

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

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application No. PA0205087
APS ID 1100422
Authorization ID 1460905

Applicant and Facility Information

Applicant Name	<u>Rockwood Real Estate Inc.</u>	Facility Name	<u>Scottyland Camping Resort</u>
Applicant Address	<u>1618 Barron Church Road</u> <u>Rockwood, PA 15557-7820</u>	Facility Address	<u>Rt 653</u> <u>Rockwood, PA 15557</u>
Applicant Contact	<u>Gary Pirschl</u>	Facility Contact	<u>Same as applicant</u>
Applicant Phone	<u>814-442-9333</u>	Facility Phone	<u>Same as applicant</u>
Client ID	<u>37355</u>	Site ID	<u>1418</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Middlecreek Township</u>
Connection Status	<u>No Limitations</u>	County	<u>Somerset</u>
Date Application Received	<u>November 2, 2023</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u></u>	If No, Reason	<u></u>
Purpose of Application	<u>Application for Renewal of an NPDES Permit</u>		

Summary of Review

Rockwood Real Estate Inc. has applied for a renewal of NPDES Permit No. PA0205087. PA0205087 was previously issued by the Pennsylvania Department of Environmental Protection (DEP) on April 24, 2019 and expired April 30, 2024. The application was received in a timely manner and was therefore administratively extended.

Sewage from this facility is treated by septic tank, sand filtration, and chlorination. The facility discharges to Lost Creek (Stream Code 38653), which is classified as a high-quality cold-water fisher (HQ-CWF) in State Watershed 19-E.

Biosolid management was not identified in the permit application package.

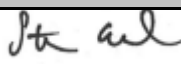

The permittee is enrolled in eDMR but has not used it since 2021. The permittee needs to begin using eDMR again.

At some point between 1989 and 1991, the permittee changed from Jon Serro to Scottyland Camping Resort. The Permittee again changed in 1996 to Rockwood Reality LLC. The permittee must submit and administratively and technically complete transfer application for WQM Permit No. 5672402 before this permit can be issued in final.

The permittee complied with Act 14 Notifications as evidenced by letters dated January 19 and sent to Somerset County and Middlecreek Township.

The following permit changes are being made during this permit cycle:

- A dissolved oxygen limit was added in accordance with 25 PA Code Chapter 93.
- Annual *E. coli* monitoring was added in accordance with the SOPs.
- Ammonia-Nitrogen limits were added based on updated modeling.

Approve	Deny	Signatures	Date
X		 Stephanie Conrad / Project Manager	September 22, 2025
X		 Mahbuba Iasmin, Ph.D., P.E. / Environmental Engineering Manager	September 30, 2025

Summary of Review

Anti-Backsliding

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard of water quality standard.

Previous limits can be used pursuant to EPA's anti-backsliding regulation 40 CFR 122.44 ***(I) Reissued permits. (1) Except as provided in paragraph (I)(2) of this section when a permit is renewed or reissued. Interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (2) In the case of effluent limitations established on the basis of Section 402(a)(1)(B) of the CWA, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 304(b) subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit.***

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.	<u>001</u>	Design Flow (MGD)	<u>0.0102</u>
Latitude	<u>39° 56' 52.21"</u>	Longitude	<u>-79° 15' 56.45"</u>
Quad Name	<u>Kingwood</u>	Quad Code	<u>1911</u>
Wastewater Description: <u>Sewage Effluent</u>			
Receiving Waters	<u>Lost Creek (HQ-CWF)</u>	Stream Code	<u>38653</u>
NHD Com ID	<u>69918633</u>	RMI	<u>0.1</u>
Drainage Area	<u>4.13</u>	Yield (cfs/mi ²)	<u>0.0153</u>
Q ₇₋₁₀ Flow (cfs)	<u>0.0632</u>	Q ₇₋₁₀ Basis	<u>USGS Stream Stats</u>
Elevation (ft)	<u>1754</u>	Slope (ft/ft)	
Watershed No.	<u>19-E</u>	Chapter 93 Class.	<u>HQ-CWF</u>
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	<u>Attaining Use(s)</u>		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status	<u>Tentative</u>	Name	<u>Laurel Hill Creek TMDL</u>
Background/Ambient Data		Data Source	
pH (SU)			
Temperature (°F)			
Hardness (mg/L)			
Other:			
Nearest Downstream Public Water Supply Intake	<u>Indian Creek Valley Water Authority</u>		
PWS Waters	<u>Youghiogheny River</u>	Flow at Intake (MGD)	<u>0.2592</u>
PWS RMI	<u>62.87</u>	Distance from Outfall (mi)	<u>27.23</u>

