9									
	Dimethyl Phthalate	µg/L	<	2.9									
	Di-n-Butyl Phthalate	µg/L	<	2.9									
	2,4-Dinitrotoluene	µg/L	<	2.9									

	2,6-Dinitrotoluene	µg/L	<	2.9									
	Di-n-Octyl Phthalate	µg/L	<	2.9									
	1,2-Diphenylhydrazine	µg/L	<	2.9									
	Fluoranthene	µg/L	<	1.4									
	Fluorene	µg/L	<	1.4									
	Hexachlorobenzene	µg/L	<	2.9									
	Hexachlorobutadiene	µg/L	<	0.36857143									
	Hexachlorocyclopentadiene	µg/L	<	2.9									
	Hexachloroethane	µg/L	<	2.9									
	Indeno(1,2,3-cd)Pyrene	µg/L	<	1.4									
	Isophorone	µg/L	<	2.9									
	Naphthalene	µg/L	<	1.4									
	Nitrobenzene	µg/L	<	2.9									
	n-Nitrosodimethylamine	µg/L	<	2.9									
	n-Nitrosodi-n-Propylamine	µg/L	<	2.9									
	n-Nitrosodiphenylamine	µg/L	<	2.9									
	Phenanthrene	µg/L	<	1.4									
	Pyrene	µg/L	<	1.4									
	1,2,4-Trichlorobenzene	µg/L	<	0.31									
Group 6	Aldrin	µg/L	<	0.02									
	alpha-BHC	µg/L	<	0.02									
	beta-BHC	µg/L	<	0.02									
	gamma-BHC	µg/L	<	0.02									
	delta BHC	µg/L	<	0.02									
	Chlordane	µg/L	<	0.19									
	4,4-DDT	µg/L	<	0.02									
	4,4-DDE	µg/L	<	0.02									
	4,4-DDD	µg/L	<	0.02									
	Dieldrin	µg/L	<	0.02									
	alpha-Endosulfan	µg/L	<	0.02									
	beta-Endosulfan	µg/L	<	0.02									
	Endosulfan Sulfate	µg/L	<	0.02									
	Endrin	µg/L	<	0.02									
	Endrin Aldehyde	µg/L	<	0.02									
	Heptachlor	µg/L	<	0.02									
	Heptachlor Epoxide	µg/L	<	0.02									
	PCB-1016	µg/L	<										
	PCB-1221	µg/L	<										
	PCB-1232	µg/L	<										
	PCB-1242	µg/L	<										
	PCB-1248	µg/L	<										
	PCB-1254	µg/L	<										
	PCB-1260	µg/L	<										
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<	0.19									
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Stream / Surface Water Information

Dover Township STP, NPDES Permit No. PA0020826, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Little Conewago Creek**

No. Reaches to Model: **1**

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi²)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	008309	11.42	347.57	29.7			Yes
End of Reach 1	008309	10.56	321.04	44.2			Yes

Q $_{7\text{-}10}$

Location	RMI	LFY (cfs/mi²)*	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	11.42		1.31									166	7		
End of Reach 1	10.56		1.85												

Q $_{h}$

Location	RMI	LFY (cfs/mi²)	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	11.42														
End of Reach 1	10.56														

NPDES Permit No. PA0020826

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.4, May 2023

Model Results

Dover Township STP, NPDES Permit No. PA0020826, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | ◉ All ○ Inputs ○ Results ○ Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 0.450 PMF: 1 Analysis Hardness (mg/l): 193.13 Analysis pH: 7.40

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 Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	750	750	829	
Total Antimony	0	0		0	1,100	1,100	1,216	
Total Arsenic	0	0		0	340	340	376	Chem Translator of 1 applied
Total Barium	0	0		0	21,000	21,000	23,223	
Total Boron	0	0		0	8,100	8,100	8,957	
Total Cadmium	0	0		0	3.817	4.17	4.61	Chem Translator of 0.916 applied
Total Chromium (III)	0	0		0	976.793	3,091	3,418	Chem Translator of 0.316 applied
Hexavalent Chromium	0	0		0	16	16.3	18.0	Chem Translator of 0.982 applied
Total Cobalt	0	0		0	95	95.0	105	
Total Copper	0	0		0	24.986	26.0	28.8	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	22	22.0	24.3	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	131.177	189	209	Chem Translator of 0.695 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	1.400	1.65	1.82	Chem Translator of 0.85 applied
Total Nickel	0	0		0	817.129	819	905	Chem Translator of 0.998 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	Chem Translator of 0.922 applied
Total Silver	0	0		0	9.979	11.7	13.0	Chem Translator of 0.85 applied
Total Thallium	0	0		0	65	65.0	71.9	
Total Zinc	0	0		0	204.669	209	231	Chem Translator of 0.978 applied
Acrolein	0	0		0	3	3.0	3.32	

Acrylonitrile	0	0		0	650	650	719	
Benzene	0	0		0	640	640	708	
Bromoform	0	0		0	1,800	1,800	1,991	
Carbon Tetrachloride	0	0		0	2,800	2,800	3,096	
Chlorobenzene	0	0		0	1,200	1,200	1,327	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	18,000	18,000	19,905	
Chloroform	0	0		0	1,900	1,900	2,101	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	15,000	15,000	16,588	
1,1-Dichloroethylene	0	0		0	7,500	7,500	8,294	
1,2-Dichloropropane	0	0		0	11,000	11,000	12,164	
1,3-Dichloropropylene	0	0		0	310	310	343	
Ethylbenzene	0	0		0	2,900	2,900	3,207	
Methyl Bromide	0	0		0	550	550	608	
Methyl Chloride	0	0		0	28,000	28,000	30,964	
Methylene Chloride	0	0		0	12,000	12,000	13,270	
1,1,2,2-Tetrachloroethane	0	0		0	1,000	1,000	1,106	
Tetrachloroethylene	0	0		0	700	700	774	
Toluene	0	0		0	1,700	1,700	1,880	
1,2-trans-Dichloroethylene	0	0		0	6,800	6,800	7,520	
1,1,1-Trichloroethane	0	0		0	3,000	3,000	3,318	
1,1,2-Trichloroethane	0	0		0	3,400	3,400	3,760	
Trichloroethylene	0	0		0	2,300	2,300	2,543	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	560	560	619	
2,4-Dichlorophenol	0	0		0	1,700	1,700	1,880	
2,4-Dimethylphenol	0	0		0	660	660	730	
4,6-Dinitro-o-Cresol	0	0		0	80	80.0	88.5	
2,4-Dinitrophenol	0	0		0	660	660	730	
2-Nitrophenol	0	0		0	8,000	8,000	8,847	
4-Nitrophenol	0	0		0	2,300	2,300	2,543	
p-Chloro-m-Cresol	0	0		0	160	160	177	
Pentachlorophenol	0	0		0	12.983	13.0	14.4	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	460	460	509	
Acenaphthene	0	0		0	83	83.0	91.8	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	300	300	332	
Benzo(a)Anthracene	0	0		0	0.5	0.5	0.55	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0		0	30,000	30,000	33,176	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	4,500	4,500	4,976	
4-Bromophenyl Phenyl Ether	0	0		0	270	270	299	
Butyl Benzyl Phthalate	0	0		0	140	140	155	

