

Application Type Renewal
Facility Type Municipal
Major / Minor Minor

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0056847
APS ID 985455
Authorization ID 1259893

Applicant and Facility Information

Applicant Name	<u>East Rockhill Township</u>	Facility Name	<u>East Rockhill Township WWTP</u>
Applicant Address	<u>1622 Ridge Road</u> <u>Perkasie, PA 18944</u>	Facility Address	<u>506 Branch Road</u> <u>Perkasie, PA 18944</u>
Applicant Contact	<u>Marianne Morano</u>	Facility Contact	<u>Kevin Franks</u>
Applicant Phone	<u>(215) 257-5167</u>	Facility Phone	<u>(267) 446-2728</u>
Client ID	<u>247961</u>	Site ID	<u>464023</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>East Rockhill Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Bucks</u>
Date Application Received	<u>December 27, 2018</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>Permit Renewal.</u>		

Summary of Review

The applicant requests renewal of an NPDES permit to discharge 113,000 GPD of treated sewage from the sewage treatment plant into East Branch Perkiomen Creek. The treatment plant serves 350 residential units in East Rockhill Township. The treated effluent will continue to be discharged into the East Branch Perkiomen Creek. At the point of discharge the stream is classified as Trout Stocking Fishery.

The treatment plant consists of an influent pump station with grinder, flow equalization, dual activated sludge extended aeration trains, an alum system for phosphorus removal, a UV disinfection system, effluent flow meter, carbon odor control system, back-up power generator, sludge holding and reed beds. Sludge generated at the WWTP is handled via a holding tank and reed beds. The sludge is hauled off-site for disposal at various landfills.

There are no changes to the wastewater characteristics, receiving waters or effluent flow from last renewal. The discharge is generally in compliance with the permit limits. Effluent limits for all the parameters will remain the same in this permit renewal.

WQM 7.0 Model:



WQM PA0056847

Approve	Deny	Signatures	Date
		Ketan Thaker / Project Manager	
		Pravin C. Patel, P.E. / Environmental Engineer Manager	

Summary of Review

Following are the effluent limits:

PARAMETERS	EFFLUENT LIMITS (Av.Mo)(mg/l)	BASIS
CBOD5 (5/1 to 10/31)	20	WQM Model
CBOD5 (11/1 to 4/30)	25	WQM Model
Total Suspended Solids	30	25 Pa Code 92a.47
Ammonia as N (5/1-10/31)	10	WQM Model
Ammonia as N (11/1-4/30)	15	WQM Model
Phosphorus as P	2.0	25 Pa Code 92a.61
Fecal Coliform (#/100ml)	200 #/100 ml	25 Pa Code 92a.47
Dissolved Oxygen	5.0 Minimum	WQM Model
pH (STD Units)	6.0 – 9.0 SU at all times	25 Pa Code 92a.47
UV Intensity	Report	SOP
Total Residual Chlorine	0.5	25 Pa Code 92a.47
Total Dissolved Solids	Report	DRBC
Total Nitrogen	Report	25 Pa Code 92a.61

Act -14 Notifications to Bucks County Board of Commissioners on December 18, 2018.

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.	<u>001</u>	Design Flow (MGD)	<u>.113</u>
Latitude	<u>40° 22' 22.83"</u>	Longitude	<u>-75° 16' 56.20"</u>
Quad Name	_____	Quad Code	_____
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>East Branch Perkiomen Creek (TSF, MF)</u>	Stream Code	_____
NHD Com ID	<u>25999600</u>	RMI	_____
Drainage Area	_____	Yield (cfs/mi ²)	_____
Q ₇₋₁₀ Flow (cfs)	_____	Q ₇₋₁₀ Basis	_____
Elevation (ft)	_____	Slope (ft/ft)	_____
Watershed No.	<u>3-E</u>	Chapter 93 Class.	<u>TSF, MF</u>
Existing Use	_____	Existing Use Qualifier	_____
Exceptions to Use	_____	Exceptions to Criteria	_____
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment	_____		
Source(s) of Impairment	_____		
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				
Treatment Facility Name: East Rockhill Township WWTP				
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Sequencing Batch Reactor	Ultraviolet	0.113
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.113		Not Overloaded		

DMR Data for Outfall 001 (from August 1, 2018 to July 31, 2019)

