pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Application Type	**Renewal & Transfer**	Application No.	**PA0033863 A-1**
Facility Type	**Non-Municipal**	APS ID	**1051016**
Major / Minor	**Minor**	Authorization ID	**1375084**

Applicant and Facility Information

Applicant Name	**Camp A While – Robert J. Schuster, Jr.**	Facility Name	**Camp A While**
Applicant Address	1921 East Main Street	Facility Address	1921 East Main Street
	Hegins, PA 17938-9143		Hegins, PA 17938-9143
Applicant Contact	Robert J. Schuster, Jr., Owner	Facility Contact	Robert J. Schuster, Jr., Owner
Applicant Phone	(570) 682-8696	Facility Phone	(570) 682-8696
Client ID	348202	Site ID	2603
Ch 94 Load Status	Not Overloaded	Municipality	Hegins Township
Connection Status	-	County	Schuylkill
Date Application Received	August 27, 2020	EPA Waived?	Yes
Date Application Accepted	September 24, 2020	If No, Reason	-

Purpose of Application: Renewal and Transfer of NPDES permit for discharge for treated sewage.

Summary of Review

The applicant is requesting the renewal of an NPDES permit to discharge up to 0.019 MGD of treated sewage into Pine Creek, a Cold-Water Fishery, Migratory Fish (CWF, MF) receiving stream in State Water Plan Basin 6-C (Mahantango - Wiconisco Creeks). As per the Department's current existing use list, the receiving stream does not have an existing use classification that is more protective than its designated use. This stream segment is designated as a naturally reproducing trout stream as per PA Fish & Boat Commission. This discharge is not expected to affect public water supplies.

This permit renewal also incorporates a permit transfer. The transfer application was received on October 14, 2021 and was marked as complete on November 17, 2021. An "A-1" notation has been added after the NPDES permit number to represent the number of transfers since the original permit was issued.

The previous client was Camp A While (Client ID: 44457).
The new client is Camp A While – Robert J. Schuster (Client ID: 348202).

Limitations for pH, Dissolved Oxygen (DO), $CBOD_5$, Total Suspended Solids (TSS), and Fecal Coliform are technology-based and carried over from the previous permit.

Summertime (May 1 – October 31) limitations for Ammonia-Nitrogen are water quality-based and carried over from the previous permit. Monitoring/reporting for Ammonia-Nitrogen has been added for November 1 – April 30. WQM 7.0 modeling did not recommend stricter limitations.

The 1.2 mg/L monthly average and 2.8 mg/L IMAX limitations for Total Residual Chlorine (TRC) in the previously issued permit were technology-based limitations. As per PA Code 92a.47(a)(8) (which refers to PA Code 92a.48(b)(2)), a monthly average TRC facility-specific BAT effluent limit of 0.5 mg/L and an IMAX limit of 1.6 mg/L has been applied to this permit

Approve	Deny	Signatures	Date
X		/s/ Allison Seyfried / Environmental Engineering Specialist	January 5, 2022
X		/s/ Amy M. Bellanca, P.E. / Environmental Engineer Manager	1-7-22

Summary of Review

renewal. The TRC Calculation Spreadsheet did not recommend more stringent water quality-based limitations. Since the TRC limits are technology-based and all permittees are required to meet them, Camp A While will be required to meet the new technology-based limits for TRC starting one year after the effective date of the permit.

Sewage discharges now require monitoring and reporting for E. Coli. A monitoring frequency of 1/month for design flows >= 1 MGD, 1/quarter for design flows >= 0.05 and < 1 MGD, 1/year for design flows of 0.002 – 0.05 MGD will be utilized.

The annual monitoring and reporting for Total Nitrogen, Total Phosphorous, Total Kjeldahl Nitrogen, and Nitrate-Nitrite as N has been maintained in this permit.

A final Total Maximum Daily Load (TMDL) exists for the Pine Creek Watershed. The TMDL addresses metals (iron, manganese, and aluminum) associated with acid mine drainage (AMD). The TMDL also addresses siltation. There are no approved Waste Load Allocation (WLA) for this facility. Since this is a sewage discharge with no industrial contributors, no appreciable quantities of these metals are expected to be present in the effluent.

For this permit renewal, all monitoring frequencies for parameters with limitations are consistent with the Department's *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits* (document no. 362-0400-001).

There are no representative stream gages in the vicinity of the outfall. The default Low Flow Yield (LFY) of 0.1 cfs/mi^2 and USGS StreamStats were both used to model the discharge. Both methods yielded almost identical $Q_{7\text{-}10}$'s and LFYs. Therefore, the state-wide default LFY was ultimately used. For modeling inputs, RMI values were obtained using the "PA Historic Streams" feature of eMapPA, drainage areas were delineated using USGS's StreamStats Interactive Map, and elevations were obtained using the elevation profile feature of StreamStats.