Changes Since Last Permit Issuance: None

Other Comments: None

Treatment Facility Summary				
Treatment Facility Name: Scottyland Camping Resort STP				
WQM Permit No.	Issuance Date	Purpose		
5672402	May 22, 1972	Permit issued to John Serro approving a sewage treatment plant consisting of: <ul style="list-style-type: none"> • Four (4) 2,000- gallon precast concrete septic tanks <ul style="list-style-type: none"> • Four (4) dosing tanks • Four (4) 6,200 square foot intermittent sand filters <ul style="list-style-type: none"> • Four (4) 6" Miller siphons • Liquid chlorine pump • Two (2) 2,000-gallon chlorine contact tanks • One (1) 60 degree V-notch weir for flow monitoring 		
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Septic Tank Sand Filter	Hypochlorite	0.0102
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.0102		Not Overloaded	Holding Tank	Other WWTP

Changes Since Last Permit Issuance: None

Other Comments: None

Compliance History

Compliance Check Summary Report

Facility: SCOTTYLAND CAMPING RESORT (ROCKWOOD REAL ESTATE INC)

NPDES Permit No.: PA0205087

Compliance Review Period: 2/1/20-2/1/25

Inspection Summary:

INSPECTED DATE	INSP TYPE	AGENCY	INSPECTION RESULT DESC	INSPECTION COMMENT
11/18/2021	Administrative/File Review	PA Dept of Environmental Protection	No Violations Noted	DMR review for 2019 - January 2021; eDMR not submitted post January 2021; violations noted in CEI IR
06/25/2024	Routine/Partial Inspection	PA Dept of Environmental Protection	Violation(s) Noted	
11/18/2021	Compliance Evaluation	PA Dept of Environmental Protection	Violation(s) Noted	

Violation Summary:

VIOLATION DATE	VIOLATION TYPE	VIOLATION TYPE DESC	RESOLVED DATE
11/18/2021	92A.44	NPDES - Violation of effluent limits in Part A of permit	11/22/2021
06/25/2024	92A.41(A)12B	NPDES - Failure to submit monitoring report(s) or properly complete monitoring reports	06/27/2024

Open Violations by Client ID:

No open violations for Client ID 37355.

Enforcement Summary:

ENF TYPE	ENF TYPE DESC	EXECUTED DATE	VIOLATIONS	PENALTY AMOUNT	AMOUNT RECEIVED	ENF FINAL STATUS	ENF CLOSED DATE
NOV	Notice of Violation	11/22/2021	92A.44				
NOV	Notice of Violation	06/25/2024	92A.41(A)12B				

Effluent Violation Summary:

STAGE_DESC	NON_COMPLIANCE_DATE	PARAMETER	SAMPLE VALUE	PERMIT VALUE	UNIT_OF_MEASURE	BASE CODE
Final Effluent	5/11/2020	Total Residual Chlorine (TRC)	0.88	0.5	mg/L	Average Monthly
Final Effluent	3/20/2020	Total Residual Chlorine (TRC)	0.77	0.5	mg/L	Average Monthly
Final Effluent	4/25/2020	Total Residual Chlorine (TRC)	0.95	0.5	mg/L	Average Monthly
Final Effluent	6/3/2020	Total Residual Chlorine (TRC)	0.79	0.5	mg/L	Average Monthly
Final Effluent	7/3/2020	Total Suspended Solids	29.5	25	mg/L	Average Monthly
Final Effluent	8/12/2020	Total Residual Chlorine (TRC)	0.67	0.5	mg/L	Average Monthly
Final Effluent	2/27/2021	pH	5	6	S.U.	Daily Minimum

Compliance Status: Facility is generally in compliance with no open violations or pending enforcements.