2-Chloronaphthalene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthrancene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	820	820	907	
1,3-Dichlorobenzene	0	0		0	350	350	387	
1,4-Dichlorobenzene	0	0		0	730	730	807	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	4,000	4,000	4,423	
Dimethyl Phthalate	0	0		0	2,500	2,500	2,765	
Di-n-Butyl Phthalate	0	0		0	110	110	122	
2,4-Dinitrotoluene	0	0		0	1,600	1,600	1,769	
2,6-Dinitrotoluene	0	0		0	990	990	1,095	
1,2-Diphenylhydrazine	0	0		0	15	15.0	16.6	
Fluoranthene	0	0		0	200	200	221	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		0	10	10.0	11.1	
Hexachlorocyclopentadiene	0	0		0	5	5.0	5.53	
Hexachloroethane	0	0		0	60	60.0	66.4	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	10,000	10,000	11,059	
Naphthalene	0	0		0	140	140	155	
Nitrobenzene	0	0		0	4,000	4,000	4,423	
n-Nitrosodimethylamine	0	0		0	17,000	17,000	18,799	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	300	300	332	
Phenanthrene	0	0		0	5	5.0	5.53	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	130	130	144	
Aldrin	0	0		0	3	3.0	3.32	
alpha-BHC	0	0		0	N/A	N/A	N/A	
beta-BHC	0	0		0	N/A	N/A	N/A	
gamma-BHC	0	0		0	0.95	0.95	1.05	
Chlordane	0	0		0	2.4	2.4	2.65	
4,4-DDT	0	0		0	1.1	1.1	1.22	
4,4-DDE	0	0		0	1.1	1.1	1.22	
4,4-DDD	0	0		0	1.1	1.1	1.22	
Dieldrin	0	0		0	0.24	0.24	0.27	
alpha-Endosulfan	0	0		0	0.22	0.22	0.24	
beta-Endosulfan	0	0		0	0.22	0.22	0.24	
Endosulfan Sulfate	0	0		0	N/A	N/A	N/A	
Endrin	0	0		0	0.086	0.086	0.095	
Endrin Aldehyde	0	0		0	N/A	N/A	N/A	
Heptachlor	0	0		0	0.52	0.52	0.58	
Heptachlor Epoxide	0	0		0	0.5	0.5	0.55	
Toxaphene	0	0		0	0.73	0.73	0.81	

☑ ***CFC*** CCT (min): 0.450 PMF: 1 Analysis Hardness (mg/l): 193.13 Analysis pH: 7.40

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 Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	220	220	243	
Total Arsenic	0	0		0	150	150	166	Chem Translator of 1 applied
Total Barium	0	0		0	4,100	4,100	4,534	
Total Boron	0	0		0	1,600	1,600	1,769	
Total Cadmium	0	0		0	0.388	0.44	0.49	Chem Translator of 0.881 applied
Total Chromium (III)	0	0		0	127.061	148	163	Chem Translator of 0.86 applied
Hexavalent Chromium	0	0		0	10	10.4	11.5	Chem Translator of 0.962 applied
Total Cobalt	0	0		0	19	19.0	21.0	
Total Copper	0	0		0	15.717	16.4	18.1	Chem Translator of 0.96 applied
Free Cyanide	0	0		0	5.2	5.2	5.75	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	1,500	1,500	1,659	WQC = 30 day average; PMF = 1
Total Lead	0	0		0	5.112	7.35	8.13	Chem Translator of 0.695 applied
Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	0.770	0.91	1.0	Chem Translator of 0.85 applied
Total Nickel	0	0		0	90.758	91.0	101	Chem Translator of 0.997 applied
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	4.600	4.99	5.52	Chem Translator of 0.922 applied
Total Silver	0	0		0	N/A	N/A	N/A	Chem Translator of 1 applied
Total Thallium	0	0		0	13	13.0	14.4	
Total Zinc	0	0		0	206.343	209	231	Chem Translator of 0.986 applied
Acrolein	0	0		0	3	3.0	3.32	
Acrylonitrile	0	0		0	130	130	144	
Benzene	0	0		0	130	130	144	
Bromoform	0	0		0	370	370	409	
Carbon Tetrachloride	0	0		0	560	560	619	
Chlorobenzene	0	0		0	240	240	265	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	3,500	3,500	3,870	
Chloroform	0	0		0	390	390	431	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	3,100	3,100	3,428	
1,1-Dichloroethylene	0	0		0	1,500	1,500	1,659	
1,2-Dichloropropane	0	0		0	2,200	2,200	2,433	
1,3-Dichloropropylene	0	0		0	61	61.0	67.5	
Ethylbenzene	0	0		0	580	580	641	
Methyl Bromide	0	0		0	110	110	122	
Methyl Chloride	0	0		0	5,500	5,500	6,082	

Methylene Chloride	0	0		0	2,400	2,400	2,654	
1,1,2,2-Tetrachloroethane	0	0		0	210	210	232	
Tetrachloroethylene	0	0		0	140	140	155	
Toluene	0	0		0	330	330	365	
1,2-trans-Dichloroethylene	0	0		0	1,400	1,400	1,548	
1,1,1-Trichloroethane	0	0		0	610	610	675	
1,1,2-Trichloroethane	0	0		0	680	680	752	
Trichloroethylene	0	0		0	450	450	498	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	110	110	122	
2,4-Dichlorophenol	0	0		0	340	340	376	
2,4-Dimethylphenol	0	0		0	130	130	144	
4,6-Dinitro-o-Cresol	0	0		0	16	16.0	17.7	
2,4-Dinitrophenol	0	0		0	130	130	144	
2-Nitrophenol	0	0		0	1,600	1,600	1,769	
4-Nitrophenol	0	0		0	470	470	520	
p-Chloro-m-Cresol	0	0		0	500	500	553	
Pentachlorophenol	0	0		0	9.960	9.96	11.0	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	91	91.0	101	
Acenaphthene	0	0		0	17	17.0	18.8	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	59	59.0	65.2	
Benzo(a)Anthracene	0	0		0	0.1	0.1	0.11	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0		0	6,000	6,000	6,635	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	910	910	1,006	
4-Bromophenyl Phenyl Ether	0	0		0	54	54.0	59.7	
Butyl Benzyl Phthalate	0	0		0	35	35.0	38.7	
2-Chloronaphthalene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthrancene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	160	160	177	
1,3-Dichlorobenzene	0	0		0	69	69.0	76.3	
1,4-Dichlorobenzene	0	0		0	150	150	166	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	800	800	885	
Dimethyl Phthalate	0	0		0	500	500	553	
Di-n-Butyl Phthalate	0	0		0	21	21.0	23.2	
2,4-Dinitrotoluene	0	0		0	320	320	354	
2,6-Dinitrotoluene	0	0		0	200	200	221	
1,2-Diphenylhydrazine	0	0		0	3	3.0	3.32	

Fluoranthene	0	0		0	40	40.0	44.2	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		0	2	2.0	2.21	
Hexachlorocyclopentadiene	0	0		0	1	1.0	1.11	
Hexachloroethane	0	0		0	12	12.0	13.3	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	2,100	2,100	2,322	
Naphthalene	0	0		0	43	43.0	47.6	
Nitrobenzene	0	0		0	810	810	896	
n-Nitrosodimethylamine	0	0		0	3,400	3,400	3,760	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	59	59.0	65.2	
Phenanthrene	0	0		0	1	1.0	1.11	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	26	26.0	28.8	
Aldrin	0	0		0	0.1	0.1	0.11	
alpha-BHC	0	0		0	N/A	N/A	N/A	
beta-BHC	0	0		0	N/A	N/A	N/A	
gamma-BHC	0	0		0	N/A	N/A	N/A	
Chlordane	0	0		0	0.0043	0.004	0.005	
4,4-DDT	0	0		0	0.001	0.001	0.001	
4,4-DDE	0	0		0	0.001	0.001	0.001	
4,4-DDD	0	0		0	0.001	0.001	0.001	
Dieldrin	0	0		0	0.056	0.056	0.062	
alpha-Endosulfan	0	0		0	0.056	0.056	0.062	
beta-Endosulfan	0	0		0	0.056	0.056	0.062	
Endosulfan Sulfate	0	0		0	N/A	N/A	N/A	
Endrin	0	0		0	0.036	0.036	0.04	
Endrin Aldehyde	0	0		0	N/A	N/A	N/A	
Heptachlor	0	0		0	0.0038	0.004	0.004	
Heptachlor Epoxide	0	0		0	0.0038	0.004	0.004	
Toxaphene	0	0		0	0.0002	0.0002	0.0002	

☑ ***THH*** CCT (min): 0.450 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 Dissolved Solids (PWS)	0	0		0	500,000	500,000	N/A	
Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Sulfate (PWS)	0	0		0	250,000	250,000	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	5.6	5.6	6.19	
Total Arsenic	0	0		0	10	10.0	11.1	
Total Barium	0	0		0	2,400	2,400	2,654	

