

Application Type New
Wastewater Type Sewage
Facility Type SRSTP

**NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP**

Application No. PA0284939
APS ID 1066380
Authorization ID 1401291

Applicant, Facility and Project Information

Applicant Name	<u>Teresa L Waihl</u>	Facility Name	<u>Waihl Properties SRSTP</u>
Applicant Address	<u>999 Eldersville Road</u> <u>Burgettstown, PA 15021-2531</u>	Facility Address	<u>999 Eldersville Road</u> <u>Burgettstown, PA 15021-2531</u>
Applicant Contact	<u>Teresa Waihl</u>	Facility Contact	<u>Teresa Waihl</u>
Applicant Phone	<u>(724) 554-1431</u>	Facility Phone	<u>(724) 554-1431</u>
Client ID	<u>370884</u>	Site ID	<u>858232</u>
SIC Code	<u>8800</u>	Municipality	<u>Jefferson Township</u>
SIC Description	<u>Private Households</u>	County	<u>Washington</u>
Date Application Received	<u>June 28, 2022</u>	WQM Required	<u>Yes</u>
Date Application Accepted	<u>June 29, 2022</u>	WQM App. No.	<u>6322403</u>
Project Description	<u>Application for a new NPDES permit authorize a discharge of a treated Sewage.</u>		

Summary of Review

The applicant proposes to construct a 400 GPD single residence sewage treatment plant to replace a malfunctioning on-lot system at an existing 3-bedroom home in Jefferson Township, Washington County.



The Engineer stated in his cover letter that this is an application for an existing four-bedroom single family dwelling, DEP called the applicant (Mrs. Waihl) which she corrected that information and confirmed that this application is to approve a treatment plant system for an existing three-bedroom home.

Any additional flow to this dwelling (e.g., addition of 100 GPD to the treatment system capacity) will have to go through DEP permit amendment process.

WQM Permit 6322403 will be issued concurrently with the final issuance of the NPDES Permit. The discharge is to an existing storm sewer inlet which flows through buried storm sewer pipe to UNT of Cross Creek, which is classified as WWF located in State Watershed 20-D.

The treatment plant that will be constructed on site consists of a Premier Tech EC7-500-P-P-PACK, which contains a concrete integrated septic tank, coco filter, DiUV disinfection unit of 500 GPD and effluent pump. The Premier Tech treatment unit has a rated capacity of 500 GPD and it's NSF Certified for the treatment of Residential Wastewater.

The Site Plan and the zoom in section on the plan (see page 7) shows an average of 234 feet of 2 in schedule 40 pipe that will deliver the effluent to the point of discharge (storm sewer inlet), which is located on the applicant's property and eventually discharges through an existing cross pipe to Tributary 33057.

Approve	Deny	Signatures	Date
X		 Hazim Aldalli / Environmental Engineering Specialist	July 26, 2022
x		 Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineer Manager	August 5, 2022

Summary of Review

Checking on the effluent pump specs and operation, the CPEH5 pump will generate a 65 inch of head that can travel a 100 ft of horizontal distance max. using a 1 1/2 Ø pipe. The pipe diameter listed on the Site plan is 2 inches and it is consistent with the DEP Small Facilities Manual, Dec. 2006.

The grade of ¼ inch per 1 foot listed on the Site Plan under General Notes, number 17 would be applicable to the discharge pipe to ensure gravity for the pumped effluent.

The pump will deliver the produced head to the discharge point about 234 ft of distance.

Sampling should be grabbed after disinfection. Sampling point is prescribed under -F- on page 1 of the Owner's Manual (see page 16 of the WQM application).

Current policy does not require eDMR to be used for SRSTPs.

Act 537 Planning was approved for this project on June 24, 2022.

The applicant has no open, or unresolved violations.

The Act – 14 PL 834 Municipal Notifications were provided by the March 12, 2022 letters attached to the application, and no comments were noticed.

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.

Discharge and Stream Data – 2 - Receiving Waters and PWS

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.0004</u>
Latitude	<u>40° 21' 28.26"</u>	Longitude	<u>-80° 26' 29.89"</u>
Quad Name	<u>Avella</u>	Quad Code	<u>40080C4</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary of Cross Creek (WWF)</u>	Stream Code	<u>33057</u>
NHD Com ID	<u>99691142</u>	RMI	<u>1.630</u>
Drainage Area	<u>0.24</u>	Yield (cfs/mi ²)	<u>0.006</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.00147</u>	Q ₇₋₁₀ Basis	<u>USGS StreamStats</u>
Elevation (ft)	<u>1282</u>	Slope (ft/ft)	<u>0.0014</u>
Watershed No.	<u>20-D</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use		Existing Use Qualifier	
Exceptions to Use	<u>None.</u>	Exceptions to Criteria	<u>None.</u>
Assessment Status	<u>Attaining Use(s): Aquatic Life.</u>		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	
Background/Ambient Data		Data Source	
pH (SU)			
Temperature (°F)			
Hardness (mg/L)			
Other:			
Nearest Downstream Public Water Supply Intake		Independence TWP Muni Auth	
PWS Waters	<u>Cross Creek</u>	Flow at Intake (cfs)	<u>0.473</u>
PWS RMI	<u>7.7</u>	Distance from Outfall (mi)	<u>>9.0</u>

Changes Since Last Permit Issuance: N/A (New Facility).

Other Comments: None.

Treatment Facility Summary								
Treatment Facility Name: Waltl Properties SRSTP.								
<table border="1"> <thead> <tr> <th>WQM Permit No.</th> <th>Issuance Date</th> </tr> </thead> <tbody> <tr> <td>6322403</td> <td>Processing</td> </tr> </tbody> </table>		WQM Permit No.	Issuance Date	6322403	Processing			
WQM Permit No.	Issuance Date							
6322403	Processing							
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)				
Sewage	Tertiary	Septic Tank, Sand Filter	Ultraviolet	0.0004				
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal				
0.0004	---	Not Overloaded	Septic Tank	-----				

Changes Since Last Permit Issuance: N/A (New Facility).

