Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**New**	Application No.	**PA0285463**
Wastewater Type	**Sewage**	APS ID	**1149511**
Facility Type	**SRSTP**	Authorization ID	**1547537**

NPDES PERMIT FACT SHEET INDIVIDUAL SRSTP/SRSTP

Applicant, Facility and Project Information

Applicant Name	**Leydig Cameron**	Facility Name	**439 Lower Whites Creek Rd SRSTP**
Applicant Address	439 Lower Whites Creek Road	Facility Address	439 Lower Whites Creek Road
	Confluence, PA 15424-2436		Confluence, PA 15424-2436
Applicant Contact	Cameron Leydig	Facility Contact	Same as Applicant
Applicant Phone	(814) 979-4699	Facility Phone	Same as applicant
Client ID	396149	Site ID	884183
SIC Code	8800	Municipality	Confluence Borough
SIC Description	Private Households	County	Somerset
Date Application Received	October 29, 2025	WQM Required	Yes
Date Application Accepted	October 30, 2025	WQM App. No.	5625401

Project Description: Application for a new NPDES permit that authorizes the discharge of treated Sanitary Sewage.

Summary of Review

The applicant proposes constructing a 400 GPD Single Residence Sewage Treatment Plant (SRSTP) for an existing three-bedroom dwelling in Confluence Borough, Somerset County. The proposed SRSTP will replace the existing malfunctioning on-lot system.

WQM Permit No. 5625401 will be issued concurrently with the final issuance of the NPDES Permit.

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.

The discharge is directly to UNT Whites Creek which is classified as HQ-CWF and located in State Watershed 19-F.

This discharge does not qualify for a general permit because it discharges to a high-quality stream. General permits cannot be issued to high-quality streams.

This permit is being issued to approve the operation and discharge of treated sewage effluent from a SRSTP consisting of :

- Two parallel Singulair Bio-Kinetic Model 960-500 Treatment tank. This system is rated for a 2355 gallons of storage, and up to 600 gpd to treat.
- Three treatment chambers (Flow Equalization, Pretreatment, Aeration, Clarification, and Tertiary Filtration) connected in series with a total volume of 1300 gallons.
- Hydro-Kinetic Bio-Film Reactor (HKBFR) system installed in the clarification chamber which mainly include Micronically Molded Design Flow Filter, and a peak flow filter.

Approve	Deny	Signatures	Date
X		Hazim Aldalli / Project Manager	January 16, 2026
X		Christopher Kriley, P.E. / Program Manager	January 16, 2026

Summary of Review

- A Norweco AT 1500 UV Disinfection System preinstalled by the manufacturer.

The proposed treatment unit has a rated capacity of 1350 GPD and it's NSF Certified for the treatment of Residential Wastewater.

Sampling should be grabbed after disinfection.

DEP's current policy does not require eDMR to be used for SRSTP.

Act 537 Planning was approved for this project on August 12, 2025. The facility has failing on-lot system; therefore, the applicant is seeking approval for direct discharge to UNT of Whites Creek.

The Act – 14 PL 834 Municipal Notifications were provided by the August 19, 2025, 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.	001	Design Flow (MGD)	0.0004
Latitude	39º 45' 12.43"	Longitude	-79º 19' 14.90"
Quad Name	Ohiopyle	Quad Code	39079G4
Wastewater Description:	Sewage Effluent		

Receiving Waters	Whites Creek (HQ-CWF)	Stream Code	UNT To Whites Creek
NHD Com ID	69923069	RMI	0.60
Drainage Area	0.047	Yield (cfs/mi^2)	0.0053
Q_{7-10} Flow (cfs)	0.00025	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1947	Slope (ft/ft)	0.02
Watershed No.	19-F	Chapter 93 Class.	HQ-CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use	None.	Exceptions to Criteria	None.
Assessment Status	Impaired		
Cause(s) of Impairment	METALS		
Source(s) of Impairment	ACID MINE DRAINAGE		
TMDL Status	Final	Name	Whites Creek Watershed

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

Nearest Downstream Public Water Supply Intake	INDIAN CREEK VALLEY WATER AUTH		
PWS Waters	Youghiogheny River	Flow at Intake (cfs)	390
PWS RMI	63.1	Distance from Outfall (mi)	>15.0

Changes Since Last Permit Issuance: None (new permit).

Other Comments: None.

Treatment Facility Summary				
Treatment Facility Name: 439 Lower Whites Creek Rd SRSTP				
WQM Permit No.	**Issuance Date**			
5625401	Processing			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Tertiary	Extended Aeration	Ultraviolet	0.0004
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.0004	0.9	Not Overloaded	Aerobic Tank	None/Semi Annual Cleaning

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

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.0004
Latitude 39º 45' 12.43" **Longitude** -79º 19' 14.90"
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 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 November 9, 2023).

