

Application Type Renewal  
Facility Type Non-Municipal  
Major / Minor Minor

**NPDES PERMIT FACT SHEET  
INDIVIDUAL SEWAGE**

Application No. PA0091316  
APS ID 1075073  
Authorization ID 1416520

**Applicant and Facility Information**

Applicant Name	<u>Barbara J &amp; Edward J Tanski</u>	Facility Name	<u>Buttercup Woodlands Campground</u>
Applicant Address	<u>854 Evans City Road</u> <u>Renfrew, PA 16053-9206</u>	Facility Address	<u>854 Evans City Road</u> <u>Renfrew, PA 16053-9206</u>
Applicant Contact	<u>Edward Tanski</u>	Facility Contact	<u></u>
Applicant Phone	<u>(724) 290-0682</u>	Facility Phone	<u></u>
Applicant E Mail	<u>edtanski@zoominternet.net</u>	Facility E Mail	<u></u>
Client ID	<u>142759</u>	Site ID	<u>241701</u>
Municipality	<u>Connoquenessing Township</u>	County	<u>Butler</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Connection Status	<u></u>
Date Application Received	<u>November 1, 2022</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>November 23, 2022</u>	If No, Reason	<u></u>
Purpose of Application	<u>NPDES renewal</u>		

**Summary of Review**

No violations on file and in compliance since 2015.

Sludge use and disposal description and location(s): 7,500-gallons hauled off-site by Cousins Sanitary.

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
X		<i>William H. Mentzer</i> William H. Mentzer, P.E. Environmental Engineering Specialist	November 29, 2022
X		Vacant Environmental Engineer Manager	Okay to Draft JCD 12/8/2022

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	<u>001</u>	Design Flow (MGD)	<u>.04</u>
Latitude DP	<u>40° 51' 16.00"</u>	Longitude DP	<u>-79° 59' 33.00"</u>
Latitude NHD	<u>40° 51' 16.14"</u>	Longitude NHD	<u>-79° 59' 55.80"</u>
Quad Name	<u>Butler</u>	Quad Code	<u>1206</u>
Wastewater Description: <u>Treated campground domestic wastes</u>			
Receiving Waters	<u>Unnamed Trib L Connoquenessing</u>	Stream Code	<u>unknown</u>
NHD Com ID	<u>126217465</u>	RMI	<u>0.4</u>
Drainage Area	<u>0.1</u>	Yield (cfs/mi <sup>2</sup> )	<u>0</u>
Q <sub>7-10</sub> Flow (cfs)	<u>0</u>	Q <sub>7-10</sub> Basis	<u>Dry stream</u>
Elevation (ft)	<u>1161.39</u>	Slope (ft/ft)	<u>0.00947</u>
Watershed No.	<u>20-C</u>	Chapter 93 Class.	<u>CWF</u>
Existing Use		Existing Use Qualifier	<u>none</u>
Exceptions to Use	<u>none</u>	Exceptions to Criteria	<u>none</u>
Comments	<u>The TMDL is for a downstream segment impacted by abandoned mine drainage.</u>		
<u>Perennial stream flow is based on USGS Sta 03106500 Slippery Rock Creek at Wurtenburg.</u>			
<u>Drainage swale confluence tributary 34990 RMI 0.67 Drainage 1.24 square mile Elevation 1044.21 feet</u>			
<u>Tributary mouth Drainage 2,83 square miles Elevation 994.73 Basin Drainage 19.26 square miles</u>			
Low Flow Basis	<u>Slippery Rock Creek at Wurtemberg</u>	No: <u>03106500</u>	Period of Record <u>1913-1996</u>
	Low Flow (cfs) <u>30.2</u>	Drainage (sq mi) <u>3908</u>	Yield (cgs/sq-mi) <u>0.07588</u>
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status	<u>Final</u>	Name	<u>Little Connoquenessing Creek Watershed</u>
Background/Ambient Data		Data Source	
pH (SU)	<u>7.4</u>	1988 review	
Temperature (°F)	<u>20</u>	Cold Water Fishery default	
Hardness (mg/L)	<u>100</u>	default	
5-day CBOD (mg/L):	<u>2.0</u>	default	
Nearest Downstream Public Water Supply Intake	<u>Harmony Borough Water Authority</u>		
PWS Waters	<u>Little Connoquenessing Creek</u>	Flow at Intake (cfs)	<u>5.33</u>
PWS RMI	<u>1.28</u>	Distance from Outfall (mi)	<u>10.66</u>

Changes Since Last Permit Issuance: none

Other Comments: Lower Little Connoquenessing Creek is AMD impaired.

