Pennsylvania Department of Environmental Protection

Northcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0060232**
Facility Type	**Non-Municipal**	APS ID	**1122042**
Major / Minor	**Minor**	Authorization ID	**1500176**

Applicant and Facility Information

Applicant Name	**USACE - Baltimore District**	Facility Name	**USACE Tompkins Run Recreation Area**
Applicant Address	710 Ives Run Lane	Facility Address	Bliss Road
	Tioga, PA 16946-8643		Lawrenceville, PA 16946
Applicant Contact	Robert Schnell	Facility Contact	Joshua Symonds
Applicant Phone	(570) 835-0101	Facility Phone	(607) 684-8206
Client ID	43653	Site ID	262250
Ch 94 Load Status	Not Overloaded	Municipality	Lawrence Township
Connection Status	N/A	County	Tioga
Date Application Received	September 19, 2024	EPA Waived?	Yes
Date Application Accepted	September 25, 2024	If No, Reason	

Purpose of Application: The renewal of a NPDES Permit

Summary of Review

The subject NPDES Permit serves the Tompkins Run Recreational Area at the Cowanesque Reservoir in Lawrence Township, Tioga County.

Sludge use and disposal description and location(s): The facility's wasted sludge is disposed offsite.

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
✓		Keith C. Allison Keith C. Allison / Project Manager	March 6, 2025
✓		N. W. H. Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	March 6, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.02
Latitude	41º 58' 53.05"	Longitude	-77º 10' 49.19"
Quad Name	Tioga, PA	Quad Code	
Wastewater Description:	Sewage Effluent		

Receiving Waters	Cowanesque River (WWF)	Stream Code	30995
NHD Com ID	57349749	RMI	4.27
Drainage Area	292 mi^2	Yield (cfs/mi^2)	0.027
Q_{7-10} Flow (cfs)	7.937	Q_{7-10} Basis	USGS Gage 01520000, Cowanesque River near Lawrenceville
Elevation (ft)	1060	Slope (ft/ft)	Undetermined
Watershed No.	4-A	Chapter 93 Class.	WWF
Existing Use	N/A	Existing Use Qualifier	
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Cowanesque Reservoir Impaired		
Cause(s) of Impairment	**Mercury**		
Source(s) of Impairment	**Atmospheric Deposition**		

Nearest Downstream Public Water Supply Intake	PA-NY Border		
PWS Waters	Cowanesque River	Distance from Outfall (mi)	3.0

Changes Since Last Permit Issuance: The above stream and drainage characteristics are generally unchanged from previous reviews.

Other Comments: The discharge is to the Cowanesque Reservoir. The discharge is seasonal and typically occurs from May to September.

It is not reasonably expected that this sewage treatment discharge is contributing to the impairment by Mercury to the Cowanesque Reservoir and River.

The Department treats the PA-NY state line as the nearest downstream water supply as there is no other closer water supply intake. No downstream water supply is expected to be affected by the discharge with the limitations and monitoring proposed.

Treatment Facility Summary

Treatment Facility Name: Cowanesque Lake Project Tompkins Recreation Area

WQM Permit No.	Issuance Date
5995401	Original - 3/20/95
	A-1 – 8/11/22

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	UV Light	0.02

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.02	4	Not Overloaded	Holding Tank	

Changes Since Last Permit Issuance: The UV disinfection system permitted under WQM Permit has been installed.

Other Comments: The treatment facilities consist of 3 pump stations, bar screen, comminutor, equalization tank, aeration tank, final settling tank, chemical treatment (Alum), mixing and flocculation tank, 2 rapid sand filters, UV Disinfection, and sludge holding tank.

