Pennsylvania Department of Environmental Protection

Northwest Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0238767**
Facility Type	**Non-Municipal**	APS ID	**1117937**
Major / Minor	**Minor**	Authorization ID	**1492489**

Applicant and Facility Information

Applicant Name	**Stoneworth Apartment Group, LLC**	Facility Name	**Stoneworth Apartments**
Applicant Address	589 Greason Road	Facility Address	877 New Castle Road
	Carlisle, PA 17015-9416		Slippery Rock, PA 16057-4227
Applicant Contact	Robert Neidlinger, CEO/Owner (assetmgr@teamnent.com)	Facility Contact	Scott Taggart, Property Manager (stoneworth@teamnent.com)
Applicant Phone	(717) 297-6724	Facility Phone	(717) 297-6724
Client ID	372361	Site ID	552464
Ch 94 Load Status	Not Overloaded	Municipality	Worth Township
Connection Status	No Limitations	County	Butler
Date Application Received	June 18, 2024	EPA Waived?	Yes
Date Application Accepted	July 17, 2024	If No, Reason	-
Purpose of Application	Renewal of an existing NPDES Permit for an existing discharge of treated sanitary wastewater from a non-municipal STP. This application also transfers ownership from the Stoneworth Apartments, LLC to the Stoneworth Apartment Group, LLC. WQM Permit no. 1002415 will be transferred concurrently with the Final NPDES Permit.		

Summary of Review

Act 14 - Proof of Notification was submitted and received.

A Part II Water Quality Management permit is not required at this time.

The applicant should be able to meet the limits of this permit, which will protect the uses of the receiving stream.

I. OTHER REQUIREMENTS:

A. Stormwater into Sewers
B. Right of Way
C. Solids Handling
D. Public Sewerage Availability
E. Effluent Chlorine Optimization and Minimization
F. Little or No Assimilative Capacity or Dilution

SPECIAL CONDITIONS:

II. Solids Management

There are 5 open violations in efacts for Client ID 372361 as of 6/11/2025 (see Attachment 1).

Approve	Deny	Signatures	Date
X		Stephen A. McCauley Stephen A. McCauley, E.I.T. / Project Manager	6/11/2025
X		Adam Olesnanik Adam Olesnanik, P.E. / Environmental Engineer Manager	6/13/2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.024
Latitude	41º 2' 11.00"	Longitude	-80º 6' 26.1"
Quad Name	-	Quad Code	-
Wastewater Description:	Sewage Effluent		
Receiving Waters	Slippery Rock Creek (CWF)	Stream Code	34032
NHD Com ID	126222189	RMI	21.0
Drainage Area	262	Yield (cfs/mi^2)	0.11
Q_{7-10} Flow (cfs)	28.8	Q_{7-10} Basis	calculated
Elevation (ft)	1091	Slope (ft/ft)	0.000420
Watershed No.	20-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	-		
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	Pennsylvania American Water Company - Ellwood City		
PWS Waters	Connoquenessing Creek	Flow at Intake (cfs)	27.6
PWS RMI	0.20	Distance from Outfall (mi)	26.0

Sludge use and disposal description and location(s): All sludge is disposed of at an approved landfill.

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.

Narrative: This Fact Sheet details the determination of draft NPDES permit limits for an existing discharge of 0.024 MGD of treated sewage from an existing non-municipal STP in Worth Township, Butler County.

Treatment permitted by WQM Permit no. 1002415 consists of: Comminution with bypass bar screen, a 10,599-gallon equalization tank, two 10,511-gallon aeration basins and a 5,683 gallon aeration basin (27,706 gallons total), a 5,327 gallon clarification basin, a 4,435 gallon aerated sludge digestion tank, tablet chlorination with an 800 gallon contact tank, a 300 gallon post aeration tank, and sodium sulfite dechlorination.

1. Streamflow:

The Q_{7-10} low flow for the receiving stream was calculated from the yield rate and drainage area from the nearest gage station listed on the USGS Streamstats website:

Slippery Rock Creek at Wurtemburg, PA - USGS Gage No. 03106500 (1971-2008):

Q_{7-10}:	47.5	cfs	(from StreamStats)
Drainage Area:	398	cfsm	(from StreamStats)
Yieldrate:	0.11	sq. mi.	(Calculated)

Slippery Rock Creek at Outfall 001:

Yieldrate:	0.11	sq. mi.	(Calculated above)
Drainage Area:	262	cfsm	(USGS StreamStats)
% of stream allocated:	100%	Basis:	No nearby discharges
Q_{7-10}:	28.8	cfs	(Calculated)

2. Wasteflow:

Maximum discharge: 0.024 MGD = 0.037 cfs

Runoff flow period: 24 hours Basis: Runoff flow for an STP with flow equalization

The calculated stream flow (Q7-10) is greater than 3 parts stream flow (Q7-10) to 1 part effluent (design flow). Therefore, the standards in the DEP "Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers" (391-2000-014) do not need to be applied.

