

Application Type New
Wastewater Type Sewage
Facility Type SRSTP

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

Application No. PA0255807
APS ID 1024805
Authorization ID 1329768

Applicant, Facility and Project Information

Applicant Name	<u>Phyllis Thomas Estate</u>	Facility Name	<u>Thomas Estate Property</u>
Applicant Address	<u>116 Allegheny Center Mall</u> <u>P8-YB35-02-6</u> <u>Pittsburgh, PA 15212</u>	Facility Address	<u>881 Blackburn Road</u> <u>Sewickley, PA 15143-1490</u>
Applicant Contact	<u>James Wilharm</u>	Facility Contact	<u>Pittsburgh, PA 15212</u>
Applicant Phone	<u>(412) 523-1672</u>	Facility Phone	<u>James Wilharm</u>
Client ID	<u>358875</u>	Site ID	<u>845519</u>
SIC Code	<u>8800</u>	Municipality	<u>Sewickley Heights Borough</u>
SIC Description	<u>Private Households</u>	County	<u>Allegheny</u>
Date Application Received	<u>October 5, 2020</u>	WQM Required	<u>Yes</u>
Date Application Accepted	<u>October 9, 2020</u>	WQM App. No.	<u>0220403</u>
Project Description	<u>Application for a new NPDES permit for discharge of treated Sewage.</u>		

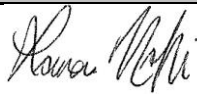

Summary of Review

On October 5, 2020, on behalf of the Phyllis Thomas Estate, F.R. Brant Company submitted an application for an NPDES permit for discharges of treated sewage from a new single residence sewage treatment plant (SRSTP). An application for a Water Quality Management (WQM) Permit No. 0220403 was submitted concurrently to authorize construction and operation of the SRSTP. An Act 537 Plan Revision was approved by letter dated August 24, 2020 to the Sewickley Heights Borough for 1.25 EDU's (500 GPD).

The new SRSTP will have a design flow of 500 GPD and a design organic loading of 0.90 lbs BOD-5/day and will replace a malfunctioning on-lot system at an existing 4-bedroom home in Sewickley Heights Borough of Allegheny County. The SRSTP will consist of a Singulair Bio-Kinetic Model 960-500 aerobic treatment tank, followed by a Hydro-Kinetic Bio-Film Reactor with a model AT 1500 UV disinfection system, and a 600-gallon dosing chamber. Treated effluent from the system will then discharge to a drainage channel discharging to an Unnamed Tributary to Little Sewickley Creek (HQ-TSF) located in State Watershed 20-G. A Small Flow Treatment Facility (SFTF) discharge to HQ waters is not eligible for the NPDES General Permit, as stated in the DEP's *Small Flow Treatment Facilities Manual* dated December 2, 2006 (Doc. No. 362-0300-002).

Per the Department's current Standard Operating Procedure (SOP)-*New and Reissuance SFTF Individual NPDES Permit Applications* (SOP No. BCW-PMT-003), the effluent limitations and monitoring requirements (shown on page 4 of the Fact Sheet), at a minimum, are to be established for new individual SRSTP permits. The sampling frequency for all parameters is 1/year based on the Department's SOP. Water quality modeling is not required for SRSTPs.

Sewage facilities with design flows less than 2,000 GPD are exempt from monitoring Total Nitrogen and Total Phosphorus in new and renewal permits. Since the applicant will use ultraviolet light for disinfection, no requirements for total residual

Approve	Deny	Signatures	Date
X		 Lauren Nolfi, E.I.T. / Environmental Engineering Specialist	April 8, 2021
X		 Donald J. Leone, P.E. / Environmental Engineer Manager	April 9, 2021

Summary of Review

chlorine are imposed. For SRSTPs with a UV system, it is not necessary to require UV intensity or transmittance monitoring in the permit. SRSTPs are excluded from the Electronic Discharge Monitoring Report (eDMR) system.

Technology-based effluent limits for pH and Fecal Coliform will be imposed based upon State Regulation 95.2(1) & 92a.47(a)(4).

Flow monitoring will be required pursuant to 25 Pa. Code § 92a.61(b).

The applicant has complied with Act 14 Notifications by letters dated September 16, 2020. No comments were received. Draft permit issuance is recommended.

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.

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
	Annual Average	Average Weekly	Instant. Minimum	Annual Average	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/year	Grab
Biochemical Oxygen Demand (BOD5)	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Total Suspended Solids	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