Treatment Facility Summary				
<b>Treatment Facility Name:</b> Buttercup Woodlands Campground				
<b>WQM Permit No.</b>		<b>Issuance Date</b>		
1080401				
1080401-T1				
1080401-A1-T1				
<b>Waste Type</b>	<b>Degree of Treatment</b>	<b>Process Type</b>	<b>Disinfection</b>	<b>Avg Annual Flow (MGD)</b>
Sewage	Secondary with Ammonia and Phosphorus	Extended Aeration	Hypochlorite	0.04
<b>Hydraulic Capacity (MGD)</b>	<b>Organic Capacity (lbs/day)</b>	<b>Load Status</b>	<b>Biosolids Treatment</b>	<b>Biosolids Use/Disposal</b>
0.04	200	Not Overloaded		Off site

Changes Since Last Permit Issuance: none

Other Comments:

Twin parallel systems consisting of comminution, flow splitting, chemical addition, aeration, settling, rapid sand filtration, and chlorine disinfection. Only one treatment train is installed.

**WQM SPECIAL CONDITIONS**

A. This permit is issued for a staged development type treatment plant. A comminutor, flow splitter, extended aeration sewage treatment plant with a rapid sand filter, and all other required units shall be built initially to serve the campground. Water meter usage records shall be monitored and recorded daily. Monthly average flow shall be calculated taking the average of all flows recorded Thursday, Friday, Saturday, and Sunday for the entire month and reported on the monthly DMRs. Once the monthly average flow for any given month exceeds 0.02 MGD, the permittee shall begin construction of the second treatment train consisting of identical units for tertiary treatment within 60 days. Thus, there will be two tertiary treatment trains upon completion of the proposed stage development.

**I. TREATMENT PLANT INSTALLATION**

A. The permittee shall install and operate the two tertiary treatment plants as required by Special Condition Letter A in Water Quality Management Permit No. 1080401-A1-T1. Failure to timely construct and operate the second tertiary treatment unit when necessary will result in a condition of hydraulic overload for the existing facility.

**Compliance History**

**DMR Data for Outfall 001 (from October 1, 2021 to September 30, 2022)**

Parameter	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21
Flow (MGD) Average Monthly	0.001	0.001	0.001	0.001	0.001	0.001						0.001
pH (S.U.) Minimum	6.9	6.8	7.20	6.40	6.8	6.9						7.4
pH (S.U.) Maximum	7.3	7.0	7.30	6.60	7.10	6.9						7.60
DO (mg/L) Minimum	7.0	7.70	5.5	6.20	5.4	5.0						7.0
TRC (mg/L) Average Monthly	0.1	0.1	0.1	0.1	0.1	0.1						0.1
TRC (mg/L) Instantaneous Maximum	0.2	0.2	0.2	0.2	0.2	0.2						0.1
CBOD5 (mg/L) Average Monthly	4.0	4.0	4.0	4.0	12.0	20						7.3
TSS (mg/L) Average Monthly	5.0	5.0	5.0	10.5	8.0	14.0						9.0
Fecal Coliform (CFU/100 ml) Geometric Mean	180	180	180	160	140	1900						60.0
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	400	500	400	400	400	2420						75.0
Total Nitrogen (mg/L) Average Quarterly	13.7			2.47						8.0		
Ammonia (mg/L) Average Monthly	2.2	2.2	2.0	1.77	2.2	0.30						2.2
Total Phosphorus (mg/L) Average Monthly	2.0	1.8	1.9	1.88	1.38	1.8						1.8

Median summer pH 7.1 annual pH 7.0 SU

**Compliance History**

No violations reported

**Development of Effluent Limitations**

Outfall No. 001 Design Flow (MGD) .04  
 Latitude 40° 51' 16.00" Longitude -79° 59' 55.80"  
 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 <sub>5</sub>	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	Average Monthly	-	92a.48(b)(2)
DO4.0		Daily Minimum		BPJ
E Coli	Monitor			new

Comments: E Coli monitoring proposed.

**Water Quality-Based Limitations**

A Sewerage program based “Reasonable Potential Analysis” determined the following parameters were candidates for limitations: Flow, CBOD<sub>5</sub>, TSS, Nitrogen, Phosphorus, ammonia, Total Residual Chlorine and pH.

CBOD<sub>5</sub>, ammonia, and DO water quality requirements are from DOSAG modelling. Phosphorus requirements are from the Connoquenessing basin implementation plan. CBOD<sub>5</sub>, TSS, and pH are secondary treatment based.