Total Boron	0	0		0	3,100	3,100	3,428	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Free Cyanide	0	0		0	4	4.0	4.42	
Dissolved Iron	0	0		0	300	300	332	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	
Total Manganese	0	0		0	1,000	1,000	1,106	
Total Mercury	0	0		0	0.050	0.05	0.055	
Total Nickel	0	0		0	610	610	675	
Total Phenols (Phenolics) (PWS)	0	0		0	5	5.0	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	0.24	0.24	0.27	
Total Zinc	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	3	3.0	3.32	
Acrylonitrile	0	0		0	N/A	N/A	N/A	
Benzene	0	0		0	N/A	N/A	N/A	
Bromoform	0	0		0	N/A	N/A	N/A	
Carbon Tetrachloride	0	0		0	N/A	N/A	N/A	
Chlorobenzene	0	0		0	100	100.0	111	
Chlorodibromomethane	0	0		0	N/A	N/A	N/A	
2-Chloroethyl Vinyl Ether	0	0		0	N/A	N/A	N/A	
Chloroform	0	0		0	5.7	5.7	6.3	
Dichlorobromomethane	0	0		0	N/A	N/A	N/A	
1,2-Dichloroethane	0	0		0	N/A	N/A	N/A	
1,1-Dichloroethylene	0	0		0	33	33.0	36.5	
1,2-Dichloropropane	0	0		0	N/A	N/A	N/A	
1,3-Dichloropropylene	0	0		0	N/A	N/A	N/A	
Ethylbenzene	0	0		0	68	68.0	75.2	
Methyl Bromide	0	0		0	100	100.0	111	
Methyl Chloride	0	0		0	N/A	N/A	N/A	
Methylene Chloride	0	0		0	N/A	N/A	N/A	
1,1,2,2-Tetrachloroethane	0	0		0	N/A	N/A	N/A	
Tetrachloroethylene	0	0		0	N/A	N/A	N/A	
Toluene	0	0		0	57	57.0	63.0	
1,2-trans-Dichloroethylene	0	0		0	100	100.0	111	
1,1,1-Trichloroethane	0	0		0	10,000	10,000	11,059	
1,1,2-Trichloroethane	0	0		0	N/A	N/A	N/A	
Trichloroethylene	0	0		0	N/A	N/A	N/A	
Vinyl Chloride	0	0		0	N/A	N/A	N/A	
2-Chlorophenol	0	0		0	30	30.0	33.2	

2,4-Dichlorophenol	0	0		0	10	10.0	11.1	
2,4-Dimethylphenol	0	0		0	100	100.0	111	
4,6-Dinitro-o-Cresol	0	0		0	2	2.0	2.21	
2,4-Dinitrophenol	0	0		0	10	10.0	11.1	
2-Nitrophenol	0	0		0	N/A	N/A	N/A	
4-Nitrophenol	0	0		0	N/A	N/A	N/A	
p-Chloro-m-Cresol	0	0		0	N/A	N/A	N/A	
Pentachlorophenol	0	0		0	N/A	N/A	N/A	
Phenol	0	0		0	4,000	4,000	4,423	
2,4,6-Trichlorophenol	0	0		0	N/A	N/A	N/A	
Acenaphthene	0	0		0	70	70.0	77.4	
Anthracene	0	0		0	300	300	332	
Benzidine	0	0		0	N/A	N/A	N/A	
Benzo(a)Anthracene	0	0		0	N/A	N/A	N/A	
Benzo(a)Pyrene	0	0		0	N/A	N/A	N/A	
3,4-Benzofluoranthene	0	0		0	N/A	N/A	N/A	
Benzo(k)Fluoranthene	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroethyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Chloroisopropyl)Ether	0	0		0	200	200	221	
Bis(2-Ethylhexyl)Phthalate	0	0		0	N/A	N/A	N/A	
4-Bromophenyl Phenyl Ether	0	0		0	N/A	N/A	N/A	
Butyl Benzyl Phthalate	0	0		0	0.1	0.1	0.11	
2-Chloronaphthalene	0	0		0	800	800	885	
Chrysene	0	0		0	N/A	N/A	N/A	
Dibenzo(a,h)Anthrancene	0	0		0	N/A	N/A	N/A	
1,2-Dichlorobenzene	0	0		0	1,000	1,000	1,106	
1,3-Dichlorobenzene	0	0		0	7	7.0	7.74	
1,4-Dichlorobenzene	0	0		0	300	300	332	
3,3-Dichlorobenzidine	0	0		0	N/A	N/A	N/A	
Diethyl Phthalate	0	0		0	600	600	664	
Dimethyl Phthalate	0	0		0	2,000	2,000	2,212	
Di-n-Butyl Phthalate	0	0		0	20	20.0	22.1	
2,4-Dinitrotoluene	0	0		0	N/A	N/A	N/A	
2,6-Dinitrotoluene	0	0		0	N/A	N/A	N/A	
1,2-Diphenylhydrazine	0	0		0	N/A	N/A	N/A	
Fluoranthene	0	0		0	20	20.0	22.1	
Fluorene	0	0		0	50	50.0	55.3	
Hexachlorobenzene	0	0		0	N/A	N/A	N/A	
Hexachlorobutadiene	0	0		0	N/A	N/A	N/A	
Hexachlorocyclopentadiene	0	0		0	4	4.0	4.42	
Hexachloroethane	0	0		0	N/A	N/A	N/A	
Indeno(1,2,3-cd)Pyrene	0	0		0	N/A	N/A	N/A	
Isophorone	0	0		0	34	34.0	37.6	
Naphthalene	0	0		0	N/A	N/A	N/A	
Nitrobenzene	0	0		0	10	10.0	11.1	

n-Nitrosodimethylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodi-n-Propylamine	0	0		0	N/A	N/A	N/A	
n-Nitrosodiphenylamine	0	0		0	N/A	N/A	N/A	
Phenanthrene	0	0		0	N/A	N/A	N/A	
Pyrene	0	0		0	20	20.0	22.1	
1,2,4-Trichlorobenzene	0	0		0	0.07	0.07	0.077	
Aldrin	0	0		0	N/A	N/A	N/A	
alpha-BHC	0	0		0	N/A	N/A	N/A	
beta-BHC	0	0		0	N/A	N/A	N/A	
gamma-BHC	0	0		0	4.2	4.2	4.64	
Chlordane	0	0		0	N/A	N/A	N/A	
4,4-DDT	0	0		0	N/A	N/A	N/A	
4,4-DDE	0	0		0	N/A	N/A	N/A	
4,4-DDD	0	0		0	N/A	N/A	N/A	
Dieldrin	0	0		0	N/A	N/A	N/A	
alpha-Endosulfan	0	0		0	20	20.0	22.1	
beta-Endosulfan	0	0		0	20	20.0	22.1	
Endosulfan Sulfate	0	0		0	20	20.0	22.1	
Endrin	0	0		0	0.03	0.03	0.033	
Endrin Aldehyde	0	0		0	1	1.0	1.11	
Heptachlor	0	0		0	N/A	N/A	N/A	
Heptachlor Epoxide	0	0		0	N/A	N/A	N/A	
Toxaphene	0	0		0	N/A	N/A	N/A	

☑ ***CRL*** CCT (min): 6.748 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 Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Total Aluminum	0	0		0	N/A	N/A	N/A	
Total Antimony	0	0		0	N/A	N/A	N/A	
Total Arsenic	0	0		0	N/A	N/A	N/A	
Total Barium	0	0		0	N/A	N/A	N/A	
Total Boron	0	0		0	N/A	N/A	N/A	
Total Cadmium	0	0		0	N/A	N/A	N/A	
Total Chromium (III)	0	0		0	N/A	N/A	N/A	
Hexavalent Chromium	0	0		0	N/A	N/A	N/A	
Total Cobalt	0	0		0	N/A	N/A	N/A	
Total Copper	0	0		0	N/A	N/A	N/A	
Free Cyanide	0	0		0	N/A	N/A	N/A	
Dissolved Iron	0	0		0	N/A	N/A	N/A	
Total Iron	0	0		0	N/A	N/A	N/A	
Total Lead	0	0		0	N/A	N/A	N/A	

