pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NORTHEAST REGIONAL OFFICE
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal & Transfer**	Application No.	**PA0035033**
Facility Type	**Non-Municipal**	APS ID	**508695**
Major / Minor	**Minor**	Authorization ID	**1311202**

Applicant and Facility Information

Applicant Name	**Pinebrook Bible Conference**	Facility Name	**Pinebrook Bible Conference & Retreat Center**
Applicant Address	5339 Pinebrook Road	Facility Address	Retreat Center
	East Stroudsburg, PA 18301-7187		Stroudsburg, PA 18360-0001
Applicant Contact	Dave Allen	Facility Contact	Dave Allen
Applicant Phone	(570) 424-1212	Facility Phone	(570) 424-1212
Client ID	36910	Site ID	241884
Ch 94 Load Status	Not Overloaded	Municipality	Stroud Township
Connection Status		County	Monroe
Date Application Received	May 4, 2015	EPA Waived?	Yes
Date Application Accepted	May 6, 2015	If No, Reason	
Purpose of Application	RENEWAL AND TRANSFER OF AN EXISTING SEWAGE NPDES PERMIT.		

Summary of Review

The applicant is requesting the renewal of their NPDES permit to discharge up to 0.021 MGD of treated sewage. The receiving stream, Brodhead Creek (CWF (existing use)), is located in State Water Plan watershed 1-E and is classified for (HQ-CWF) High Quality Waters - Cold Water Fishes, aquatic life, water supply and recreation. As per the Department's current existing use list, the receiving streams has an existing use classification that is less protective than the designated use. The discharge is not expected to affect public water supplies.

- The CBOD5, TSS, TRC, and pH Limits are technology-based and remain the same as the Previous Permit.
- No Ammonia-nitrogen or Dissolved Oxygen Limit is required because water quality modeling (WQM Model 7.0) resulted in limits that would be met by secondary treatment. The low flow (Q cfs) dilution of the Brodhead Creek Stream to the Sewage Effluent at Outfall 001 is **755 :1**.
- Since the applicant has a design flow greater than 0.002 MGD; Effluent monitoring will continue for Total Phosphorus and Total Nitrogen (with the corresponding TKN and Nitrate-Nitrite as N since they are components of this calculation for TN.)
- Monitoring frequencies for all parameters with limitations have been updated to the recommended frequencies found in Table 6-3 of DEP's Technical Guidance for the Development and Specification of Effluent Limitations (doc. no. 362-0400-001)

The existing permit expires on 8/31/2020 and the application was received on 3/31/20.

Approve	Deny	Signatures	Date
X		Bernard Feist, P.E. / Environmental Engineer	4/17/2020
X		Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	4-21-20

Summary of Review

The Applicant is also requesting transfer of this Permit during the renewal. Transfer filing and fee payments must be completed before a final Permit can be issued. See the draft cover letter for details.

The NMS query "Inspections & Inspectors – Inspections – Inspection History by Permit" was run. A Compliance Evaluation was done on 12/28/2017 with No Violations Noted.

The NMS query "Violations – eFACTS – Open Violations for Client by Permit Number" was run. There is currently one open safe drinking water violation with the previous client. Eric Bartolacci (Sanitarian Supervisor) of that department is aware and working on a resolution.

The EPA Waiver is in effect.

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)	0.021
Latitude	41° 2' 2.00"	Longitude	75° 12' 27.00"
Quad Name	East Stroudsburg	Quad Code	1044
Wastewater Description:	Sewage Effluent		
Receiving Waters	Brodhead Creek (CWF (existing use))	Stream Code	4750
NHD Com ID	26141426	RMI	8.55
Drainage Area	124.05 mi^2	Yield (cfs/mi^2)	0.198
Q_{7-10} Flow (cfs)	24.56	Q_{7-10} Basis	Dflow Gage 01442500
Elevation (ft)		Slope (ft/ft)	0.004
Watershed No.	1-E	Chapter 93 Class.	HQ-CWF
Existing Use	CWF(COLD WATER FISHES)	Existing Use Qualifier	Use Attainability Analysis
Exceptions to Use		Exceptions to Criteria	
Nearest Downstream Public Water Supply Intake	Brodhead Creek Reg Water Auth		
PWS Waters		Flow at Intake (cfs)	
PWS RMI		Distance from Outfall (mi)	1.4