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

Parameter		Limit (mg/l)		SBC		Model	
CBOD <sub>5</sub>		25.0	50.0			25.0	50.0
Ammonia	Summer	2.5	5.0			3.9	7.8
Ammonia	Winter	7.5	15.0			11.7	23.4
DO		4.0			4.0		
TRC		0.5	1.6				

Comments:

TRC spreadsheet was used to evaluate chlorine. Chlorine should be rapidly dissipated in the primary dry stream reach and not impact any downstream aquatic life. Sufficient dilution is available in the perennial stream reach to protect aquatic life.

The receiving waters have two interacting discharges, Brandy One and Buttercup Woodlands. Design flows were evaluated. Brandy One data was not updated. The sole Buttercup Woodlands change was an effluent pH increase from 6.8 to 7.1 SU. The revised WQM 7.1 model was used changing the ammonia requirements slightly. Earlier modelling used lower basin yields based on Buffalo Creek near Freeport with WQM 7.0 (2.73-mg/L effluent ammonia) and the average of Thorn Creek at McBride and Connoquenessing Creek at Zelienople with WQM 6.3 (2.56-mg/L ammonia with WQM 7.0). All previous modelling verified the 2.5-mg/L summer ammonia requirements.

DOSAG modelling was not adjusted for the 0.4-mile dry stream natural decay.

**Best Professional Judgment (BPJ) Limitations**

Comments: For DO only

**Anti-Backsliding**

As the facility reports no violations no action is necessary.

1A	B	C	D	E	F	G	H	I	J	K	L	M
	<b>Discharger Site</b>		Buttercup Woodlands Campground						Thursday, November 17, 2022			
	<b>Municipality</b>		Buttercup Woodlands CampgroundSTP					Revised	Wednesday, November 23, 2022			
	<b>County</b>		Connoquenessing Township									
	<b>NPDES Permit</b>		Butler									
	<b>0.5</b>		PA009131									
2	<b>TRC EVALUATION</b>											
3	Input appropriate values in B4:B8 and E4:E7											
4	1.4614	= Q stream (cfs)							0.5	= CV Daily		
5	0.0250	= Q discharge (MGD)							0.5	= CV Hourly		
6	30	= no. samples							1	= AFC_Partial Mix Factor		
7	0.3	= Chlorine Demand of Stream							1	= CFC_Partial Mix Factor		
8	0	= Chlorine Demand of Discharge							15	= AFC_Criteria Compliance Time (min)		
9		= BAT/BPJ Value							720	= CFC_Criteria Compliance Time (min)		
	0	= % Factor of Safety (FOS)								= Decay Coefficient (K)		
10	Source	Reference	AFC Calculations				Reference	CFC Calculations				
11	TRC	1.3.2.iii	WLA_afc = 12.073				1.3.2.iii	WLA_cfc = 11.763				
12	PENTOXSD TRG	5.1a	LTAMULT_afc = 0.373				5.1c	LTAMULT_cfc = 0.581				
13	PENTOXSD TRG	5.1b	LTA_afc = 4.499				5.1d	LTA_cfc = 6.838				
14	Source	Effluent Limit Calculations										
15	PENTOXSD TRG	5.1f	AML_MULT = 1.231									
16	PENTOXSD TRG	5.1g	↓ LIMIT (mg/l) = 0.500				BAT/BPJ					
17			↓ LIMIT (mg/l) = 1.635									
18												
	WLA_afc	$(0.19/e^{-(k \cdot AFC\_tc)}) + [(AFC\_Yc \cdot Qs \cdot 0.19/Qd) \cdot e^{-(k \cdot AFC\_tc)}] \dots$										
	LTAMULT_afc	$\dots + Xd + (AFC\_Yc \cdot Qs \cdot Xs/Qd) \cdot (1-FOS/100)$										
	LTA_afc	$EXP((0.5 \cdot LN(cvd^2 + 1)) - 2.326 \cdot LN(cvd^2 + 1)^{0.5})$										
	WLA_cfc	$wla\_afc \cdot LTAMULT\_afc$										
	LTAMULT_cfc	$(0.11/e^{-(k \cdot CFC\_tc)}) + [(CFC\_Yc \cdot Qs \cdot 0.11/Qd) \cdot e^{-(k \cdot CFC\_tc)}] \dots$										
	LTA_cfc	$\dots + Xd + (CFC\_Yc \cdot Qs \cdot Xs/Qd) \cdot (1-FOS/100)$										
	AML_MULT	$EXP((0.5 \cdot LN(cvd^2/2no\_samples + 1)) - 2.326 \cdot LN(cvd^2/2no\_samples + 1)^{0.5})$										
	AVG MON LIMIT	$wla\_cfc \cdot LTAMULT\_cfc$										
	INST MAX LIMIT	$EXP(2.326 \cdot LN((cvd^2/2no\_samples + 1)^{0.5}) - 0.5 \cdot LN(cvd^2/2no\_samples + 1))$										
		$MIN(BAT\_BPJ, MIN(LTA\_afc, LTA\_cfc)) \cdot AML\_MULT$										
		$1.5 \cdot ((av\_mon\_limit \cdot AML\_MULT) / LTA\_afc)$										
	$(0.011/EXP(-K \cdot CFC\_tc/1440)) + ((CFC\_Yc \cdot Qs \cdot 0.011)/(1.547 \cdot Qd)) \dots$											
	$\dots - EXP(-K \cdot CFC\_tc/1440)) + Xd + (CFC\_Yc \cdot Qs \cdot Xs/1.547 \cdot Qd) \cdot (1-FOS/100)$											
	Stream	Chlorine Required	=	perennial	2	1	Chlorine Demand	+	Chlorine Residual			
	Stream	Reach/Node	Conditions	dry	perennial							
	Stream	Flow	Code	unknown	34990							
	Stream	Function										
	Samples			30	30							
	reach	outfall	RMI	0.40	0.67							
	reach	Reach End	RMI	0	0							
	reach		feet	2112	3537.6							
	drainage		sq miles	0.12	19.26							
	TRC	limitation	average	mg/L	0.030	0.500						
			maximum	mg/L	0.099	1.636						
	elevation	modelled	feet	1161.391	1044.21							
	elevation	modelled	feet	1044.21	994.73							
	slope	modelled	foot/foot	0.055	0.014							
	low flow		cfs/sq mi	0.076	0.076							
	discharge		mgd	0.0400	0.0250							
	Runoff	Period	hours	24.000	24.000							
	Reach 1 Dry drainage swale discharge with no aquatic life to protect. Reach 2 Perennial stream with sufficient flow to allow a 0.5-mg/L BAT TRC discharge.											
	stream	flow		cfs	0.00911	1.46144						
	stream	flow		MGD	0.005885	0.944552						
	stream	flow	total	MGD	0.045885	0.969552						
	stream	chlorine	demand	mg/L	0.3	0.3						
	discharge	discharge	demand	mg/L								
	stream	Total Stream/Waste	ratio	1.1	38.8							
	BAT	TRC	mean	BAT	0.5	0.5						
	BAT	TRC	maximum	BAT	1.6	1.6						
			Municipality									
	B	C	D	E	F	G	H	I	J	K	L	M

