pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0285340**
Wastewater Type	**Sewage**	APS ID	**1115674**
Facility Type	**SRSTP**	Authorization ID	**1488548**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Koon Meredith L**	Facility Name	**Koon Properties SRSTP**
Applicant Address	2921 Knowlson Avenue	Facility Address	482 Service Creek Road
	Pittsburgh, PA 15226-2029		Aliquippa, PA 15001-5714
Applicant Contact	Meredith Koon	Facility Contact	Same as applicant
Applicant Phone	(412) 303-5508	Facility Phone	Same as applicant
Client ID	341940	Site ID	873236
SIC Code	8800	Municipality	Independence Township
SIC Description	Private Households	County	Beaver
Date Application Received	June 12, 2024	WQM Required	yes
Date Application Accepted	June 14, 2024	WQM App. No.	0424402

Project Description: New NPDES Permit for sewage discharge

Summary of Review

The applicant proposed to construct a 0.0005 MGD Single Residence Sewage Treatment Plant (SRSTP).

The discharge is to Service Creek, which is classified as Warm Water Fishes (WWF), which is located in watershed 20D.

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		Jordan Coldsmith / Environmental Engineering Specialist	June 26, 2024
X		Christopher Kriley, P.E. / Program Manager	July 3, 2024

Discharge and Stream Data – 2 - Receiving Waters and PWS

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.0005
Latitude	40º 34' 52.28"	Longitude	-80º 19' 29.81"
Quad Name	Aliquippa	Quad Code	40080E3
Wastewater Description:	Sewage Effluent		
Receiving Waters	Service Creek (WWF)	Stream Code	33592
NHD Com ID	99682680	RMI	0.6700
Drainage Area	17.4	Yield (cfs/mi^2)	0.015
Q_{7-10} Flow (cfs)	0.266	Q_{7-10} Basis	USGS StreamStat
Elevation (ft)	1108	Slope (ft/ft)	
Watershed No.	20-D	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	**Metals; pH; Aluminum; Iron; Manganese; Low pH**		
Source(s) of Impairment	**Acid Mine Drainage**		
TMDL Status	Final	Name	Raccoon Creek Watershed

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

Nearest Downstream Public Water Supply Intake	DUQUESNE LIGHT CO-BVPS #1		
PWS Waters	Ohio River (WWF)	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	19.38

Changes Since Last Permit Issuance: N/A

Other Comments:

This discharge is tributary to the Raccoon Creek Watershed that has a Final TMDL and is impaired by metals. This sewage discharge is not expected to contribute to the stream impairment for which abandoned mine drainage is source of such impairment. No WLAs have been developed for this sewage discharge and they are not expected to contribute to the stream impairment for these pollutants. No limitations or monitoring requirements for iron, manganese, or aluminum will be placed on this SRSTP, as flows from SRSTP are considered insignificant.

Treatment Facility Summary

Treatment Facility Name: Koon Properties SRSTP

WQM Permit No.	Issuance Date
0424402	Under Deparment Review

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Aerobic	UV	0.0005

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0005		Not Overloaded		

Changes Since Last Permit Issuance: N/A – New Permit Issuance

Other Comments: WQM Permit No. 0424402 iscurrently under department review; approves construction of a STP with a rated annual average design flow of 0.0005 MGD. The treatment process consists of:

- Premier Tech Model EC7-P-P-Pack-DiUV

Act 537 planning for this project was approved May 31, 2024.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .0005
Latitude 40º 34' 54.61" **Longitude** -80º 19' 29.75"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

The following effluent limitations and monitoring requirements, at a minimum, will be established in all new and renewed SFTF permits based on the requirements of DEP's "Standard Operating Procedure (SOP) for Clean Water Program New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Application" (SOP No. BCW-PMT-003, Version 1.8, Final, November 9, 2012, Revised May 17, 2019).

