Pennsylvania Department of Environmental Protection

Southeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0058840**
Facility Type	**Municipal**	APS ID	**1130919**
Major / Minor	**Minor**	Authorization ID	**1515940**

Applicant and Facility Information

Applicant Name	**Hilltown Township Water & Sewer Authority Bucks County**	Facility Name	**Hilltown Berry Brow Sewer System & STP**
Applicant Address	316 Highland Park Road P O Box 365 Sellersville, PA 18960-0365	Facility Address	Berry Brow Wwtp 212 S Township Line Road Chalfont, PA 18914
Applicant Contact	James Groff	Facility Contact	James Groff
Applicant Phone	(215) 453-6065	Facility Phone	(215) 453-6065
Client ID	34885	Site ID	631350
Ch 94 Load Status	Not Overloaded	Municipality	Hilltown Township
Connection Status	No Limitations	County	Bucks
Date Application Received	January 31, 2025	EPA Waived?	Yes
Date Application Accepted		If No, Reason	
Purpose of Application	Permit Renewal.		

Summary of Review

The Hilltown Township Water and Sewer Authority has submitted application for the renewal of an NPDES permit to discharge 49,875-gpd of treated sewage to pond to an unnamed tributary to Reading Creek. The facility receives sewage from the Reserve at Hilltown.

The sewage treatment plant is designed for a residential development serving about 190 EDUs. The treatment process includes, influent screens, a sequential batch reactor (SBR) biological treatment system, alum addition for phosphorus removal, disk filtration system, and ultraviolet (UV) disinfection system. After treatment, the wastewater is pumped by force main to an existing small pond, which is a headwater to an unnamed and unlisted tributary to Neshaminy Creek.

The effluent limits contained in the existing NPDES permit are based on a Preliminary Treatment Requirements (PTR) letter sent by the Department to Castle Valley Consultants, Inc. on March 31, 2003. The initial PTR sent to Castle Valley Consultants proposed a TP limit of 1.0 mg/l. The existing total phosphorus (TP) limit is 0.5 mg/l. A TMDL for the Neshaminy Creek watershed was approved in late 2003, which required a phosphorus limit of 0.5 mg/l for new sewage treatment facilities. Castle Valley Consultants agreed at a meeting with the Department on March 12, 2004, that the TP limit was being revised to 0.5 mg/l; and this action was confirmed in a letter dated July 22, 2004. As discharge is in the dry swale, Water Quality Antidegradation Implementation Guidance is used to develop effluent limits.

Based on Inspection Report from 2/28/2025 there are no open violations and plant is well maintained.

Approve	Deny	Signatures	Date
X		Christian French Christian French / Environmental Engineering Specialist	July 17, 2025
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	July 17, 2025

Summary of Review

$CBOD_5$

The existing $CBOD_5$ limit is 10 mg/l. The limit is consistent with the ABACT standards outlined in the Department's Water Quality Antidegradation Implementation Guidance manual, and the "minimum treatment" requirements outlined in the former Implementation Guidance for Evaluating Wastewater Discharges to Drainage Ditches and Swales.

Total Suspended Solids (TSS)

The existing TSS limit is 10 mg/l. The limit is consistent with the ABACT standards outlined in the Department's Water Quality Antidegradation Implementation Guidance manual, and the "minimum treatment" requirements outlined in the former Implementation Guidance for Evaluating Wastewater Discharges to Drainage Ditches and Swales.

NH_3-N

The existing ammonia limit is 1.5 mg/l (May 1 – Oct 31) and 3.0 mg/l (Nov 1 – Apr 30). The limit is based on the acute ammonia criteria for a temperature of 25° C and a pH of 7.0.

Nitrite + Nitrate as N

The existing Nitrate + Nitrite as N limit is10 mg/l. The limit is consistent with the primary drinking water standards and the criteria listed in 25 PA Code 93.7.

Phosphorous

The existing total phosphorus (TP) limit is 0.5 mg/l. The initial PTR sent to Castle Valley Consultants proposed a TP limit of 1.0 mg/l. A TMDL for the Neshaminy Creek watershed was approved in late 2003, which required a phosphorus limit of 0.5 mg/l for new sewage treatment facilities. Castle Valley Consultants agreed at a meeting with the Department on March 12, 2004, that the TP limit was being revised to 0.5 mg/l; and this action was confirmed in a letter dated July 22, 2004.