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 TBELs:

Outfall 001 discharges to UNT of Whites Creek, which is classified as a HQ-CWF.

The following Antidegradation Best Available Combination of Technologies (ABACT) effluent limits, at a minimum, will be established based on the requirements 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*		

The limitations and monitoring requirements, specified on page 7 of this Fact Sheet, reflect the most stringent limitation amongst the above Technology-Based Effluent Limitations.

Additional Considerations:

Annual BOD_5 limitations will be imposed instead of $CBOD_5$ seasonal limits which reflect the most stringent limitation amongst the Technology-Based Effluent Limitations and also based upon the Department's SOP – *New and Reissuance Individual SFTF NPDES Permits*, and per DEP *Small Flow Treatment Facilities Manual* (Nov. 2023).

Due to antibacksliding rules, TBELs for Suspended Solids AML of 10 mg/L will be applied for this discharge since the anti-degradation limits are less stringent.

Based on the proposed design discharge, and after applying the anti-degradation analysis results, Ammonia-Nitrogen NH_3-N seasonal limits will be AML of 5.0 mg/L, Ins Max of 10.0 mg/L for the warm period, and AML of 15 mg/L, Ins Max of 30 mg/L for the cold period.

SFTFs/SRSTPs are not required to monitor Total Nitrogen and Total Phosphorus in new and reissued permits. Also, the receiving stream is not impaired with nutrients.

Using UV for disinfection is compatible with the SOP No. BCW-PMT-003 Rev. November 9, 2023, Sec. F.2. Special condition Part C 150 will be included within the new permit to ensure good O&M practices.

This plant is discharging to UNT Whites Creek, Whites Creek is affected by pollution from AMD, this pollution has caused high levels of metals, and in some cases low pH in the watershed. Due to the nature of this discharge, and the insignificant effluent quantity; this sanitary sewage discharge is not expected to contribute to the stream Metals impairments, and therefore, no limits or monitoring are imposed for this permit.

Annual sampling frequencies will be imposed for the proposed facility that are consistent with current policy and Table 6-3 of DEP's Technical Guidance for the Development and Specification of Effluent Limitations.

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	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/year	Grab
BOD5	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 Geo Mean	XXX	1000	1/year	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	15.0	XXX	30.0	1/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	5.0	XXX	10.0	1/month	Grab

Compliance Sampling Location: Outfall 001 at the proposed sampling port.

Other Comments: Effluent sampling should be always after disinfection.

ATTACHMENT A:
USGS StreamStats

StreamStats Report

Region ID: PA
Workspace ID: PA20251113143546712000
Clicked Point (Latitude, Longitude): 39.75475, -79.32328
NHD Stream GNIS Name of Click Point: Stream name not found
Time: 2025-11-13 09:36:10 -0500

Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.047	square miles
ELEV	Mean Basin Elevation	1974	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	0.047	square miles	2.26	1400
ELEV	Mean Basin Elevation	1974	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	0.00131	ft^3/s
30 Day 2 Year Low Flow	0.00299	ft^3/s
7 Day 10 Year Low Flow	0.00025	ft^3/s
30 Day 10 Year Low Flow	0.000707	ft^3/s
90 Day 10 Year Low Flow	0.00188	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/)

NHD Features of Delineated Basin

NHD Streams Intersecting Basin Delineation Boundary

This functionality attempts to find the stream name at the delineation point. The name of the nearest intersecting National Hydrography Dataset (NHD) stream is selected by default to appear in the report above. NHD streams do not correspond to the StreamStats stream grid and may not be accurate. If you would like a different stream to appear in the above section, please make a selection below.

No NHD streams intersect the delineated basin.

Watershed Boundary Dataset (WBD) HUC 8 Intersecting Basin Delineation Boundary

This functionality attempts to find the intersecting HUC 8 of the delineated watershed. HUC boundaries do not correspond to the StreamStats data and may not be accurate.

No WBD HUC8s intersect the delineated basin.

NHD Hydrologic Features Citations

U.S. Geological Survey, 2022, USGS TNM - National Hydrography Dataset, accessed July 21, 2022 at URL https://hydro.nationalmap.gov/arcgis/rest/services/nhd/MapServer/6. (https://hydro.nationalmap.gov/arcgis/rest/services/nhd/MapServer/6)
U.S. Geological Survey, 2022, USGS TNM - National Hydrography Dataset, accessed July 21, 2022 at URL https://hydro.nationalmap.gov/arcgis/rest/services/wbd/MapServer/4. (https://hydro.nationalmap.gov/arcgis/rest/services/wbd/MapServer/4)

Application Version: 4.29.3
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1