

Application Type Renewal
 Facility Type Non-Municipal
 Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0039551
 APS ID 1059262
 Authorization ID 1507847

Applicant and Facility Information

Applicant Name	<u>Lebanon Valley MHP LLC</u>	Facility Name	<u>Lebanon Valley MHP</u>
Applicant Address	<u>PO Box 173</u> <u>East Petersburg, PA 17520-0173</u>	Facility Address	<u>392 Freeport Road</u> <u>Lebanon, PA 17046</u>
Applicant Contact	<u>Jonathan Mumma</u>	Facility Contact	<u>Jonathan Mumma</u>
Applicant Phone	<u>(240) 353-4885</u>	Facility Phone	<u>(240) 353-4885</u>
Client ID	<u>368376</u>	Site ID	<u>260847</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Bethel Township</u>
Connection Status		County	<u>Lebanon</u>
Date Application Received	<u>November 22, 2024</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>November 27, 2024</u>	If No, Reason	
Purpose of Application	<u>Permit renewal for discharge of treated sewage.</u>		

Summary of Review

1.0 General Discussion

This fact sheet supports the renewal of an existing NPDES permit for a discharge of treated domestic sewage from an existing mobile home known as Lebanon Valley MHP formerly Lebanon Valley Mobile Home Community (Lebanon Valley MHC). The permit was transferred from Lebanon Valley MHC to Lebanon Valley MHP LLC on June 22, 2022. Lebanon Valley MHP now owns and operates the wastewater treatment plant, which provides sanitary services for the mobile home community. The plant has a design capacity of 0.012 mgd, and discharges to an unnamed tributary of Swatara Creek which is classified for warm water fishes (WWF). Previous factsheets indicate the discharge point is considered to be dry. The existing limits were developed following the dry stream guidance of 2003. The document has been revised in 2008 with new sets of limits which are applicable to new and expanding facilities. This facility is not expanding and will not be required to meet the new limits. The existing limits will apply again for this permit renewal. The existing NPDES permit was issued on December 26, 2019 with an effective date of January 1, 2020 and expiration date of December 31, 2024. The applicant submitted permit renewal application to the Department and is currently operating under the terms and conditions in the existing permit pending Department action on the renewal application. A topographic map showing the discharge location is presented in attachment A

1.1 Sludge use and disposal description and location(s):

Digested sludge is hauled out periodically by a license hauler

Approve	Deny	Signatures	Date
X		<i>J. Pascal Kwedza</i> J. Pascal Kwedza, P.E. / Environmental Engineer	October 14, 2025
X		<i>Maria D. Bebenek for</i> Daniel W. Martin, P.E. / Environmental Engineer Manager	October 20, 2025
X		<i>Maria D. Bebenek</i> Maria D. Bebenek, P.E. / Program Manager	October 20, 2025

Summary of Review

1.2 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.

1.3 Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.012</u>
Latitude	<u>40° 23' 29.65"</u>	Longitude	<u>-76° 23' 46.46"</u>
Quad Name	_____	Quad Code	_____
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Unnamed Tributary to Little Swatara Creek (WWF)</u>	Stream Code	<u>None/(09906@POFU)</u>
NHD Com ID	<u>56396563</u>	RMI	<u>0.45</u>
Drainage Area	<u>0.10</u>	Yield (cfs/mi ²)	<u>0.056</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.012 @ POFU</u>	Q ₇₋₁₀ Basis	_____
Elevation (ft)	_____	Slope (ft/ft)	_____
Watershed No.	<u>7-D</u>	Chapter 93 Class.	<u>WWF</u>
Existing Use	_____	Existing Use Qualifier	_____
Exceptions to Use	_____	Exceptions to Criteria	_____
Assessment Status	<u>Attaining Use(s)</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	<u>PA American Water Company</u>		
PWS Waters	<u>Swatara Creek</u>	Flow at Intake (cfs)	_____
PWS RMI	_____	Distance from Outfall (mi)	<u>35</u>

Changes Since Last Permit Issuance: None.

1.3.1 Water Supply Intake

The nearest water supply intake is 35 miles downstream by PA American Water Company in South Hanover Township, Dauphin County on Swatara Creek. No impact is expected from this discharge.