Total Manganese	0	0		0	N/A	N/A	N/A	
Total Mercury	0	0		0	N/A	N/A	N/A	
Total Nickel	0	0		0	N/A	N/A	N/A	
Total Phenols (Phenolics) (PWS)	0	0		0	N/A	N/A	N/A	
Total Selenium	0	0		0	N/A	N/A	N/A	
Total Silver	0	0		0	N/A	N/A	N/A	
Total Thallium	0	0		0	N/A	N/A	N/A	
Total Zinc	0	0		0	N/A	N/A	N/A	
Acrolein	0	0		0	N/A	N/A	N/A	
Acrylonitrile	0	0		0	0.06	0.06	0.11	
Benzene	0	0		0	0.58	0.58	1.02	
Bromoform	0	0		0	7	7.0	12.3	
Carbon Tetrachloride	0	0		0	0.4	0.4	0.7	
Chlorobenzene	0	0		0	N/A	N/A	N/A	
Chlorodibromomethane	0	0		0	0.8	0.8	1.41	
2-Chloroethyl Vinyl Ether	0	0		0	N/A	N/A	N/A	
Chloroform	0	0		0	N/A	N/A	N/A	
Dichlorobromomethane	0	0		0	0.95	0.95	1.67	
1,2-Dichloroethane	0	0		0	9.9	9.9	17.4	
1,1-Dichloroethylene	0	0		0	N/A	N/A	N/A	
1,2-Dichloropropane	0	0		0	0.9	0.9	1.58	
1,3-Dichloropropylene	0	0		0	0.27	0.27	0.48	
Ethylbenzene	0	0		0	N/A	N/A	N/A	
Methyl Bromide	0	0		0	N/A	N/A	N/A	
Methyl Chloride	0	0		0	N/A	N/A	N/A	
Methylene Chloride	0	0		0	20	20.0	35.2	
1,1,2,2-Tetrachloroethane	0	0		0	0.2	0.2	0.35	
Tetrachloroethylene	0	0		0	10	10.0	17.6	
Toluene	0	0		0	N/A	N/A	N/A	
1,2-trans-Dichloroethylene	0	0		0	N/A	N/A	N/A	
1,1,1-Trichloroethane	0	0		0	N/A	N/A	N/A	
1,1,2-Trichloroethane	0	0		0	0.55	0.55	0.97	
Trichloroethylene	0	0		0	0.6	0.6	1.06	
Vinyl Chloride	0	0		0	0.02	0.02	0.035	
2-Chlorophenol	0	0		0	N/A	N/A	N/A	
2,4-Dichlorophenol	0	0		0	N/A	N/A	N/A	
2,4-Dimethylphenol	0	0		0	N/A	N/A	N/A	
4,6-Dinitro-o-Cresol	0	0		0	N/A	N/A	N/A	
2,4-Dinitrophenol	0	0		0	N/A	N/A	N/A	
2-Nitrophenol	0	0		0	N/A	N/A	N/A	
4-Nitrophenol	0	0		0	N/A	N/A	N/A	
p-Chloro-m-Cresol	0	0		0	N/A	N/A	N/A	
Pentachlorophenol	0	0		0	0.030	0.03	0.053	
Phenol	0	0		0	N/A	N/A	N/A	
2,4,6-Trichlorophenol	0	0		0	1.5	1.5	2.64	

Acenaphthene	0	0		0	N/A	N/A	N/A	
Anthracene	0	0		0	N/A	N/A	N/A	
Benzidine	0	0		0	0.0001	0.0001	0.0002	
Benzo(a)Anthracene	0	0		0	0.001	0.001	0.002	
Benzo(a)Pyrene	0	0		0	0.0001	0.0001	0.0002	
3,4-Benzofluoranthene	0	0		0	0.001	0.001	0.002	
Benzo(k)Fluoranthene	0	0		0	0.01	0.01	0.018	
Bis(2-Chloroethyl)Ether	0	0		0	0.03	0.03	0.053	
Bis(2-Chloroisopropyl)Ether	0	0		0	N/A	N/A	N/A	
Bis(2-Ethylhexyl)Phthalate	0	0		0	0.32	0.32	0.56	
4-Bromophenyl Phenyl Ether	0	0		0	N/A	N/A	N/A	
Butyl Benzyl Phthalate	0	0		0	N/A	N/A	N/A	
2-Chloronaphthalene	0	0		0	N/A	N/A	N/A	
Chrysene	0	0		0	0.12	0.12	0.21	
Dibenzo(a,h)Anthrancene	0	0		0	0.0001	0.0001	0.0002	
1,2-Dichlorobenzene	0	0		0	N/A	N/A	N/A	
1,3-Dichlorobenzene	0	0		0	N/A	N/A	N/A	
1,4-Dichlorobenzene	0	0		0	N/A	N/A	N/A	
3,3-Dichlorobenzidine	0	0		0	0.05	0.05	0.088	
Diethyl Phthalate	0	0		0	N/A	N/A	N/A	
Dimethyl Phthalate	0	0		0	N/A	N/A	N/A	
Di-n-Butyl Phthalate	0	0		0	N/A	N/A	N/A	
2,4-Dinitrotoluene	0	0		0	0.05	0.05	0.088	
2,6-Dinitrotoluene	0	0		0	0.05	0.05	0.088	
1,2-Diphenylhydrazine	0	0		0	0.03	0.03	0.053	
Fluoranthene	0	0		0	N/A	N/A	N/A	
Fluorene	0	0		0	N/A	N/A	N/A	
Hexachlorobenzene	0	0		0	0.00008	0.00008	0.0001	
Hexachlorobutadiene	0	0		0	0.01	0.01	0.018	
Hexachlorocyclopentadiene	0	0		0	N/A	N/A	N/A	
Hexachloroethane	0	0		0	0.1	0.1	0.18	
Indeno(1,2,3-cd)Pyrene	0	0		0	0.001	0.001	0.002	
Isophorone	0	0		0	N/A	N/A	N/A	
Naphthalene	0	0		0	N/A	N/A	N/A	
Nitrobenzene	0	0		0	N/A	N/A	N/A	
n-Nitrosodimethylamine	0	0		0	0.0007	0.0007	0.001	
n-Nitrosodi-n-Propylamine	0	0		0	0.005	0.005	0.009	
n-Nitrosodiphenylamine	0	0		0	3.3	3.3	5.81	
Phenanthrene	0	0		0	N/A	N/A	N/A	
Pyrene	0	0		0	N/A	N/A	N/A	
1,2,4-Trichlorobenzene	0	0		0	N/A	N/A	N/A	
Aldrin	0	0		0	0.0000008	8.00E-07	0.000001	
alpha-BHC	0	0		0	0.0004	0.0004	0.0007	
beta-BHC	0	0		0	0.008	0.008	0.014	
gamma-BHC	0	0		0	N/A	N/A	N/A	

Chlordane	0	0		0	0.0003	0.0003	0.0005	
4,4-DDT	0	0		0	0.00003	0.00003	0.00005	
4,4-DDE	0	0		0	0.00002	0.00002	0.00004	
4,4-DDD	0	0		0	0.0001	0.0001	0.0002	
Dieldrin	0	0		0	0.000001	0.000001	0.000002	
alpha-Endosulfan	0	0		0	N/A	N/A	N/A	
beta-Endosulfan	0	0		0	N/A	N/A	N/A	
Endosulfan Sulfate	0	0		0	N/A	N/A	N/A	
Endrin	0	0		0	N/A	N/A	N/A	
Endrin Aldehyde	0	0		0	N/A	N/A	N/A	
Heptachlor	0	0		0	0.000006	0.000006	0.00001	
Heptachlor Epoxide	0	0		0	0.00003	0.00003	0.00005	
Toxaphene	0	0		0	0.0007	0.0007	0.001	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Total Copper	Report	Report	Report	Report	Report	mg/L	0.018	CFC	Discharge Conc > 10% WQBEL (no RP)
Free Cyanide	0.3	0.55	4.42	8.17	11.1	µg/L	4.42	THH	Discharge Conc ≥ 50% WQBEL (RP)
Dissolved Iron	Report	Report	Report	Report	Report	µg/L	332	THH	Discharge Conc > 10% WQBEL (no RP)
Total Zinc	Report	Report	Report	Report	Report	mg/L	0.21	AFC	Discharge Conc > 10% WQBEL (no RP)