The existing permit expired on April 30, 2021 and the application for renewal was received on time.

A Water Management System Inspection query indicated that on April 10, 2019 a Compliance Evaluation was performed.

There are currently no open violations for this client that warrant withholding issuance of this permit.

Sludge use and disposal description and location(s): As per the permittee and the Sewage Sludge and Biosolids Supplemental Report forms, sludge is hauled to the Pine Grove Joint Treatment Authority in Pine Grove, PA by Bresslers Septic and Excavating.

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)	0.019
Latitude	40º 39' 56.77"	Longitude	-76º 24' 19.47"
Quad Name	Tremont	Quad Code	1334
Wastewater Description:	Sewage Effluent		
Receiving Waters	Pine Creek (CWF)	Stream Code	17208
NHD Com ID	54968885	RMI	22.88
Drainage Area	1.19 mi^2	Yield (cfs/mi^2)	0.1
Q_{7-10} Flow (cfs)	0.119	Q_{7-10} Basis	State-wide default
Elevation (ft)	1,087.15	Slope (ft/ft)	-
Watershed No.	6-C	Chapter 93 Class.	CWF
Existing Use	-	Existing Use Qualifier	-
Exceptions to Use	-	Exceptions to Criteria	-
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment	Metals		
Source(s) of Impairment	Acid Mine Drainage		
TMDL Status	Final	Name	Pine Creek - Schuylkill County
Nearest Downstream Public Water Supply Intake	Duncannon Municipal Authority Water System		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	-
PWS RMI	61.3	Distance from Outfall (mi)	~ 67.7

Treatment Facility Summary

Treatment Facility Name: Robert J. Schuster, Jr. - Camp-A-While

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Aeration	Chlorination	0.019

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.019	-	Not Overloaded	Holding Tanks	Hauled

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.019
Latitude 40º 39' 59.02" **Longitude** -76º 24' 20.81"
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
$CBOD_5$	25.0	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	50.0	IMAX	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30.0	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	60.0	IMAX	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	Average Monthly	-	92a.48(b)(2)
	1.6	IMAX		
Dissolved Oxygen	5.0	Minimum	-	BPJ

Water Quality-Based Limitations

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
Ammonia-Nitrogen May 1 - Oct 31	8.96	Average Monthly	Previous Permit/Modeling
	17.92	IMAX	
Ammonia-Nitrogen Nov 1 - Apr 30	Report	Average Monthly	BPJ
Nitrate-Nitrite as N	Report	Annual Average	Previous Permit
Total Nitrogen			
Total Kjeldahl Nitrogen			
Total Phosphorus			

Anti-Backsliding

No limitations were made less stringent.

Modeling with State-Wide default LFY:

$$\frac{0.1\ ft^3/sec}{mi^2} \times 1.19\ mi^2 = \frac{\mathbf{0.119\ ft^3}}{\mathbf{sec}}$$

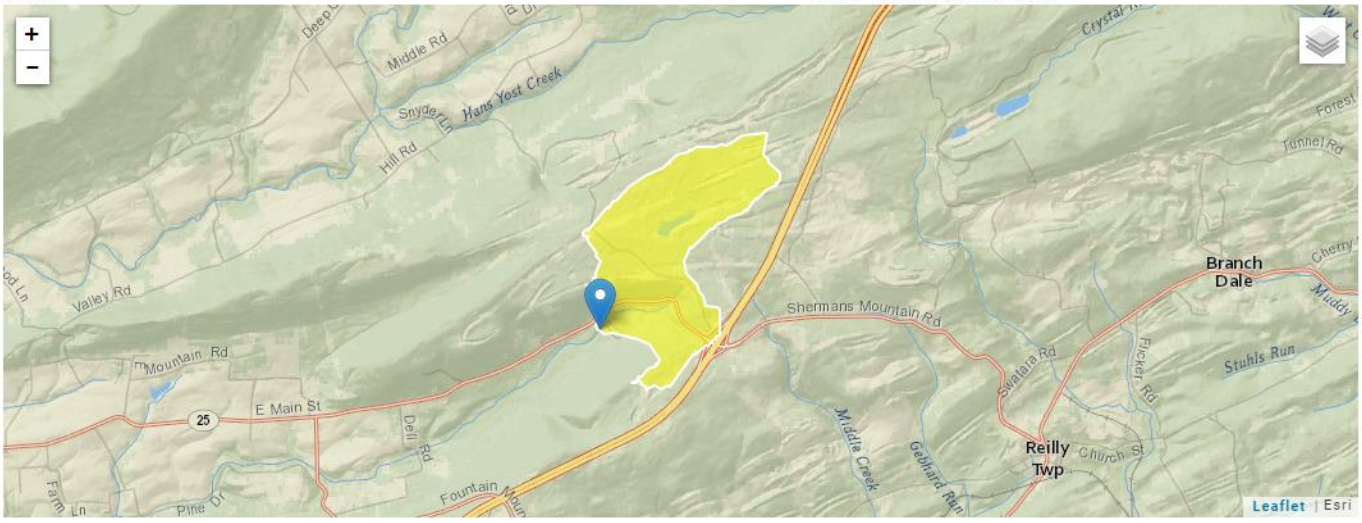
Modeling Using StreamStats:

