pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0100056**
Facility Type	**Non-Municipal**	APS ID	**1065069**
Major / Minor	**Minor**	Authorization ID	**1399099**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Rose Point Park Campground Co.**	Facility Name	**Rose Point Park Campground**
Applicant Address	314 Rose Point Road	Facility Address	Old US 422
	New Castle, PA 16101-9358		New Castle, PA 16101
Applicant Contact	Fred Yeager	Facility Contact	Fred Yeager
Applicant Phone	(724) 924-2415	Facility Phone	
Applicant E Mail	infor@rosepointpark.com	Facility E Mail	infor@rosepointpark.com
Client ID	283120	Site ID	261979
Municipality	Slippery Rock Township	County	Lawrence
Ch 94 Load Status	Not Overloaded	Connection Status	No Limitations
Date Application Received	June 6, 2022	EPA Waived?	Yes
Date Application Accepted	June 30, 2022	If No, Reason	

Purpose of Application: NPDES permit renewal.

Summary of Review

A Notice of Violation (NOV) for effluent violations was issued on October 9, 2019 and is currently open. The last noncompliance date was July 13, 2022. *The Operations Section is planning to issue a COA concurrently with issuance of the Final Permit. CWY 7/7/2023*

Proposed is annual E Coli and daily DO, pH and TRC monitoring. The daily monitoring is the minimum recommendation and reflects a concert with the reported high TRC and fecal coliforms.

0.153-dry tons sludge removed in the past year by Pullman Sanitary to the Mahoning Township WWTP for further treatment and disposal.

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		William H. Mentzer William H. Mentzer, P.E. Environmental Engineering Specialist	June 29, 2023
X		Chad W. Yurisic Chad W. Yurisic, P.E. Environmental Engineer Manager	7/7/2023

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.01
Latitude DP	40º 58' 22.20"	Longitude DP	-80º 10' 59.70"
Latitude NHD	40º 58' 19.97"	Longitude NHD	-80º 10' 53.52"
Quad Name	Portersville	Quad Code	1104
Wastewater Description:	Treated campground wastes		

Receiving Waters	Unnamed tributary to Slippery Rock Creek	Stream Code	unknown
NHD Com ID	126216829	RMI	0.1
Drainage Area	0.28	Yield (cfs/mi^2)	0
Q_{7-10} Flow (cfs)	**0**	Q_{7-10} Basis	Dry stream
Elevation (ft)	1040.00	Slope (ft/ft)	0.02
Watershed No.	20-C	Chapter 93 Class.	CWF
Existing Use	**statewide**	Existing Use Qualifier	none
Exceptions to Use	none	Exceptions to Criteria	none
Comment	Confluence with Slippery Rock Creek at node RMI 0.07. Design flow is the annual average.		
	The hydraulic capacity and design monthly maximum flow is 0,01-MGD.		

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	PA American		
PWS Waters	Connoquenessing Creek	Flow at Intake (cfs)	NA
PWS RMI	0.01	Distance from Outfall (mi)	16,58

Changes Since Last Permit Issuance:

PA American consolidated regional operations resulting in removal of the Slippery Rock Creek intake and adding a downstream Connoquenessing Creek intake above its confluence with the Beaver River,

Treatment Facility Summary

Treatment Facility Name: Rose Point Park Campground

WQM Permit No.	Issuance Date
3779402	7/13/1979
A1	12/7/2010

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Sequencing Batch Reactor	Hypochlorite	0.0087

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.01	21.8	Not Overloaded	Aerobic Digestion	Other WWTP

Changes Since Last Permit Issuance: none

Other Comments:

3779402: (4) Chromaglass Model CA-25 aerobic treatment units, (2) subsurface sand filters, and (2) chlorination units.

3779402-A1: (2) Chromaglass CA-25 units (the two newest, existing units) and a new CA 50 unit – operating in parallel, new, 3,000-gallon post equalization unit (one of the old CA-25 units - converted), Chemical Addition, Disk Filtration, new - 3,000-gallon Chlorine Contact Tank with chlorination and de-chlorination and an Aerate Sludge Holding Tank (the other converted old CA-25 unit.