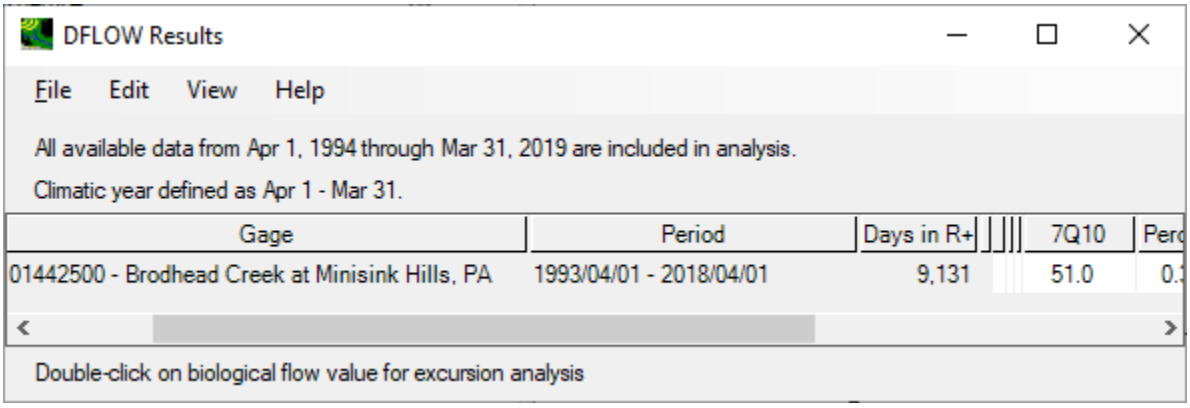
DEP has evaluated information indicating that the existing use of the receiving waters is different than the designated use under 25 Pa. Code § 93.9. In developing the draft NPDES permit, DEP is proposing to protect the existing use of the receiving waters. Following DEP's notice of the receipt of the application and the draft permit in the Pennsylvania Bulletin, DEP will accept written comments during the public comment period regarding DEP's tentative determination to protect the existing use. DEP will make a final determination on existing use protection for the receiving waters as part of the final permit action.

Hydrologic Unit Code: 2040104

STATION.--01442500 BRODHEAD CREEK AT MINISINK HILLS, PA
PERIOD OF RECORD.--November 1950 to current year.

STREAM NAME: Brodhead Creek **GAGE OR BRIDGE SITE:** gage **REFERENCE GAGE:**[1] 01442500	**COUNTY:** Monroe **USGS QUAD:** Stroudsburg **STATION NAME:** Brodhead Creek at Minisink Hill, PA	**LATITUDE:** 405955 **LONGITUDE:** 750835 **DRAINAGE AREA (sq. mi.):** 259

