pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0063444**
Facility Type	**Municipal**	APS ID	**575829**
Major / Minor	**Minor**	Authorization ID	**1134206**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Butler Township Municipal Authority**	Facility Name	**Butler Township Municipal Authority WWTP**
Applicant Address	572 Dutchtown Road	Facility Address	572 Dutchtown Road
	Ashland, PA 17921		Ashland, PA 17921
Applicant Contact	Patrick Caulfield (SCMA)	Facility Contact	Stephen Ulceski
Applicant Phone	(570) 622-8240	Facility Phone	(570) 622-8240
Client ID	87646	Site ID	260097
Ch 94 Load Status	Not Overloaded	Municipality	Butler Township
Connection Status	No Limitations	County	Schuylkill
Date Application Received	October 4, 2021	EPA Waived?	Yes
Date Application Accepted	October 4, 2021	If No, Reason	-

Purpose of Application: Renewal of existing NPDES sewage discharge permit.

Summary of Review

The applicant is requesting renewal of their NPDES permit to discharge 0.240 MGD of treated sewage to Mahanoy Creek, a WWF/MF designated receiving stream in state water plan basin 06-B (Mahanoy – Shamokin Creeks). As per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than its designated use.

As per the latest Chapter 94 report, BTMA contracted with SCMA for operation and maintenance of the WWTP and collection system beginning on January 1, 2018. SCMA is in the process of acquiring the WWTP/system and transferring the NPDES permit. The report states: "Once an agreement is reached on the amendment of the CO&A, SCMA will submit the Application for NPDES Permit Transfer to formally request the change of ownership by the Department. Also, SCMA is currently in the planning stages of the Gordon WWTP upgrade project. As part of the project, SCMA is evaluating the feasibility of decommissioning the Butler Township WWTP and conveying the Butler sewage to the upgraded Gordon facility, thereby combining the systems. A final determination will not be made until the Act 537 planning process is complete."

The receiving stream is part of the Mahanoy Creek Watershed TMDL, which was approved by the EPA on April 4, 2007. Stream impairments result from high levels of metals, and in some areas depressed pH. All impairments resulted from acid mine drainage from coal mining. The TMDL addresses the three primary metals (Iron, Manganese, and Aluminum) associated with acid mine drainage and depressed pH. There are no TMDL wasteload allocations (WLAs) assigned to this facility. Quarterly monitoring and reporting for Total Iron, Total Manganese, and Total Aluminum was added to the permit in the previous renewal to monitor these pollutants of concern. Modeling results over the previous permit term indicate the WWTP effluent is not a significant source of these metals and the monitoring frequency is updated to 1/year for this permit term. There are no industrial or commercial users in the sewer system.

As per the attached 1995 Pollution Report, previous modeling utilized a $Q_{7\text{-}10}$ value obtained by using the low flow yield (LFY) at stream gage 01555250 (Mahanoy Creek @ Dornsife). LFY = 22 cfs / 117 mi^2 = 0.18 cfs/mi^2. There is no longer flow data

Approve	Deny	Signatures	Date
X		Brian Burden Brian Burden, E.I.T. / Environmental Engineer	March 29, 2022
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	4-5-22

Summary of Review

available for that gage and no current data available for any other gages on Mahanoy Creek. The 0.18 cfs/mi^2 LFY is carried over from the previous renewals.

The pH, $CBOD_5$, TSS, Fecal Coliform and TRC limits are technology-based and carried over from the previous permit. Note that a technology-based pH IMAX of 9.0 S.U. is added to eDMR since the limitation was not included on eDMR during the previous permit term. The Dissolved Oxygen and Total Copper limits are water quality-based and carried over from the previous permit. The units for the Total Copper limitations are changed from µg/L to mg/L for this renewal to remain consistent with the units of the other monitored parameters. More stringent limitations were not recommended in WQM 7.0 modeling, the TRC Calculation Spreadsheet or Toxics Management Spreadsheet (all attached). The Toxics Management Spreadsheet recommended monitoring for Total Zinc since the 0.11 mg/L sample result provided with the renewal application is more than 10% of the 0.935 mg/L modeled WQBEL. Annual monitoring/reporting for Total Zinc is added to the permit.

