

Southeast Regional Office CLEAN WATER PROGRAM

Application Type

Wastewater Type

Facility Type

Renewal

Sewage

SFTF

NPDES PERMIT FACT SHEET INDIVIDUAL SFTF/SRSTP

Application No. PA0052787

APS ID 1094649

Authorization ID 1450536

olicant Name	Flatland Church	Facility Name	Flatland Church STP
olicant Address	180 West Thatcher Road	_ Facility Address	180 West Thatcher Road
	Quakertown, PA 18951	_	Quakertown, PA 18951
olicant Contact	Douglas Bishop	Facility Contact	Douglas Bishop
olicant Phone	(610) 295-2019	Facility Phone	(610) 295-2019
ent ID	370866	Site ID	457759
Code	4952	Municipality	Richland Township
Description	Trans. & Utilities - Sewerage Systems	County	Bucks
Date Application Received July 10, 2023		WQM Required	
Date Application Accepted		WQM App. No.	

Summary of Review

The applicant is requesting renewal of a NPDES permit to discharge an average annual design flow of 1,250 gpd of treated sewage from STP serving Quakertown United Mennonite Church. According to the applicant, church membership has dwindled and there is minimal activity. The only water use is the restrooms and the kitchen for refreshments. Flows are generated primarily on Sundays, where the estimated maximum flow is 300 gallons for Sunday service. Other flows include a weekly health care meeting that generates an estimated 200 gallons, a weekly Bible study generating 60 gallons, a monthly council meeting generating 80 gallons, and monthly kitchen flows of 50 gallons.

The STP consists of an EQ tank, aeration, clarification, flow splitter, still well with up-flow sand filter, chlorine disinfection, and a sludge holding tank. Calcium hypochlorite tablets are used for disinfection. Outfall 001 discharges approximately 200 feet from Tohickon Creek. Effluent percolates into the ground and does not reach Tohickon Creek.

The permit limits are carried over from the previous renewal as followings:

CBOD5 = 15 mg/l summer, 25 mg/l winter 1/quarter TSS = 30 mg/l1/quarter NH3-N = 2.5 mg/l summer, 7.5 mg/l winter 1/quarter Phosphorus as P = 0.5 mg/l1/quarter Fecal Coliform = 200/100ml average, 1,000/100ml inst. max. 1/quarter DO = 4.0 mg/l, inst. min. 1/month pH = 6 inst. min. -9 inst. max., S.U. 1/month TRC = 1.0 mg/l avg., 2.0 mg/l inst. max. 1/month

Approve	Deny	Signatures	Date
Х		Charley Yang	
		Charley Yang / Environmental Engineering Specialist	September 28, 2023
Х		Pravin Patel	
		Pravin C. Patel, P.E. / Environmental Engineer Manager	09/29/2023

Summary of Review

Per the previously provided justification from the previous renewal;

- 1) Low flow that occurs primarily on Sunday with considerably lower flows the rest of the week
- 2) Effluent discharges over a field prior for approximately 200 feet prior to Tohickon Creek
- 3) No compliance issues

Per the site inspection on 10/27/2022, the site seems to be in good condition.

The discharge is upstream of Lake Nockamixon, which is impaired for nutrients. The Total Maximum Daily Load (TMDL) for Lake Nockamixon, dated March 10, 2003, required a phosphorus limit of 0.5 mg/l, which was the limit since 1992. Tohickon Creek is impaired for agriculture/nutrients and removal of vegetation/siltation. It is not listed as impaired for point sources.

Act 14 Notification

Bucks County: 7/6/2023 Richland Township: 7/6/2023

Special Conditions:

- TRC Minimization
- Proper sludge disposal
- Annual Maintenance Report Requirements

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 and Stream Data – 2 - Receiving Waters and PWS

Discharge, Receiving Waters and Water Supply Information					
Outfall No. 001	Design Flow (MGD)	.00125			
Latitude 40º 26' 26.52"	Longitude	-75º 18' 39.60"			
Quad Name	Quad Code	1543			
Wastewater Description: Sewage Effluent					
Receiving Waters Tohickon Creek (TSF, MF)	Stream Code	03110			
NHD Com ID <u>26053402</u>	_ RMI	23.1			
Drainage Area 23 mi2	Yield (cfs/mi²)	0.022 cfsm			
Q ₇₋₁₀ Flow (cfs) <u>0.517 cfs</u>	Q ₇₋₁₀ Basis	Previous WQPR			
Elevation (ft) 487	_ Slope (ft/ft)	0.0025			
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 AGRICULTURE, REMOVAL	VAL OF RIPARIAN VEGETATION				
TMDL Status	Name				
pH (SU)	Data Source				
Temperature (°F)					
Hardness (mg/L)					
Other:					
Nearest Downstream Public Water Supply Intake					
PWS Waters	Flow at Intake (cfs)				
PWS RMI	Distance from Outfall (mi)				

Changes Since Last Permit Issuance:

Other Comments:

Compliance History				
Summary of DMRs:	Fecal Coliform has gone over the limit a few times, but overall, the sampling results seem to be under control.			
Summary of Inspections:	No compliance issue			

Other Comments:

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.

	Effluent Limitations					Monitoring Requirements		
Parameter	Mass Units (lbs/day) (1)		Concentrations (mg/L)			Minimum (2)	Required	
Farameter	Average Monthly	Average Weekly	Minimum	Average Quarterly	Maximum	Instant. Maximum	Measurement Frequency	Sample Type
Flow (GPD)	Report	XXX	XXX	XXX	XXX	XXX	1/month	Estimate
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/month	Grab
DO	XXX	XXX	4.0 Inst Min	XXX	XXX	XXX	1/month	Grab
TRC	XXX	XXX	XXX	1.0 Avg Mo	XXX	2.0	1/month	Grab
CBOD5 Oct 1 - Mar 31	XXX	XXX	XXX	25.0	XXX	50	1/quarter	Grab
CBOD5 Apr 1 - Sep 30	XXX	XXX	XXX	15.0	XXX	30	1/quarter	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60	1/quarter	Grab
Fecal Coliform (No./100 ml)	XXX	XXX	XXX	200	XXX	1000	1/quarter	Grab
Ammonia Oct 1 - Mar 31	XXX	XXX	XXX	7.5	XXX	15	1/quarter	Grab
Ammonia Apr 1 - Sep 30	XXX	XXX	XXX	2.5	XXX	5	1/quarter	Grab
Total Phosphorus	XXX	XXX	XXX	0.5	XXX	1	1/quarter	Grab

Compliance Sampling Location:

Other Comments: