



**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.

Act 14 Notifications:

Chester County Commissioners - July 12, 2019  
Honey Brook Township - July 16, 2019

The draft permit was sent to the permittee.

Proposed Part C Conditions:

- A. AMR to DEP
- B. DMR to DEP if Attached
- C. 1/year Measure Depth of Septage and Scum
- D. Septic Tanks Pumped Once Every Three Years
- E. Total Residual Chlorine Requirement
- F. No Stormwater
- G. Necessary Property Rights
- H. Proper Sludge Disposal
- I. Abandon STP when Municipal Sewers Available

**Discharge, Receiving Waters and Water Supply Information**

Outfall No.	<u>001</u>	Design Flow (MGD)	<u>0.0005</u>
Latitude	<u>40° 6' 28.17"</u>	Longitude	<u>-75° 54' 59.43"</u>
Quad Name	<u>Honey Brook</u>	Quad Code	<u>1838</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>West Branch Brandywine Creek (HQ-TSF, MF)</u>	Stream Code	<u>00085</u>
NHD Com ID	<u>26091464</u>	RMI	<u>53.0400</u>
Drainage Area	<u>0.3</u>	Yield (cfs/mi <sup>2</sup> )	<u>0.1</u>
Q <sub>7-10</sub> Flow (cfs)	<u>0.03</u>	Q <sub>7-10</sub> Basis	<u>Pennsylvania Stream Stats</u>
Elevation (ft)	<u>851</u>	Slope (ft/ft)	<u>0.042</u>
Watershed No.	<u>03H</u>	Chapter 93 Class.	<u>HQ-TSF, MF</u>
Existing Use	<u></u>	Existing Use Qualifier	<u></u>
Exceptions to Use	<u></u>	Exceptions to Criteria	<u></u>
Assessment Status	<u>Impaired</u>		
Cause(s) of Impairment	<u>Nutrients; Siltation</u>		
Source(s) of Impairment	<u>Agriculture</u>		
TMDL Status	<u>Final, July 2006</u>	Name	<u>Christina River Basin</u>

Changes Since Last Permit Issuance: None

Other Comments: None

Compliance History	
<b>Summary of DMRs:</b>	This facility submits Annual Monitoring Reports (AMRs) and laboratory reports.
<b>Summary of Inspections:</b>	The site was inspected on 07/30/2018 and no violations were noted.

Other Comments: The lab results submitted for the 2014 to 2019 permit period do not contain results for all the parameters listed in the permit. While the permit effective from February 1, 2009 to January 31, 2014 only required NH<sub>3</sub>-N, DO and pH analysis "upon request", the subsequent permit effective July 1, 2014 to June 30, 2019 (the 2014 permit) requires testing for these parameters once per year (which is consistent with Standard Operating Procedures discussed on the following page). In addition, TN and TP were added to the 2014 permit to be monitored once per year. Results for these five (5) parameters were not submitted with the AMRs for the years 2014 through 2019. TN and TP were added to the 2014 permit for data collection and for future implantation of Total Maximum Daily Loads (TMDLs). The updates to the 2014 permit renewal were stated on the Fact Sheet corresponding to the 2014 permit renewal.

The SRSTP discharges into the West Branch Brandywine Creek which is designated as High Quality – Trout Stocking Fishes (HQ-TSF), Migratory Fishes (MF), and is part of the Christina River Basin for which a Total Maximum Daily Load (TMDL) exists. The effluent limitations from the previous NPDES permit for this facility, PA0057339 effective July 1, 2014, were retained for this renewal.

This facility is listed for Waste Load Allocations (WLA) for low flow (document: EPA, Total Maximum Daily Loads of Nutrients and Dissolved Oxygen Under Low-Flow Conditions in the Christina River Basin, Pennsylvania, Delaware and Maryland, January 19, 2001; Revised October 2002; revised April 2006). The TMDLs are for nutrients and dissolved oxygen under low-flow conditions and are listed in Table 13: TMDL Summary for Brandywine Creek West Branch. The WLA found in Table 13 for CBOD<sub>5</sub> and NH<sub>3</sub>-N are 25 mg/l and 30 mg/l, respectively. The TMDL did not require reductions to existing effluent limits for SRSTPs.