At Outfall 001 to Pine Creek:

RMI	Elevation (ft)	Drainage Area (mi²)	$Q_{7\text{-}10}$ Flow (cfs)
22.8	1,087.15	1.19	0.118

StreamStats Report

Region ID: PA
Workspace ID: PA20211221154316732000
Clicked Point (Latitude, Longitude): 40.66394, -76.40811
Time: 2021-12-21 10:43:37 -0500



Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1.19	square miles

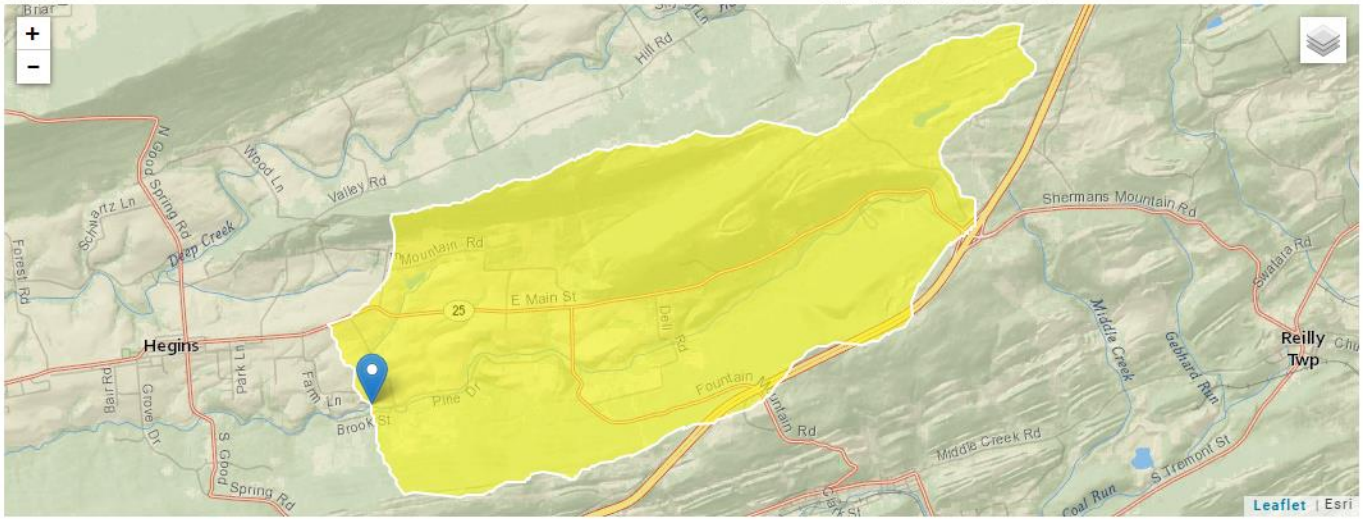
Statistic	Value	Unit
7 Day 2 Year Low Flow	0.305	ft^3/s
30 Day 2 Year Low Flow	0.421	ft^3/s
7 Day 10 Year Low Flow	0.118	ft^3/s

At confluence with Unnamed Tributary to Pine Creek (17274):

RMI	Elevation (ft)	Drainage Area (mi^2)	Q_{7-10} Flow (cfs)
18.7	762.14	8.25	1.48

StreamStats Report

Region ID: PA
Workspace ID: PA20211221155434596000
Clicked Point (Latitude, Longitude): 40.64511, -76.47291
Time: 2021-12-21 10:54:56 -0500



Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	8.25	square miles

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	2.81	ft^3/s	38	38
30 Day 2 Year Low Flow	3.54	ft^3/s	33	33
7 Day 10 Year Low Flow	1.48	ft^3/s	51	51

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
06C	17208	PINE CREEK

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Effl. Limit Maximum (mg/L)	Effl. Limit Minimum (mg/L)
22.880	Camp A While	PA0033863	0.019	CBOD5	25		
				NH3-N	11.8	23.6	
				Dissolved Oxygen			3

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

0.119	= Q stream (cfs)	0.5	= CV Daily
0.019	= 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)		=Decay Coefficient (K)

Source	Reference	AFC Calculations	Reference	CFC Calculations
TRC	1.3.2.iii	WLA afc = 1.310	1.3.2.iii	WLA cfc = 1.270
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.488	5.1d	LTA_cfc = 0.738

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)