☑ ***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 Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Total Aluminum	750	µg/L	Discharge Conc ≤ 10% WQBEL
Total Antimony	N/A	N/A	Discharge Conc < TQL
Total Arsenic	N/A	N/A	Discharge Conc < TQL
Total Barium	2,654	µg/L	Discharge Conc ≤ 10% WQBEL
Total Beryllium	N/A	N/A	No WQS
Total Boron	1,769	µg/L	Discharge Conc ≤ 10% WQBEL
Total Cadmium	0.49	µg/L	Discharge Conc < TQL
Total Chromium (III)	163	µg/L	Discharge Conc ≤ 10% WQBEL
Hexavalent Chromium	11.5	µg/L	Discharge Conc < TQL
Total Cobalt	21.0	µg/L	Discharge Conc < TQL
Total Cyanide	N/A	N/A	No WQS
Total Iron	1,659	µg/L	Discharge Conc ≤ 10% WQBEL
Total Lead	8.13	µg/L	Discharge Conc < TQL
Total Manganese	1,106	µg/L	Discharge Conc ≤ 10% WQBEL
Total Mercury	0.055	µg/L	Discharge Conc ≤ 10% WQBEL
Total Nickel	101	µg/L	Discharge Conc < TQL
Total Phenols (Phenolics) (PWS)		µg/L	PWS Not Applicable
Total Selenium	5.52	µg/L	Discharge Conc < TQL
Total Silver	11.7	µg/L	Discharge Conc < TQL
Total Thallium	0.27	µg/L	Discharge Conc < TQL
Total Molybdenum	N/A	N/A	No WQS
Acrolein	3.0	µg/L	Discharge Conc < TQL
Acrylonitrile	0.11	µg/L	Discharge Conc < TQL
Benzene	1.02	µg/L	Discharge Conc < TQL
Bromoform	12.3	µg/L	Discharge Conc ≤ 25% WQBEL
Carbon Tetrachloride	0.7	µg/L	Discharge Conc < TQL
Chlorobenzene	111	µg/L	Discharge Conc < TQL
Chlorodibromomethane	1.41	µg/L	Discharge Conc < TQL
Chloroethane	N/A	N/A	No WQS
2-Chloroethyl Vinyl Ether	3,870	µg/L	Discharge Conc < TQL
Chloroform	6.3	µg/L	Discharge Conc < TQL
Dichlorobromomethane	1.67	µg/L	Discharge Conc < TQL
1,1-Dichloroethane	N/A	N/A	No WQS
1,2-Dichloroethane	17.4	µg/L	Discharge Conc < TQL
1,1-Dichloroethylene	36.5	µg/L	Discharge Conc ≤ 25% WQBEL
1,2-Dichloropropane	1.58	µg/L	Discharge Conc < TQL
1,3-Dichloropropylene	0.48	µg/L	Discharge Conc < TQL

1,4-Dioxane	N/A	N/A	No WQS
Ethylbenzene	75.2	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Bromide	111	µg/L	Discharge Conc ≤ 25% WQBEL
Methyl Chloride	6,082	µg/L	Discharge Conc ≤ 25% WQBEL
Methylene Chloride	35.2	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,2,2-Tetrachloroethane	0.35	µg/L	Discharge Conc < TQL
Tetrachloroethylene	17.6	µg/L	Discharge Conc ≤ 25% WQBEL
Toluene	63.0	µg/L	Discharge Conc ≤ 25% WQBEL
1,2-trans-Dichloroethylene	111	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,1-Trichloroethane	675	µg/L	Discharge Conc ≤ 25% WQBEL
1,1,2-Trichloroethane	0.97	µg/L	Discharge Conc < TQL
Trichloroethylene	1.06	µg/L	Discharge Conc < TQL
Vinyl Chloride	0.035	µg/L	Discharge Conc < TQL
2-Chlorophenol	33.2	µg/L	Discharge Conc < TQL
2,4-Dichlorophenol	11.1	µg/L	Discharge Conc < TQL
2,4-Dimethylphenol	111	µg/L	Discharge Conc < TQL
4,6-Dinitro-o-Cresol	2.21	µg/L	Discharge Conc < TQL
2,4-Dinitrophenol	11.1	µg/L	Discharge Conc < TQL
2-Nitrophenol	1,769	µg/L	Discharge Conc < TQL
4-Nitrophenol	520	µg/L	Discharge Conc < TQL
p-Chloro-m-Cresol	160	µg/L	Discharge Conc < TQL
Pentachlorophenol	0.053	µg/L	Discharge Conc < TQL
Phenol	4,423	µg/L	Discharge Conc < TQL
2,4,6-Trichlorophenol	2.64	µg/L	Discharge Conc < TQL
Acenaphthene	18.8	µg/L	Discharge Conc < TQL
Acenaphthylene	N/A	N/A	No WQS
Anthracene	332	µg/L	Discharge Conc < TQL
Benzidine	0.0002	µg/L	Discharge Conc < TQL
Benzo(a)Anthracene	0.002	µg/L	Discharge Conc < TQL
Benzo(a)Pyrene	0.0002	µg/L	Discharge Conc < TQL
3,4-Benzofluoranthene	0.002	µg/L	Discharge Conc < TQL
Benzo(ghi)Perylene	N/A	N/A	No WQS
Benzo(k)Fluoranthene	0.018	µg/L	Discharge Conc < TQL
Bis(2-Chloroethoxy)Methane	N/A	N/A	No WQS
Bis(2-Chloroethyl)Ether	0.053	µg/L	Discharge Conc < TQL
Bis(2-Chloroisopropyl)Ether	221	µg/L	Discharge Conc < TQL
Bis(2-Ethylhexyl)Phthalate	0.56	µg/L	Discharge Conc < TQL
4-Bromophenyl Phenyl Ether	59.7	µg/L	Discharge Conc < TQL
Butyl Benzyl Phthalate	0.11	µg/L	Discharge Conc < TQL
2-Chloronaphthalene	885	µg/L	Discharge Conc < TQL
4-Chlorophenyl Phenyl Ether	N/A	N/A	No WQS
Chrysene	0.21	µg/L	Discharge Conc < TQL
Dibenzo(a,h)Anthrancene	0.0002	µg/L	Discharge Conc < TQL
1,2-Dichlorobenzene	177	µg/L	Discharge Conc ≤ 25% WQBEL
1,3-Dichlorobenzene	7.74	µg/L	Discharge Conc ≤ 25% WQBEL

1,4-Dichlorobenzene	166	µg/L	Discharge Conc ≤ 25% WQBEL
3,3-Dichlorobenzidine	0.088	µg/L	Discharge Conc < TQL
Diethyl Phthalate	664	µg/L	Discharge Conc < TQL
Dimethyl Phthalate	553	µg/L	Discharge Conc < TQL
Di-n-Butyl Phthalate	22.1	µg/L	Discharge Conc < TQL
2,4-Dinitrotoluene	0.088	µg/L	Discharge Conc < TQL
2,6-Dinitrotoluene	0.088	µg/L	Discharge Conc < TQL
Di-n-Octyl Phthalate	N/A	N/A	No WQS
1,2-Diphenylhydrazine	0.053	µg/L	Discharge Conc < TQL
Fluoranthene	22.1	µg/L	Discharge Conc < TQL
Fluorene	55.3	µg/L	Discharge Conc < TQL
Hexachlorobenzene	0.0001	µg/L	Discharge Conc < TQL
Hexachlorobutadiene	0.018	µg/L	Discharge Conc < TQL
Hexachlorocyclopentadiene	1.11	µg/L	Discharge Conc < TQL
Hexachloroethane	0.18	µg/L	Discharge Conc < TQL
Indeno(1,2,3-cd)Pyrene	0.002	µg/L	Discharge Conc < TQL
Isophorone	37.6	µg/L	Discharge Conc < TQL
Naphthalene	47.6	µg/L	Discharge Conc ≤ 25% WQBEL
Nitrobenzene	11.1	µg/L	Discharge Conc < TQL
n-Nitrosodimethylamine	0.001	µg/L	Discharge Conc < TQL
n-Nitrosodi-n-Propylamine	0.009	µg/L	Discharge Conc < TQL
n-Nitrosodiphenylamine	5.81	µg/L	Discharge Conc < TQL
Phenanthrene	1.11	µg/L	Discharge Conc < TQL
Pyrene	22.1	µg/L	Discharge Conc < TQL
1,2,4-Trichlorobenzene	0.077	µg/L	Discharge Conc < TQL
Aldrin	0.000001	µg/L	Discharge Conc < TQL
alpha-BHC	0.0007	µg/L	Discharge Conc < TQL
beta-BHC	0.014	µg/L	Discharge Conc < TQL
gamma-BHC	0.95	µg/L	Discharge Conc < TQL
delta BHC	N/A	N/A	No WQS
Chlordane	0.0005	µg/L	Discharge Conc < TQL
4,4-DDT	0.00005	µg/L	Discharge Conc < TQL
4,4-DDE	0.00004	µg/L	Discharge Conc < TQL
4,4-DDD	0.0002	µg/L	Discharge Conc < TQL
Dieldrin	0.000002	µg/L	Discharge Conc < TQL
alpha-Endosulfan	0.062	µg/L	Discharge Conc < TQL
beta-Endosulfan	0.062	µg/L	Discharge Conc < TQL
Endosulfan Sulfate	22.1	µg/L	Discharge Conc < TQL
Endrin	0.033	µg/L	Discharge Conc < TQL
Endrin Aldehyde	1.11	µg/L	Discharge Conc < TQL
Heptachlor	0.00001	µg/L	Discharge Conc < TQL
Heptachlor Epoxide	0.00005	µg/L	Discharge Conc < TQL
Toxaphene	0.0002	µg/L	Discharge Conc < TQL

