Pennsylvania Department of Environmental Protection

Southeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0036412**
Facility Type	**Non-Municipal**	APS ID	**1142732**
Major / Minor	**Minor**	Authorization ID	**1536265**

Applicant and Facility Information

Applicant Name	**Tel Hai Retirement Comm**	Facility Name	**Tel Hai Rest Home**
Applicant Address	1200 Tel Hai Circle P O Box 190	Facility Address	1200 Tel Hai Circle P O Box 190
	Honey Brook, PA 19344-1271		Honey Brook, PA 19344-1271
Applicant Contact	Scott Burkholder	Facility Contact	Scott Miller
Applicant Phone	(610) 273-4103	Facility Phone	(610) 273-4707
Client ID	27904	Site ID	271033
Ch 94 Load Status	Not Overloaded	Municipality	Honey Brook Township
Connection Status	No Limitations	County	Chester
Date Application Received	August 5, 2025	EPA Waived?	No
Date Application Accepted		If No, Reason	Christina River Basin TMDL

Purpose of Application: Permit Renewal.

Summary of Review

The permittee requests renewal of their NPDES Individual Permit to discharge an average annual design flow of 0.07 MGD of treated sewage from the Tel Hai Retirement Community Sewage Treatment Plant (STP) to Two Log Run, a tributary to West Branch Brandywine Creek a designated High Quality – Trout Stocking Fishes, Migratory Fishes (HQ-TSF, MF) under Chapter 93.

The wastewater enters the WWTP via an 8-inch gravity sewer main and flows through a JWC Muffin Monster comminutor into an equalization (EQ) tank. The wastewater is then pumped from the EQ tank into the Purestream BESST System process, which consists of an aeration tank with an anoxic zone, integral settling tank, rapid mix tank, flocculation tank, and tertiary settling tank. Effluent from the plate settling then flows into a wet well, through two pressure filters, to a stilling well, to an ultraviolet (UV) disinfection unit, to a re-aeration tank prior to discharge to the receiving stream - Two Log Run.

Danielle Bogen of DEP conducted an annual CEI inspection at Tel Hai Retirement Community STP. Tel Hai is an extended aeration plant that has an average flow of 47,000 gallons a day. The flow begins at an influent screen that removes solids and rags. From screening, flow moves to the EQ tank. The EQ tank has two pumps that operate it; these pumps alternate between use. From this point, flow continues to an anoxic zone where mixers are present. The RAS from the clarifier also returns to the anoxic zone. Wasting occurs everyday and is around 2,000 gallons. The WAS is pumped to a green manhole which is then transferred to sludge holding. Any decant from the sludge tanks is returned to the EQ tank. From the anoxic zone, flow moves to aeration which Cfloc is added for phosphorus removal. The flow continues to a sand filter. There is an automatic backwash that begins once the PSI reaches 2.8. The backwash will be transferred to tank 2. The backwash from the filters has high levels of phosphorus. The flow continues to a tertiary treatment unit comprised of BEST filters. Once completed with the filters, the flow heads to disinfection. A UV system was added a few years ago and appeared to be running in tangent with the Chlorine Contact Tank. UV disinfection is the only method used. The UV system has three banks. There has been virtually no effluent non compliances since 2022. These non-compliances appeared to be remedied with an extra sludge tank and adding the "BEST" filter system.

Approve	Deny	Signatures	Date
X		*Amy Boginsky* Amy Boginsky, MS, EIT / Environmental Engineering Specialist	February 17, 2026
X		*Pravin Patel* Pravin C. Patel, P.E. / Environmental Engineer Manager	02/18/2026

Summary of Review

Sludge use and disposal description and location(s): Sludge is periodically wasted to an aerobic digester tank, and liquid sludge is periodically hauled off-site. 6.54 dry tons of sewage sludge was produced in the previous year. This sludge was hauled by Wm P Mcgovern to Delcora WWTP.

