Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0285412**
Wastewater Type	**Sewage**	APS ID	**1130353**
Facility Type	**SRSTP**	Authorization ID	**1514984**

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Applicant, Facility and Project Information

Applicant Name	**David Johnson**	Facility Name	**700 Lakeside Dr SRSTP**
Applicant Address	700 Lakeside Drive	Facility Address	700 Lakeside Drive
	Canonsburg, PA 15317-2483		Canonsburg, PA 15317-2483
Applicant Contact	David Johnson	Facility Contact	
Applicant Phone	(412) 860-1010	Facility Phone	
Client ID	390676	Site ID	877814
SIC Code	8800	Municipality	North Strabane Township
SIC Description	Private Households	County	Washington
Date Application Received	February 6, 2025	WQM Required	Yes
Date Application Accepted		WQM App. No.	6325400

Project Description: New construction of an SRSTP

Summary of Review

The proposed facility has a design flow of 400 GPD and serves an existing three-bedroom dwelling. The facility will be located in North Strabane Township, Washington County.

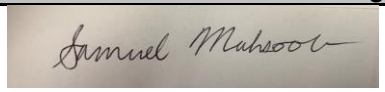
The facility discharges to an unnamed tributary to Little Chartiers Creek, a HQ-WWF.

WQM Permit 6325400 will be issued concurrently with the final permit.

The proposed facility consists of:

- One Norweco Singulair Bio-Kinetic Model 960-500 Three-Chamber Extended Aeration treatment system. This package unit is rated to treat 500 gpd of domestic wastewater.
- One Norweco Hydro-Kinetic Bio-Film Reactor for further treatment, with dosing chamber. This package unit is rated to treat 800 gpd of domestic wastewater.
- One Norweco Model AT 1500 UV Disinfection system within the dosing chamber.

The Norweco Singulair 960-500 HKBFR is an approved DEP technology and has been tested by an accredited third party to meet TSS, BOD, and fecal coliform. The applicant provided supplemental data from North American Testing that showed the facility is capable of treating Ammonia-Nitrogen to meet ABACT limits.

Approve	Return	Deny	Signatures	Date
x			 Sam Mahsoob, EIT / Environmental Engineering Trainee	3/20/2025
x			 Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineer Manager	Select Date
x			 Christopher Kriley, P.E. / Program Manager	Select Date

Summary of Review

Act 537 Planning was approved for this project on January 22, 2025.

Act 14 notification was provided to North Strabane Township and Washington county on January 24, 2025.

The applicant has no open or unresolved violations according to a client ID report requested on March 20, 2025.

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.	001	Design Flow (MGD)	.004
Latitude	40º 16' 0.67"	Longitude	-80º 7' 55.73"
Quad Name:	Canonsburg	Quad ID:	40080C2
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Little Chartiers Creek (HQ-WWF)	Stream Code	85857
NHD Com ID	99692542	RMI	0.6600
Drainage Area (sq mi)	44.7	Yield (cfs/mi^2)	.0186
Q_{7-10} Flow (cfs)	.874	Q_{7-10} Basis	USGS
Elevation (ft)	1160	Slope (ft/ft)	
Watershed No.	20-F	Chapter 93 Class.	HQ-WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	NUTRIENTS, NUTRIENTS, SILTATION		
Source(s) of Impairment	HABITAT MODIFICATION - OTHER THAN HYDROMODIFICATION, HABITAT MODIFICATION - OTHER THAN HYDROMODIFICATION, URBAN RUNOFF/STORM SEWERS		
TMDL Status	Final, Final	Name	Chartiers Creek, Chartiers Creek Watershed

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

Nearest Downstream Public Water Supply Intake	West View Water Authority, PWS ID 5030043		
PWS Waters	Ohio River	Flow at Intake (cfs)	4730
PWS RMI	35.26	Distance from Outfall (mi)	29.97 River Miles

Technology-Based Limitations (TBELs)

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).

Comments: This is a new SRSTP with UV disinfection. The facility will not be required to measure TRC due to the absence of chlorination facilities.

Anti-Degradation Best Available Combination of Technology (ABACT)

Outfall 001 discharges to an unnamed tributary to Mingo Creek, a HQ-TSF stream. The discharge for this SRSTP is a treated residential sewage flow of 400 GPD.

The following Antidegradation Best Available Combination of Technologies (ABACT) effluent limits, at a minimum, will be established based on the requirements in Chapter 9 and Appendix B of DEP's "Water Quality Antidegradation Implementation Guidance" (Doc. No. 391-0300-002; November 29, 2003).

