pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0041912**
Facility Type	**Non-Municipal**	APS ID	**573328**
Major / Minor	**Minor**	Authorization ID	**1275181**

Applicant and Facility Information

Applicant Name	**Deer Haven LLC**	Facility Name	**Deer Haven WWTP**
Applicant Address	41 Elm Street	Facility Address	RT 507
	Morristown, NJ 07960		Greentown, PA 18426
Applicant Contact	Sam Shahar	Facility Contact	Sam Shahar
Applicant Phone	(973) 610-1661	Facility Phone	(973) 610-1661
Client ID	237007	Site ID	4394
Ch 94 Load Status	-	Municipality	Palmyra Township
Connection Status	-	County	Pike
Date Application Received	May 30, 2019	EPA Waived?	No
Date Application Accepted	May 30, 2019	If No, Reason	Lake Wallenpaupack TMDL

Purpose of Application: Renewal of NPDES permit.

Summary of Review

The applicant is requesting renewal of their NPDES permit to discharge up to 0.07 MGD of treated sewage to Lake Wallenpaupack (stream code is 5519 for Wallenpaupack Creek), a HQ-CWF/MF designated receiving water in state water plan basin 01-C (Wallenpaupack Creek). As per the Department's current existing use list, the receiving water does not have an existing use classification that is more protective than its designated use.

The Lake Wallenpaupack TMDL was approved by EPA on 4/9/05, with an addendum approved on 10/9/07. (Note: in the TMDL, the facility is listed as "(White Beauty) Edwin, Inc." The permit was transferred from Edwin, Inc. to Deer Haven, LLC in July, 2005.) The Waste Load Allocation table in the TMDL expresses the Total Phosphorus WLA for the facility as both an annual load of 48 kg/yr and a TP limit of 0.5 mg/L. Similar to other permits for this TMDL, the limit was originally applied as a concentration limit only. A special condition is carried over from the previous permit, referencing the facility's waste load allocation of 48 kg/yr (106 lb/yr) for TP, and adding a reporting mechanism for monthly and annual loads using the TMDL supplemental report.

In addition to any NPDES permit requirements, DRBC Docket No. D-1974-091 CP-2 requires quarterly monitoring/reporting for Total Dissolved Solids and influent $CBOD_5$ monitoring/reporting at a frequency that's concurrent with $CBOD_5$ effluent monitoring in the NPDES permit. These two parameters with the recommended monitoring frequencies are included in this permit renewal.

Effluent limits for $CBOD_5$, Dissolved Oxygen, Ammonia-Nitrogen and Total Phosphorus are water quality-based and carried over from the previous permit. Effluent limitations for pH, TSS, and Fecal Coliform are technology-based and carried over from the previous permit.

The TRC limitations have been revised in accordance with technology-based requirements in PA Code 92a.48(b)(2); 0.5 mg/L monthly average and 1.6 mg/L IMAX (see attached TRC calculation spreadsheet). The revised limitations will come

Approve	Deny	Signatures	Date
X		/s/ Brian Burden, E.I.T. / Project Manager	June 24, 2019
X		/s/ Amy M. Bellanca, P.E. / Environmental Engineer Manager	June 24, 2019

Summary of Review

into effect one year after the effective date of the permit. Water quality-based limitations were not recommended through water quality modeling. Please note that the monitoring frequency for TRC in the previous permit was 1/week. As per DEP guidance (see below), a WWTP this size should be monitoring TRC daily. However, since there are plans to upgrade the disinfection process to ultraviolet light (see WQM permit 5215401), the monitoring frequency for TRC has been adjusted to "daily when discharging" (see Part C.I.E.).

