

Application Type Renewal
Facility Type Municipal
Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0276057 A-1
APS ID 1077168
Authorization ID 1427038

Applicant and Facility Information

Applicant Name	<u>Wyoming Valley Sanitary Authority</u>	Facility Name	<u>Valley View Estates Sewage Treatment Plant</u>
Applicant Address	<u>1000 Wilkes Barre Street, P.O. Box 33A Hanover Township, PA 18706-5244</u>	Facility Address	<u>101 Delbrook Way Larksville, PA 18704</u>
Applicant Contact	<u>James Tomaine, Executive Director</u>	Facility Contact	<u>James Tomaine, Executive Director</u>
Applicant Phone	<u>(570) 825-0366</u>	Facility Phone	<u>(570) 714-9846</u>
Client ID	<u>338693</u>	Site ID	<u>256506</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Larksville Borough</u>
Connection Status	<u>Dept. Imposed Connection Prohibitions</u>	County	<u>Luzerne</u>
Date Application Received	<u>February 9, 2023</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>February 16, 2023</u>	If No, Reason	<u>-</u>
Purpose of Application	<u>Renewal and Transfer of NPDES Permit for Discharge of Treated Sewage</u>		

Summary of Review

The applicant is requesting the renewal and transfer of an NPDES permit to discharge up to 0.002 MGD of treated sewage into Brown Creek, a Cold-Water Fishery, Migratory Fish (CWF, MF) receiving stream in State Water Plan Basin 5-B (Wapwallopen Creeks). As per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than its designated use. This stream segment is not designated as a naturally reproducing trout stream as per PA Fish & Boat Commission. This discharge is not expected to affect public water supplies.

The permit is being transferred from Larksville Borough (Client ID: 111392) to Wyoming Valley Sanitary Authority (Client ID 338693). An "A-1" notation has been added after the NPDES permit to represent the number of transfers since the original permit was issued.

The existing WQM permits associated with this facility and Larksville Borough (WQM Permits 4017405 and 4036073) are also being transferred with this NPDES Permit. WQM 4017405 is for this treatment plant itself and WQM 4036073 is for the conveyance system. The WQM transfers will have a separate Fact Sheet than this NPDES Fact Sheet.

The facility serves five residential EDUs. The previous NPDES permit was issued as a Minor Sewage Facility (<0.05 MGD) NPDES Permit but used limits that are associated with a Small Flow Treatment Facility (SFTF). The same approach has been utilized for this renewal.

Limitations for pH, BOD₅, Total Suspended Solids (TSS), Dissolved Oxygen (DO), and Fecal Coliform are technology-based and carried over from the previous permit.

The previous permit had a monitoring/reporting requirement for Ammonia-Nitrogen at a frequency of 1/year. The sampling frequency is being updated to 1/month to be consistent with Table 6-3 of DEP's *Technical Guidance for the Development and Specification of Effluent Limitations*. WQM 7.0 modeling did not recommend stricter limitations.

Approve	Deny	Signatures	Date
X		Allison Seyfried (signed) Allison Seyfried / Project Manager	August 8, 2023
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Program Manager	10-3-23

Summary of Review

The annual monitoring and reporting for Total Nitrogen, Total Phosphorous, Total Kjeldahl Nitrogen, and Nitrate-Nitrite as N has been maintained in this permit. The annual influent BOD5 and TSS monitoring/reporting has also been maintained in this permit.

The facility utilizes Ultraviolet (UV) disinfection as the primary disinfection method. In the event the facility uses chlorine for cleaning purposes or as a back-up disinfection option, Total Residual Chlorine (TRC) should be sampled "daily when discharging" (see requirements under Part C.I.G). The TRC Calculation Spreadsheet did not recommend stricter limitations than the previous permit.

Sewage discharges now require monitoring and reporting for E. Coli. A monitoring frequency of 1/month for design flows \geq 1 MGD, 1/quarter for design flows \geq 0.05 and $<$ 1 MGD, 1/year for design flows of 0.002 – 0.05 MGD will be utilized.

The required sample type for the monitoring/reporting of flow has been changed from "Estimate" to "Measured" to be consistent with the Standard Operating Procedure for Small Flow Treatment Facilities.

