pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0080756**
Facility Type	**Non-Municipal**	APS ID	**277015**
Major / Minor	**Minor**	Authorization ID	**1215085**

Applicant and Facility Information

Applicant Name	**Hershey Farm Restaurant and Motor Inn**	Facility Name	**Hershey Farm Restaurant and Motor Inn**
Applicant Address	240 Hartman Bridge Road, PO Box 159	Facility Address	240 Hartman Bridge Road
	Strasburg, PA 17579		Strasburg, PA 17579
Applicant Contact	Clair Zeager	Facility Contact	Clair Zeager
Applicant Phone	(717) 299-6877	Facility Phone	(717) 299-6877
Client ID	63728	Site ID	452693
Ch 94 Load Status	Not Overloaded	Municipality	Strasburg Township
Connection Status		County	Lancaster
Date Application Received	December 29, 2017	EPA Waived?	Yes
Date Application Accepted	February 14, 2018	If No, Reason	

Purpose of Application: Authorization to discharge to Pequea Creek in Watershed 7-K.

Summary of Review

Hershey Farm Restaurant and Motor Inn has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit. The permit was issued on June 12, 2013 and became effective on July 1, 2013. The permit authorized discharge of treated sewage from the existing wastewater treatment plant (WWTP) located in Strasburg Township, Lancaster County into Pequea Creek. The existing permit expiration date was June 30, 2018, and the permit has been administratively extended since that time.

According to the previous fact sheet, this facility serves the Hershey Farms Motor Lodge, the Hershey Farms Restaurant, and the Sight and Sound Theater. Peak flows occur on weekends and especially during the summer/fall tourist season and other holidays.

Changes in this renewal: A UV Transmittance monitoring requirement was added to the permit. Total Nitrogen and Total Phosphorus monthly effluent net reporting requirements were removed from the permit.

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*

Approve	Deny	Signatures	Date
		Benjamin R. Lockwood / Environmental Engineering Specialist	November 6, 2019
		Daniel W. Martin, P.E. / Environmental Engineer Manager	
		Maria D. Bebenek, P.E. / Program Manager	

Summary of Review
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. Supplemental information for this report is located in an attachment to this fact sheet. Hershey Farm Restaurant PA00807

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.16
Latitude	40º 0' 5"	Longitude	76º 11' 15"
Quad Name	Leola	Quad Code	1836
Wastewater Description:	Sewage Effluent		
Receiving Waters	Pequea Creek (WWF, MF)	Stream Code	7450
NHD Com ID	57464553	RMI	24
Drainage Area	73.4 mi^2	Yield (cfs/mi^2)	0.129
Q_{7-10} Flow (cfs)	9.46	Q_{7-10} Basis	USGS PA StreamStats
Elevation (ft)	317	Slope (ft/ft)	
Watershed No.	7-K	Chapter 93 Class.	WWF, MF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	N/A	Exceptions to Criteria	N/A
Assessment Status	Impaired		
Cause(s) of Impairment	Pathogens, Organic Enrichment, Siltation, Nutrients, Siltation, Habitat Alterations, Dissolved Oxygen		
Source(s) of Impairment	Source Unknown, Agriculture, Habitat Modification – Other Than Hydromodification, Agriculture, Agriculture, Habitat Modification – Other Than Hydromodification, Agriculture		
TMDL Status	Final	Name	Pequea Creek
Nearest Downstream Public Water Supply Intake	Exelon Generation Company LLC		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	35

Changes Since Last Permit Issuance: The USGS PA StreamStats is showing a drainage area of 73.4 mi^2 and a Q_{7-10} flow of 9.46 ft^3/s at the point of discharge.

Other Comments: None

Treatment Facility Summary				
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary With Total Nitrogen and Total Phosphorus Reduction	Modified Luzack-Ettinger	Ultraviolet	0.16
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.16	567	Not Overloaded	Aerated Sludge Holding	Other WWTP

The upgraded WWTP consists of two dual trains. There is a 50,000 gpd (2 x 25,000 gpd) train, and a 120,000 gpd (2 x 60,000 gpd) train, which can be operated in combinations to suit the capacity demands. The allows the system to handle seasonal flows.