Baar, Aaron

From: Laurel Oswalt <laoswalt@dovertownship.org>
Sent: Thursday, April 11, 2024 12:03 PM
To: Bebenek, Maria
Cc: Shirk, David; Christian Jordan; Michael Fleming; Chris Hamme; Chase Billet; Ryan Gentzler; Baar, Aaron
Subject: RE: [External] Dover STP (Dover Township, York County, 6708410 A-1)

Ms. Bebenek,

I apologize for the delay in our reply. We were able to meet with staff and our consultant and develop the following schedule.

Complete Project Design..... 8/30/2024
Submit WQM Permitting..... 9/30/2024
Bid Project (Dates for bidding and construction are contingent on obtaining WQM Permit by this date).... 4/30/2025
Begin Construction..... 6/1/2025
Complete Construction..... 2/28/2026

Please advise us if you require anything else. Thank you.

Laurel A. Oswalt, CPM
Township Manager

Phone: 717-292-3634
Email: laoswalt@dovertownship.org

Municipal Office
2480 West Canal Rd
Dover PA 17315-3202
Directions

www.DoverTownship.org

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From: Bebenek, Maria <mbebenek@pa.gov>
Sent: Monday, April 8, 2024 1:44 PM
To: Laurel Oswalt <laoswalt@dovertownship.org>
Cc: Shirk, David <DShirk@bucharthorn.com>; cjordan@dovertownship.org; mfleming@dovertownship.org; Chris Hamme <chamme@dovertownship.org>; Chase Billet <cbillet@dovertownship.org>; Ryan Gentzler <rgentzler@dovertownship.org>; Baar, Aaron <abaar@pa.gov>
Subject: RE: [External] Dover STP (Dover Township, York County, 6708410 A-1)

Good afternoon
Thanks for your patience.

After a discussion this afternoon, we believe we have enough information to proceed with the WQM permit documenting the work that has been done at the plant to date. We should be able to finalize it in the next few weeks.

Aaron will be preparing a draft NPDES permit in the next few weeks as well. We will base our analysis of effluent limits on the data we currently have available with certain assumptions because of the sampling location.

We would like you to provide us with a schedule for moving the sampling and metering location. We may include a schedule in the NPDES permit.

The inspection report from 8/30/23 was mailed, you should receive it shortly. Sorry for the delay

Please feel free to contact me if you have any further questions or concerns.

Maria D. Bebenek, P.E. | Program Manager
Department of Environmental Protection | Clean Water Program
Southcentral Regional Office
909 Elmerton Avenue| Harrisburg, PA 17110
Phone: 717.705.4795 | Fax: 717.705.4760
www.dep.pa.gov

From: Laurel Oswalt <laoswalt@dovertownship.org>
Sent: Thursday, March 21, 2024 11:01 AM
To: Bebenek, Maria <mbebenek@pa.gov>
Cc: Shirk, David <DShirk@bucharthorn.com>; cjordan@dovertownship.org; mfleming@dovertownship.org; Chris Hamme <chamme@dovertownship.org>; Chase Billet <cbillet@dovertownship.org>; Ryan Gentzler <rgentzler@dovertownship.org>
Subject: [External] Dover STP (Dover Township, York County, 6708410 A-1)

Ms. Bebenek,

I am writing to inquire about the status of the following approvals for the Dover Township STP:

1. The WQM Permit. This would likely be referenced by the NPDES Permit No. PA0020826. The DEP system notes that the anticipated date for completion of this permit's review was 2/12/2024. To date, we have not received any technical review comments nor an approval.
2. The new NPDES Permit Application. The plant's NPDES Permit No. PA0020826.
3. PADEP WWTP Inspection Report and Comments from the 8/30/2024 Inspection.

We would like to move forward with final design and permitting for changes to the WWTP's influent flow sampling and flow metering. As you know this will improve the accuracy of both the samples and the flow metering, as well as bring them into compliance with PADEP Guidelines and Requirements.

I thank you for any incite you can provide Dover Township with the status of these matters.

Laurel A. Oswalt, CPM
Township Manager

Phone: 717-292-3634
Email: laoswalt@dovertownship.org

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2480 West Canal Rd
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DEP Whole Effluent Toxicity (WET) Analysis Spreadsheet

Type of Test	Chronic
Species Tested	Ceriodaphnia
Endpoint	Survival
TIWC (decimal)	0.93
No. Per Replicate	1
TST b value	0.75
TST alpha value	0.2

Facility Name: Dover Township WWTP

Permit No.: PA0020826

Test Completion Date: 8/26/2024

Replicate No.	Control	TIWC
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	1
11		
12		
13		
14		
15		
Mean	1.000	1.000
Std Dev.	0.000	0.000
# Replicates	10	10
T-Test Result		
Deg. of Freedom		
Critical T Value		
Pass or Fail	**PASS**	

Test Completion Date: 9/30/2024

Replicate No.	Control	TIWC
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	1
11		
12		
13		
14		
15		
Mean	1.000	1.000
Std Dev.	0.000	0.000
# Replicates	10	10
T-Test Result		
Deg. of Freedom		
Critical T Value		
Pass or Fail	**PASS**	

Test Completion Date: 11/11/2024

Replicate No.	Control	TIWC
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	1
11		
12		
13		
14		
15		
Mean	1.000	1.000
Std Dev.	0.000	0.000
# Replicates	10	10
T-Test Result		
Deg. of Freedom		
Critical T Value		
Pass or Fail	**PASS**	

Test Completion Date: 2/18/2025

Replicate No.	Control	TIWC
1	1	1
2	1	1
3	1	0
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	1
11		
12		
13		
14		
15		
Mean	1.000	0.900
Std Dev.	0.000	0.316
# Replicates	10	10
T-Test Result	1.5000	
Deg. of Freedom	9	
Critical T Value	0.8834	
Pass or Fail	**PASS**	

DEP Whole Effluent Toxicity (WET) Analysis Spreadsheet

Type of Test	Chronic
Species Tested	Ceriodaphnia
Endpoint	Reproduction
TIWC (decimal)	0.93
No. Per Replicate	1
TST b value	0.75
TST alpha value	0.2

Facility Name: Dover Township WWTP

Permit No.: PA0020826

Test Completion Date: 8/26/2024

Replicate No.	Control	TIWC
1	28	17
2	44	26
3	43	28
4	51	37
5	45	35
6	43	18
7	35	18
8	44	31
9	44	24
10	45	34
11		
12		
13		
14		
15		
Mean	42.200	26.800
Std Dev.	6.303	7.465
# Replicates	10	10

T-Test Result	-1.7357
Deg. of Freedom	15
Critical T Value	0.8662
Pass or Fail	**FAIL**

Test Completion Date: 9/30/2024

Replicate No.	Control	TIWC
1	48	4
2	44	9
3	31	3
4	46	6
5	39	0
6	46	0
7	48	1
8	38	8
9	43	9
10	35	8
11		
12		
13		
14		
15		
Mean	41.800	4.800
Std Dev.	5.808	3.676
# Replicates	10	10