There are no representative stream gages in the vicinity of the outfall and the drainage area at Outfall 001 is too small for USGS StreamStats to estimate accurate low flow values. Therefore, the default Low Flow Yield (LFY) of 0.1 cfs/mi² was used to model the discharge. For modeling inputs, RMI values were obtained using the "PA Historic Streams" feature of eMapPA, drainage areas were delineated using USGS's StreamStats Interactive Map, and elevations were obtained using the elevation profile feature of StreamStats.

The existing permit expired on March 23, 2023. The renewal application was not received until February 9, 2023. A cover letter was submitted with the application that stated there was a phone call on January 27, 2023 with DEP where it was discussed that the "current NPDES permit will be administratively extended until such time as a new permit is issued".

A Water Management System Inspection query indicated that on March 6, 2018 a Compliance Evaluation was performed.

There are currently no open violations for this facility that warrant withholding issuance of this permit. Please note that there are two open violations for Larksville Borough dated 9/25/2020 that are in regard to the MS4 permit.

Sludge use and disposal description and location(s): As per the permittee's May 2023 Sewage Sludge and Biosolids Supplemental Report form, sludge is hauled to Wyoming Valley Sanitary in Hanover Township, PA by Wyoming Valley Sanitary.

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, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.002
Latitude	41° 16' 16.12"	Longitude	-75° 57' 15.31"
Quad Name	Kingston	Quad Code	0838
Wastewater Description: Sewage Effluent			
Receiving Waters	Brown Creek (CWF, MF)	Stream Code	28356
NHD Com ID	65634017	RMI	3.139
Drainage Area	0.0376	Yield (cfs/mi ²)	0.10
Q ₇₋₁₀ Flow (cfs)	0.004	Q ₇₋₁₀ Basis	State-wide default
Elevation (ft)	1,335.54	Slope (ft/ft)	-
Watershed No.	5-B	Chapter 93 Class.	CWF, MF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	-		
Source(s) of Impairment	-		
TMDL Status	-	Name	-
Nearest Downstream Public Water Supply Intake	Danville Municipal Water Authority		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	-
PWS RMI	122.58	Distance from Outfall (mi)	~ 50

Treatment Facility Summary				
Treatment Facility Name: Valley View Estates STP				
WQM Permit No.	Issuance Date			
4017405	March 27, 2018			
4036073	August 1, 1977			
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Septic Tank plus recirculating sand/gravel filter	Ultraviolet	0.002
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.00175	4.8	Not Overloaded	-	Hauled

Compliance History

DMR Data for Outfall 001 (from July 1, 2022 to June 30, 2023)

Parameter	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22
Flow (MGD) Average Monthly	0.0005	0.0006	0.0006	0.0009	0.0006	0.0009	0.0008	0.0006	0.0005	0.0007	0.0005	0.0004
Flow (MGD) Daily Maximum	0.0038	0.0055	0.0021	0.0028	0.0015	0.0020	0.0026	0.0017	0.0015	0.0034	0.0008	0.0011
pH (S.U.) Instantaneous Minimum	6.7	6.7	6.8	6.5	6.7	6.8	6.7	6.8	6.6	6.5	6.4	6.3
pH (S.U.) IMAX	8.0	8.9	7.8	8.4	8.7	8.2	7.9	7.8	7.7	7.5	8.0	8.2
DO (mg/L) IMAX	7.1	7.5	10.0	9.1	10.4	9.92	9.82	9.4	3.8	3.2	5.38	5.77
TRC (mg/L) Average Monthly	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG
TRC (mg/L) IMAX	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG
BOD5 (lbs/day) Average Monthly	0.01	0.02	0.02	0.04	0.03	0.04	0.023	0.012	0.03	0.01	0.004	0.008
BOD5 (lbs/day) Raw Sewage Influent Annual Average							2.15					
BOD5 (lbs/day) Raw Sewage Influent Daily Maximum							13.04					
BOD5 (mg/L) Average Monthly	2.9	4.2	3.57	5.2	5.1	6.0	3.4	2.4	6.0	2.2	1.0	2.4
BOD5 (mg/L) Raw Sewage Influent Annual Average							143.5					
TSS (lbs/day) Average Monthly	0.01	0.03	0.01	0.02	0.02	0.03	0.025	0.042	0.01	0.01	0.008	0.008
TSS (lbs/day) Raw Sewage Influent Annual Average							3.6					
TSS (lbs/day) Raw Sewage Influent Daily Maximum							22.2					
TSS (mg/L) Average Monthly	2.6	5.2	2.6	2.2	3.8	4.4	3.8	8.4	3.2	2.2	2.0	2.4

