pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0209597**
Facility Type	**Municipal**	APS ID	**978003**
Major / Minor	**Minor**	Authorization ID	**1246846**

Applicant and Facility Information

Applicant Name	**Delmar Township**	Facility Name	**Stony Fork WWTP**
Applicant Address	610 N Lawton Road	Facility Address	Stony Fork Wwtp
	Wellsboro, PA 16901		Wellsboro, PA 16901
Applicant Contact	David Cleveland	Facility Contact	Mike Gerardi
Applicant Phone	(570) 723-8899	Facility Phone	(570) 974-1585
Client ID	68147	Site ID	484884
Ch 94 Load Status	Not Overloaded	Municipality	Delmar Township
Connection Status	No Limitations	County	Tioga
Date Application Received	September 24, 2018	EPA Waived?	Yes
Date Application Accepted	October 2, 2018	If No, Reason	

Purpose of Application: Renewal of existing NPDES permit

Summary of Review

The above applicant has submitted an NPDES renewal application for the existing 0.045 MGD discharge from Stony Fork Wastewater Treatment Plant (WWTP). The discharge is to East Branch Stony Fork, which is classified as Cold Water Fishes by the Department's Chapter 93 Regulations. The treatment facility is an extended aeration package plant with chlorine disinfection. The plant consists of a 10,000 gallon equalization tank with bar screen followed by a 50,000 gallon aeration tank, 200 square foot clarifier, a 12,000 gallon aerobic digestion tank, tablet chlorinator, and a 1200 gallon baffled contact tank.

Unless otherwise noted, all applicable Department Standard Operating Procedures (SOPs) were followed during the review of this application.

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.

Approve	Deny	Signatures	Date
		Chad A. Fabian / Project Manager	October 1, 2019
		Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.045
Latitude	41º 39' 13.94"	Longitude	-77º 22' 12.25"
Wastewater Description:	Sewage Effluent		
Receiving Waters	East Branch Stony Fork (CWF)	Stream Code	21711
NHD Com ID	66538103	RMI	2.8
Drainage Area	17.3 mi^2	Yield (cfs/mi^2)	0.039
Q_{7-10} Flow (cfs)	0.68	Q_{7-10} Basis	Previous application review/stream delineation
Elevation (ft)	1330	Slope (ft/ft)	n/a
Watershed No.	9-A	Chapter 93 Class.	CWF
Existing Use	CWF	Existing Use Qualifier	n/a
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	n/a		
Source(s) of Impairment	n/a		
TMDL Status	Final	Name	Babb Creek
Nearest Downstream Public Water Supply Intake	Jersey Shore Water Authority maintains a backup water supply approximately 50 miles downstream on Pine Creek.		

Changes Since Last Permit Issuance: None

Other Comments: The TMDL is for metals (manganese, iron and aluminum) related to Acid Mine Drainage (AMD).

Compliance History	
Summary of DMRs:	There have been no effluent violations reported in the past 12 months.
Summary of Inspections:	The most recent inspection was performed by Brandon Shihinski (Clean Water Program, Water Quality Specialist) on 7/10/2019. No violations were found during the inspection.

Compliance History

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

Parameter	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19	FEB-19	JAN-19	DEC-18	NOV-18	OCT-18	SEP-18
Flow (MGD) Average Monthly	0.012	0.011	0.012	0.011	0.012	0.016	0.014	0.013	0.017	0.015	0.012	0.017
pH (S.U.) Minimum	6.73	6.66	7.12	6.67	6.9	6.88	6.92	7.03	7.21	7.15	6.75	6.82
pH (S.U.) Instantaneous Maximum	7.33	7.17	7.49	7.26	7.46	7.34	7.36	7.43	7.67	7.69	7.39	7.41
TRC (mg/L) Average Monthly	0.6	0.6	0.6	0.7	0.5	0.7	0.7	0.8	0.7	0.5	0.6	0.5
TRC (mg/L) Instantaneous Maximum	1.01	0.98	0.98	0.99	< 0.98	0.98	0.98	0.99	0.99	0.99	0.98	0.98
CBOD5 (mg/L) Average Monthly	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	5.0	< 5.0	< 3.0	6.0	< 12.0	4.0	< 3.0
CBOD5 (mg/L) Instantaneous Maximum	< 3.0	< 3.0	< 3.0	< 3.0	3.09	6.01	7.99	< 3.0	9.25	< 20	3.71	< 3.0
BOD5 (mg/L) Raw Sewage Influent Average Monthly	425.0	193.0	199	267.0	287.0	339.0	244.0	261.0	238.0	251	121	134
TSS (mg/L) Average Monthly	8.0	4.0	14.0	12	6.0	9.0	11.0	11.0	17.0	12.0	13	7.0
TSS (mg/L) Raw Sewage Influent Average Monthly	321.0	243.0	162	231.0	190.0	237.0	169.0	166	199	163	188	176
TSS (mg/L) Instantaneous Maximum	11.2	4.8	19.6	14.4	6.0	11.2	14.4	14.8	17.6	12.8	15.6	10.0
Fecal Coliform (CFU/100 ml) Geometric Mean	4.0	< 1.0	< 54	18	< 3.0	3.0	5.0	< 3.0	< 7.0	< 156	46	34
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	4.1	1.0	648.8	48.8	8.6	5.2	8.5	10.9	50.4	2419.6	410.6	114.5