2.0 Treatment Facility Summary				
Treatment Facility Name: Lebanon Valley MHP				
WQM Permit No.		Issuance Date		
3885409		11/8/2017		
3885409		11/21/85, 6/27/86, 6/2/89 & 6/8/90		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary With Ammonia And Phosphorus	Extended Aeration	UV	0.012
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.012		Not Overloaded	Aerobic Digestion	

Changes Since Last Permit Issuance: None

2.1 Treatment facility

The treatment plant consists of a comminutor, 2 bar screens, 1 EQ tank, 1 aeration tank, a grease trap, 1 clarifier, 2-cell gravity dual media filter with a clear well and surge tank, UV unit, mud well, clear well, flow meter and 2 sludge holding tanks.

3.0 Existing Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Daily Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
CBOD5	XXX	XXX	XXX	10	XXX	20	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	10	XXX	20	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
UV Intensity (mW/cm ²)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Recorded
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/6 months	8-Hr Composite
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/6 months	Calculation
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	9.0	XXX	18	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	3.0	XXX	6	2/month	8-Hr Composite
TKN	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/6 months	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/6 months	8-Hr Composite

3.1 Compliance History

3.1.1 DMR Data for Outfall 001 (from April 1, 2024 to March 31, 2025)

Parameter	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24	APR-24
Flow (MGD) Average Monthly	0.0045	0.0093	0.0066	0.0064	0.0049	0.0044	0.0044	0.0049	0.0042	0.004	0.0047	0.0067
Flow (MGD) Daily Maximum	0.065	0.0247	0.0143	0.0115	0.0101	0.0075	0.0074	0.0111	0.0076	0.0065	0.0097	0.025
pH (S.U.) Instantaneous Minimum	7.01	7.21	7.09	7.21	7.18	7.11	7.24	7.64	7.32	7.23	7.14	7.25
pH (S.U.) Instantaneous Maximum	8.62	8.26	8.17	8.13	8.35	8.52	8.87	8.75	8.6	8.36	8.26	8.39
DO (mg/L) Daily Minimum	6.97	9.75	8.79	11.1	9.6	8.7	7.8	8.0	7.1	7.1	7.8	9.4
CBOD5 (mg/L) Average Monthly	7	4	8.0	< 2	5.9	< 5.9	< 2	8.1	2.4	< 2.3	3.7	4.9
TSS (mg/L) Average Monthly	6	< 6	< 8	< 4	< 4	< 8.6	< 4	4.8	< 4	5.2	< 6	< 4.3
Fecal Coliform (No./100 ml) Geometric Mean	< 3	< 1	73	13	16	6	< 3	16	13	11	3	73
Fecal Coliform (No./100 ml) Instantaneous Maximum	11	< 1	2700	14	90	35	10	124	25	29	8	96
UV Intensity (mW/cm ²) Daily Minimum	1.6	0.8	0.7	2.9	1.8	0.6	2.2	2.2	1.9	1.1	0.3	0.7
Nitrate-Nitrite (mg/L) Daily Maximum				35.1						29.2		
Total Nitrogen (mg/L) Daily Maximum				36.2						30.9		
Ammonia (mg/L) Average Monthly	2.9	< 0.3	< 0.4	1.4	< 0.4	< 3.94	< 0.13	< 2.28	< 0.26	< 0.1	< 0.18	< 0.11
TKN (mg/L) Daily Maximum				1.14						1.65		
Total Phosphorus (mg/L) Daily Maximum				9.58						4.78		

3.1.2 Effluent Violations for Outfall 001, from: May 1, 2024 To: March 31, 2025

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Ammonia	10/31/24	Avg Mo	< 3.94	mg/L	3.0	mg/L

3.1.2 Summary of DMRs:

DMRs review for the facility for the last 12 months of operation, presented on the table above in section 3.1.1 indicates permit limits have been met most of the time. One ammonia effluent violation was noted during the period reviewed and presented in section 3.1.2.

3.1.3 Summary of Inspections:

The facility has been inspected a couple of times during the previous permit cycle. No effluent violations were found during plant inspections. The facility is operated and maintained well.

4.0 Development of Effluent Limitations

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.012</u>
Latitude	<u>40° 23' 52.93"</u>	Longitude	<u>-76° 23' 54.34"</u>
Wastewater Description: <u>Sewage Effluent</u>			

4.1 Basis for Effluent Limitations

In general, the Clean Water Act (CWA) requires that the effluent limits for a particular pollutant be the more stringent of either technology-based limits or water quality-based limits. Technology-based limits are set according to the level of treatment that is achievable using available technology. A water quality-based effluent limit is designed to ensure that the water quality standards applicable to a waterbody are being met and may be more stringent than technology-based effluent limits.