The Christina River Basin Total Maximum Daily Load (TMDL) for Nutrients and Dissolved Oxygen for Low-Flow Conditions, issued by the Environmental Protection Agency (EPA) on January 19, 2001, and revised October 2002 and April 2006. Tel Hai Retirement is included in the TMDL document Table 13: TMDL Summary for Brandywine Creek West Branch for parameters: $CBOD_5$, NH_3N, Dissolved Oxygen, Total Nitrogen, and Total Phosphorus. The mass effluent limits in the 2020 renewal were consistent with the TMDL and will continue in this permit renewal:
$CBOD_5$ (4.6 lb/day, May 1 to October 31)
NH_3N (1.3 lb/day, May 1 to October 31)
Total Phosphorus (0.9 lb/day)
The concentration limits were recalculated to account for the increase in permitted discharge flow in 2015. The recalculated concentration effluent limits:
$CBOD_5$ (7.9 mg/l, May 1 to October 31)
NH_3N (2.3 mg/l, May 1 to October 31)
Total Phosphorus (1.5 mg/l, April 1 to October 31)

Seasonal limits for **$CBOD_5$, NH_3N,** and **Total Phosphorus** will continue in this permit renewal.

The **Total Nitrogen** (TN) limit in this permit renewal is changed to be consistent with the June 27, 2012 Christina River Basin Low-Flow TMDL Alternative Reduction Scenario. The TN concentration limit was recalculated to 23.6 mg/l based on the June 27, 2012 Reduction Scenario.

The **Dissolved Oxygen** limit of 5.0 mg/L per the Christina River Basin TMDL will remain in this permit renewal.

The Christina River basin High-Flow TMDL for Bacteria and Sediment issued on September 2006. This discharge is listed on Table 2-2. **Fecal Coliform** concentration average monthly limit of 200 CFU/100ml and instantaneous maximum of 1,000 CFU/100 ml will remain in this permit renewal. **TSS** mass limit of 12.8 lb/day will remain in this permit renewal, but the concentration limit was recalculated to 22 mg/l with the increase in flow.

Mass and concentration reporting requirement for **Nitrate-Nitrite as N** and **Total Kjeldahl Nitrogen** will remain in this permit renewal.

TSS and BOD_5 influent reporting requirement will remain the same in this permit renewal.

TRC limits will remain the same as based on DEP's SOP No. BCW-PMT-033.

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)	.07
Latitude	40º 3' 40.17"	Longitude	-75º 53' 3.05"
Quad Name		Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Two Log Run (HQ-TSF, MF)	Stream Code	00223
NHD Com ID	26091484	RMI	0.8000
Drainage Area	1.74	Yield (cfs/mi^2)	0.0011
Q_{7-10} Flow (cfs)	0.191	Q_{7-10} Basis	StreamStats
Elevation (ft)		Slope (ft/ft)	
Watershed No.	3-H	Chapter 93 Class.	HQ-TSF, 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	Final	Name	Christina River Basin

Changes Since Last Permit Issuance: None

Treatment Facility Summary

Treatment Facility Name: Tel Hai Retirement Community STP

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Hypochlorite	0.07

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.08	146	Not Overloaded		

Changes Since Last Permit Issuance:

Compliance History

DMR Data for Outfall 001 (from January 1, 2025 to December 31, 2025)

Parameter	DEC-25	NOV-25	OCT-25	SEP-25	AUG-25	JUL-25	JUN-25	MAY-25	APR-25	MAR-25	FEB-25	JAN-25
Flow (MGD) Average Monthly	0.047	0.047	0.051	0.051	0.049	0.049	0.052	0.051	0.047	0.045	0.043	0.045
pH (S.U.) Instantaneous Minimum	7.1	7.0	6.8	7.4	7.0	7.1	7.1	7.3	7.2	7.2	7.4	7.3
pH (S.U.) Instantaneous Maximum	7.9	7.9	7.9	8.0	7.9	8.0	8.0	8.1	7.9	7.7	7.9	7.8
DO (mg/L) Instantaneous Minimum	8.9	8.3	7.7	7.7	6.8	5.1	7.2	7.1	8.4	9.5	10.3	11.2
TRC (mg/L) Average Monthly	GG	GG	GG	GG	GG	GG	GG	GG	GG	0.5	GG	GG
CBOD5 (lbs/day) Average Monthly	0.8	< 0.8	< 0.9	< 0.9	< 0.8	1.1	< 1.0	< 0.9	< 0.8	< 1.1	< 1.3	< 1.2
CBOD5 (mg/L) Average Monthly	2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.5	< 2.5	< 2.5	< 2.0	< 3.0	< 3.0	< 3.0
BOD5 (lbs/day) Raw Sewage Influent Average Monthly	92	56	41	48	65	28	36	41	60	62	92	125
BOD5 (mg/L) Raw Sewage Influent Average Monthly	218	138	97	113	154	64	92	108	147	162	222	309
TSS (lbs/day) Average Monthly	5.4	< 0.8	< 0.9	< 0.4	2.6	1.1	< 0.4	< 2.2	< 1.2	< 0.4	2.5	< 1.6
TSS (lbs/day) Raw Sewage Influent Average Monthly	61	35	32	124	210	19	129	37	291	123	73	163
TSS (mg/L) Average Monthly	13	< 2.0	< 2	< 1.0	6	2.5	< 1	< 6	< 3.0	< 1	6	< 4