Compliance History

DMR Data for Outfall 001 (from January 1, 2024 to December 30, 2024)

Parameter	Flow (MGD) Ave Mo	pH (S.U.) IMin	pH (S.U.) IMax	CBOD5 (mg/L) Ave Mo	CBOD5 (mg/L) IMax	TSS (mg/L) Ave Mo	TSS (mg/L) IMax	Fecal Coliform (No./100 ml) Geo.Mean	Fecal Coliform (No./100 ml) IMax	UV Transmittance (%) IMax	Total Nitrogen (mg/L) Ave Mo	Ammonia (mg/L) Ave Mo	Total Phosphorus (mg/L) Ave Mo
AUG-24	0.00158	6.11	7.16	4.9	6.80	62.0	102.0	42.8	42.8	56	< 0.5000	< 1.0	5.0
JUL-24	0.0026	6.02	7.14	5.58	6.58	1.60	1.60	< 1.0	< 1.0	57		< 0.5	1.51
JUN-24	0.0019	6.01	6.91	< 3.00	< 3.00	< 1.6	< 1.6	< 1	< 1	60		8.79	0.05

Compliance History, Cont'd

Summary of Inspections:	The most recent inspection of the facility by the Department on June 20, 2024 identified eDMR effluent violations and the failure to submit the NPDES renewal application timely. No operational violations were identified at the time of inspection.
Other Comments:	There are no open violations for the US Army Corps of Engineers – Baltimore District in eFACTS.

Existing Effluent Limitations and Monitoring Requirements								
Parameter	**Effluent Limitations**						**Monitoring Requirements**	
	Mass Units (lbs/day) (1)		**Concentrations (mg/L)**				**Minimum (2) Measurement Frequency**	**Required Sample Type**
	Average Monthly	**Average Weekly**	**Instantaneous Minimum**	**Average Monthly**	**Maximum**	**Instant. Maximum**		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/week	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50.0	2/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Metered
Total Nitrogen	XXX	XXX	XXX	Report Annl Avg	XXX	XXX	1/year	Grab
Ammonia	XXX	XXX	XXX	15	XXX	30	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	2.0	XXX	4	2/month	Grab

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.02
Latitude 41º 58' 53.38" **Longitude** -77º 10' 50.41"
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)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
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)

Comments: The above limitations are applicable and are included in the existing permit.

Water Quality-Based Limitations

DO, CBOD5 and NH3-N

The WQM7.0 model allows the Department to evaluate point source discharges of dissolved oxygen (DO), carbonaceous BOD ($CBOD_5$), and ammonia-nitrogen (NH_3-N) into free-flowing streams and rivers. No WQM7.0 modeling was performed for this minor discharge to the Cowanesque Reservoir. The facility has an existing water quality-based ammonia-nitrogen limit of 15 mg/l. The technology-based secondary treatment limits listed above with the existing ammonia limit of 15 mg/l should be adequate to protect the reservoir and river.

Chesapeake Bay/Nutrient Requirements

According to the Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, this facility is considered a Phase 5 Chesapeake Bay sewage discharger, and as such requires no nutrient loading limits. The discharge also has an existing Total Nitrogen limitation of 2.0 mg/L due to the discharge to the Cowanesque Reservoir. The monitoring under the current permit term averaged <0.5 mg/L for Total Nitrogen averaged and 1.84 mg/L for Total Phosphorus.

Water Quality Toxics Management

No "Reasonable Potential Analysis" was performed to determine additional parameters with the reasonable potential to violate water quality standards for this minor treatment facility with no industrial influent.

Best Professional Judgment (BPJ) Limitations

Comments: No additional BPJ limitations are necessary at this time beyond the technology and water quality-based limitations noted above.

E. Coli

Annual e. coli monitoring will be required at this time due to changes to Chapter 93 of the Department's regulations and Department policy.

Anti-Backsliding

No proposed limitations have been made less stringent consistent with the Anti-degradation requirements of The Clean Water Act and 40 CFR 122.44(l).