4.1.1 Technology-Based Limitations

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
CBOD ₅	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: TRC limitation and Weekly averages for TSS and CBOD₅ are not applicable to this permit

4.2 Water Quality-Based Limitations

4.2.1 WQM 7.0 Stream Model

WQM 7.0 is a water quality model DEP utilizes to establish appropriate effluent limits for CBOD₅, NH₃-N and DO in permits. The model simulates mixing and degradation of NH₃-N in the stream and compares calculated instream NH₃-N concentrations to NH₃-N water quality criteria and also simulates mixing and consumption of D.O. in the stream due to the degradation of CBOD₅ and NH₃-N and compares calculated instream D.O. concentrations to D.O. water quality criteria and recommends effluent limits.

4.2.2 Streamflows @ POFU

Streamflows for the water quality analysis were determined by correlating with the yield of USGS gauging station No 01573000 on Swatara Creek at Harper Tavern. The Q₇₋₁₀ and drainage area at the gage is 22.1ft³/s and 337 mi² respectively. The resulting yields are as follows:

- $Q_{7-10} = (22.1\text{ft}^3/\text{s})/337 \text{ mi}^2 = 0.0656\text{ft}^3/\text{s}/ \text{mi}^2$
- $Q_{30-10} / Q_{7-10} = 1.40$
- $Q_{1-10} / Q_{7-10} = 0.80$

The drainage area at the proposed discharge point was found from streamstats calculation to be 0.11 mi²
The drainage area at the POFU is approximately 0.18 mi².
The design streamflow (Q₇₋₁₀) at the POFU is calculated as: $Q_{7-10} = (0.065)(0.18) = 0.012\text{cfs}$

4.2.3 NH₃N Calculations

NH₃N calculations will be based on the Department's Implementation Guidance of Section 93.7 Ammonia Criteria, dated 11/4/97 (ID No. 391-2000-013). The following data is necessary to determine the instream NH₃N criteria used in modelling of the stream:

- STP pH = 7.32 (DMR Median July -Sept)
- STP Temperature = 25 ° C (default)
- Stream pH = 7.0 (default)
- Stream Temperature = 20 ° C (WWF)
- Background NH₃-N = 0.0 (default)

4.2.4 TSS, CBOD₅ & NH₃-N

The existing permits are based on the Department's Guidance for Evaluating Wastewater Discharges to Drainage Swales and Ditches. The minimum treatment requirements for CBOD₅ and TSS limits are 10mg/L average monthly limit and 20 mg/L maximum daily with, an ammonia limit of 3 mg/L, a minimum D.O. of 5 mg/L, and Fecal Coliform limits of 200 & 2000/100 ml.

A new evaluation is performed using WQM 7.0 to determine if 3.0mg/l limit for ammonia was still adequate to protect the POFU located at the confluence with secondary water UNT Little Swatara Creek (09906) RMI 0.75mi from toxicity effects. The secondary water was used to run the model since the unnamed tributary that receives the discharge has no stream code. The attached results of the WQM 7.0 stream model presented in attachment B indicates that a summer limit of 2.5 mg/L and winter limit of 7.5 mg/l NH₃-N as a monthly average are adequate to protect the aquatic life from toxicity effects at the POFU. The recommended limits are slightly more stringent than the existing limits in the permit but based on their DMR the facility can meet the limits.

4.2.5 Dissolved Oxygen

The existing permit contains a limit of 5 mg/l for Dissolved Oxygen (DO). DEP's Technical Guidance for the Development and Specification of Effluent Limitations (362-0400-001, 10/97) suggests that either the adopted minimum stream D.O. criteria for the receiving stream or the effluent level determined through water quality modeling be used for the limit. Since the WQM 7.0 model was run using a minimum D.O. of 5.0 mg/l, this limit will be continued in the renewed permit with a daily monitoring requirement.

4.2.6 Total Residual Chlorine

The discharge does not have the reasonable potential to cause or contribute to a water quality standards violation for total residual chlorine since the permittee no longer add chlorine to the wastewater for disinfection. Therefore, the proposed permit does not contain effluent limits for total residual chlorine. Ultraviolet light intensity (mW/cm²) monitoring will be required in the permit.