TSS (mg/L) Raw Sewage Influent Average Monthly	144	88	75	286	486	44	355	100	711	309	174	403
Fecal Coliform (No./100 ml) Average Monthly	34	< 1	< 1	< 1	20	3	3	< 1	< 1	< 1	< 1	< 1
Fecal Coliform (No./100 ml) Instantaneous Maximum	34	1	1	1	201	4	5	2	1	1	1	2
UV Transmittance (%) Average Monthly	77.3	77	77	79	82	75	97	95	99	100	100	100
Nitrate-Nitrite (lbs/day) Average Monthly	4.17	3.81	4.05	2.28	1.65	4.47	3.03	1.66	2.17	1.43	2.24	3.98
Nitrate-Nitrite (mg/L) Average Monthly	9.94	9.52	9.52	5.36	3.88	10.17	7.53	4.32	5.33	3.83	5.39	9.84
Total Nitrogen (lbs/day) Average Monthly	2.3	4.3	4.5	2.7	2.6	4.8	3.7	2.1	3.0	1.93	2.7	4.9
Total Nitrogen (mg/L) Average Monthly	5.5	10.65	10.65	6.26	6.14	10.98	9.18	5.41	7.29	5.2	6.54	12.0
Ammonia (lbs/day) Average Monthly	< 0.21	< 0.2	< 0.21	< 0.21	< 0.21	< 0.22	< 0.2	< 0.19	< 0.2	< 0.19	< 0.2	< 0.2
Ammonia (mg/L) Average Monthly	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
TKN (lbs/day) Average Monthly	0.88	0.45	0.47	0.6	0.97	< 0.47	0.65	< 0.42	0.4	< 0.6	0.48	0.87
TKN (mg/L) Average Monthly	2.1	1.11	1.11	1.4	2.27	< 1.06	1.65	1.09	0.9	< 1.62	1.15	2.16
Total Phosphorus (lbs/day) Average Monthly	0.4	0.2	0.2	0.4	0.5	0.7	0.3	0.3	0.4	0.3	0.3	0.4
Total Phosphorus (mg/L) Average Monthly	0.9	0.5	0.5	0.9	1.1	1.5	0.8	0.8	0.9	0.9	0.8	1.0

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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	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	Continuous	Recorded
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
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5 Nov 1 - Apr 30	9.2	XXX	XXX	15.8	XXX	31.6	2/month	24-Hr Composite
CBOD5 May 1 - Oct 31	4.6	XXX	XXX	7.9	XXX	15.8	2/month	24-Hr Composite
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
TSS	12.8	XXX	XXX	22	XXX	44	2/month	24-Hr Composite
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	1000	2/month	Grab
UV Transmittance (%)	XXX	XXX	XXX	Report	XXX	XXX	1/day	Metered
Nitrate-Nitrite	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Total Nitrogen	13.8	XXX	XXX	23.6	XXX	47.2	2/month	24-Hr Composite
Ammonia Nov 1 - Apr 30	4.0	XXX	XXX	6.9	XXX	13.8	2/month	24-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	Minimum	Average Monthly	Maximum	Instant. Maximum		
Ammonia May 1 - Oct 31	1.3	XXX	XXX	2.3	XXX	4.6	2/month	24-Hr Composite
TKN	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Total Phosphorus Nov 1 - Mar 31	0.9	XXX	XXX	2.0	XXX	4	2/month	24-Hr Composite
Total Phosphorus Apr 1 - Oct 31	0.9	XXX	XXX	1.5	XXX	3	2/month	24-Hr Composite

Compliance Sampling Location: Outfall 001