The treatment process is as follows: Grease Traps - Fine Screen – EQ Tank – Duplex Lift Pumps – BESST Activated Single Sludge Process (Anoxic Tank, Aeration Tank, Final Clarifier) – UV Disinfection System – Aerated Sludge Holding Tank – Outfall 001 to Pequea Creek

Compliance History	
Summary of DMRs:	A summary of the past 12-month effluent data is presented on the next page of this fact sheet.
Summary of Inspections:	8/15/2013: A routine inspection was conducted to collect an oil and grease sample. The aeration tank was light brown. The clarifier had solids build-up at the top of the weir and inside the weir trough. The skimmers were somewhat blocked. Upstream and downstream at the outfall was murky. There was no discharge at the time of inspection. 7/15/2014: A routine inspection was conducted. The clarifier water level was below the weirs and skimmer. The standing water appeared mostly clear, with some floating solids. The weir trough appeared to have a build-up of solids and algae. Some of the tanks were mostly full of standing water, and were not actively being aerated. The northwest tanks and units had water that appeared very green. There were thousands of larvae and black flies observed at the surface. The northeast and southeast tanks had much clearer water. A pile of debris was located in a burn-area where burn piles had previously been observed. 1/12/2016: A routine inspection was conducted. The outfall was inspected. There was no evidence of solids by the outfall. The plant's full capacity was not being utilized due to low flow. 3/6/2019: A routine inspection was conducted. The northern EQ tank appeared medium grey in color with a thin frozen layer on approximately 20% of the surface. The tank was free of grease and floatables. There was no surface freezing or grease in the south EQ tank. Approximately 80% of the clarifier surface was covered in ice, and a small amount of popping sludge was present. The skimmer located farthest from the anoxic tank was not functioning. The final tank had some white foam and was aerated. Field sample results were within permit limits. No other issues were noted.

Other Comments: There are currently no open violations associated with the permittee or facility.

Compliance History

DMR Data for Outfall 001 (from October 1, 2018 to September 30, 2019)

Parameter	OCT-18	NOV-18	DEC-18	JAN-19	FEB-19	MAR-19	APR-19	MAY-19	JUN-19	JUL-19	AUG-19	SEP-19
Flow (MGD) Average Monthly	0.0201	0.0314	0.0256	0.0063	0.0056	0.0141	0.0209	0.023	0.0239	0.0216	0.0293	0.0211
Flow (MGD) Daily Maximum	0.0265	0.096	0.077	0.01194	0.0068	0.0333	0.0882	0.0366	0.0401	0.0434	0.0466	0.075
pH (S.U.) Minimum	7.5	7.1	7.4	7.3	7.7	7.2	7.8	7.5	6.4	6.8	7.8	8.0
pH (S.U.) Maximum	8.6	8.7	8.9	8.4	8.8	8.8	8.7	8.7	8.7	8.7	8.7	8.5
DO (mg/L) Minimum	7.1	5.0	6.5	5.3	6.2	6.1	5.9	5.0	5.3	5.2	4.8	5.2
CBOD5 (mg/L) Average Monthly	< 2.2	4.0	4.0	3.8	3.0	4.0	3.0	4.0	< 2.0	2.3	7.0	2.8
TSS (mg/L) Average Monthly	< 4.0	4.0	8.0	9.0	4.5	6.0	8.0	24.0	< 2.0	10.0	12.0	5.0
Oil and Grease (mg/L) Average Monthly	< 5	< 5	< 5	6	< 5	< 5	< 5	< 5.5	< 5	6	< 5	< 5
Fecal Coliform (CFU/100 ml) Geometric Mean	54	379	356	65	64	183	735	16	168	25	2	< 2
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	1500	6000	720	340	500	1100	2800	2600	4900	14300	2	< 2
Nitrate-Nitrite (mg/L) Average Monthly	< 5.83	3.7	3.8	7.71	37	24.4	3.8	2.4	2.5	3.8	2	2.8
Nitrate-Nitrite (lbs) Total Monthly	< 28	15	26	0.04857	81	78	19.9	10	17	39	16	15
Total Nitrogen (mg/L) Average Monthly	< 7.11	12.5	25	14.8	38	30.2	6.2	4.2	3.5	5.1	5.6	3.9
Total Nitrogen (lbs) Effluent Net Total Monthly	< 34	45	164	0.7786	84	99	32.4	18	23	51	56	19
Total Nitrogen (lbs) Total Monthly	< 34	45	164	0.7776	84	99	32.4	18	23	51	56	19
Ammonia (mg/L) Average Monthly	< 0.1	5.7	19	0.2	0.4	4	0.2	0.1	< 0.1	< 0.1	1.9	0.1
Ammonia (lbs) Total Monthly	< 0.5	20	124	0.010	0.8	15	1.0	0.5	< 0.6	< 0.9	22	0.5