Dissolved Oxygen

The existing dissolved oxygen limit is 6 mg/l. This limit meets the TSF criteria.

Fecal Coliform

The existing fecal coliform limit is 50#/100ml, as a geometric mean. The facility uses a UV (ultraviolet) disinfection system; therefore, no TRC (total residual chlorine) limit is required. The monitoring requirement for UV transmittance will continue and is based on SOP.

Total Nitrogen

A monitoring requirement for Total Nitrogen is being added to the permit as per SOP.

Following are effluent limits:

Parameter	Effluent Limits (av. mo. mg/l)	Basis
CBOD5	10	WQ Antideg Implement Guidance
Ammonia-Nitrogen (5/1 to 10/31)	1.5	WQ Antideg Implement Guidance
Ammonia-Nitrogen (11/1 to 4/30)	3.0	WQ Antideg Implement Guidance
Nitrite+Nitrate as N	10	WQ Antideg Implement Guidance
Phosphorus	0.5	25 Pa Code 92a.61
Dissolved Oxygen	6.0	BPJ
pH (Standard Units)	6.0 to 9.0 SU	25 Pa Code 92a47, 95.2
Total Nitrogen	Report	25 Pa Code 92a.61
UV Transmittance (%)	Report	25 Pa Code 92a.47-48
Total Suspended Solids	10	WQ Antideg Implement Guidance

Summary of Review

Fecal Coliform (#/100 ml)	50 (Geo Mean)	25 Pa Code 92a47

Act-14 Public Notice to Hilltown Township and Bucks County on January 28, 2025 by certified mail.

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)	.049875
Latitude	40º 17' 59.41"	Longitude	-75º 15' 18.97"
Quad Name		Quad Code	1643
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to Reading Creek (WWF, MF)	Stream Code	02484
NHD Com ID	25484864	RMI	
Drainage Area	0.1 mi^2	Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	2-F	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Not Assessed		
Cause(s) of Impairment	Agriculture – excessive algae		
Source(s) of Impairment	Nutrients, sediments		
TMDL Status	Nutrient TMDL was withdrawn	Name	Neshaminy Creek
Nearest Downstream Public Water Supply Intake			
PWS Waters	Neshaminy Creek	Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	

Treatment Facility Summary

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Sequencing Batch Reactor W/Sol Removal	Ultraviolet	0.0499

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0499		Not Overloaded		

Compliance History

DMR Data for Outfall 001 (from June 1, 2024 to May 31, 2025)

Parameter	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24
Flow (MGD) Average Monthly	0.036	0.036	0.034	0.035	0.034	0.039	0.034	0.04	0.039	0.038	0.036	0.036
pH (S.U.) Instantaneous Minimum	7.1	7.0	6.8	7.0	6.9	7.0	7.0	7.0	6.7	6.9	6.8	7.0
pH (S.U.) Instantaneous Maximum	8.0	7.7	7.5	7.8	7.6	7.7	7.8	7.9	8.0	8.3	7.7	8.1
DO (mg/L) Instantaneous Minimum	7.0	8.1	8.9	8.7	7.1	8.1	7.4	7.8	6.3	6.5	6.7	7.6
CBOD5 (lbs/day) Average Monthly	< 0.60	< 0.70	< 0.50	< 0.60	< 0.70	< 0.60	< 0.50	< 0.80	< 0.60	< 0.80	< 0.50	< 0.60
CBOD5 (lbs/day) Raw Sewage Influent Average Monthly	59	57	61	73	122	57	58	67	58	77	58	45
CBOD5 (lbs/day) Weekly Average	0.80	0.90	< 0.60	< 0.60	0.80	< 0.60	< 0.60	1.03	< 0.70	< 0.90	< 0.60	< 0.70
CBOD5 (mg/L) Average Monthly	< 3	< 3	< 2	< 2	< 2	< 2	< 2	< 3	< 2	< 2	< 2	< 2
CBOD5 (mg/L) Raw Sewage Influent Average Monthly	245	209	232	251	< 386	215	212	203	187	188	235	141
CBOD5 (mg/L) Weekly Average	3	3	< 2	< 2	2	< 2	< 2	3	< 2	< 2	< 2	< 2
TSS (lbs/day) Average Monthly	4.21	1.09	< 0.90	< 0.30	< 4.75	0.30	< 0.70	1.42	0.80	5.13	0.20	< 2.54
TSS (lbs/day) Raw Sewage Influent Average Monthly	40	45	22	41	76	31	42	22	30	65	51	8
TSS (lbs/day) Weekly Average	7.98	1.33	1.45	< 0.30	9.23	0.30	< 0.90	2.16	1.00	8.89	0.30	4.75