The facility is listed for WLA for high flow (document: EPA, Revisions to Total Maximum Daily Loads for Nutrient and Low Dissolved Oxygen Under High Flow Conditions Christina River Basin, Pennsylvania, Delaware, and Maryland, September 2006). The TMDL for nutrients and low dissolved oxygen under high-flow conditions in the Christina River Basin are found in Tables 1-5 and 2-2. The limitations are 25 mg/l for CBOD<sub>5</sub>, 10 mg/l for NH<sub>3</sub>-N and 10 mg/l for TP. The limit for DO is 6 mg/l as a daily average.

The Brandywine Creek is listed as HQ-TSF and as such the DEP's Antidegradation Policy is applicable to this site. The existing average monthly effluent limitations of CBOD<sub>5</sub> (10 mg/l), NH<sub>3</sub>-N (1.5 mg/l) and DO (6.0 mg/l), with appropriate seasonal limitations, were based on Antidegradation Best Available Combination of Technologies (ABACT). The average monthly effluent limit for TSS is 20 mg/l per ABACT. The ABACT limitations are more stringent than the TMDL for CBOD<sub>5</sub> and NH<sub>3</sub>N.

The existing limitations for CBOD<sub>5</sub>, NH<sub>3</sub>-N, and DO will remain in this permit renewal.

The current average monthly limits for TSS of 10 mg/l will remain in the permit for it is more stringent than the TMDL or the ABACT. The Fecal Coliform limit will remain the same in this permit renewal (200 cfu/100 ml). Both constituent limitations are consistent with the Standard Operating Procedure (SOP) for Clean Water Program New and Reissuance Small Flow Treatment Facility Individual NPDES Permit Applications (SOP No. BCW-PMT-003), Final November 9, 2012; Revised May 17, 2019, Version 1.8, pages 7 to 8.

Existing effluent limits for pH (6 – 9 STD units) will continue in this permit renewal.

Monitoring for Total Nitrogen (TN) and Total Phosphorus (TP) was added to this permit in the 2014 renewal for data collection and future implementation of the TMDL WLA. The WLA for TN and TP are 40 mg/l and 10 mg/l, respectively. The same monitoring requirements for TN and TP will be retained for the renewed permit.

A limit of 1.0 mg/l for Total Residual Chlorine (TRC) was added to the 2014 permit with a monitoring frequency of once per month.

Minimum measuring frequency for all permit parameters, other than TRC, will be required once per year in accordance with the aforementioned SOP (No. BCW-PMT-003). The CBOD<sub>5</sub> and NH<sub>3</sub>-N effluent limitations have seasonal limits. As the seasonal limits are more restrictive for the May 1 to Oct 31 sampling period, the sample must be taken during that time period. The monitoring frequency for the Nov 1 to Apr 30 was reduced to Upon Request (previously the monitoring was 1/year).

**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) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (GPD)	Report Daily Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
pH (S.U.)	XXX	XXX	6 Inst Min	XXX	XXX	9	1/year	Grab
DO	XXX	XXX	6.0 Inst Min	XXX	XXX	XXX	1/year	Grab
TRC	XXX	XXX	XXX	XXX	1.0 Daily Max	XXX	1/month	Grab
CBOD5 Nov 1 - Apr 30	XXX	XXX	XXX	20.0 Annl Avg	XXX	40	Upon Request	Grab
CBOD5 May 1 - Oct 31	XXX	XXX	XXX	10	XXX	20	1/year	Grab
TSS	XXX	XXX	XXX	10	XXX	20	1/year	Grab
Fecal Coliform (CFU/100 ml)	XXX	XXX	XXX	200	XXX	1000	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	4.5	XXX	9	Upon Request	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	1.5	XXX	3	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: The CBOD<sub>5</sub> and NH<sub>3</sub>-N effluent limitations have seasonal limits. As the seasonal limits are more restrictive for the May 1 to Oct 31 sampling period, the sample must be taken during that time period. The monitoring frequency for the Nov 1 to Apr 30 was reduced to Upon Request (previously the monitoring was 1/year) from the previous permit.