TKN (mg/L) Average Monthly	1.28	8.9	21	1.7	1.8	5.8	2.4	1.9	1.0	1.3	3.7	0.9
TKN (lbs) Total Monthly	6	31	139	0.0893	4	21	12.6	9	7	13	40	4
Total Phosphorus (mg/L) Average Monthly	0.2	0.3	0.3	0.23	0.4	0.8	0.62	1.7	0.38	0.77	0.67	0.54
Total Phosphorus (lbs) Effluent Net Total Monthly	0.9	1	2	0.0120	0.8	3	3	8	3	8	6	3
Total Phosphorus (lbs) Total Monthly	0.9	1	2	0.012	0.8	3	3	8	3	8	6	3

Compliance History

Effluent Violations for Outfall 001, from: November 1, 2018 To: September 30, 2019

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
DO	08/31/19	Min	4.8	mg/L	5.0	mg/L
Fecal Coliform	05/31/19	IMAX	2600	CFU/100 ml	1000	CFU/100 ml
Fecal Coliform	06/30/19	IMAX	4900	CFU/100 ml	1000	CFU/100 ml
Fecal Coliform	07/31/19	IMAX	14300	CFU/100 ml	1000	CFU/100 ml

Existing Effluent Limitations and Monitoring Requirements

The tables below summarize the effluent limits and monitoring requirements implemented in the existing NPDES permit.

Outfall 001

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	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 Inst Min	XXX	XXX	XXX	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	1/week	24-Hr Composite
TSS	XXX	XXX	XXX	30	XXX	60	1/week	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	XXX	30	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	Report	XXX	Report	1/week	24-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	9.5	XXX	19	1/week	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	2.0	XXX	4	1/week	24-Hr Composite

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day)		Concentrations (mg/L)				Minimum Measurement Frequency	Required Sample Type
	Monthly	Annual	Monthly	Monthly Average	Maximum	Instant. Maximum		
Ammonia-N	Report	Report	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Kjeldahl-N	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Nitrate-Nitrite as N	Report	Report	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Total Nitrogen	Report	Report	XXX	Report	XXX	XXX	1/week	Calculation
Total Phosphorus	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
Net Total Nitrogen	Report	7306	XXX	XXX	XXX	XXX	1/month	Calculation
Net Total Phosphorus	Report	852	XXX	XXX	XXX	XXX	1/month	Calculation

Compliance Sampling Location: At discharge from facility

Other Comments: None

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .16
Latitude 40º 0' 5" **Longitude** 76º 11' 15"
Wastewater Description: Sewage Effluent

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)

Water Quality-Based Limitations

$CBOD_5$, NH_3-N

Pursuant to 40 CFR § 122.44(d)(1)(i), more stringent requirements should be considered when pollutants are discharged at the levels which have the reasonable potential to cause or contribute to excursions above water quality standards.

WQM 7.0 ver. 1.0b is a water quality model designed to assist DEP in determining appropriate water quality based effluent limits (WQBELs) for carbonaceous biochemical oxygen demand ($CBOD_5$), ammonia (NH_3-N), and dissolved oxygen (D.O.). The model simulates two basic processes: In the NH_3-N module, the model simulates the mixing and degradation of NH_3-N in the stream and compares calculated instream NH_3-N concentrations to NH_3-N water quality criteria. In the D.O. module, the model simulates the mixing and consumption of D.O. in the stream due to the degradation of $CBOD_5$ and NH_3-N and compares calculated instream D.O. concentrations to D.O. water quality criteria. The model then determines the highest pollutant loadings that the stream can assimilate while still meeting water quality criteria under design conditions. DEP's Technical Guidance No. 391-2000-007 provides the technical methods contained in WQM 7.0 for determining wasteload allocations and for determining recommended NPDES effluent limits for point source discharges.