4.2.7 Chesapeake Bay Strategy:

The Department formulated a strategy to comply with the EPA and Chesapeake Bay Foundation requirements by reducing point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP). Sewage discharges have been prioritized based on their delivered TN and TP loadings to the Bay. The highest priority (Phases 1, 2, and 3) dischargers received annual loading caps based on their design flow on August 29, 2005 and concentrations of 6 mg/l TN and 0.8 mg/l TP. These limits may be achieved through a combination of treatment technology, credits, or offsets if approved by DEP. Phase 4 (0.2 - 0.4mgd) and Phase 5(below 0.2mgd) are required to monitor and report TN series and TP during permit renewal. Any facility in Phases 4 and 5 that undergoes expansion is subjected to cap load right away. This facility is, classified as a phase 5, and has been monitoring and will continue monitoring Nitrate-Nitrite as N, Total Kjeldahl Nitrogen, Total Nitrogen and Total Phosphorus semi-annually throughout the next permit cycle to collect data.

4.2.8 Coliform and E. Coli

The existing Fecal Coliform limit is consistent with the technology limits recommended in 92a.47(a)(4) and (a)(5) and will remain in the permit. In March of 2021, EPA approved DEP's Triennial Review of Water Quality Standards, which included a new swimming season criterion for E. coli. As a result, DEP is including monitoring requirements for E. Coli in new and renewed sewage permits above 2000gpd. Monitoring frequency is based on annual average flow as follows: 1/month for design flows ≥ 1 MGD, 1/quarter for design flows ≥ 0.05 and < 1 MGD and 1/year for design flows of 0.002 and < 0.05 MGD. Your discharge of 0.012 MGD requires 1/year monitoring as included in the permit.

5.0 Other Requirements

5.1 Anti-backsliding

Not applicable to this permit

5.2 Stormwater:

No storm water outfall is associated with this facility

5.3 Anti-Degradation (93.4)

The effluent limits for this discharge have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected. No High-Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

5.4 Class A Wild Trout Fisheries

No Class A Wild Trout Fisheries are impacted by this discharge.

5.5 303d Listed Streams:

The discharge is not located on a 303d listed stream segment.

5.6 Basis for Effluent and Surface Water Monitoring

Section 308 of the CWA and federal regulation 40 CFR 122.44(i) require monitoring in permits to determine compliance with effluent limitations. Monitoring may also be required to gather effluent and surface water data to determine if additional effluent limitations are required and/or to monitor effluent impacts on receiving water quality. The permittee is responsible for conducting the monitoring and for reporting results on Discharge Monitoring Reports (DMRs).

5.7 Effluent Monitoring

Monitoring frequencies are based on the nature and effect of the pollutant, as well as a determination of the minimum sampling necessary to adequately monitor the facility's performance. Permittees have the option of taking more frequent samples than are required under the permit. These samples can be used for averaging if they are conducted using EPA-approved test methods (generally found in 40 CFR 136) and if the Method Detection Limits are less than the effluent limits. The sampling location must be after the last treatment unit and prior to discharge to the receiving water. If no discharge occurs during the reporting period, "no discharge" shall be reported on the DMR.

6.0 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” (386-0400-001), 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	Daily Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	5.0	XXX	XXX	XXX	1/day	Grab
CBOD5	XXX	XXX	XXX	10	XXX	20	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	10	XXX	20	2/month	8-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
UV Intensity (mW/cm ²)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Recorded
Nitrate-Nitrite	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/6 months	8-Hr Composite
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/6 months	Calculation
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	7.5	XXX	15	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	2.5	XXX	5	2/month	8-Hr Composite

Outfall 001 , Continued (from Permit Effective Date through Permit Expiration Date)