DFLOW Results

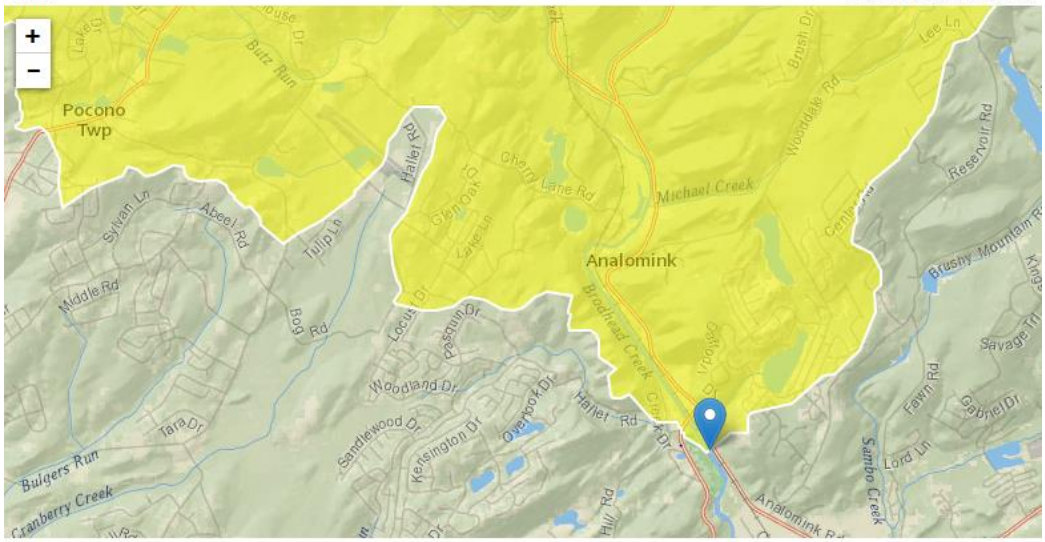


Q_{7-10} Basis LowFlowYield (cfs/mi^2)= 51.0 / 259 = 0.197 LFY

Outfall 001 at RMI 8.55

NAD83 Latitude:(41 02 03) NAD83 Longitude:(-75 12 26) Drainage Area: 124.0 mi2 Height 475 ft
LowFlowYield (cfs/mi^2)= 0.198 LFY Drainage Area = 124.05 mi^2
Q Streamflow = 0.197 * 124.0 = 24.43 cfs (15.8 MGD)
Dilution Streamflow : Effluent = 755 :1

Clicked Point (Latitude, Longitude): 41.03400, -75.20734
Time: 2020-04-08 13:31:06 -



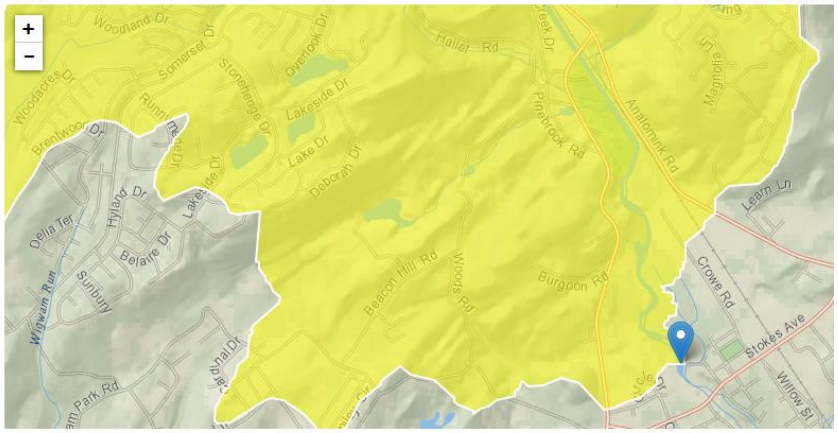
Low-Flow Statistics Parameters[100 Percent (124 square miles) Low Flow Region 5]

Parameter Code	Parameter Name	Value	Units
DRNAREA	Drainage Area	124	square miles

RMI 7.22 the next major confluence and where trout stocking begins

NAD83 Latitude:(41 01 05) NAD83 Longitude:(-75 12 06) Drainage Area: 130.0 mi2 Height 445 ft
Slope ft/ft =0.004

Clicked Point (Latitude, Longitude): 41.01812, -75.20172
Time: 2020-04-08 13:42:42 -



Low-Flow Statistics Parameters[100 Percent (129 square miles) Low Flow Region 5]

Parameter Code	Parameter Name	Value	Units
DRNAREA	Drainage Area	130	square miles

Treatment Facility Summary				
Treatment Facility Name: Pinebrook Bible Conference & Retreat Center				
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary	Extended Aeration	Hypochlorite	0.021
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.021	___	Not Overloaded		

Wastewater flows from a pump station → flow equalization tank →Aeration tank →clarifier → Chlorine contact tank

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.021
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)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
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 Nitrogen	Report	Average Yearly		92a.61
Total Phosphorus	Report	Average Yearly		92a.61
Total Residual Chlorine	1.2*	Average Monthly	-	92a.48(b)(2)