The model was utilized for this permit application. The flow data used to run the model was acquired from USGS PA StreamStats and is included in an attachment. Stream pH and temperature inputs for this model run were based on data acquired from the National Water Quality Monitoring Council website. Data was analyzed from the Water Quality Network (WQN) Station ID 204 on Pequea Creek from October 1998 to January 2019 for pH, and from October 1998 to October 2017 for Temperature. DEP's Standard Operating Procedure (SOP) No. BPNPSM-PMT-033 (Establishing Effluent Limitations for Individual Sewage Permits) recommends using the 90th percentile of long-term data for background and discharge characteristics when using WQM 7.0. A 90th percentile analysis was performed on the data and resulted in a Stream pH of 7.6 and a Stream Temperature of 13.75°C. The model output indicated a $CBOD_5$ average monthly limit of 25 mg/l, an NH_3-N average monthly limit of 25 mg/l, and a D.O. minimum limit of 5.0 mg/l were protective of water quality. The $CBOD_5$ limit is the same as the existing limit, and will remain in the permit. The NH_3-N limit of 25 mg/l is less stringent than the existing permit limit of 9.5 mg/l, which will remain in the permit.

Toxics

Effluent sample results for toxic pollutants reported on the renewal application were entered into DEP's Toxics Screening Analysis worksheet and PENTOXSD to develop appropriate permit requirements for toxic pollutants of concern. A stream hardness value of 239.9 mg/l was used in modeling, taken from WQN Station ID 204 from October 1998 to January 2019. Based on effluent sample results reported on the application, Total Lead is a candidate for PENTOXSD modeling as this pollutant is discharged at a level that has the reasonable potential to cause excursions above the state water quality criteria. The resulting WQBEL from PENTOXSD for Total Lead was 372.94 µg/l. When the WQBEL produced from PENTOXSD was entered into the Toxics Screening Analysis, the worksheet recommended no limits/monitoring for Total Lead. This data was analyzed based on the guidelines found in DEP's Water Quality Toxics Management Strategy (Document No. 361-0100-003) and DEP's SOP No. BPNPSM-PMT-033. PENTOXSD Model Results are attached to this fact sheet. The Toxics Screening Analysis uses the following logic:

a. Establish average monthly and instantaneous maximum (IMAX) limits in the draft permit where the maximum reported concentration exceeds 50% of the WQBEL.
b. For non-conservative pollutants, establish monitoring requirements where the maximum reported concentration is between 25% - 50% of the WQBEL.
c. For conservative pollutants, establish monitoring requirements where the maximum reported concentration is between 10%-50% of the WQBEL.

Since the reported maximum concentration was less than 10% of the WQBEL, limits and/or monitoring were not needed. Therefore, no limits/monitoring for toxic parameters will be added.

Best Professional Judgement (BPJ) Limitations

Dissolved Oxygen
A minimum D.O. limit of 5.0 mg/L is a D.O. water quality criterion found in 25 Pa. Code § 93.7(a). This limit is included in the existing NPDES permit based BPJ. It is still recommended to include this limit in the draft permit to ensure that the facility continues to achieve compliance with DEP water quality standards.

Total Phosphorus
For Total Phosphorus (TP), the current NPDES permit requires the permittee to comply with average monthly and IMAX limits of 2.0 mg/L and 4.0 mg/L, respectively. These existing limits will remain unchanged in the permit to protect the local watershed. The most recent year of DMR data indicated a maximum monthly phosphorus concentration of 1.7 mg/l, which is below the average monthly limit.

UV Monitoring
DEP's SOP No. BPNPSM-PMT-033 recommends at a minimum, routine monitoring of UV transmittance, dosage, or intensity when the facility is utilizing a UV disinfection system. The monitoring should occur at the same frequency as would be used for TRC. This recommendation was implemented as a part of the proper operation and maintenance requirement specified in Part B of the NPDES permit, requesting permittees to demonstrate the effectiveness of UV disinfection system. This approach has been assigned to other facilities equipped with similar technology. A parameter for UV Transmittance is included in the existing permit, and will remain in the renewal.

Additional Considerations

Chesapeake Bay Total Maximum Daily Load (TMDL)

DEP developed 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). This strategy can be located in the *Pennsylvania Chesapeake Watershed Implementation Plan* (WIP), dated January 11, 2011. Subsequently, an update to the WIP was published as the Phase 2 WIP. As part of the Phase 2 WIP, a *Phase 2 Watershed Implementation Plan Wastewater Supplement* (Phase 2 Supplement) was developed, providing an update on TMDL implementation for point sources and DEP's current implementation strategy for wastewater. The Phase 2 Supplement was most recently revised on September 6, 2017. Sewage discharges have been prioritized based on their design flow to the Bay. The highest priority (Phases 1, 2, and 3) dischargers will receive annual Cap Loads 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. For Phase 4 and 5 facilities, Cap Loads are not currently being implemented for renewed or amended permits for facilities that do not

increase design flow. If facilities do increase design flow, renewed or amended permits will contain Cap Loads based on the lesser of a) existing TN/TP concentrations at existing average annual flow or b) 7,306 lbs/yr TN and 974 lbs/yr TP.