The sand filters and the original chlorination units were abandoned in the upgrade

Influent Organic Load and Effluent Data

	Month	Year	Mean MGD	Mean PPD	Min	Mean mg/L	Max mg/L	No mg/L	Comments
Design Annual Average:			**0.010000**						
Design Hydraulic Capacity:			**0.010000**						
Design Organic Capacity:				**21.8**					
NNUk Average Flow:		**2019**	**0.003909**						
		2020	**0.002977**						
		2021	**0.005176**						
Highest Monthly Average:	**July**	**2021**	**0.005178**						
pH					**6.82**		**7.44**	**24**	
TRC						**0.56**	**2.1**	**12**	**trifle high**
Fecal Coliform						**438.8**	**2594**	**12**	**seasonal concern**
CBOD5						**16.72**	**160**	**12**	**high maximum**
TSS						**32.98**	**88**	**12**	**high**
NU3N						**3.98**	**19,83**	**5**	
Nitrogen						**8.5**	**42.5**	**5**	
Phosphorus						**2.53**	**12.66**	**5**	

The data includes a period of effluent noncompliance.

Compliance History

DMR Data for Outfall 001 (from May 1, 2022 to April 30, 2023)

Parameter	APR-23	MAR-23	FEB-23	JAN-23	DEC-22	NOV-22	OCT-22	SEP-22	AUG-22	JUL-22	JUN-22	MAY-22
Flow (MGD) Average Monthly							0.00235	0.002385	0.002967	0.004142	0.00404	0.004235
pH (S.U.) Instantaneous Min							6.37	6.23	6.05	6.2	6.0	6.4
pH (S.U.) Instantaneous Max							6.77	6.44	7.01	6.64	7.4	7.22
DO (mg/L) Instantaneous Min							7.15	4.26	4.6	8.20	4.7	5.0
TRC (mg/L) Average Monthly							0.64	0.35	0.56	0.62	0.55	0.52
TRC (mg/L) Instantaneous Max							1.05	0.77	1.5	1.0	1.0	1.1
CBOD5 (mg/L) Average Monthly							8.85	9.08	18.9	9.52	12.44	10
TSS (mg/L) Average Monthly							35	32	33	20	29	18
F Coliform (#/100 ml) Geometric Mean							43	52	35	241	178	131
F Coliform (#/100 ml) Instantaneous Max							187	**275**	122	**5794**	**504**	**3448**
Total Nitrogen (mg/L) Average Quarterly					72.2			41.7			27.9	
Ammonia (mg/L) Average Quarterly					28.5			5.37			18.4	
T Phosphorus (mg/L) Average Quarterly					18			12			7.1	

Poor bathing season disinfection

Low waste flow and high TSS.

Compliance History

Effluent Violations for Outfall 001, from: June 1, 2022 To: April 30, 2023

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TRC	06/30/22	Avg Mo	0.55	mg/L	.5	mg/L
TRC	08/31/22	Avg Mo	0.56	mg/L	.5	mg/L
TRC	07/31/22	Avg Mo	0.62	mg/L	.5	mg/L
TRC	10/31/22	Avg Mo	0.64	mg/L	.5	mg/L
TSS	08/31/22	Avg Mo	33	mg/L	30	mg/L
TSS	09/30/22	Avg Mo	32	mg/L	30	mg/L
TSS	10/31/22	Avg Mo	35	mg/L	30	mg/L
Fecal Coliform	07/31/22	Geo Mean	241	No./100 ml	200	No./100 ml
Fecal Coliform	07/31/22	IMAX	5794	No./100 ml	1000	No./100 ml

Other Comments: Both TRC and fecals high in August 2022. Aeration and settling adjustment should be considered. Daily TRC monitoring recommend to assure adequate disinfection.

