pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0045187**
Facility Type	**Non-Municipal**	APS ID	**1006688**
Major / Minor	**Minor**	Authorization ID	**1297075**

Applicant and Facility Information

Applicant Name	**Richland Communities, LLC**	Facility Name	**Richland Meadows MHP STP**
Applicant Address	232 Yankee Road, Lot # 500	Facility Address	232 Yankee Road, Lot # 500
	Quakertown, PA 18951		Quakertown, PA 18951
Applicant Contact	Lee Williams	Facility Contact	Timothy Mong
Applicant Phone	(215) 536-6084	Facility Phone	(215) 872-1980
Client ID	64239	Site ID	238709
Ch 94 Load Status	Not Overloaded	Municipality	Richland Township
Connection Status	No Limitations	County	Bucks
Date Application Received	November 21, 2019	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: Permit Renewal.

Summary of Review

The applicant submitted renewal of an NPDES permit application to discharge 80,000 gpd of sewage into dry swale to Morgan Creek from STP serving Richland Mobile Home Park.

The plant serves over 400 units of mobile home park. Effluent limits for all the parameters will remain the same in this permit renewal. The TMDL for Lake Nockamixon was completed in March 2003 for nutrients. TMDL requires a permit limit of 0.5 mg/l for phosphorus for all the discharges to Tohickon Creek and its tributaries upstream of Lake Nockamixon. Therefore, effluent limits of 0.5 mg/l for phosphorous will continue in this renewal. The discharge is located in the Special Protection Waters (SPW) of the Delaware River. Any expansion or increase in the effluent flow will result in more stringent effluent limits. Monitoring requirements for Total Dissolved Solids (TDS), will continue in this permit renewal as recommended by DRBC to obtain data for all the dischargers located in this part of Special Protection Waters of Delaware River. Influent monitoring for CBOD-5 and Total Suspended Solids (TSS) will continue in this permit which is consistent with our SOP.

The effluent is generally in compliance with the existing permit limits and is expected to be in compliance in the future. Effluent limits are based on dry stream discharge and are maintained the same to protect water quality and anti-backsliding.

The treatment plant consists of a comminutor, two aeration tanks, two equalization tanks, two clarifier tanks, a chlorination tank, four sand filters, and a de-chlorination tank. The treatment plant and much of the collection system is original to the mobile home park. Most of the treatment plant is above ground and is constructed of converted cast iron tank cars. In the past, the collection system had significant storm related inflow and infiltration (I&I). The facility follows a High Flow Management Plan (HFMP) where excess stormwater related I & I flow is routinely diverted from the two high water EQ tanks to the T-3 EQ/treatment tank and associated clarifier. Piping also runs from the influent surge tanks to the T-3 aeration tank. Hypochlorite is added at the end of the T-3 clarifier and flow is piped to the designated sand filters #5 and #6. Aeration tank T-3 is seeded from T-2 during storm events to provide treatment. Mr. Paul Jardel of Operations Section conducted routine

Approve	Deny	Signatures	Date
X		Ketan Thaker / Project Manager *Ketan Thaker*	July 27, 2020
X		Pravin Patel Pravin C. Patel, P.E. / Environmental Engineer Manager	07/27/2020

Summary of Review

site inspection on January 22, 2020. No violations were noted. It was recommended that unpermitted bypass lines should be permanently cemented shut or cut in order to avoid violation. Mr. Tim Mong, the Operator subsequently submitted a photo showing the pipe had been capped.

The following are effluent limits:

Parameter	Average Monthly Limits (mg/l)	Basis
CBOD5 (5/1 to 10/31)	5	Dry Stream Discharge
CBOD5 (11/1 to 4/30)	10	Dry Stream Discharge
Suspended Solids	30	Dry Stream Discharge
Ammonia as N (5/1 to 10/31)	1.0	Dry Stream Discharge
Ammonia as N (11/1 to 4/30)	3.0	Dry Stream Discharge
Total Phosphorus	0.5	TMDL for Lake Nockamixon
Fecal Coliform (#/100 ml)	200 # /100 ml (Geo Mean)	25 Pa Code 92a.47
Dissolved Oxygen	6.0 minimum	BPJ
pH (STD Units)	6.0 to 9.0 SU at all times	25 Pa Code 92a.47, 95.2
Total Residual Chlorine	0.2	25 Pa Code 92a.47-48
Total Dissolved Solids	Report	DRBC
Total Nitrogen	Report	25 Pa Code 92a.61