T-Test Result	-14.7304
Deg. of Freedom	17
Critical T Value	0.8633
Pass or Fail	**FAIL**

Test Completion Date: 11/11/2024

Replicate No.	Control	TIWC
1	41	39
2	48	51
3	47	47
4	45	
5	51	47
6	47	40
7	37	41
8	47	41
9	42	42
10	44	34
11		
12		
13		
14		
15		
Mean	44.900	42.444
Std Dev.	4.040	5.102
# Replicates	10	9

T-Test Result	4.4927
Deg. of Freedom	13
Critical T Value	0.8702
Pass or Fail	**PASS**

Test Completion Date: 2/18/2025

Replicate No.	Control	TIWC
1	33	44
2	39	39
3	32	17
4	35	34
5	34	37
6	41	39
7	34	36
8	32	41
9	37	41
10	35	37
11		
12		
13		
14		
15		
Mean	35.200	36.500
Std Dev.	2.974	7.427
# Replicates	10	10

T-Test Result	4.1184
Deg. of Freedom	12
Critical T Value	0.8726
Pass or Fail	**PASS**

DEP Whole Effluent Toxicity (WET) Analysis Spreadsheet

Type of Test	Chronic
Species Tested	Pimephales
Endpoint	Survival
TIWC (decimal)	0.93
No. Per Replicate	10
TST b value	0.75
TST alpha value	0.25

Facility Name

Dover Township WWTP

Permit No.

PA0020826

Replicate No.	Test Completion Date: 8/29/2023 Control	TIWC
1	10	10
2	9	10
3	10	10
4	9	10
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	9.500	10.000
Std Dev.	0.577	0.000
# Replicates	4	4
T-Test Result	11.7367	
Deg. of Freedom	3	
Critical T Value	0.7649	
Pass or Fail	PASS	

Replicate No.	Test Completion Date: 8/27/2024 Control	TIWC
1	10	10
2	9	10
3	10	10
4	10	10
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	9.750	10.000
Std Dev.	0.500	0.000
# Replicates	4	4
T-Test Result	12.5523	
Deg. of Freedom	3	
Critical T Value	0.7649	
Pass or Fail	PASS	

Replicate No.	Test Completion Date: 11/12/2024 Control	TIWC
1	10	10
2	10	10
3	10	10
4	10	10
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	10.000	10.000
Std Dev.	0.000	0.000
# Replicates	4	4
T-Test Result		
Deg. of Freedom		
Critical T Value		
Pass or Fail	PASS	

Replicate No.	Test Completion Date: 2/18/2025 Control	TIWC
1	10	10
2	10	10
3	10	10
4	10	10
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	10.000	10.000
Std Dev.	0.000	0.000
# Replicates	4	4
T-Test Result		
Deg. of Freedom		
Critical T Value		
Pass or Fail	PASS	

DEP Whole Effluent Toxicity (WET) Analysis Spreadsheet

Type of Test	Chronic
Species Tested	Pimephales
Endpoint	Growth
TIWC (decimal)	0.93
No. Per Replicate	10
TST b value	0.75
TST alpha value	0.25

Facility Name: Dover Township WWTP

Permit No.: PA0020826

Replicate No.	Test Completion Date: 8/29/2023 Control	TIWC
1	0.659	0.509
2	0.627	0.58
3	0.64	0.533
4	0.596	0.564
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.631	0.547
Std Dev.	0.026	0.032
# Replicates	4	4

T-Test Result	3.9349
Deg. of Freedom	5
Critical T Value	0.7267
Pass or Fail	**PASS**

Replicate No.	Test Completion Date: 8/27/2024 Control	TIWC
1	0.616	0.612
2	0.48	0.644
3	0.648	0.618
4	0.601	0.604
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.586	0.620
Std Dev.	0.073	0.017
# Replicates	4	4

T-Test Result	6.2245
Deg. of Freedom	5
Critical T Value	0.7267
Pass or Fail	**PASS**

Replicate No.	Test Completion Date: 11/12/2024 Control	TIWC
1	0.492	0.556
2	0.597	0.487
3	0.454	0.57
4	0.615	0.585
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.540	0.550
Std Dev.	0.079	0.043
# Replicates	4	4

T-Test Result	3.9581
Deg. of Freedom	5
Critical T Value	0.7267
Pass or Fail	**PASS**

Replicate No.	Test Completion Date: 2/18/2025 Control	TIWC
1	0.796	0.715
2	0.64	0.772
3	0.768	0.677
4	0.665	0.665
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
Mean	0.717	0.707
Std Dev.	0.076	0.048
# Replicates	4	4

T-Test Result	4.5275
Deg. of Freedom	5
Critical T Value	0.7267
Pass or Fail	**PASS**

WET Summary and Evaluation

Facility Name	Dover Township WWTP
Permit No.	PA0020826
Design Flow (MGD)	8
Q_{7-10} Flow (cfs)	1.31
PMF_a	1
PMF_c	1

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	8/26/24	9/30/24	11/11/24	2/18/25
Ceriodaphnia	Survival	PASS	PASS	PASS	PASS

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	8/26/24	9/30/24	11/11/24	2/18/25
Ceriodaphnia	Reproduction	**FAIL**	**FAIL**	PASS	PASS

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	8/29/23	8/27/24	11/12/24	2/18/25
Pimephales	Survival	PASS	PASS	PASS	PASS

		Test Results (Pass/Fail)			
		Test Date	Test Date	Test Date	Test Date
Species	**Endpoint**	8/29/23	8/27/24	11/12/24	2/18/25
Pimephales	Growth	PASS	PASS	PASS	PASS

Reasonable Potential? YES

Permit Recommendations

Test Type	**Chronic**	
TIWC	**90**	% Effluent
Dilution Series	**23, 45, 90, 95, 100**	% Effluent
Permit Limit	**1.1**	TUc
Permit Limit Species	**Ceriodaphnia dubia**	

Reviewer/Permit Engineer: Aaron Baar

Facility: Dover Township WWTP
NPDES #: PA0020826
Outfall No: 001
n (Samples/Month): 4

Parameter	Distribution Applied	Coefficient of Variation (daily)	Avg. Monthly
Total Antimony (mg/L)	Delta-Lognormal	0.2311855	0.0005635
Total Arsenic (mg/L)	Delta-Lognormal	0.4096742	0.0010990
exavalent Chromium (µg/l	Delta-Lognormal	1.0005165	0.4690884
Total Cobalt (mg/L)	Delta-Lognormal	#DIV/0!	#DIV/0!
Total Copper (mg/L)	Lognormal	0.2071288	0.0065492
Free Cyanide (µg/L)	Delta-Lognormal	1.1490209	7.1477793
,1,2-Trichloroethane (µg/l	Delta-Lognormal	#NAME?	#DIV/0!
Total Nickel (mg/L)	Delta-Lognormal	0.3483380	0.0021378
Total Selenium (mg/L)	Delta-Lognormal	0.1286553	0.0009139
Total Silver (µg/L)	Delta-Lognormal	#DIV/0!	#DIV/0!
Total Thallium (mg/L)	Delta-Lognormal	#DIV/0!	#DIV/0!
Total Zinc (mg/L)	Lognormal	0.3778109	0.0351497
Acrolein (µg/L)	Delta-Lognormal	#DIV/0!	#DIV/0!
Benzene (µg/L)	Delta-Lognormal	#DIV/0!	#DIV/0!
arbon Tetrachloride (µg/L	Delta-Lognormal	#DIV/0!	#DIV/0!
chlorobromomethane (µg/	Delta-Lognormal	#DIV/0!	#DIV/0!
,2-Dichloropropane (µg/L	Delta-Lognormal	#DIV/0!	#DIV/0!
3-Dichloropropylene (µg/l	Delta-Lognormal	#DIV/0!	#DIV/0!
2,2-Tetrachloroethane (µ	Delta-Lognormal	#DIV/0!	#DIV/0!
Trichloroethylene (µg/L)	Delta-Lognormal	#DIV/0!	#DIV/0!
Vinyl Chloride (µg/L)	Delta-Lognormal	#DIV/0!	#DIV/0!
exachlorobutadiene (µg/L	Delta-Lognormal	#DIV/0!	#DIV/0!
2,4-Trichlorobenzene (µg/	Delta-Lognormal	#DIV/0!	#DIV/0!
Toxaphene (µg/L)	Delta-Lognormal	#DIV/0!	0.0000000
Dissolved Iron (mg/L)	Delta-Lognormal	0.2647217	0.0333690