WQM modeling did not recommend more stringent limitations for any parameters (see WQM Modeling attachment). Since this facility discharges directly into Lake Wallenpaupack, a few assumptions were made for the modeling inputs of the first node. Using the assumption that 10% of the lake volume is available for dilution and dividing that value by the lake residence time of 231 days (volume and residence time both obtained from TMDL) resulted in a flow of 36.6 cfs (see Watershed Information attachment). 36.6 cfs was added as tributary flow to the first node and the low flow yield (LFY) was set to 0. The second and final node (at the confluence with the Lackawaxen River) utilizes the default LFY of 0.1 cfs/mi^2 to calculate the flow using the drainage area to that point. For modeling purposes, the first node is located at the Lake Wallenpaupack outlet. RMI values for modeling inputs were obtained using the Department's eMapPA, drainage areas were delineated using USGS's StreamStats interactive map, and elevations were obtained using the elevation profile tool on StreamStats (see Watershed Information attachment).

Quarterly monitoring and reporting requirements are added to the permit for Total Nitrogen to monitor total nutrient loading values. To calculate Total Nitrogen, quarterly monitoring and reporting requirements are added to the permit for Total Kjeldahl Nitrogen and Nitrate+Nitrite-Nitrogen.

Monitoring frequencies for all parameters with limitations have been updated to the recommended frequencies found in Table 6-3 of DEP's Technical Guidance for the Development and Specification of Effluent Limitations (doc. no. 362-0400-001).

The following list summarizes DMR limitation exceedances over the previous 2 years:

October 2018: Total Phosphorus – 1.01 mg/L monthly average (limitation is 0.5 mg/L)
September 2018: Total Phosphorus – 1.88 mg/L monthly average (limitation is 0.5 mg/L)
July 2018: $CBOD_5$ – 13.0 mg/L monthly average (limitation is 10.0 mg/L)
July 2018: Fecal Coliform - >600 No./100mL geometric mean (limitation is 200 No./100mL)
July 2018: Total Phosphorus – 1.38 mg/L monthly average (limitation is 0.5 mg/L)
June 2018: Ammonia-Nitrogen – 15.8 mg/L monthly average (limitation is 3.0 mg/L)
May 2018: Ammonia-Nitrogen – 12.4 mg/L monthly average (limitation is 3.0 mg/L)
May 2018: Ammonia-Nitrogen – 12.4 mg/L IMAX (limitation is 6.0 mg/L)
May 2018: Total Phosphorus – 0.92 mg/L monthly average (limitation is 0.5 mg/L)
February 2018: Fecal Coliform – "9500EST" No./100mL geometric mean (limitation is 200 No./100mL)
December 2017: Dissolved Oxygen – 2.4 mg/L (minimum is 6.0 mg/L)
October 2017: Total Phosphorus – 1.1 mg/L monthly average (limitation is 0.5 mg/L)
August 2017: Total Phosphorus – 1.5 mg/L monthly average (limitation is 0.5 mg/L)
June 2017: Ammonia-Nitrogen – 13 mg/L monthly average (limitation is 3.0 mg/L)
June 2017: Ammonia-Nitrogen – 13 mg/L IMAX (limitation is 6.0 mg/L)
June 2017: Total Phosphorus – 0.7 mg/L monthly average (limitation is 0.5 mg/L)
May 2017: Fecal Coliform – 530 No./100mL geometric mean (limitation is 200 No./100mL)
May 2017: Ammonia-Nitrogen – 4 mg/L monthly average (limitation is 3.0 mg/L)
March 2017: $CBOD_5$ – 12 mg/L monthly average (limitation is 10.0 mg/L)
February 2017: Total Phosphorus – 1.4 mg/L monthly average (limitation is 0.5 mg/L)

The most recently completed Sewage Sludge / Biosolids Production and Disposal supplemental report from January 2019 indicates that solids are hauled away by Environmental Services Corporation for disposal at Wyoming Valley Sanitary Authority's WWTP in Hanover Twp., Luzerne County.