Parameter	Avg	IMAX	Sample Type	Frequency: SFTFs	Frequency: SRSTPs
Flow (GPD)	Report	XXX	Estimate (SRSTPs) Measured (SFTFs)	1/month	1/year
BOD5 (mg/L)	10	20	Grab	1/month	1/year
TSS (mg/L)	10	20	Grab	1/month	1/year
pH*	6.0 S.U. Inst. Min.	9.0 S.U.	Grab	1/month	1/year
TRC (mg/L)	Report for SRSTPs; Use TRC Spreadsheet to determine WQBELs or 0.02 mg/L for SFTFs		Grab	1/month	1/year
Fecal Coliform (No./100 ml)	200 Geometric Mean (SFTFs) / Average (SRSTPs)		Grab	1/month	1/year

***** Technology-Based effluent limits for pH will be imposed based upon Federal Regulation 133.102(c) and State Regulation 95.2(1).

Additional Considerations:

For SFTFs/SRSTPs with UV disinfection systems, it is not necessary to require UV intensity or transmittance monitoring in this permit.

SFTFs/SRSTPs are not required to monitor for Total Nitrogen and Total Phosphorus in new and reissued permits.

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" (362-0400-001), SOPs and/or BPJ.

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

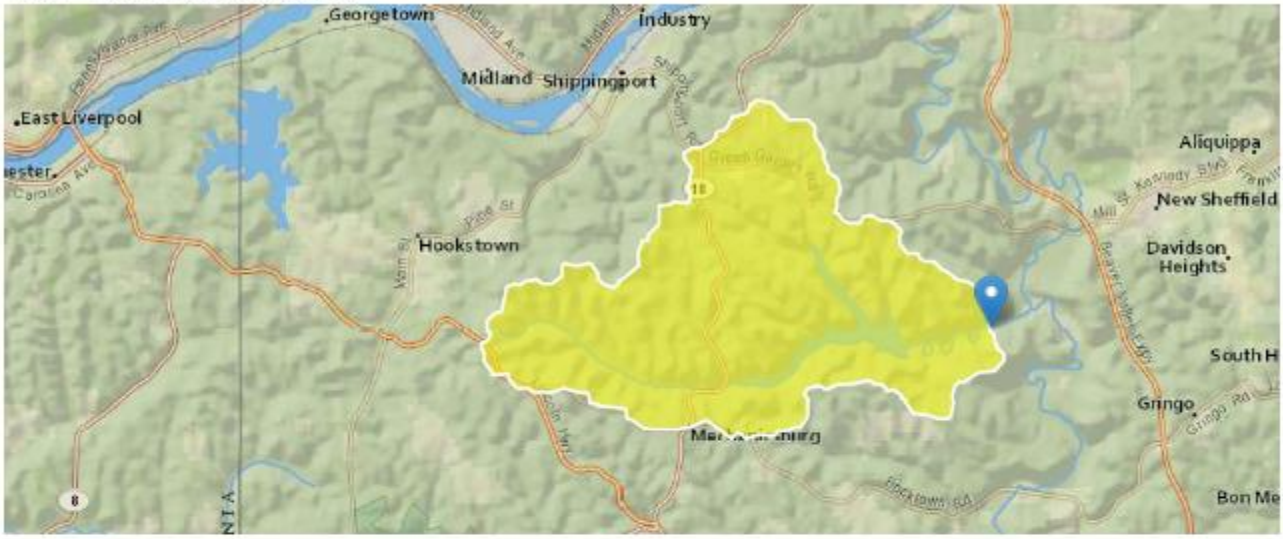
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Annual Average	Maximum	Instant. Maximum		
Flow (GPD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/year	Grab
CBOD5	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: N/A

StreamStats Report

Region ID: PA
Workspace ID: PA20240625170245554000
Clicked Point (Latitude, Longitude): 40.58119, -80.32465
Time: 2024-06-25 13:03:09 -0400



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Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	17.4	square miles
ELEV	Mean Basin Elevation	1108	feet

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	17.4	square miles	2.26	1400
ELEV	Mean Basin Elevation	1108	feet	1050	2580

Low-Flow Statistics Flow Report [Low Flow Region 4]

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

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	0.681	ft^3/s	43	43
30 Day 2 Year Low Flow	1.14	ft^3/s	38	38
7 Day 10 Year Low Flow	0.266	ft^3/s	66	66
30 Day 10 Year Low Flow	0.456	ft^3/s	54	54

Statistic	Value	Unit	SE	ASEp
90 Day 10 Year Low Flow	0.798	ft^3/s	41	41

Low-Flow Statistics Citations

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

Application Version: 4.21.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1