Discharge, Receiving Waters and Water Supply Information

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.0005</u>
Latitude	<u>40° 33' 01"</u>	Longitude	<u>-80° 09' 18"</u>
Quad Name	<u>Ambridge</u>	Quad Code	<u>1404</u>
Wastewater Description: <u>Sewage effluent</u>			
Receiving Waters	<u>Unnamed Tributary to Little Sewickley Creek (HQ-TSF)</u>	Stream Code	<u>Drainage Channel to 36664</u>
NHD Com ID	<u>99682968</u>	RMI	<u>1.77</u>
Drainage Area	<u>0.35 mi²</u>	Yield (cfs/mi ²)	<u>0.0063</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.0022</u>	Q ₇₋₁₀ Basis	<u>USGS StreamStats</u>
Elevation (ft)	<u>1043</u>	Slope (ft/ft)	<u>0.029</u>
Watershed No.	<u>20-G</u>	Chapter 93 Class.	<u>HQ-TSF</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>Cause Unknown</u>		
Source(s) of Impairment	<u>Highway/ Road/ Bridge Runoff (Non-Construction Related)</u>		
TMDL Status	<u></u>	Name	<u></u>
Nearest Downstream Public Water Supply Intake	<u>Duquesne Light Co-Phillips (PWS ID 5020848)</u>		
PWS Waters	<u>Ohio River</u>	Flow at Intake (cfs)	<u>0</u>
PWS RMI	<u>25.16</u>	Distance from Outfall (mi)	<u>7.62</u>

Changes Since Last Permit Issuance: None, New Permit

Other Comments: An Operations Compliance Check Summary Report is not necessary as it is a new discharge.

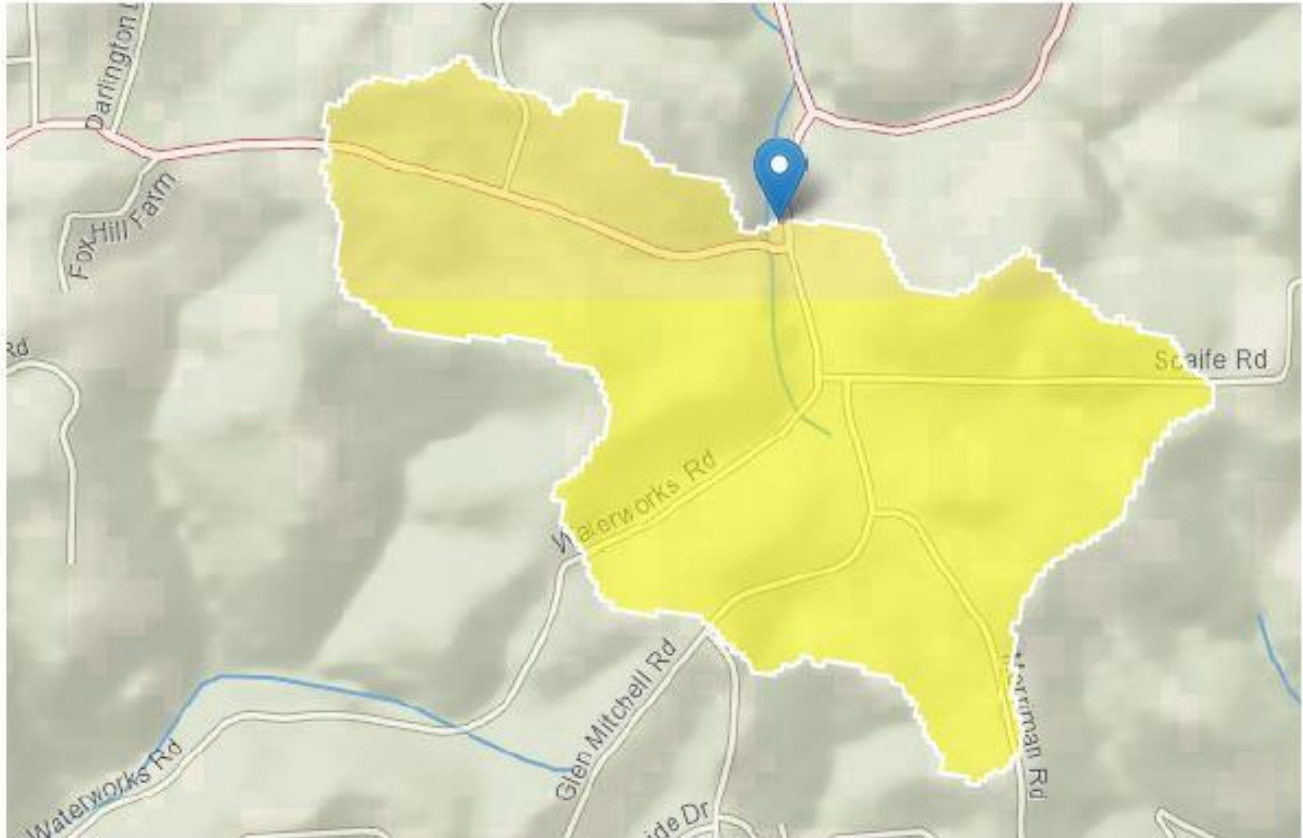
StreamStats Report

Region ID: PA

Workspace ID: PA20210406135313860000

Clicked Point (Latitude, Longitude): 40.55051, -80.14981

Time: 2021-04-06 09:53:24 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.35	square miles
ELEV	Mean Basin Elevation	1155	feet

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.35	square miles	2.26	1400
ELEV	Mean Basin Elevation	1155	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	0.00823	ft ³ /s
30 Day 2 Year Low Flow	0.0166	ft ³ /s
7 Day 10 Year Low Flow	0.0022	ft ³ /s
30 Day 10 Year Low Flow	0.00509	ft ³ /s
90 Day 10 Year Low Flow	0.0109	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/>)