Facility:	Dover Township WWTP
NPDES #:	PA0020826
Outfall No:	001
n (Samples/Month):	4
Reviewer/Permit Engineer:	Aaron Baar

Parameter Name	Total Antimony	Total Arsenic	hexavalent Chromi	Total Cobalt	Total Copper	Free Cyanide	1,2-Trichloroethar	Total Nickel	Total Selenium	Total Silver	Total Thallium	Total Zinc	Acrolein
Units	mg/L	mg/L	µg/L	mg/L	mg/L	µg/L	µg/L	mg/L	mg/L	µg/L	mg/L	mg/L	µg/L
Detection Limit	0.00033	0.0005	0.033086364	0.00083	0.000859615	0.974	0.183571429	0.000925	0.000761538	0.33	0.00016	0.000925	1.67333
Sample Date	*When entering values below the detection limit, enter "ND" or use the < notation (eg. <0.02)*												
12/10/2018		0.0007	0.58		0.0054	2		0.0012	<0.00066	<0.33		0.033	<1.9
3/22/2018		<0.0005	<0.047		0.0049	2		0.0014	<0.00066	<0.33	<0.00016	0.025	
6/22/2018		<0.0005	<0.047		0.0076	1		0.0021	<0.00066	<0.33		0.024	
9/19/2018		<0.0005	0.43		0.0054	<0.47		0.0013	<0.00066	<0.33		0.017	
12/12/2018	<0.00033	0.00069			0.0051		<0.33	0.001	<0.00066	<0.33	<0.00016	0.032	<1.9
3/21/2019		<0.0005	<0.047		0.0056	2		0.0011	<0.00066	<0.33		0.031	
6/13/2019		0.0013	<0.047		0.0098	15		0.0031	<0.00066	<0.33		0.026	
9/18/2019		0.001	<0.047		0.0051	<0.47		0.0019	<0.00066	<0.33		0.041	
12/11/2019		0.0014	<0.047		0.0065	5		0.0027	<0.00066	<0.33		0.027	
12/18/2019	<0.00033	<0.0005			0.0051		<0.13	<0.00083	<0.00066	<0.33	<0.00016	0.012	<1.3
3/25/2020		<0.0005	<0.047		0.0037			<0.00083	<0.00066	<0.33		0.022	
6/17/2020		0.0015	<0.047		0.004			0.0015	0.0012	<0.33		0.032	
9/16/2020		0.001	<0.0075		0.0043	10		0.0019	<0.00066	<0.33		0.032	
12/14/2020		<0.0005			0.0057			<0.00083	<0.0033	12		0.033	
12/15/2020	0.00072	0.00096			0.004		<0.13	0.0022	<0.00066	<0.33	0.00019	0.036	<1.3
7/23/2024	0.00052	0.0007	0.34	<0.00083	0.0055	1.35	<0.18	0.0016	<0.00066	<0.33	<0.00016	0.022	<1.7
8/14/2024	<0.00033	0.0008	0.24	<0.00083	0.0042	<0.86	<0.18	0.001	<0.00066	<0.33	<0.00016	0.014	<1.7
8/22/2024	0.00034	<0.0005	0.34	<0.00083	0.0044	1.22	<0.18	0.0012	<0.00066	<0.33	<0.00016	0.014	<1.7
8/29/2024	0.00051	<0.0005	0.23	<0.00083	0.0046	2.21	<0.18	0.0011	<0.00066	<0.33	<0.00016	0.015	<1.7
9/5/2024	0.00039	<0.0005	0.16	<0.00083	0.0049	1.35	<0.18	0.0012	<0.00066	<0.33	<0.00016	0.015	<1.7
9/12/2024	0.00041	0.00088	0.11	<0.00083	0.0049	1.33	<0.18	0.0018	<0.00066	<0.33	<0.00016	0.016	<1.7
9/19/2024	0.00045	0.00055	0.12	<0.00083	0.0046	0.9	<0.18	0.0014	<0.00066	<0.33	<0.00016	0.017	<1.7
9/26/2024	0.00046	<0.0005	0.24	<0.00083	0.005	<0.86	<0.18	0.0012	0.00092	<0.33	<0.00016	0.016	<1.7
10/3/2024	0.00038	0.00056	0.19	<0.00083	0.0045	<0.86	<0.18	0.0011	<0.00066	<0.33	<0.00016	0.014	<1.7
10/10/2024	0.00049	0.00089	0.68	<0.00083	0.0045	2.75	<0.18	0.0013	0.00076	<0.33	<0.00016	0.016	<1.7
11/4/2024	0.00048	0.00061		<0.00083	0.0055	<0.86	<0.18	0.0011	<0.00066	<0.33	<0.00016	0.018	<1.7
11/6/2024			0.28										
9/7/2021													
9/9/2021													
9/13/2021													

Parameter Name	Benzene	arbon Tetrachlorid	Chlorobromometha	2-Dichloropropan	3-Dichloropropyle	2,2-Tetrachloroetl	Trichloroethylene	Vinyl Chloride	lexachlorobutadier	2,4-Trichlorobenze	Toxaphene	Dissolved Iron
Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
Detection Limit	0.24667	0.292	0.209285714	0.313571429	0.446428571	0.408571429	0.355714286	0.469285714	0.368571429	0.31	0.19	0.02
Sample Date												
12/10/2018	<0.23	<0.31										
3/22/2018												
6/22/2018												
9/19/2018												
12/12/2018	<0.23	<0.31	<0.45	<0.24	<0.47	<0.34	<0.33	<0.3	<0.18	<0.15	<0.18	
3/21/2019												
6/13/2019												
9/18/2019												
12/11/2019												
12/18/2019	<0.48	<0.23	<0.25	<0.26	<0.47	<0.38	<0.29	<0.33	<0.45	<0.39	<0.19	
3/25/2020												
6/17/2020												
9/16/2020												
12/14/2020												
12/15/2020	<0.12	<0.23	<0.25	<0.26	<0.47	<0.42	<0.29	<0.33	<0.46	<0.39	<0.19	
7/23/2024	<0.24	<0.3	<0.18	<0.33	<0.44	<0.42	<0.37	<0.51	<0.37	<0.31	<0.19	0.025
8/14/2024	<0.24	<0.3	<0.18	<0.33	<0.44	<0.42	<0.37	<0.51	<0.37	<0.31	<0.2	<0.02
8/22/2024	<0.24	<0.3	<0.18	<0.33	<0.44	<0.42	<0.37	<0.51	<0.37	<0.31	<0.19	<0.02
8/29/2024	<0.24	<0.3	<0.18	<0.33	<0.44	<0.42	<0.37	<0.51	<0.37	<0.31	<0.19	0.038
9/5/2024	<0.24	<0.3	<0.18	<0.33	<0.44	<0.42	<0.37	<0.51	<0.37	<0.31	<0.19	<0.02
9/12/2024	<0.24	<0.3	<0.18	<0.33	<0.44	<0.42	<0.37	<0.51	<0.37	<0.31	<0.19	0.028
9/19/2024	<0.24	<0.3	<0.18	<0.33	<0.44	<0.42	<0.37	<0.51	<0.37	<0.31	<0.19	0.037
9/26/2024	<0.24	<0.3	<0.18	<0.33	<0.44	<0.42	<0.37	<0.51	<0.37	<0.31	<0.19	0.03
10/3/2024	<0.24	<0.3	<0.18	<0.33	<0.44	<0.42	<0.37	<0.51	<0.37	<0.31	<0.19	<0.02
10/10/2024	<0.24	<0.3	<0.18	<0.33	<0.44	<0.42	<0.37	<0.51	<0.37	<0.31	<0.19	<0.02
11/4/2024	<0.24	<0.3	<0.18	<0.33	<0.44	<0.42	<0.37	<0.51	<0.37	<0.31	<0.19	
11/6/2024												0.024
9/7/2021												
9/9/2021												
9/13/2021												