Development of Effluent Limitations			
Outfall No.	001	**Design Flow (MGD)**	.045
Latitude	41º 39' 15.00"	**Longitude**	-77º 22' 13.00"
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
$CBOD_5$	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
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)
Fecal Coliform (5/1 – 9/30)	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)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5 monthly, 1.6 instant maximum	Average Monthly	-	92a.48(b)(2)

Comments: The existing TRC limitations are 1.0 mg/l average monthly and 2.3 mg/l instant maximum. The existing TRC limitations will be replaced by the above technology based limitation.

Water Quality-Based Limitations

A "Reasonable Potential Analysis" was not performed since the facility does not have any industrial users nor does it accept any hauled in wastes. Therefore, the application does not require any toxics to be sampled in the permit renewal application since they are not expected to be present in the discharge.

The Department's WQM7.0 model allows the Department to evaluate point source discharges of dissolved oxygen (DO), carbonaceous BOD ($CBOD_5$), and ammonia-nitrogen (NH_3-N) into free-flowing streams and rivers. To accomplish this, the model simulates two basic processes: the mixing and degradation of NH_3-N in the stream and the mixing and consumption of DO in the stream due to the degradation of $CBOD_5$ and NH_3-N. A copy of the completed model is attached. The model shows that no Water Quality based effluent limitations are required for the existing discharge since the model inputs were protective of Chapter 93 water quality standards.

The chlorine spreadsheet (see attached) was used to determine that the above technology based TRC limitations are protective of water quality standards.

Chesapeake Bay Requirements

According to the Department's Supplement to the Phase 2 Chesapeake Bay Watershed Implementation Plan (WIP), the facility is classified as a Phase 5 bay discharger (>0.002 MGD and <0.2 MGD). Phase 5 facilities are required to monitor for total nitrogen and total phosphorus at a rate of 1/year unless the facility has already conducted at least two years of nutrient monitoring and a summary of the results are included in the next permit fact sheet. The facility has been sampling for total nitrogen and total phosphorus during the existing permit cycle. The following is a summary of the peak values reported over the existing permit cycle:

Parameter	Instantaneous Maximum (mg/l)	Total Annual (lbs)
Total Nitrogen (TN)	68	2167
Total Phosphorus (TP)	7.1	972

Since the permittee has had more than 2 years of monitoring for nutrients, it is recommended that the total nitrogen and total phosphorus requirements be removed from the permit per the WIP.

Best Professional Judgment (BPJ) Limitations

A review of the DMRs reveals that the facility typically does not meet the newly proposed TRC effluent limitations. Therefore, it is recommended that the TRC limitations be effective 2 years from permit issuance date. A compliance schedule will be included in Part C of the permit. Per the recommendations of the Department's SOP for Reissuance of Individual Sewage NPDES Permits (Revised 10/11/2013), influent monitoring for BOD5 and TSS will still be included in this permit. The Department also recommends monitoring and reporting for DO to assure adequate operation and maintenance.

The discharge is within the Babb Creek watershed, which has a TMDL for impairment from metals and pH due to acid mine drainage. Monitor and report for aluminum, iron, and manganese will be included in this permit cycle to characterize any contribution the discharge may have to the impairment.

Anti-Backsliding

There is no proposal to relax any limitation in this permit.

Existing Effluent Limitations

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	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
TRC	XXX	XXX	XXX	1.0	XXX	2.3	1/day	Grab
CBOD5	9	XXX	XXX	25	XXX	50	2/month	Grab
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
TSS	11	XXX	XXX	30	XXX	60	2/month	Grab
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab

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 (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
TRC (Interim Limits)	XXX	XXX	XXX	1.0	XXX	2.3	1/day	Grab
TRC (Final Limits-effective 2 years after permit issuance)	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
Dissolved Oxygen (DO)	XXX	XXX	Report	XXX	XXX	XXX	1/day	Grab
CBOD5	9	XXX	XXX	25	XXX	50	2/month	Grab
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
TSS	11	XXX	XXX	30	XXX	60	2/month	Grab
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	2/month	Grab
Total Aluminum	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
Total Iron	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
Total Manganese	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab

Compliance Sampling Location: 001

All of the above limitations and sampling frequencies are the same as the existing permit except for the final TRC limitations and the newly included dissolved oxygen reporting requirements. It is recommended the permit be drafted as described within this fact sheet.