*Facility-specific regional BAT for facility < 0.1 MGD, no upgrade/expansion, and no documented TRC stream issue

Water Quality-Based Limitations

Analysis Results WQM 7.0

Hydrodynamics | NH3-N Allocations | D.O. Allocations | D.O. Simulation | Effluent Limitations

RMI	Discharge Name	Permit Number	Disc Flow (mgd)
8.55	Pinebrook Bible	PA0035033	0.0210

Parameter	Effluent Limit 30 Day Average (mg/L)	Effluent Limit Maximum (mg/L)	Effluent Limit Minimum (mg/L)
CBOD5	25		
NH3-N	25	50	
Dissolved Oxygen			3

Record: 1 of 1 | No Filter | Search

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9 — Pinebrook Bible

24.55	= Q stream (cfs)	0.5	= CV Daily
0.021	= Q discharge (MGD)	0.5	= CV Hourly
4	= 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)
1.2	= BAT/BPJ Value	720	= CFC_Criteria Compliance Time (min)
0	= % Factor of Safety (FOS)		=Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 241.083	1.3.2.iii	WLA cfc = 235.030
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 89.833	5.1d	LTA_cfc = 136.635

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.720	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 1.200	BAT/BPJ
		INST MAX LIMIT (mg/l) = 2.808	

Compliance History

DMR Data for Outfall 001 (from March 1, 2019 to February 29, 2020)

Parameter	FEB-20	JAN-20	DEC-19	NOV-19	OCT-19	SEP-19	AUG-19	JUL-19	JUN-19	MAY-19	APR-19	MAR-19
Flow (MGD) Average Monthly	0.002	0.002	0.001	0.001	0.002	0.002	0.002	0.002	0.009	0.0001	0.002	0.0007
Flow (MGD) Daily Maximum	0.009	0.005	0.002	0.004	0.006	0.003	0.007	0.004	0.002	0.002	0.010	0.002
pH (S.U.) Minimum	6.63	6.26	6.25	6.74	6.00	6.3	6.2	6.5	6.32	6.4	6.5	6.4
pH (S.U.) Maximum	7.50	7.30	7.74	7.90	7.34	7.9	7.6	7.0	7.02	7.2	6.9	7.1
TRC (mg/L) Average Monthly	0.18	0.56	0.44	0.2	0.65	0.059	0.92	0.87	0.95	0.68	0.69	0.51
TRC (mg/L) Instantaneous Maximum	0.6	1.5	2.2	0.5	2.0	2.1	2.8	3.3	3.0	1.8	1.8	1.7
CBOD5 (mg/L) Average Monthly	81.4	36.7	4.4	2.4	< 2.0	< 2.0	< 2.0	2.6	2.4	2.1	< 2.0	< 2.0
TSS (mg/L) Average Monthly	533.0	1227.0	16.1	4.8	6.8	10.4	< 4.0	7.0	5.2	< 4.0	< 4.0	4.4
Fecal Coliform (CFU/100 ml) Geometric Mean	5.0	31.19	777	72	100.0	8.0	6	< 1.0	1	11	< 1.0	< 1
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	5.0	139	777	72	100.0	8.0	6	< 1.0	1	11	< 1.0	< 1
Nitrate-Nitrite (mg/L) Average Monthly			30.5									
Total Nitrogen (mg/L) Average Monthly			31.5									
TKN (mg/L) Average Monthly			1.02									
Total Phosphorus (mg/L) Average Monthly			0.41									

Compliance History

Effluent Violations for Outfall 001, from: April 1, 2019 To: February 29, 2020

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TRC	07/31/19	IMAX	3.3	mg/L	2.8	mg/L
TRC	06/30/19	IMAX	3.0	mg/L	2.8	mg/L
CBOD5	01/31/20	Avg Mo	36.7	mg/L	25.0	mg/L
CBOD5	02/29/20	Avg Mo	81.4	mg/L	25.0	mg/L
TSS	01/31/20	Avg Mo	1227.0	mg/L	30.0	mg/L
TSS	02/29/20	Avg Mo	533.0	mg/L	30.0	mg/L