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** .01
Latitude 40º 58' 22.20" **Longitude** -80º 10' 59.70"
Wastewater Description: 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)
	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)
DO	4.0	Daily Minimum		BPJ
E Coli	Report	Annual Average		BPJ

Comments: Compliance is expected

Water Quality-Based Limitations

A Sewerage program based “Reasonable Potential Analysis” determined the following parameters were candidates for limitations: CBOD5, TSS, Nitrogen, Ammonia, Phosphorus, Coliforms, Dissolved Oxygen (DO), Total Residual Chlorine (TRC) and pH.

CBOD5, Ammonia, and DO are evaluated using WQM 7.1. TRC is evaluated using the TRC spread sheet. Nitrogen, phosphorus and E Coli are monitor and report.

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

Parameter		Limit (mg/l)			SBC	Model		
		Min	Mean	Max		Min	Mean	Max
CBOD5			25.0	25.0	NA		25.0	50.0
Ammonia	Summer		Monitor				25.0	50.0
	Winter							
DO		4.0				4.0		

Comments:

No ammonia limitations are proposed and monitoring continued.

Best Professional Judgment (BPJ) Limitations

Comments: Applied to DO.

Anti-Backsliding

No need

	Discharger	Rose Point Campground							Wednesday, June 28, 2023			
	Site	Rose Point Campground STP						Revised	Wednesday, June 28, 2023			
	Municipality	Slippery Rock Township										
	County	Lawrence										
	NPDES Permit	PA0100056										
	0.5											
2	**TRC EVALUATION**											
3	Input appropriate values in B4:B8 and E4:E7											
4	28.269	**= Q stream (cfs)**				**0.5**	**= CV Daily**					
5	0.0100	**= 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 = 582.939				**1.3.2.iii**	WLA cfc = 568.312				
12	PENTOXSD TRG	**5.1a**	LTAMULT afc = 0.373				**5.1c**	LTAMULT cfc = 0.581				
13	PENTOXSD TRG	**5.1b**	LTA_afc= 217.217				**5.1d**	LTA_cfc = 330.390				
14												
15	Source					Effluent Limit Calculations						
16	PENTOXSD TRG	5.1f				AML MULT = 1.231						
17	PENTOXSD TRG	5.1g				AML LIMIT (mg/l) = 0.500		BAT/BPJ				
18						AVG MON 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)**

(0.011/EXP(-K*CFC_tc/1440))+(((CFC_Yc*Qs*0.011)/(1.547*Qd)....
....*EXP(-K*CFC_tc/1440)))+Xd+(CFC_Yc*Qs*Xs/1.547*Qd))*(1-FOS/100)

	Chlorine Required		=	perennial	Chlorine Demand	+	Chlorine Residual
Stream	Reach/Node		2	1	2		
Stream	Flow	Conditions		dry	Perennial		
Stream	Code			unknown	34032		
	Function			OUTFALL			
Samples				30	30		
reach	outfall		RMI	0.10	11.21		
	Reach End		RMI	0	11.16		
reach			feet	528	264		
drainage			sq miles	0.28	372.55		
TRC	limitation	average	mg/L	0.210	0.500		
		maximum	mg/L	0.686	1.630		
elevation		modelled	feet	1040	1029.48		
elevation		modelled	feet	1029.48	1029.06		
slope		modelled	foot/foot	0.020	0.002		
low flow			cfs/sq mi	0.076	0.076		
discharge			mgd	0.0100	0.0100		
Runoff	Period		hours	24.000	24.000		

Dry stream discharge with no need for aquatic life protectionl BAT control is adequate for perennial stream conditions at Slippery Rock Creek,

stream	flow		cfs	0.02125	28.26887
stream	flow		MGD	0.013732	18.270651
stream	flow	total	MGD	0.023732	18.280651
stream	chlorine	demand	mg/L	0.3	0.3
discharge	discharge	demand	mg/L		
stream	Total Stream/Waste		ratio	2.4	1828.1