**Input Data WQM 7.0**

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
20C	34990	Trib 34990 to Ltl Connoquenes'ng Cr	1.030	1084.00	0.82	0.00000	0.00	<input checked="" type="checkbox"/>

**Stream Data**

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time	Rch Velocity	WD Ratio	Rch Width	Rch Depth	Tributary Temp	pH	Stream Temp	pH
	(cfsm)	(cfs)	(cfs)	(days)	(fps)		(ft)	(ft)	(°C)		(°C)	
Q7-10	0.076	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.40	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

**Discharge Data**

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Brandy One	PA00238686	0.0239	0.0239	0.0239	0.000	20.00	7.30

**Parameter Data**

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	4.00	8.24	0.00	0.00
NH3-N	25.00	0.10	0.00	0.70



**Input Data WQM 7.0**

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
20C	34990	Trib 34990 to Ltl Connoquenes'ng Cr	0.670	1044.21	1.24	0.00000	0.00	<input checked="" type="checkbox"/>

**Stream Data**

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary		Stream	
									Temp (°C)	pH	Temp (°C)	pH
Q7-10	0.076	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.40	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

**Discharge Data**

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
Buttercup Wldds	PA0091316A	0.0400	0.0400	0.0400	0.000	20.00	7.10

  

Parameter Name	Parameter Data			
	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	4.00	8.24	0.00	0.00
NH3-N	25.00	0.10	0.00	0.70

**Input Data WQM 7.0**

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
20C	34990	Trib 34990 to Ltl Connoquenes'ng Cr	0.000	994.73	2.83	0.00000	0.00	<input checked="" type="checkbox"/>