Development of Effluent Limitations

Outfall No.	001	Design Flow (MGD)	0.0004
Latitude	40° 21' 28.26"	Longitude	-80° 26' 29.89"

Wastewater Description: Treated Sewage Effluent

Technology-Based Limitations (TBELs)

The following effluent limitations and monitoring requirements, at a minimum, will be established in all new and renewed SRSTP 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).

** Use the Geometric Mean if the Sampling Frequency is at least 1/month. Use Annual Average, Semi-Annual Average or Quarterly Average if the Sampling Frequency is less than 1/month.

Additional Considerations:

After checking on the proposed treatment plant (Premier Tech EC7-500-P-P-PACK) technical specs, this treatment unit can achieve the stringent limits imposed since it is included in the facility’s design manual, and it is NSF approved.

Special application for the Dry condition for the proposed treatment system was set in the Engineers Report & Project Narrative document attached to the WQM application.

BOD₅ limitations were imposed instead of CBOD₅ which reflect the most stringent limitation amongst the Technology-Based Effluent Limitations and based upon the Department’s SOP – New and Reissuance Individual SRSTP NPDES Permits, and per DEP Small Flow Treatment Facilities Manual (Dec. 2006).

Technology-based effluent limits for pH will be imposed based upon State Regulation 95.2(1).

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

Sewage discharges with design flows < 2,000 gpd do not require monitoring for Total Nitrogen and Total Phosphorus in new and reissued permits.

Sampling frequency for all parameters is 1/year which is consistent with the Department’s SOP - New and Reissuance of SFTF Individual NPDES Permit Applications.

The applicant does not use eDMR and current policy does not require eDMR to be used for SRSTPs.

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)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Annual Average	Average Weekly	Minimum	Annual Average	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst. Min	XXX	9.0 Inst. Max	XXX	1/year	Grab
BOD5	XXX	XXX	XXX	10	XXX	20	1/year	Grab
TSS	XXX	XXX	XXX	10	XXX	20	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001.

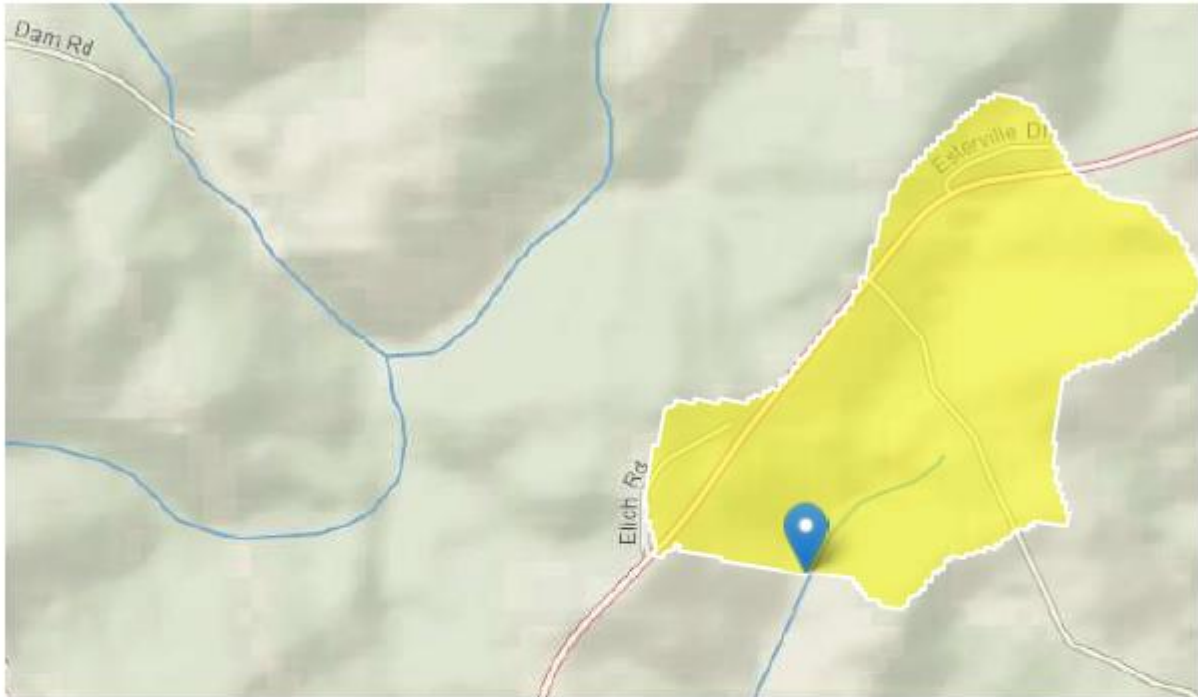
StreamStats Report

Region ID: PA

Workspace ID: PA20220630233926722000

Clicked Point (Latitude, Longitude): 40.35735, -80.44196

Time: 2022-06-30 19:39:46 -0400



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> Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.24	square miles
ELEV	Mean Basin Elevation	1282	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	0.24	square miles	2.26	1400
ELEV	Mean Basin Elevation	1282	feet	1050	2580

Low-Flow Statistics Disclaimers [Low Flow Region 4]

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 4]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.00584	ft ³ /s
30 Day 2 Year Low Flow	0.0121	ft ³ /s
7 Day 10 Year Low Flow	0.00147	ft ³ /s
30 Day 10 Year Low Flow	0.00352	ft ³ /s
90 Day 10 Year Low Flow	0.00783	ft ³ /s

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/>)

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