pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SFTF/SRSTP

Application Type	**Renewal**	Application No.	**PA0221279**
Wastewater Type	**Sewage**	APS ID	**857151**
Facility Type	**SFTF**	Authorization ID	**1049848**

Applicant, Facility and Project Information

Applicant Name	**Station Road Properties Owners Association, Inc.**	Facility Name	**Station Road Properties Owners Association**
Applicant Address	7018 Station Road	Facility Address	7040 Station Road
	Erie, PA 16510		Erie, PA 16510
Applicant Contact	David Dombkowski	Facility Contact	David Dombkowski
Applicant Phone	(715) 587-5150	Facility Phone	(715) 587-5150
Client ID	44737	Site ID	3292
SIC Code	8800	Municipality	Harborcreek Township
SIC Description	Private Households	County	Erie County
Date Application Received	May 12, 2020	WQM Required	No
Date Application Accepted	May 13, 2021	WQM App. No.	-

Project Description: Renewal of an existing NPDES Permit for an existing discharge of treated sanitary wastewater from an SFTF serving four residential lots.

Summary of Review

Act 14 - Proof of Notification was submitted and received.

A Part II Water Quality Management permit is not required at this time.

The applicant should be able to meet the limits of this permit, which will continue to protect the uses of the receiving stream.

I. OTHER REQUIREMENTS:

A. AMRs
B. DMRs
C. Depth of Septage and Scum Measurement
D. Septic Tank Pumping
E. Effluent Chlorine Optimization and Minimization
F. Stormwater into sewers
G. Right of way
H. Solids handling
I. Public Sewerage Availability

SPECIAL CONDITIONS: None.

Permitted treatment consists of: (WQM Permit no. 2594407): Four 1,250 gallon septic tanks, one at each of four lots (A, B, C, and D), an effluent pump and a 300 gallon pump tank for lots C and D, a common 1,250 gallon dosing tank, a 2,400 square foot (24'x100') subsurface sand filter, alum addition for phosphorus removal with a 1,000 gallon precipitation tank, and tablet chlorine disinfection with a 1,000 gallon contact tank.

There are no open violations in efacts associated with the subject Client ID (44737) as of 5/25/2021.

Approve	Deny	Signatures	Date
X		Stephen A. McCauley Stephen A. McCauley, E.I.T. / Environmental Engineering Specialist	5/25/2021
X		Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager	May 26, 2021

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.0016
Latitude	42° 07' 04.00"	Longitude	79° 56' 35.00"
Quad Name	-	Quad Code	-
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary to the Sixmile Creek (CWF, MF)	Stream Code	N/A
NHD Com ID	123923461	RMI	N/A
Drainage Area	-	Yield (cfs/mi^2)	-
Q_{7-10} Flow (cfs)	-	Q_{7-10} Basis	-
Elevation (ft)	-	Slope (ft/ft)	-
Watershed No.	15-A	Chapter 93 Class.	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	-	Name	-

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

Nearest Downstream Public Water Supply Intake	Pennsylvania - Canada International border		
PWS Waters	Lake Erie	Flow at Intake (cfs)	N/A
PWS RMI	N/A	Distance from Outfall (mi)	20.0

This SFTF was designed where applicable in accordance with the SFTF Manual, but it does not qualify for the PAG-04 General Permit due to it discharging to a tributary of Lake Erie which requires a phosphorus limit due to the 1969 International Joint Committee (IJC) agreement.

No modeling was performed for this NPDES Permit renewal as septic tank/sand filter systems have been shown to be capable of meeting CBOD5 and TSS averages of <10 mg/l, which are less than the inputs of the WQ model.

The previous TRC limits were verified using the TRC Spreadsheet, which can be found at the end of this fact sheet.

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.

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	Annual Average	Maximum	Instant. Maximum		
Flow (MGD)	Report Annl Avg	XXX	XXX	XXX	XXX	XXX	1/year	Estimate
TRC	XXX	XXX	XXX	0.5 Avg Mo	XXX	1.6	1/month	Grab
BOD5	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
TSS	XXX	XXX	XXX	10.0	XXX	20.0	1/year	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	1000	1/year	Grab
Total Phosphorus	XXX	XXX	XXX	1.0 Avg Mo	XXX	XXX	1/month	Grab

Compliance Sampling Location: Outfall 001, after disinfection.

Flow is monitor only based on Chapter 92a.61. The limits for Total Residual Chlorine, BOD5, Total Suspended Solids, and Fecal Coliform are technology-based on Chapter 92a.47. The limits for Total Phosphorus are to protect Lake Erie based on the 1969 International Joint Committee (IJC) agreement.

In consideration of this only serving 4 residential dwellings, the existing monitoring frequency will be continued to mimic the frequency typically established for an SRSTP.

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.0183	= Q stream (cfs)	0.5	= CV Daily
0.0016	= Q discharge (MGD)	0.5	= CV Hourly
30	= no. samples	1	= AFC_Partial Mix Factor
0.3	= Chlorine Demand of Stream	1	= CFC_Partial Mix Factor
0	= Chlorine Demand of Discharge	15	= AFC_Criteria Compliance Time (min)
0.5	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)
0	= % Factor of Safety (FOS)	0	=Decay Coefficient (K)

Source	Reference	AFC Calculations		Reference	CFC Calculations	
TRC	1.3.2.iii	WLA afc =	2.377	1.3.2.iii	WLA cfc =	2.310
PENTOXSD TRG	5.1a	LTAMULT afc =	0.373	5.1c	LTAMULT cfc =	0.581
PENTOXSD TRG	5.1b	LTA_afc=	0.886	5.1d	LTA_cfc =	1.343

Source		Effluent Limit Calculations		
PENTOXSD TRG	5.1f	AML MULT =	1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) =	0.500	BAT/BPJ
		INST MAX LIMIT (mg/l) =	1.635	

WLA afc	**(.019/e(-k*AFC_tc)) + [(AFC_Yc*Qs*.019/Qd*e(-k*AFC_tc))...** **...+ Xd + (AFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**
LTAMULT afc	EXP((0.5*LN(cvh^2+1))-2.326*LN(cvh^2+1)^0.5)
LTA_afc	wla_afc*LTAMULT_afc
WLA_cfc	**(.011/e(-k*CFC_tc) + [(CFC_Yc*Qs*.011/Qd*e(-k*CFC_tc))...** **...+ Xd + (CFC_Yc*Qs*Xs/Qd)]*(1-FOS/100)**
LTAMULT_cfc	EXP((0.5*LN(cvd^2/no_samples+1))-2.326*LN(cvd^2/no_samples+1)^0.5)
LTA_cfc	wla_cfc*LTAMULT_cfc
AML MULT	EXP(2.326*LN((cvd^2/no_samples+1)^0.5)-0.5*LN(cvd^2/no_samples+1))
AVG MON LIMIT	MIN(BAT_BPJ,MIN(LTA_afc,LTA_cfc)*AML_MULT)
INST MAX LIMIT	**1.5*((av_mon_limit/AML_MULT)/LTAMULT_afc)**