Flow will be required to be monitored as authorized under Chapter 92a.61, and as recommended in the SOP.

3. Parameters:

The following parameters were evaluated: pH, Total Suspended Solids, Fecal Coliform, E. Coli, Total Phosphorus, Total Nitrogen, NH_3-N, $CBOD_5$, Dissolved Oxygen, and Disinfection.

a. pH

Between 6.0 and 9.0 at all times

Basis: Application of Chapter 93.7 technology-based limits.

The measurement frequency was previously set to 1/day as recommended in the SOP, based on Table 6-3 in the "Technical Guidance for the Development and Specification of Effluent Limitations" (362-0400-001), and will be retained.

b. Total Suspended Solids

Limits are 30.0 mg/l as a monthly average and 60.0 mg/l as an instantaneous maximum.

Basis: Application of Chapter 92a47 technology-based limits

c. Fecal Coliform

05/01 - 09/30:	200 No./100ml	(monthly average)
	1,000 No./100ml	(instantaneous maximum)
10/01 - 04/30:	2,000 No./100ml	(monthly average)
	10,000 No./100ml	(instantaneous maximum)

Basis: Application of Chapter 92a47 technology-based limits

d. E. Coli

Monitoring was added for E. Coli at a frequency of 1/year

Basis: Application of Chapter 92a.61 as recommended by the SOP for flows between 0.002 MGD and 0.05 MGD.

e. Total Phosphorus

Chapter 96.5 does not apply. However, the previous monitoring for Total Phosphorus will be retained in accordance with the SOP, based on Chapter 92a.61.

f. Total Nitrogen

The previous monitoring for Total Nitrogen will be retained in accordance with the SOP, based on Chapter 92a.61.

g. Ammonia-Nitrogen (NH_3-N)

Median discharge pH to be used:	7.1	Standard Units (S.U.)
		Basis: Average pH value from DMR summary
Discharge temperature:	25°C	(Default value used for modeling purposes)
Median stream pH to be used:	7.0	Standard Units (S.U.)
		Basis: Default value used for modeling purposes
Stream Temperature:	20˚C	(Default value used for CWF modeling purposes)
Background NH_3-N concentration:	0.0	mg/l
		Basis: Default value used for modeling purposes
NH_3-N Summer limits:	25.0	mg/l (monthly average)
	50.0	mg/l (instantaneous maximum)
NH_3-N Winter limits:	25.0	mg/l (monthly average)
	50.0	mg/l (instantaneous maximum)

Result: WQ modeling resulted in the calculated summer limits above (see Attachment 2). The winter limits are calculated as three times the summer limits, but since the technology-based limits are

more protective, they will be used. These limits are the same as the previous permit. Per the SOP, year-round monitoring for NH3-N will be retained with this renewal.

h. $CBOD_5$

Median discharge pH to be used: 7.1 Standard Units (S.U.)

Basis: Average pH value from DMR summary

Discharge temperature: 25°C (Default value used for modeling purposes)

Median stream pH to be used: 7.0 Standard Units (S.U.)

Basis: Default value used for modeling purposes

Stream Temperature: 20˚C (Default value used for CWF modeling)

Background $CBOD_5$ concentration: 2.0 mg/l

Basis: Default value used for modeling purposes

Calculated $CBOD_5$ limits: 25.0 mg/l (monthly average)
50.0 mg/l (instantaneous maximum)

Result: WQ modeling resulted in the limits above (see Attachment 2), which are the same as the previous NPDES Permit, and will be retained.

i. Dissolved Oxygen (DO)

A Dissolved Oxygen technology-based minimum of 4.0 mg/l was recommended by the WQ Model (see Attachment 2) and the SOP based on Chapter 93.7, under the authority of Chapter 92a.61. This limit is the same as the previous permit and will be retained.

