

Application Type Renewal  
Facility Type Municipal  
Major / Minor Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0042048  
APS ID 915664  
Authorization ID 1345000

**Applicant and Facility Information**

Applicant Name	<u>Conyngham-Sugarloaf Joint Municipal Authority</u>	Facility Name	<u>Conyngham-Sugarloaf Joint Municipal Authority WWTP</u>
Applicant Address	<u>PO Box 469 Conyngham, PA 18219</u>	Facility Address	<u>611 South Main Street Sugarloaf, PA 18249</u>
Applicant Contact	<u>Joseph Gallagher</u>	Facility Contact	<u>Ed Gregory</u>
Applicant Phone	<u>(570) 788-0608</u>	Facility Phone	<u>(570) 788-0608</u>
Client ID	<u>327699</u>	Site ID	<u>256607</u>
Ch 94 Load Status	<u>Existing Hydraulic and Organic Overload</u>	Municipality	<u>Sugarloaf Township</u>
Connection Status	<u>Self Imposed Connection Prohibition</u>	County	<u>Luzerne</u>
Date Application Received	<u>February 26, 2021</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>February 26, 2021</u>	If No, Reason	<u>-</u>
Purpose of Application	<u>Renewal of NPDES permit.</u>		

**Summary of Review**

The applicant is requesting renewal of their NPDES permit to discharge 0.35 MGD of treated sewage to Little Nescopeck Creek, a cold water and migratory fish receiving stream in state water plan basin 05-D (Nescopeck Creek). The receiving stream does not have an existing use classification that is more protective than its designated use.

In a letter dated December 31, 2021, DEP approved the Act 537 Official Sewage Facilities Plan Update Revision for the expansion and upgrade of the wastewater treatment plant from a 0.35 MGD facility to 0.5 MGD. **Note:** This permit renewal **does not** approve the 0.5 MGD discharge. A Water Quality Management permit application and NPDES permit amendment application must be submitted to DEP to approve the 0.5 MGD discharge.

The point of first use (POFU) for modeling purposes is assumed to be approximately 4.2 miles downstream from the discharge at Outfall 001 at station NC01 on Nescopeck Creek. A copy of the new POFU study is attached. Water Quality modeling utilized the same data from the previous renewal:

Location 1: Point of First Use on Nescopeck Creek

- Drainage Area = 82.8 mi<sup>2</sup>
- Elevation = 760 ft
- RMI = 2.44

Location 2: Confluence with unnamed tributary to Nescopeck Creek

- Drainage Area = 90 mi<sup>2</sup>
- Elevation = 688 ft
- RMI = 0.01

Approve	Deny	Signatures	Date
X		<i>Brian Burden</i> Brian Burden, E.I.T. / Project Manager	May 31, 2022
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	6-9-22

### Summary of Review

Stream Information:  $Q_{7-10} = 8.35$  cfs (from USGS StreamStats). Low Flow Yield (LFY) =  $8.35 \text{ cfs} / 82.8 \text{ mi}^2 = 0.1 \text{ cfs/mi}^2$ .

WQM 7.0 modeling didn't recommend more stringent water quality-based effluent limitations CBOD<sub>5</sub>, Ammonia-Nitrogen (NH<sub>3</sub>-N) or Dissolved Oxygen. A 5.0 mg/L minimum for Dissolved Oxygen and monitoring requirements for Ammonia-Nitrogen are carried over from the previous permit. The TRC calculation spreadsheet didn't recommend water quality-based limitations for TRC, but the most current technology-based limitations are included in the permit (0.5 mg/L monthly average, 1.6 mg/L IMAX) and will come into effect 1 year after the permit effective date. The 1.0 mg/L monthly average limitation and 2.0 mg/L IMAX will be in effect until then.

The Department's Toxics Management Spreadsheet doesn't return limitations for Total Dissolved Solids, Chloride, or Sulfate. There are no current water quality standards for Bromide. No limitations or monitoring requirements were recommended for Total Aluminum, Total Iron or Total Manganese; however, 1/year monitoring requirements are included in this renewal for these TMDL parameters.

Monitoring/reporting for Total Phosphorus and Total Nitrogen (NO<sub>2</sub>+NO<sub>3</sub>-N + TKN) is updated from 1/year to 1/month in accordance with DEP's Phase 3 Watershed Implementation Plan Wastewater Supplement (revised 9/13/2021).

As per DEP guidance, quarterly monitoring/reporting is included in the permit for E.Coli.

Note: 24-hour composite sampling requirements replace the 8-hour composite sampling requirements for all applicable parameters.

As per the facility's 2021 Chapter 94 report: *"CSJMA has contracted with Entech Engineering, Inc. to develop an Act 537 Plan to address the hydraulic and organic overload conditions. Entech Engineering submitted the 537 Plan to PADEP and addressed subsequent review comments. The plan was ultimately approved by PADEP in December 2021. The approved plan includes various alternatives to address the hydraulic and organic overload conditions; including but not limited to wastewater treatment facility upgrades and the continuation of a major Inflow and Infiltration (I/I) program as described below.*

*CSJMA has initiated Inflow and Infiltration (I/I) investigations which include: CCTV inspections, smoke testing, and home inspections to locate and eliminate sources of extraneous flow. As of the end of 2021, CSJMA has smoke tested the entire service area and completed CCTV inspection of 51,000 feet of sewer and approximately 40% of the system's private service laterals. As part of the approved 537 Plan CSJMA has committed \$1.5 million dollars to a sewer investigation and rehabilitation program over a five year period.*

*CSJMA will also continue its use of the Dynamic Separator to provide treatment to the hydraulic overload flows.*

*CSJMA also plans to implement a regular cleaning protocol in their collection system to reduce the likelihood of blockages in the areas where sanitary sewer overflows have occurred.*

*In 2022, CSJMA is proposing to replace approximately 3,000 linear feet of gravity sewer main in various parts of the collection system where I/I has historically been problematic."*

There are currently 3 WPC NPDES open violations for the permittee that would warrant withholding issuance of this permit:

Inspection ID 3299571 (10/21/2021): 1.) Failure to submit NPDES renewal application at least 180 days prior to expiration or later approved date, 2.) Violation of effluent limits in Part A of permit, and 3.) Failure to submit monitoring report(s) or properly complete monitoring reports.