TSS (mg/L) Average Monthly	16	4	< 4	< 1	< 14	1	3	5	3	15	1	< 8
TSS (mg/L) Raw Sewage Influent Average Monthly	174	168	84	142	252	117	151	70	96	150	178	24
TSS (mg/L) Weekly Average	29	5	6	< 1	27	1	3	7	3	26	1	15
Fecal Coliform (No./100 ml) Geometric Mean	< 2.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1.0	< 1.0	< 1.0	10.0
Fecal Coliform (No./100 ml) Instantaneous Maximum	5.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0	1.0	1.0	1.0	< 1.0	< 1.0	100.0
UV Transmittance (%) Daily Minimum	0.4	1.3	0.2	0.8	0.6	1	1.3	1.1	1.7	1.5	1	0.4
Nitrate-Nitrite (lbs/day) Average Monthly	0.80	0.90	1.00	0.80	0.90	0.80	1.10	1.17	1.15	3.74	0.90	1.00
Nitrate-Nitrite (mg/L) Average Monthly	< 1	3	4	3	3	3	4	4	4	9	4	3
Total Nitrogen (lbs/day) Average Monthly	1	1	1	1	1	1	1	1	1	4	1	1
Total Nitrogen (mg/L) Average Monthly	4.03	4.43	5.1	3.59	3.49	3.73	4.58	4.14	4.17	9.28	4.53	3.64
Ammonia (lbs/day) Average Monthly	< 0.01	0.10	0.03	0.01	< 0.01	< 0.01	0.01	< 0.02	0.02	0.02	< 0.10	0.01
Ammonia (mg/L) Average Monthly	< 0.1	0.4	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.10	0.1	< 0.1	< 0.1
Total Phosphorus (lbs/day) Average Monthly	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1	< 0.1	0.1	0.1	0.1	0.1
Total Phosphorus (mg/L) Average Monthly	0.2	0.2	0.2	0.1	0.1	0.2	0.4	0.2	0.2	0.3	0.2	0.1

Compliance History

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

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	01/31/25	Avg Mo	< 4.75	lbs/day	4.17	lbs/day
TSS	05/31/25	Avg Mo	4.21	lbs/day	4.17	lbs/day
TSS	08/31/24	Avg Mo	5.13	lbs/day	4.17	lbs/day
TSS	08/31/24	Wkly Avg	8.89	lbs/day	6.25	lbs/day
TSS	01/31/25	Wkly Avg	9.23	lbs/day	6.25	lbs/day
TSS	05/31/25	Wkly Avg	7.98	lbs/day	6.25	lbs/day
TSS	01/31/25	Avg Mo	< 14	mg/L	10	mg/L
TSS	05/31/25	Avg Mo	16	mg/L	10	mg/L
TSS	08/31/24	Avg Mo	15	mg/L	10	mg/L
TSS	01/31/25	Wkly Avg	27	mg/L	15	mg/L
TSS	08/31/24	Wkly Avg	26	mg/L	15	mg/L
TSS	05/31/25	Wkly Avg	29	mg/L	15	mg/L

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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	Weekly Average	Daily Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	6.0 Inst Min	XXX	XXX	XXX	1/day	Grab
CBOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
CBOD5	4.17	6.25	XXX	10	15	20	2/month	24-Hr Composite
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
TSS	4.17	6.25	XXX	10	15	20	2/month	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	50 Geo Mean	XXX	1000.0	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	50.0 Geo Mean	XXX	1000.0	2/month	Grab
UV Transmittance (%)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Measured
Nitrate-Nitrite	4.17	XXX	XXX	10	XXX	20	2/month	24-Hr Composite

Approve	Deny	Signatures	Date
X		Christian French Christian French / Environmental Engineering Specialist	July 17, 2025
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	July 17, 2025

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	Weekly Average	Daily Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Total Nitrogen	Report	XXX	XXX	Report	XXX	XXX	2/month	Calculation
Ammonia Nov 1 - Apr 30	1.25	XXX	XXX	3.0	XXX	6	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	0.63	XXX	XXX	1.5	XXX	3	2/month	24-Hr Composite
Total Phosphorus	0.2	XXX	XXX	0.5	XXX	1	2/month	24-Hr Composite