The measurement frequency was previously set to 1/day as recommended in the SOP, based on Table 6-3 in the "Technical Guidance for the Development and Specification of Effluent Limitations" (362-0400-001), and will be retained.

j. Total Residual Chlorine (TRC)

☐ Ultraviolet (UV) light monitoring
☒ Total Residual Chlorine (TRC) limits: 0.5 mg/l (monthly average)
1.6 mg/l (instantaneous maximum)

Basis: The TRC limits above are technology-based using the TRC_Calc Spreadsheet (see Attachment 3). These limits are the same as the previous NPDES Permit and will be retained.

The measurement frequency was previously set to 1/day as recommended in the SOP, based on Table 6-3 in the "Technical Guidance for the Development and Specification of Effluent Limitations" (362-0400-001), and will be retained.

4. Reasonable Potential Analysis for Receiving Stream:

A Reasonable Potential Analysis was not performed in accordance with State practices for Outfall 001 using the Department's Toxics Management Spreadsheet since no sampling other than sewage-related parameters was performed for this facility with the renewal application.

5. Reasonable Potential for Downstream Public Water Supply (PWS):

The Department's Toxics Management Spreadsheet does not calculate limits for parameters that are based on PWS criteria (TDS, Chloride, Bromide, and Sulfate). Since no relevant sampling was provided, mass-balance calculations were not performed.

Nearest Downstream potable water supply (PWS): Pennsylvania American Water Company - Ellwood City

Distance downstream from the point of discharge: 26.0 miles (approximate)

6. Anti-Backsliding

Since all the permit limits in this renewal are the same or more restrictive than the previous NPDES Permit, anti-backsliding is not applicable.

7. Attachment List:

Attachment 1 - WMS Open Violations by Client

Attachment 2 - WQ Modeling Printouts

Attachment 3 - TRC_Calc Spreadsheet

(The Attachments above can be found at the end of this document)

Compliance History

DMR Data for Outfall 001 (from May 1, 2024 to April 30, 2025)

Parameter	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24	MAY-24
Flow (MGD) Average Monthly	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Flow (MGD) Daily Maximum	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
pH (S.U.) Daily Minimum	7.08	7.25	7.19	7.01	6.97	6.84	6.8	6.7	7.09	6.67	6.6	7.29
pH (S.U.) Daily Maximum	7.51	7.51	7.37	7.36	7.18	7.17	7.25	7.3	7.5	7.83	7.52	7.54
DO (mg/L) Daily Minimum	4.23	4.21	4.21	4.16	4.13	4.1	4.38	4.55	4.1	4.09	4.08	4.02
TRC (mg/L) Average Monthly	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.1	0.03
CBOD5 (mg/L) Average Monthly	18.9	3.2	7.7	7.5	< 2.0	< 2.0	< 8.6	< 4.6	< 2.0	2.9	< 2.9	< 2.1
TSS (mg/L) Average Monthly	15.5	< 5.5	< 18.0	9.5	< 9.0	< 5.0	< 5.0	< 6.0	< 5.0	< 8.5	< 5.0	< 5.0
Fecal Coliform (No./100 ml) Geometric Mean	< 1	< 1	> 49	< 4	< 1	< 1	13	< 36	< 1	< 6	> 236	< 2
Total Nitrogen (mg/L) Average Monthly	15.2	8.8	6	7.3	5.641	10.23	10.9	29.7	10.71	21.38	36.7	4.66
Ammonia (mg/L) Average Monthly	11.6	6.328	3.54	< 0.15	< 0.13	1.143	< 0.3	6.01	< 0.4	< 0.4	3.8	< 1.92
Total Phosphorus (mg/L) Average Monthly	1.354	1.018	0.647	0.657	0.56	1.666	1.46	5.17	0.89	< 0.8	3.053	0.78

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" (386-0400-001), 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	Report Daily Max	XXX	XXX	XXX	XXX	1/week	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0 Daily Max	XXX	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	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Ammonia	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	2/month	8-Hr Composite

Compliance Sampling Location: at Outfall 001, after disinfection.

Flow is monitor only based on Chapter 92a.61. The limits for pH and Dissolved Oxygen are technology-based on Chapter 93.7. The Total Residual Chlorine (TRC) limit is technology-based on Chapter 92a.48. The limits for $CBOD_5$, Total Suspended Solids, and Fecal Coliforms are technology-based on Chapter 92a.47. Monitoring for Total Nitrogen, Ammonia-Nitrogen, and Total Phosphorus is based on Chapter 92a.61.