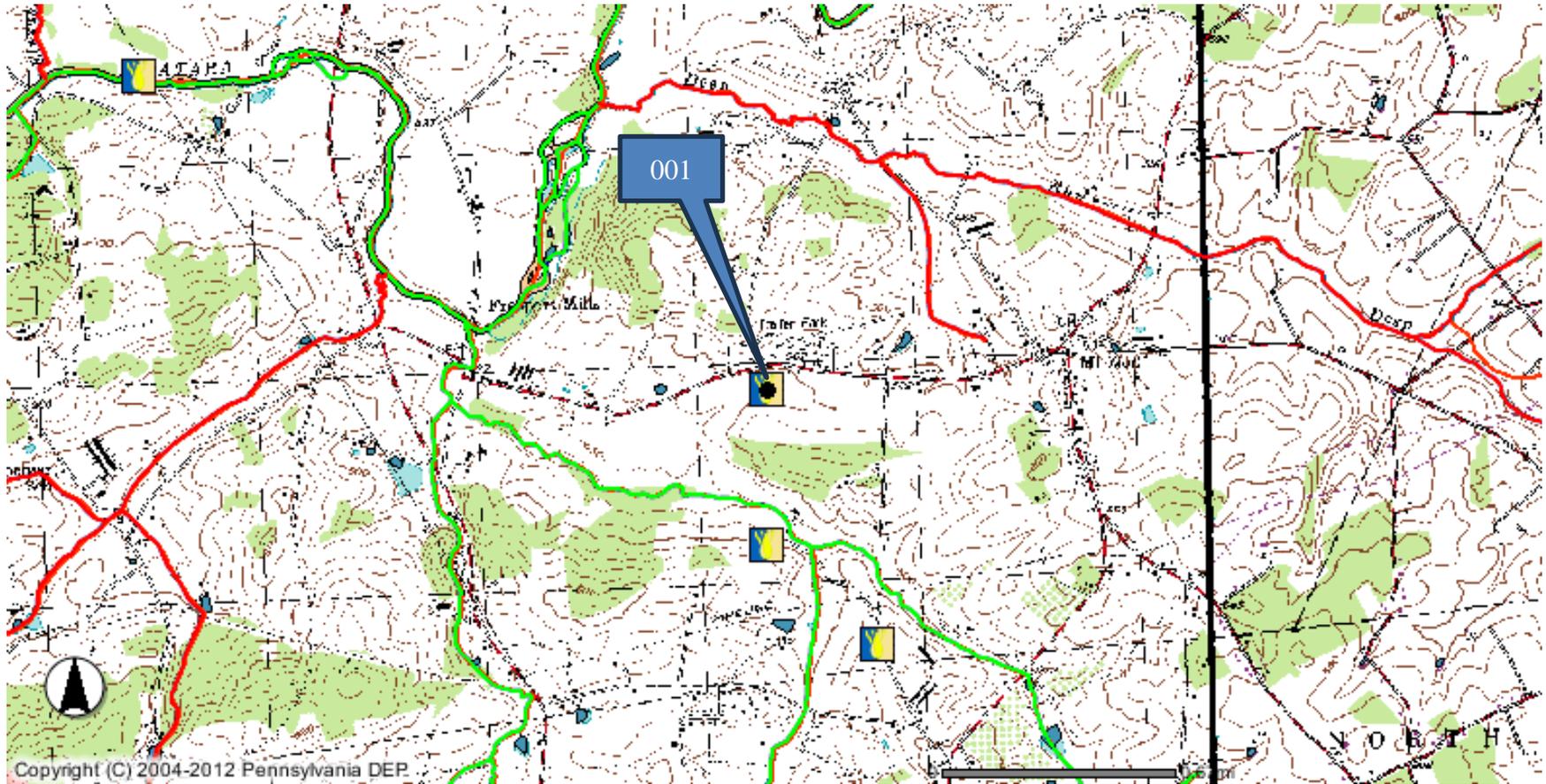
Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Daily Minimum	Average Monthly	Maximum	Instant. Maximum		
TKN	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/6 months	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/6 months	8-Hr Composite