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (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	Average Weekly	Instantaneous Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/week	Metered
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50.0	2/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Metered
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia	XXX	XXX	XXX	15	XXX	30	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	2.0	XXX	4	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

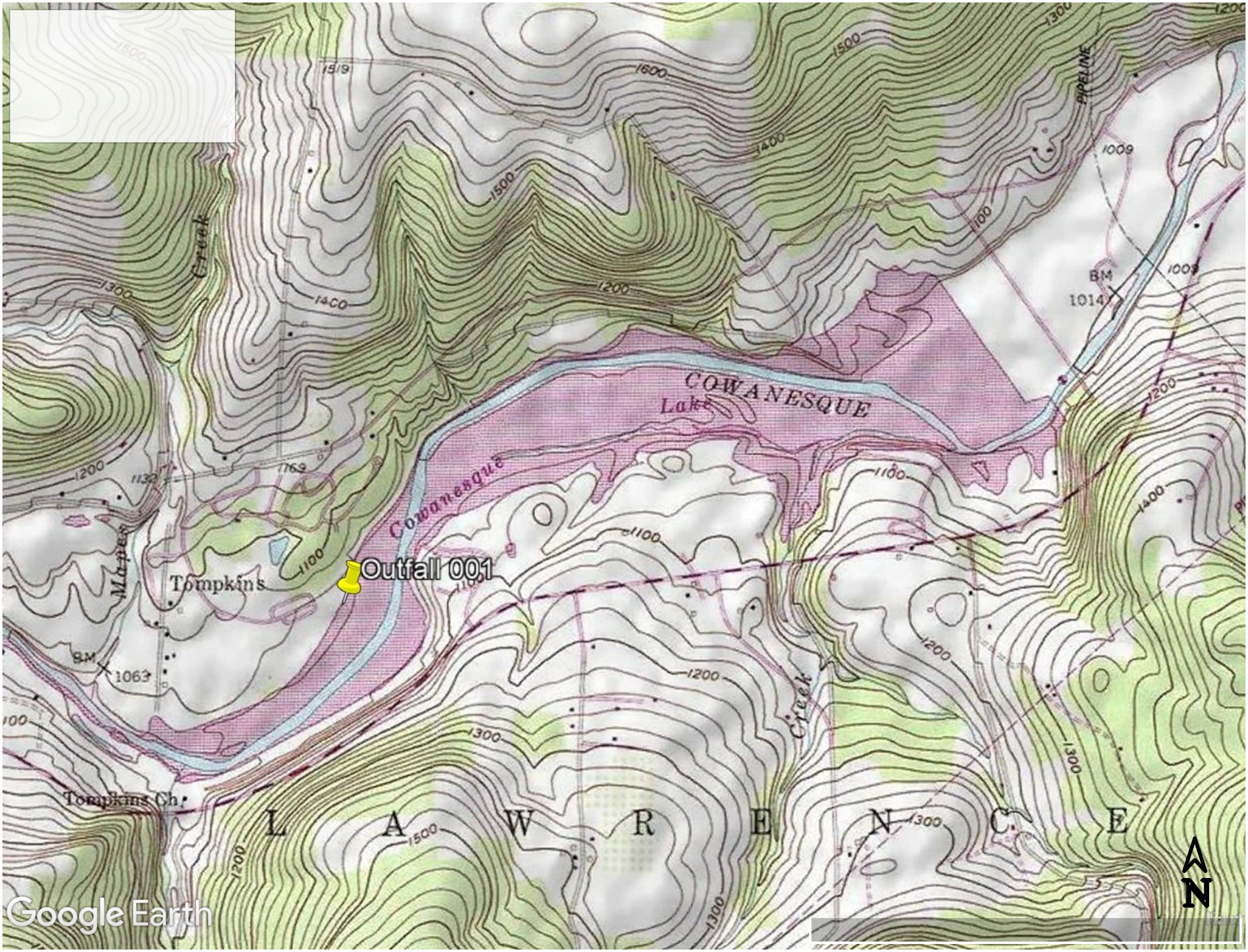
Compliance Sampling Location: Outfall 001

Other Comments: E. Coli monitoring is new as mentioned above and the Total Nitrogen reporting has been changed from an annual average to a daily max consistent with the once per year monitoring requirement.

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:

Attachments:

A. Discharge Location Map


Outfall 001
COWANESQUE
Lake
Cowanesque
Tompkins
Tompkins Ch.
Mosher
Creek
PIPELINE
BM
1014
BM
1063
LAWRENCE
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