Parameter	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18	AUG-18
Flow (MGD) Average Monthly	0.06067	0.06349	0.06351	0.062	0.06692	0.06033	0.06432	0.06652	0.07045	0.05948	0.06201	0.06732
Flow (MGD) Daily Maximum	0.10108	0.12474	0.1173	0.11026	0.1231	0.08493	0.10714	0.10929	0.19027	0.0888	0.10562	0.14168
pH (S.U.) Instantaneous Minimum	6.7	6.4	6.7	6.8	6.9	7.0	6.5	6.9	6.9	6.8	6.6	6.8
pH (S.U.) Instantaneous Maximum	7.3	7.3	7.2	7.3	7.2	7.3	7.4	7.4	7.4	7.3	7.3	7.3
DO (mg/L) Instantaneous Minimum	5.3	5.3	5.4	5.6	5.8	6.1	6.0	6.0	6.0	5.6	5.6	5.6
TRC (mg/L) Average Monthly	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG
TRC (mg/L) Instantaneous Maximum	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG
CBOD5 (lbs/day) Average Monthly	1.0	1	1	1	1.0	1.0	< 1.0	1	< 1.0	< 0.7	0.8	0.8
CBOD5 (lbs/day) Raw Sewage Influent Average Monthly	54	46	67	129	104	92	82	94	86	84	53	86
CBOD5 (lbs/day) Raw Sewage Influent Weekly Average	73	48	89	139	106	110	89	103	130	95	67	95
CBOD5 (lbs/day) Weekly Average	1.0	1	1	2	1.0	1.0	1.0	2	1.0	0.7	0.8	1.0
CBOD5 (mg/L) Average Monthly	2	3	3	3	3.0	2.0	< 2.0	3	< 2.0	< 2	2	2
CBOD5 (mg/L) Raw Sewage Influent Average Monthly	118.2	149	170	243	198	152	168	188	159	197	133	232
CBOD5 (mg/L) Raw Sewage Influent Weekly Average	152	172	193	266	216	168	169	230	187	202	159	279
CBOD5 (mg/L) Weekly Average	2	4	3	3	3.0	2.0	2.0	3	2.0	2	2	2

**NPDES Permit Fact Sheet
East Rockhill Township WWTP**

NPDES Permit No. PA0056847

BOD5 (lbs/day) Raw Sewage Influent Average Monthly	68	67	129	160	158	154	103	172	109	109	68	105
BOD5 (lbs/day) Raw Sewage Influent Weekly Average	84	71	152	198	159	201	110	204	164	110	89	118
BOD5 (mg/L) Raw Sewage Influent Average Monthly	150	218	333	302	300	252	215	332	201	261	170	282
BOD5 (mg/L) Raw Sewage Influent Weekly Average	173	229	336	378	324	307	247	353	237	302	213	333
TSS (lbs/day) Average Monthly	5	2	2	4	5.0	2.0	< 0.7	3	4.0	3	3	0.4
TSS (lbs/day) Raw Sewage Influent Average Monthly	77	82	108	114	99	113	96	147	123	110	94	103
TSS (lbs/day) Raw Sewage Influent Weekly Average	100	97	160	131	108	162	112	169	168	132	96	141
TSS (lbs/day) Weekly Average	5	2	2	8	6.0	3.0	1.0	4	7.0	4	5	0.5
TSS (mg/L) Average Monthly	11	5	6	8	9.0	3.0	< 2.0	7	6.0	6	8	1.0
TSS (mg/L) Raw Sewage Influent Average Monthly	170	262	262	215	189	182	201	286	240	256	240	254
TSS (mg/L) Raw Sewage Influent Weekly Average	207	280	347	243	220	247	252	292	243	265	252	276
TSS (mg/L) Weekly Average	11	5	7	14	10.0	4.0	2.0	9	10.0	9	14	1
Total Dissolved Solids (mg/L) Daily Maximum		878			770			904			1018	
Fecal Coliform (CFU/100 ml) Geometric Mean	< 4	< 8	< 12	12	20	4.0	< 3.0	< 4	2.0	2	6	10

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Fecal Coliform (CFU/100 ml) Instantaneous Maximum	7	36	70	18	39	7.0	5.0	10	3.0	3	18	10
UV Intensity (mW/cm ²) Minimum	1	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	0.1	0.1	0.7
Total Nitrogen (mg/L) Average Monthly	< 42.8	< 43.91	< 41.29	< 42.76	< 35.93	< 38.97	< 31.41	< 40.02	32.48	< 43.22	39.65	37.3
Ammonia (lbs/day) Average Monthly	< 0.04	< 0.03	< 0.02	< 0.05	< 0.05	< 0.06	< 0.05	< 0.05	< 0.05	0.02	0.04	0.4
Ammonia (mg/L) Average Monthly	< 1	< 0.01	0.010	< 0.01	< 1.0	< 1	< 1.0	< 1	< 1	< 0.1	0.1	1.0
Total Phosphorus (lbs/day) Average Monthly	0.7	0.6	0.9	0.9	0.7	< 0.5	0.2	0.6	0.7	0.7	0.8	0.8
Total Phosphorus (mg/L) Average Monthly	1.6	1.9	2.0	1.6	1.3	< 0.8	0.5	1.1	1.3	1.7	2.1	2.0

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	Weekly Average	Daily Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	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	See Permit	Grab
CBOD5 Nov 1 - Apr 30	24	38	XXX	25	40	50	2/month	24-Hr Composite
CBOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
CBOD5 May 1 - Oct 31	19	28	XXX	20	30	40	2/month	24-Hr Composite
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
TSS	28	42	XXX	30	45	60	2/month	24-Hr Composite
Total Dissolved Solids	XXX	XXX	XXX	Report Daily Max	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

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		
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
UV Intensity (mW/cm ²)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Metered
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Ammonia Nov 1 - Apr 30	14.1	XXX	XXX	15	XXX	30	2/month	24-Hr Composite
Ammonia May 1 - Oct 31	9.4	XXX	XXX	10	XXX	20	2/month	24-Hr Composite
Total Phosphorus	1.9	XXX	XXX	2.0	XXX	4	2/month	24-Hr Composite