The previously issued permit expired on June 30, 2017 and the application for permit renewal was not submitted on time. There are several open WPC NPDES violations for the client that would warrant withholding the issuance of the final permit:

Inspection ID 2086851 (07/09/2012): Failure to comply with permit conditions

Summary of Review

Inspection ID 2199905 (08/30/2013): Permittee failed to pay required annual fee to Clean Water Fund

Inspection ID 2300760 (09/04/2014): NPDES – Failure to pay annual fee

Inspection ID 2312705 (10/14/2014): Operator Certification – Failure to submit annual system fee

Inspection ID 2390245 (04/16/2015): CSL – Failure to take necessary measures to prevent pollutants from reaching waters of the Commonwealth

Inspection ID 2394494 (08/03/2015): NPDES – Failure to pay annual fee

Inspection ID 2415993 (10/16/2015): Operator Certification – Failure to submit annual system fee

Inspection ID 2506756 (08/02/2016): NPDES – Failure to pay annual fee

Inspection ID 2773368 (09/11/2018): NPDES – Failure to pay annual fee

Inspection ID 2797250 (11/01/2018): Operator Certification – Failure to submit annual system fee

Inspection ID 2866725 (04/04/2019): NPDES – Failure to properly operate and maintain all facilities which are installed or used by the permittee to achieve compliance

Inspection ID 2866725 (04/04/2019): NPDES – Violation of effluent limits in Part A of permit

As per recent inspection reports, the WWTP replacement project that was permitted in WQM permit # 5215401 has yet to be started. The treatment plant and its associated building are in extremely poor condition.

Antibacksliding requirements have been met since no effluent limitations were made less stringent or removed from the permit. An antidegradation analysis was not required since the facility is not increasing its flow. EPA waiver is not in effect.

WQM Modeling.pdf TRC Calculation.pdf Watershed Information.pdf

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)	0.07
Latitude	41º 22' 52"	Longitude	-75º 15' 5"
Quad Name	Lakeville	Quad Code	0743
Wastewater Description:	Sewage Effluent		
Receiving Waters	Lake Wallenpaupack (HQ-CWF/MF)	Stream Code	5519
NHD Com ID	25944200	RMI	N/A (lake discharge)
Drainage Area	N/A (lake discharge)	Yield (cfs/mi^2)	N/A (lake discharge) 0.1 used downstream
Q_{7-10} Flow (cfs)	36.6 (see above reasoning)	Q_{7-10} Basis	Default
Elevation (ft)	1183	Slope (ft/ft)	0 (lake discharge)
Watershed No.	1-C	Chapter 93 Class.	HQ-CWF/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	Active	Name	Lake Wallenpaupack TMDL

Background/Ambient Data		Data Source
pH (SU)	-	-
Temperature (°F)	-	-
Hardness (mg/L)	-	-
Other:	-	-

Nearest Downstream Public Water Supply Intake		Easton Area Water System	
PWS Waters	Delaware River	Flow at Intake (cfs)	1105
PWS RMI	109.8	Distance from Outfall (mi)	~120

Treatment Facility Summary

Treatment Facility Name: Deer Haven WWTP

WQM Permit No.	Issuance Date
5215401	11/3/2015

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Tertiary	Extended Aeration / Filtration	Ultraviolet Light	0.0078 (2018)

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.07	240	Not Overloaded	Settled	Hauled

Changes Since Last Permit Issuance: Issuance of 5215401 to replace the existing WWTP. As per recent inspection reports, the WWTP replacement project has yet to be started.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.07
Latitude 41º 22' 52" **Longitude** -75º 15' 5"
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
Total Suspended Solids	30.0	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	60.0	IMAX	-	-
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)
	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)
	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
	1.6	IMAX	-	-

Comments: TRC limitations will come into effect 1 year from the permit effective date.

Water Quality-Based Limitations

The following limitations were determined through water quality modeling:

Parameter	Limit (mg/l)	SBC	Model / Basis
$CBOD_5$	10.0	Average Monthly	Previous permit
	20.0	IMAX	
Ammonia-Nitrogen (5/1 – 10/31)	3.0	Average Monthly	Previous permit
	6.0	IMAX	
Ammonia-Nitrogen (11/1 – 4/30)	9.0	Average Monthly	Previous permit
	18.0	IMAX	
Total Phosphorus	0.5	Average Monthly	Lake Wallenpaupack TMDL
	1.0	IMAX	
Dissolved Oxygen	6.0	Minimum	Previous permit