Act-14 Notification to Richland Township on November 15, 2019 by certified mail.
Act-14 Notification to Bucks County on November 15, 2019 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)	0.08
Latitude	40Âº 24' 27.42"	Longitude	-75Âº 21' 47.41"
Quad Name	Quakertown	Quad Code	1543
Wastewater Description:	Sewage Effluent		
Receiving Waters	Dry Swale to Morgan Creek (TSF, MF)	Stream Code	03184
NHD Com ID	26053504	RMI	3.5100
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	2-D	Chapter 93 Class.	TSF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	NUTRIENTS, SILTATION		
Source(s) of Impairment	HIGHWAY/ROAD/BRIDGE RUNOFF (NON-CONSTRUCTION RELATED), RURAL (RESIDENTIAL AREAS)		
TMDL Status		Name	

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

Nearest Downstream Public Water Supply Intake			
PWS Waters		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	Extended Aeration With Solids Removal	Chlorine With Dechlorination	0.08
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.08		Not Overloaded	Dewatering	Other WWTP

Compliance History

DMR Data for Outfall 001 (from June 1, 2019 to May 31, 2020)

Parameter	MAY-20	APR-20	MAR-20	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19
Flow (GPD) Average Monthly	51264	56294	52362	52157	52915	54172	48696	49953	44524	46399	55335	57589
pH (S.U.) Minimum	6.7	6.8	6.7	6.9	6.7	6.8	6.8	6.7	6.9	6.6	6.6	6.6
pH (S.U.) Maximum	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.3	7.1	7.2	7.1
DO (mg/L) Minimum	7.0	7.5	7.8	7.9	7.4	7.6	7.4	7.0	7.3	6.7	6.8	6.8
TRC (mg/L) Average Monthly	0.001	0.001	0.002	0.002	0.0026	0.002	0.003	0.003	0.002	0.007	0.006	0.007
TRC (mg/L) Instantaneous Maximum	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.06
CBOD5 (lbs/day) Average Monthly	1.3	0.9	1.3	0.88	1.3	0.9	0.8	0.8	0.7	0.77	0.9	0.96
CBOD5 (lbs/day) Influent Average Monthly	34	59	43	52	57	33	61	61	18.9	40.63	78	74
CBOD5 (mg/L) Average Monthly	3	2	3	2	3	2	2	2	2	2	2	2
CBOD5 (mg/L) Influent Average Monthly	79	125	99	119	130	73	149	146	51	105	168	155
TSS (lbs/day) Average Monthly	2.6	3	2	0.4	2.2	3	2	0.4	2	0.77	0.9	1.4
TSS (lbs/day) Influent Average Monthly	49	92	23	49	63	23	69	47	17	34.05	141	62
TSS (mg/L) Average Monthly	6	7	5	1	5	6	5	1	4	2	2	3
TSS (mg/L) Influent Average Monthly	114	196	52	112	142	52	170	112	47	88	306	130
Total Dissolved Solids (mg/L) Average Monthly			298			250			412			210

Fecal Coliform (CFU/100 ml) Geometric Mean	5	19	2	1	2	11	6	3	1	11	4.5	5
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	5	75	6	1	6	130	40	8	1	12	20	30
Total Nitrogen (mg/L) Average Monthly	15.1								0.01	17.71	14	12.2
Ammonia (lbs/day) Average Monthly	0.04	0.05	0.04	0.04	0.044	0.045	0.04	0.04	0.04	0.04	0.05	0.05
Ammonia (mg/L) Average Monthly	0.10	0.10	0.1	0.1	0.1	0.10	0.10	0.1	0.1	0.10	0.1	0.10
Nitrite (mg/L) Average Monthly	0.01								0.01	0.01	0.015	0.245
Total Phosphorus (lbs/day) Average Monthly	0.17	0.17	0.07	0.07	0.066	0.023	0.09	0.025	0.06	0.077	0.08	0.11
Total Phosphorus (mg/L) Average Monthly	0.40	0.36	0.15	0.16	0.15	0.05	0.21	0.06	0.16	0.20	0.17	0.22

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) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (GPD)	Report	XXX	XXX	XXX	XXX	XXX	1/day	Recorded
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
TRC	XXX	XXX	XXX	0.2	XXX	0.6	1/day	Grab
CBOD5 Nov 1 - Apr 30	6.6	XXX	XXX	10	XXX	20	2/month	24-Hr Composite
CBOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
CBOD5 May 1 - Oct 31	3.3	XXX	XXX	5	XXX	10	2/month	24-Hr Composite
TSS	20	XXX	XXX	30	XXX	60	2/month	24-Hr Composite
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab

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		
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Ammonia Nov 1 - Apr 30	2.0	XXX	XXX	3.0	XXX	9	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	0.66	XXX	XXX	1.0	XXX	3	2/month	24-Hr Composite
Total Phosphorus	0.33	XXX	XXX	0.5	XXX	1	2/month	24-Hr Composite