This facility is considered a Phase 5 non-significant discharger with a design flow less than 0.2 MGD but greater than 0.002 MGD. Due to the expansion of this facility, previous permits assigned Cap Loads based on the above guidance. Due to the established TP permit limit from the Pequea Creek TMDL, the more stringent TP Cap Load of 852 lbs/yr was used instead of 974 lbs/yr. A Cap Load of 7,306 lbs/yr TN was used in the permit. These limits will remain in the renewal permit. DEP no longer offers any tools to calculate monthly loads for Net TN and Net TP, and it is no longer needed since offsets and credits are applied annually. Therefore, this reporting requirement is no longer needed and will be removed from the permit.

Pequea Creek TMDL

A TMDL exists for Pequea Creek for phosphorus and sediment. The TMDL was completed and approved on April 9, 2001 and was revised in 2006. The TMDL established a permit limit for TP of 852 lbs/year to this facility. This limit, and the monthly average limit of 2.0 mg/l, will remain in the permit.

Oil and Grease

A restaurant is a major contributor of wastewater to this facility. Per the previous fact sheet, it is recommended to require the standard limits of 15 mg/l average monthly and 30 mg/l IMAX as required from PA Code 95.2(ii).

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.

303d Listed Streams

The discharge is located on a stream segment that is designated on the 303(d) list as impaired. There is a recreational impairment due to pathogens from an unknown source. There is an aquatic life impairment due to organic enrichment, nutrients, siltation, and dissolved oxygen from agriculture. There is an aquatic life impairment due to siltation and habitat alterations from habitat modification – other than hydromodification. The permit contains fecal coliform, TN, TP, D.O. limits and/or monitoring requirements.

Class A Wild Trout Fisheries

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

Anti-Backsliding
Pursuant to 40 CFR § 122.44(l)(1), all proposed permit requirements addressed in this fact sheet are at least as stringent as the requirements implemented in the existing NPDES permit unless any exceptions addressed by DEP in this fact sheet.

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
	Average Monthly	Average Weekly	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 Inst Min	XXX	XXX	XXX	1/day	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
CBOD5	XXX	XXX	XXX	25	XXX	50	1/week	24-Hr Composite
TSS	XXX	XXX	XXX	30	XXX	60	1/week	24-Hr Composite
Oil and Grease	XXX	XXX	XXX	15	XXX	30	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	1/week	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	Report	XXX	Report	1/week	24-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	9.5	XXX	19	1/week	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	2.0	XXX	4.0	1/week	24-Hr Composite

Compliance Sampling Location: Outfall 001

Other Comments: None

Proposed Effluent Limitations and Monitoring Requirements

The limitations and monitoring requirements specified below are proposed for the draft permit, to comply with Pennsylvania's Chesapeake Bay Tributary Strategy.

Outfall 001, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations					Monitoring Requirements	
	Mass Units (lbs)		Concentrations (mg/L)				
	Monthly	Total Annual	Minimum	Monthly Average	Instant. Maximum	Minimum Measurement Frequency	Required Sample Type
Ammonia-N	Report	Report	XXX	Report	XXX	1/week	24-Hr Composite
Kjeldahl-N	Report	XXX	XXX	Report	XXX	1/week	24-Hr Composite
Nitrate-Nitrite as N	Report	XXX	XXX	Report	XXX	1/week	24-Hr Composite
Total Nitrogen	Report	Report	XXX	Report	XXX	1/month	Calculation
Total Phosphorus	Report	Report	XXX	Report	XXX	1/week	24-Hr Composite
Net Total Nitrogen	XXX	7,306	XXX	XXX	XXX	1/year	Calculation
Net Total Phosphorus	XXX	852	XXX	XXX	XXX	1/year	Calculation

Compliance Sampling Location: Outfall 001

Other Comments: None

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment)
☒	PENTOXSD for Windows Model (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☒	Toxics Screening Analysis Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
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