Weekly monitoring and reporting for Ammonia-Nitrogen is carried over from the previous permit. Influent monitoring for BOD_5 and TSS is carried over from the previous permit. Monthly monitoring and reporting for Total Phosphorus and Total Nitrogen (Nitrate+Nitrite-N + TKN) is carried over from the previous permit and in accordance with DEP's Phase 3 Watershed Implementation Plan Wastewater Supplement (Revised, September 13, 2021). There are no Total Phosphorus or Total Nitrogen WLAs assigned to this non-significant Phase 4 Chesapeake Bay discharger.

As per DEP guidance, 1/quarter monitoring and reporting is added to the permit for E. Coli.

The 2021 Chapter 94 Report does not show current or projected hydraulic/organic overloads at the facility. Regarding biosolids treatment and disposal, the report indicates "Wastewater solids generated by the treatment process are pumped onto drying beds that are planted with reeds. These beds are designed to accumulate the solids, where they are then dewatered and further digested by the physical and microbiological activity associated with the reeds. In 2021, there was a total of 225,125 gallons applied to the sludge drying beds. In 2021, 209.87 tons were removed from beds #1 and #2 and properly disposed of at CES Landfill. SCMA did not accept sludge for processing at the Butler Township treatment plant during the year 2021."

DMR results over the previous 2 years shows one effluent limitation exceedance:

- April 2021: Fecal Coliform – 91,000 No./100mL IMAX (limitation was 10,000 No./100mL)

There are no open violations for this client that would warrant withholding the issuance of this permit. EPA waiver is in effect.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.24
Latitude	40º 45' 46.8"	Longitude	-76º 20' 14.9"
Quad Name	Ashland	Quad Code	1235
Wastewater Description:	Sewage Effluent		

Receiving Waters	Mahanoy Creek	Stream Code	17556
NHD Com ID	54962587	RMI	37.9
Drainage Area	43.5	Yield (cfs/mi^2)	0.18
Q_{7-10} Flow (cfs)	7.83	Q_{7-10} Basis	Gage 01555250
Elevation (ft)	807	Slope (ft/ft)	0.003
Watershed No.	6-B	Chapter 93 Class.	WWF/MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, Water/Flow Variability, pH		
Source(s) of Impairment	Abandoned Mine Drainage		
TMDL Status	Final	Name	Mahanoy Creek

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

Nearest Downstream Public Water Supply Intake		United Water Pennsylvania	
PWS Waters	Susquehanna River	Flow at Intake (cfs)	2,360 (using default LFY of 0.1 cfs/mi^2)
PWS RMI	61.6	Distance from Outfall (mi)	~75

Treatment Facility Summary

Treatment Facility Name: Butler Township Municipal Authority WWTP

WQM Permit No.	Issuance Date
5495405	5/2/1996

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Aeration	Sodium Hypochlorite	0.11 (2021)

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.24	480	Not Overloaded	Aerobic Digestion/ Reed Beds	Landfill

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.24
Latitude 40º 45' 46.8" **Longitude** -76º 20' 14.9"
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
$CBOD_5$	25.0	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40.0	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
	50.0	IMAX	-	-
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)
	60.0	IMAX	-	-
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)
	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)
	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
	1.1	IMAX	-	-

Water Quality-Based Limitations

A “Reasonable Potential Analysis” (PENTOX attachment) determined the following parameters were candidates for limitations: Total Copper

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
Dissolved Oxygen	5.0	Minimum	1995 Pollution Report
Total Copper	0.105 mg/L	Average Monthly	2016 PENTOX
	0.210 mg/L	IMAX	