**Stream Data**

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary		Stream	
									Temp (°C)	pH	Temp (°C)	pH
Q7-10	0.076	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.40	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data							
Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	0.00	7.00
Parameter Data							
Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)			
CBOD5	25.00	2.00	0.00	1.50			
Dissolved Oxygen	3.00	8.24	0.00	0.00			
NH3-N	25.00	0.00	0.00	0.70			

**WQM 7.0 Hydrodynamic Outputs**

<u>SWP Basin</u>		<u>Stream Code</u>				<u>Stream Name</u>						
20C		34990				Trib 34990 to Ltl Connoquenes'ng Cr						
RMI	Stream Flow	PWS With	Net Stream Flow	Disc Analysis Flow	Reach Slope	Depth	Width	W/D Ratio	Velocity	Reach Trav Time	Analysis Temp	Analysis pH
	(cfs)	(cfs)	(cfs)	(cfs)	(ft/ft)	(ft)	(ft)		(fps)	(days)	(°C)	
<b>Q7-10 Flow</b>												
1.030	0.06	0.00	0.06	.037	0.02093	.351	4.17	11.9	0.07	0.325	20.00	7.36
0.670	0.09	0.00	0.09	.0989	0.01399	.387	5.73	14.79	0.09	0.471	20.00	7.26
<b>Q1-10 Flow</b>												
1.030	0.04	0.00	0.04	.037	0.02093	NA	NA	NA	0.06	0.375	20.00	7.35
0.670	0.06	0.00	0.06	.0989	0.01399	NA	NA	NA	0.08	0.525	20.00	7.24
<b>Q30-10 Flow</b>												
1.030	0.08	0.00	0.08	.037	0.02093	NA	NA	NA	0.08	0.290	20.00	7.37
0.670	0.13	0.00	0.13	.0989	0.01399	NA	NA	NA	0.10	0.431	20.00	7.28

**WQM 7.0 Modeling Specifications**

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	<input checked="" type="checkbox"/>
WLA Method	EMPR	Use Inputted W/D Ratio	<input type="checkbox"/>
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	<input type="checkbox"/>
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	<input checked="" type="checkbox"/>
D.O. Saturation	95.00%	Use Balanced Technology	<input checked="" type="checkbox"/>
D.O. Goal	5		

**WQM 7.0 Wasteload Allocations**

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>					
20C	34990	Trib 34990 to Ltl Connoquenes'ng Cr					

  

**NH3-N Acute Allocations**

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
1.030	Brandy One	11.43	23.63	11.43	21.37	2	10
0.670	Buttercup Wldds	13.37	26.28	13.11	23.77	2	10

  

**NH3-N Chronic Allocations**

RMI	Discharge Name	Baseline Criterion (mg/L)	Baseline WLA (mg/L)	Multiple Criterion (mg/L)	Multiple WLA (mg/L)	Critical Reach	Percent Reduction
1.030	Brandy One	1.55	4.86	1.55	3.92	2	19
0.670	Buttercup Wldds	1.64	4.84	1.64	3.9	2	19

  

**Dissolved Oxygen Allocations**

RMI	Discharge Name	<u>CBOD5</u>		<u>NH3-N</u>		<u>Dissolved Oxygen</u>		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
1.03	Brandy One	25	25	3.92	3.92	4	4	0	0
0.67	Buttercup Wldds	25	25	3.9	3.9	4	4	0	0

**WQM 7.0 Effluent Limits**

<u>SWP Basin</u>		<u>Stream Code</u>		<u>Stream Name</u>			
20C		34990		Trib 34990 to Ltl Connoquenes'ng Cr			
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)
1.030	Brandy One	PA00238686	0.024	CBOD5	25		
				NH3-N	3.92	7.84	
				Dissolved Oxygen			4
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)
0.670	Buttercup Wldds	PA0091316A	0.040	CBOD5	25		
				NH3-N	3.9	7.8	
				Dissolved Oxygen			4

**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) <sup>(1)</sup>		Concentrations (mg/L)				Minimum <sup>(2)</sup> Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	Continuous	Metered
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	4.0 Daily Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50	2/month	8-Hr Composite
TSS	XXX	XXX	XXX	30.0	XXX	60	2/month	8-Hr Composite
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
E. Coli (No./100 ml)	XXX	XXX	XXX	Report Annual Avg	XXX	XXX	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	7.5	XXX	15	2/month	8-Hr Composite
Ammonia May 1 - Oct 31	XXX	XXX	XXX	2.5	XXX	5	2/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	2.0	XXX	4	2/month	8-Hr Composite

Compliance Sampling Location: Outfall 001 after disinfection