Attachment 1

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER MANAGEMENT SYSTEM
OPEN VIOLATIONS BY CLIENT

Client ID: 372361
Client: All

Open Violations: 5

	CLIENT ID	CLIENT	PF ID	FACILITY	PF KIND	PF STATUS	INSP PROGRAM	PROGRAM SPECIFIC ID	INSP ID
1	372361	STONEWORTH APT GROUP LLC	641989	STONEWORTH APTS WTP	Community	Active	Safe Drinking Water	5100145	3929435
2	372361	STONEWORTH APT GROUP LLC	641989	STONEWORTH APTS WTP	Community	Active	Safe Drinking Water	5100145	3929435
3	372361	STONEWORTH APT GROUP LLC	641989	STONEWORTH APTS WTP	Community	Active	Safe Drinking Water	5100145	3929435
4	372361	STONEWORTH APT GROUP LLC	641989	STONEWORTH APTS WTP	Community	Active	Safe Drinking Water	5100145	3929435
5	372361	STONEWORTH APT GROUP LLC	641989	STONEWORTH APTS WTP	Community	Active	Safe Drinking Water	5100145	3929435

	VIOLATION ID	INSPECTION CATEGORY	VIOLATION DATE	VIOLATION CODE	VIOLATION	PF INSPECTOR	INSP REGION
1	8223250	PF	03/03/2025	C4A	FAILURE TO OPERATE AND MAINTAIN THE WATER SYSTEM	OLESKI, ANDREW	NWRO
2	8223251	PF	03/03/2025	C1A	FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS	OLESKI, ANDREW	NWRO
3	8223252	PF	03/03/2025	C4A	FAILURE TO OPERATE AND MAINTAIN THE WATER SYSTEM	OLESKI, ANDREW	NWRO
4	8223253	PF	03/03/2025	D2G	FAILURE TO SUBMIT OR REVISE A COMPREHENSIVE MONITORING PLAN	OLESKI, ANDREW	NWRO
5	8223254	PF	03/03/2025	C1A	FAILURE TO MEET DESIGN AND CONSTRUCTION STANDARDS	OLESKI, ANDREW	NWRO

Attachment 2

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)
21.000	Stoneworth apts	PA0238767	0.024	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

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
21.000	0.024	20.006	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
91.413	0.956	95.651	0.330
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.03	0.021	0.03	0.700
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
8.238	0.649	Tsivoglou	6
Reach Travel Time (days)			
0.167			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.017	2.03	0.03	8.24
0.033	2.03	0.03	8.24
0.050	2.03	0.03	8.24
0.067	2.03	0.03	8.24
0.083	2.03	0.03	8.24
0.100	2.03	0.03	8.24
0.117	2.02	0.03	8.24
0.133	2.02	0.03	8.24
0.150	2.02	0.03	8.24
0.167	2.02	0.03	8.24

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	90.00%	Use Balanced Technology	☑
D.O. Goal	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	**21.000**	1091.00	262.00	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	0.110	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
Stoneworth apts	PA0238767	0.0240	0.0000	0.0000	0.000	25.00	7.10

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	0.00	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	**20.100**	1089.00	263.00	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	0.110	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												
21.000	28.82	0.00	28.82	.0371	0.00042	.956	91.41	95.65	0.33	0.167	20.01	7.00
Q1-10 Flow												
21.000	18.44	0.00	18.44	.0371	0.00042	NA	NA	NA	0.26	0.214	20.01	7.00
Q30-10 Flow												
21.000	39.20	0.00	39.20	.0371	0.00042	NA	NA	NA	0.39	0.140	20.00	7.00

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
21.000	Stoneworth apts	16.74	50	16.74	50	0	0

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
21.000	Stoneworth apts	1.89	25	1.89	25	0	0

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)		
21.00	Stoneworth apts	25	25	25	25	4	4	0	0

Attachment 3

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

28.8	= Q stream (cfs)	0.5	= CV Daily
0.024	= 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)	0	=Decay Coefficient (K)

Source	Reference	AFC Calculations		Reference	CFC Calculations	
TRC	1.3.2.iii	WLA afc =	247.466	1.3.2.iii	WLA cfc =	241.252
PENTOXSD TRG	5.1a	LTAMULT afc =	0.373	5.1c	LTAMULT cfc =	0.581
PENTOXSD TRG	5.1b	LTA_afc=	92.212	5.1d	LTA_cfc =	140.253

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)**