**NPDES Permit Fact Sheet
Valley View Estates Sewage Treatment Plant**

NPDES Permit No. PA0276057 A-1

TSS (mg/L) Raw Sewage Influent Annual Average							242					
Fecal Coliform (No./100 ml) Geometric Mean	< 1	1	< 1	17	14	48	< 1	1	18	< 1	1	1
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 1	1	< 1	17	14	48	< 1	1	18	< 1	1	1
Nitrate-Nitrite (lbs/day) Annual Average										< 0.105		
Nitrate-Nitrite (mg/L) Annual Average										< 5.51		
Total Nitrogen (lbs/day) Annual Average										< 0.114		
Total Nitrogen (mg/L) Annual Average										< 5.01		
Total Nitrogen (lbs) Total Annual										< 41.61		
Ammonia (lbs/day) Annual Average										< 0.0019		
Ammonia (mg/L) Annual Average										< 0.10		
Ammonia (mg/L) Daily Maximum										< 0.10		
Ammonia (lbs) Total Annual										< 0.69		
TKN (lbs/day) Annual Average										< 0.0095		
TKN (mg/L) Annual Average										< 0.50		
Total Phosphorus (lbs/day) Annual Average										0.015		
Total Phosphorus (mg/L) Annual Average										0.77		
Total Phosphorus (lbs) Total Annual										5.34		

Compliance History

Effluent Violations for Outfall 001, from: August 1, 2022 To: June 30, 2023

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
DO	09/30/22	Inst Min	3.2	mg/L	5.0	mg/L
DO	10/31/22	Inst Min	3.8	mg/L	5.0	mg/L

Development of Effluent Limitations

Outfall No. <u>001</u>	Design Flow (MGD) <u>0.002</u>
Latitude <u>41° 16' 21.80"</u>	Longitude <u>-75° 57' 8.70"</u>
Wastewater Description: <u>Sewage Effluent</u>	

Permit Limits/Monitoring Requirements:

Parameter	Limit (mg/L unless otherwise specified)	SBC	Model/Basis
BOD5	Report 10.0 20.0	Monthly Average Monthly Average IMAX	Technology-based limit for SFTFs
TSS	Report 10.0 20.0	Monthly Average Monthly Average IMAX	Technology-based limit for SFTFs
pH	6.0 – 9.0 SU	Inst. Min - IMAX	Technology-based limit for SFTFs
Fecal Coliform	200/100 ml 1,000/100 ml	Geo Mean IMAX	Technology-based limit for SFTFs
Dissolved Oxygen (DO)	5.0	Inst. Min	Previous permit
Total Residual Chlorine (TRC)	0.18 0.42	Average Monthly IMAX	UV Disinfection is the approved method of disinfection. Due to I&I uncertainties and chlorine minimization condition, WQBEL limits have been maintained from previous permit
Ammonia-Nitrogen	Report (lbs/d) Report	Monthly Average Monthly Average	<i>Table 6-3 of DEP's Technical Guidance for the Development and Specification of Effluent Limitations</i>
BOD5 Influent	Report Report	Annual Average Daily Max	Maintained from previous permit
TSS Influent	Report Report	Annual Average Daily Max	
Total Nitrogen	Report (lbs/day) Report	Annual Average Annual Average	The facility discharges in the Chesapeake Bay watershed. Annual monitoring/reporting is maintained from previous permit.
Total Kjeldahl Nitrogen	Report (lbs/day) Report	Annual Average Annual Average	
Nitrate-Nitrite as N	Report (lbs/day) Report	Annual Average Annual Average	
Total Phosphorus	Report (lbs/day) Report	Annual Average Annual Average	

Anti-Backsliding

No limitations were made less stringent.

DRAFT

Approve	Deny	Signatures	Date
X		Allison Seyfried (signed) Allison Seyfried / Project Manager	August 8, 2023
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Program Manager	10-3-23