BAT	TRC	mean	BAT	0.5	0.5
BAT	TRC	maximum	BAT	1.6	1.6

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	34032	SLIPPERY ROCK CREEK	**11.310**	1040.00	0.28	0.00000	0.00	☐

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 Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.076	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.00	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
Rose Point G	PA0100056	0.0100	0.0100	0.0100	0.000	25.00	6.40

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	34032	SLIPPERY ROCK CREEK	**11.210**	1029.48	372.55	0.00000	0.00	☑

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 Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.076	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.00	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	25.00	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

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	34032	SLIPPERY ROCK CREEK	**0.000**	809.14	827.85	0.00000	0.00	☑

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 Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.076	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.00	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	25.00	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

SWP Basin	Stream Code	Stream Name
20C	34032	SLIPPERY ROCK CREEK

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
11.310	0.02	0.00	0.02	.0155	0.01992	.302	2.48	8.19	0.05	0.125	22.10	6.65
11.210	28.31	0.00	28.31	.0155	0.00372	.93	84.06	90.43	0.36	1.890	20.00	7.00
Q1-10 Flow												
11.310	0.01	0.00	0.01	.0155	0.01992	NA	NA	NA	0.04	0.142	22.66	6.59
11.210	18.12	0.00	18.12	.0155	0.00372	NA	NA	NA	0.28	2.426	20.00	7.00
Q30-10 Flow												
11.310	0.03	0.00	0.03	.0155	0.01992	NA	NA	NA	0.05	0.112	21.74	6.69
11.210	38.51	0.00	38.51	.0155	0.00372	NA	NA	NA	0.43	1.591	20.00	7.00

Wednesday, June 28, 2023 Version 1.1 Page 1 of 1

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	95.00%	Use Balanced Technology	☑
D.O. Goal	5		

Wednesday, June 28, 2023 Version 1.1 Page 1 of 1

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
20C	34032	SLIPPERY ROCK CREEK

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
11.310	Rose Point G	NA	50	17.55	50	0	0
11.210		NA	NA	16.77	NA	NA	NA

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
11.310	Rose Point G	NA	25	1.84	25	0	0
11.210		NA	NA	1.89	NA	NA	NA

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
11.31	Rose Point G	25	25	25	25	4	4	0	0
11.21		NA	NA	NA	NA	NA	NA	NA	NA

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
20C	34032	SLIPPERY ROCK CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
11.310	0.010	22.105	6.647
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
2.478	0.302	8.194	0.049
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
11.68	1.337	10.58	0.823
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
6.457	27.636	Owens	NA
Reach Travel Time (days)			
0.125			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.012	11.47	10.47	6.46
0.025	11.26	10.37	6.47
0.037	11.06	10.26	6.48
0.050	10.86	10.16	6.50
0.062	10.66	10.05	6.52
0.075	10.46	9.95	6.55
0.087	10.27	9.85	6.57
0.100	10.09	9.75	6.60
0.112	9.90	9.65	6.63
0.125	9.72	9.55	6.66

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
11.210	0.010	20.003	6.999
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
84.060	0.930	90.431	0.363
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.01	0.003	0.01	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.241	6.296	Tsivoglou	5
Reach Travel Time (days)			
1.890			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.189	2.01	0.01	8.24
0.378	2.01	0.01	8.24
0.567	2.01	0.01	8.24
0.756	2.01	0.01	8.24
0.945	2.01	0.01	8.24
1.134	2.00	0.01	8.24
1.323	2.00	0.00	8.24
1.512	2.00	0.00	8.24
1.701	2.00	0.00	8.24
1.890	2.00	0.00	8.24

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
20C	34032	SLIPPERY ROCK 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)
11.310	Rose Point G	PA0100056	0.010	CBOD5	25		
				NH3-N	25	50	
				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) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	4.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	2/month	Grab
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 Annl Avg	XXX	XXX	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite
Ammonia	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	8-Hr Composite

Compliance Sampling Location: Outfall 001 after disinfection