Compliance Sampling Location: At Outfall 001

7.0 Tools and References Used to Develop Permit	
<input checked="" type="checkbox"/>	WQM for Windows Model (see Attachment B)
<input type="checkbox"/>	Toxics Management Spreadsheet (see Attachment [REDACTED])
<input checked="" type="checkbox"/>	TRC Model Spreadsheet (see Attachment C)
<input type="checkbox"/>	Temperature Model Spreadsheet (see Attachment [REDACTED])
<input checked="" type="checkbox"/>	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
<input type="checkbox"/>	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
<input type="checkbox"/>	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
<input type="checkbox"/>	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
<input type="checkbox"/>	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
<input type="checkbox"/>	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
<input type="checkbox"/>	Pennsylvania CSO Policy, 386-2000-002, 9/08.
<input type="checkbox"/>	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
<input type="checkbox"/>	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
<input checked="" type="checkbox"/>	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
<input type="checkbox"/>	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
<input checked="" type="checkbox"/>	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
<input type="checkbox"/>	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
<input type="checkbox"/>	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
<input type="checkbox"/>	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
<input checked="" type="checkbox"/>	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
<input type="checkbox"/>	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
<input checked="" type="checkbox"/>	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
<input type="checkbox"/>	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
<input checked="" type="checkbox"/>	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
<input type="checkbox"/>	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
<input type="checkbox"/>	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
<input type="checkbox"/>	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
<input type="checkbox"/>	Design Stream Flows, 386-2000-003, 9/98.
<input type="checkbox"/>	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
<input type="checkbox"/>	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
<input checked="" type="checkbox"/>	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
<input checked="" type="checkbox"/>	SOP: Establishing effluent limits for individual sewage permits.
<input type="checkbox"/>	Other: [REDACTED]

Attachments

A. Topographical Map



B. WQM Model Results

WQM 7.0 Effluent Limits

<u>SWP Basin</u>		<u>Stream Code</u>	<u>Stream Name</u>				
07D		9906	Trib 09906 of Little Swatara Creek				
RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
0.450	Lebanon Val MHP	PA0039551	0.012	CBOD5	25		
				NH3-N	2.59	5.18	
				Dissolved Oxygen			5

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
07D	9906	Trib 09906 of Little Swatara Creek	0.450	480.00	0.18	0.00000	0.00	<input checked="" type="checkbox"/>

Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	Tributary Temp	Tributary pH	Stream Temp	Stream pH
	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	(°C)		(°C)	
Q7-10	0.056	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Lebanon Val MHP	PA0039551	0.0120	0.0000	0.0000	0.000	25.00	7.32

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	5.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
07D	9906	Trib 09906 of Little Swatara Creek	0.010	460.00	0.20	0.00000	0.00	<input checked="" type="checkbox"/>

Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	Tributary		Stream	
	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	Temp (°C)	pH	Temp (°C)	pH
Q7-10	0.056	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	5.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

<u>SWP Basin</u>		<u>Stream Code</u>		<u>Stream Name</u>								
07D		9906		Trib 09906 of Little Swatara Creek								
RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
0.450	0.01	0.00	0.01	.0186	0.00861	.298	2.19	7.37	0.04	0.613	23.24	7.18
Q1-10 Flow												
0.450	0.01	0.00	0.01	.0186	0.00861	NA	NA	NA	0.04	0.639	23.49	7.20
Q30-10 Flow												
0.450	0.01	0.00	0.01	.0186	0.00861	NA	NA	NA	0.05	0.570	22.84	7.15

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	<input checked="" type="checkbox"/>
WLA Method	EMPR	Use Inputted W/D Ratio	<input type="checkbox"/>
Q1-10/Q7-10 Ratio	0.8	Use Inputted Reach Travel Times	<input type="checkbox"/>
Q30-10/Q7-10 Ratio	1.4	Temperature Adjust Kr	<input checked="" type="checkbox"/>
D.O. Saturation	90.00%	Use Balanced Technology	<input checked="" type="checkbox"/>
D.O. Goal	5		

WQM 7.0 Wasteload Allocations

SWP Basin Stream Code Stream Name
 07D 9906 Trib 09906 of Little Swatara Creek

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.450	Lebanon Val MH	10.32	14.8	10.32	14.8	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.450	Lebanon Val MH	1.47	2.59	1.47	2.59	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	<u>CBOD5</u>		<u>NH3-N</u>		<u>Dissolved Oxygen</u>		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
0.45	Lebanon Val MHP	25	25	2.59	2.59	5	5	0	0

WQM 7.0 Wasteload Allocations

SWP Basin Stream Code Stream Name
07D 9906 Trib 09906 of Little Swatara Creek

NH3-N Acute Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.450	Lebanon Val MH	10.32	14.8	10.32	14.8	0	0

NH3-N Chronic Allocations

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
0.450	Lebanon Val MH	1.47	2.59	1.47	2.59	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	<u>CBOD5</u>		<u>NH3-N</u>		<u>Dissolved Oxygen</u>		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
0.45	Lebanon Val MHP	25	25	2.59	2.59	5	5	0	0