Sludge use and disposal description and location(s): The 2021 Chapter 94 report states: *"Domestic wastewater sludge is accumulated within the bottom of the clarifiers. After accumulation, the sludge is pumped to the aerobic digester tanks, where it is aerobically digested, conditioned, and thickened to approximately 2.4%. After thickening, the sludge is hauled off-site by an approved hauler. During 2021, approximately 26.73 dry tons were transported to the Greater Hazelton WWTP."*

**Summary of Review**

Review of the past 2 years of eDMR data revealed the following effluent limitation violations:

September 2020: Fecal Coliform 1120 No./100mL IMAX (limit was 1000 No./100mL)

February 2021: TRC 1.2 mg/L monthly average (limit was 1.0 mg/L)

March 2021: TSS 31.6 mg/L monthly average (limit was 30.0 mg/L) and 94.0 mg/L weekly average (limit was 45.0 mg/L)

May 2021: Fecal Coliform 1139 No./100mL Geometric Mean (limit was 200 No./100mL) and 2420 No./100mL IMAX (limit was 1000 No./100mL)

June 2021: Fecal Coliform 465 No./100mL Geometric Mean (limit was 200 No./100mL) and 1011 No./100mL IMAX (limit was 1000 No./100mL)

August 2021: Fecal Coliform 936 No./100mL Geometric Mean (limit was 200 No./100mL) and 2420 No./100mL IMAX (limit was 1000 No./100mL)

September 2021: Fecal Coliform 346 No./100mL Geometric Mean (limit was 200 No./100mL) and 1986 No./100mL IMAX (limit was 1000 No./100mL)



Conyngam WWTP  
POFU.pdf



Joint Act 537 Plan  
Approval.pdf



TMS PA0042048.pdf



TRC Calculation.pdf



WQM 1.pdf



WQM 2.pdf



WQM 3.pdf



WQM 4.pdf



WQM 5.pdf



WQM 6.pdf

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.

**Summary of Review**

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.35</u>
Latitude	<u>41° 0' 5"</u>	Longitude	<u>-76° 3' 51"</u>
Quad Name	<u>Shickshinny</u>	Quad Code	<u>0936</u>
Wastewater Description: <u>Sewage Effluent</u>			

Receiving Waters	<u>Little Nescopeck Creek (CWF/MF)</u>	Stream Code	<u>28140</u>
NHD Com ID	<u>65639639</u>	RMI	<u>1.2</u>
Drainage Area	<u>10.8 mi<sup>2</sup></u>	Yield (cfs/mi <sup>2</sup> )	<u>0.1 cfs/mi<sup>2</sup></u>
Q <sub>7-10</sub> Flow (cfs)	<u>8.35 (at POFU)</u>	Q <sub>7-10</sub> Basis	<u>USGS StreamStats</u>
Elevation (ft)	<u>760 (at POFU)</u>	Slope (ft/ft)	<u>0.0055</u>
Watershed No.	<u>5-D</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use	<u>-</u>	Existing Use Qualifier	<u>-</u>
Exceptions to Use	<u>-</u>	Exceptions to Criteria	<u>-</u>

Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Metals, pH, Sulfate</u>		
Source(s) of Impairment	<u>Acid Mine Drainage</u>		
TMDL Status	<u>Final</u>	Name	<u>Little Nescopeck Creek</u>

Background/Ambient Data		Data Source
pH (SU)	<u>-</u>	<u>-</u>
Temperature (°F)	<u>-</u>	<u>-</u>
Hardness (mg/L)	<u>-</u>	<u>-</u>
Other:	<u>-</u>	<u>-</u>

Nearest Downstream Public Water Supply Intake	<u>Danville Municipal Water Authority</u>		
PWS Waters	<u>Susquehanna River</u>	Flow at Intake (cfs)	<u>1120</u>
PWS RMI	<u>122.5</u>	Distance from Outfall (mi)	<u>~42</u>

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Conyngham-Sugarloaf Joint Municipal Authority WWTP				
<b>WQM Permit No.</b>		<b>Issuance Date</b>		
4006401-T1		7/26/2016		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Contact Stabilization	Chlorine	0.48 (2021) overload
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.35	595	Existing Hydraulic and Organic Overload	Sludge Thickener	Hauled away to another WWTP

**Development of Effluent Limitations**

Outfall No. 001  
 Latitude 41° 0' 5"  
 Wastewater Description: Sewage Effluent

Design Flow (MGD) 0.35  
 Longitude -76° 3' 51"

**Technology-Based Limitations**

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

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
CBOD <sub>5</sub>	25.0	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40.0	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30.0	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45.0	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: The TRC limitation comes into effect 1 year after the permit effective date.

**Water Quality-Based Limitations**

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model
Dissolved Oxygen	5.0	Minimum	Previous Pollution Report