Parameter	Treatment Process Performance Expectations (mg/L)		
	<2,000 gpd	2,000-50,000 gpd	>50,000 gpd
$CBOD_5$ (May 1 – Oct. 31)	**10**	10	10
$CBOD_5$ (Nov. 1 – Apr. 30)	**20**	20	10
Suspended Solids	**20**	10	10
NH_3-N (May 1 – Oct. 31)	**5.0**	3.0	1.5
NH_3-N (Nov. 1 – Apr. 30)	**15.0**	9.0	4.5
Effective disinfection	Disinfection should be accomplished using a method that leaves no detectable residual. Disinfection using ultra-violet light or other non-chlorine based systems is encouraged and must be considered.		
Other parameters, as needed	*Determined by the size and characteristics of the proposed discharge, may include – NO_2/NO_3-N, Total Phosphorus, Copper, Lead, Zinc*		

Additional Considerations:

Monitoring Frequency

Chapter 6.B. of the Permit Writer's Manual (DEP Document No. 386-0400-001, Revised June 28, 2023) describes the self-monitoring requirements for NPDES Permits. Table 6-3 outlines minimum flow-based monitoring frequencies. The SOP does not list a minimum frequency for Ammonia-Nitrogen monitoring, so Table 6-3 was used to determine 2/yr monitoring frequency.

Chapter 6.B. lists impact of discharge on receiving stream and the expense of monitoring as a factor that should be considered in establishing self-monitoring requirements. For this discharge to a High-Quality stream, the 2/yr monitoring of $CBOD_5$, Total Suspended Solids, Fecal Coliform, pH, and Flow was selected.

2/yr monitoring is established for $CBOD_5$, Total Suspended Solids, pH, Flow, and Fecal Coliform based on the following factors:

- The impact and quality of the receiving stream.
- The fact that an effluent sample will be collected at least twice per year due to Ammonia-Nitrogen monitoring per Table 6-3.

Table 6-3 – Self-Monitoring Requirements for SEWAGE Discharges

Plant Design Flow (MGD)	Flow Monitoring	C-BOD_5 or BOD_5	Suspended Solids	pH	Fecal Coliform	Chlorine Residual	NH_3-N	Phosphorus	DO	Toxics
Single Residence *(Individual Permit)*	2/year by estimate	2/year*	2/year*	1/mont h*	2/year*	1/month*	2/year*	2/year*	2/year*	N/A
.0005 to .002	weekly, using average pump rate or weir (a)	1/month*	1/month*	daily*	1/month*	daily*	1/month*	1/month*	daily*	N/A
.002 to .01	weekly, using average pump rate or weir (a)	2/month*	2/month*	daily*	2/month*	daily*	2/month*	2/month*	daily*	N/A
0.01 to 0.1	weekly, using average pump rate or weir (a)	2/month*	2/month*	daily*	2/month*	daily*	2/month*	2/month*	Daily*	1/week*
0.1 to 1.0	meter	1/week**	1/week**	daily*	1/week*	daily*	1/week**	1/week**	daily*	1/week****
1.0 to 5.0	meter	2/week***	2/week***	daily*	2/week*	daily*	2/week***	2/week***	daily*	1/week****
5.0 to 25.0	meter	daily***	daily***	daily*	daily*	1/shift*	daily***	daily***	daily*	1/week****
over 25.0	meter	daily***	daily***	1/shift*	daily*	1/shift*	1/shift***	1/shift***	1/shift*	1/week****

* Grab sample-these should be most representative of the effluent and are to be taken at a time when the normal daily maximum flow would reach the sampling point.

** 8-hour composite sample.

*** 24-hour composite sample.

**** Same sample type as for Industrial Process Wastewater (See Table 6-4).

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	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	2/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	2/year	Grab
CBOD5	XXX	XXX	XXX	10.0	XXX	20.0	2/year	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	2/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200 Geo Mean	XXX	XXX	2/year	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	15.0	XXX	30.0	2/year	Grab
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	5.0	XXX	10.0	2/year	Grab

Compliance Sampling Location: Outfall 001

Appendices

A. Compliance Check

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER MANAGEMENT SYSTEM
OPEN VIOLATIONS BY CLIENT

3/20/2025 10:44:49 AM

Client ID: 390676
Client: All

Open Violations: 0

No data was found using the criteria entered. Please revise your choices and try again.

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B. StreamStats Report