Completed by: Jim Stewart **Completed date:** 2/12/2025

Development of Effluent Limitations

Outfall No. 001
 Latitude 39° 56' 52.00"
 Wastewater Description: Sewage Effluent

Design Flow (MGD) 0.0102
 Longitude -79° 15' 56.00"

Technology-Based Limitations (TBELs)

The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
Flow (MGD)	Report	Average Monthly	-	92a.27, 92a.61
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)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)
Ammonia-Nitrogen	25	Average Monthly	-	BPJ
Dissolved Oxygen	4.0	Min	-	BPJ
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Total Nitrogen	Report	Average Monthly	-	92a.61
Total Phosphorus	Report	Average Monthly	-	92a.61
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)

Antidegradation Considerations:

Outfall 001 discharges to Lost Creek (Stream Code 38653), which is classified as a HQ-CWF.

DEP's 1992 *Special Protection Waters Implementation Handbook* imposed the following Antidegradation Best Available Technologies (BAT) effluent limits.

Parameter	Best Available Technology Effluent Limits
	Average Monthly (mg/L)
CBOD ₅	10.0
DO (instantaneous minimum)	5.0 to 6.0
Suspended Solids	10
NH ₃ -N (May 1 – Oct. 31)	1.5
NH ₃ -N (Nov. 1 – Apr. 30)	4.5

DEP's *Water Quality Antidegradation Implementation Guidance* [Doc. No. 391-0300-002] amended the BAT limits to the following Antidegradation Best Available Combination of Technologies (ABACT) effluent limits:

Parameter	Treatment Process Performance Expectations (mg/L)		
	<2,000 gpd	2,000-50,000 gpd	>50,000 gpd
CBOD ₅ (May 1 – Oct. 31)	10	10	10
CBOD ₅ (Nov. 1 – Apr. 30)	20	20	10
Suspended Solids	20	10	10
NH ₃ -N (May 1 – Oct. 31)	5.0	3.0	1.5

NH ₃ -N (Nov. 1 – Apr. 30)	15.0	9.0	4.5
Effective disinfection	Disinfection should be accomplished using a method that leaves no detectable residual. Disinfection using ultra-violet light or other non-chlorine-based systems is encourage and must be considered.		
Other parameters, as needed	<i>Determined by the size and characteristics of the proposed discharge, may include – NO₂/NO₃-N, Total Phosphorus, Copper, Lead, Zinc</i>		

Previously, this facility was assigned a CBOD₅ limit of 10 mg/L and a TSS limit of 25 mg/L based on “the regional guidance policy for dischargers to HQ watersheds that was in place at the time of issuance.”

Lost Creek became classified as a high-quality stream on March 4, 1973. Given that the facility was permitted on May 22, 1972, the facility predates the classification. Additional BAT and ABACT limits will not be imposed on this facility at this time. Previously imposed BAT and ABACT limits will not be removed due to anti-backsliding regulations.

Water Quality-Based Limitations (WQBELs)

Pursuant to EPA’s approval of Pennsylvania’s 2017 Triennial Review of Water Quality Standards and corresponding regulatory changes published in the *Pennsylvania Bulletin* on July 11, 2020, new water quality criteria for ammonia-nitrogen apply to waters of the commonwealth. Therefore, WQBELs for Outfall 001 are being re-evaluated even though there have been no changes to the treatment plant.

WQM 7.0 Water Quality Modeling

DEP’s WQM 7.0 version 1.1 model is a Microsoft Access Program used for sewage discharger to determine whether TBELs are sufficient to meet in-stream water quality criteria for ammonia-nitrogen, carbonaceous biochemical oxygen demand (CBOD₅), and dissolved oxygen (DO). To accomplish this, the model simultaneously simulates mixing and degradation of ammonia-nitrogen and mixing and consumption of DO through CBOD₅ and ammonia-nitrogen degradation. WQM 7.0 determines the highest pollutant loadings that the stream can assimilate while still meeting water quality criteria under design conditions.

WQM 7.0 determines the highest pollutant loadings that the stream can assimilate while still meeting water quality criteria under design conditions.

The model is a two-step process. The discharge is first modeled for the summer period (May through October) because warm temperatures are more likely to result in critical loading conditions. Reduced DO levels likely also play a role in ammonia toxicity and solubility of DO decreases at increased water temperature. If summer modeling determines that WQBELs are appropriate for the summer period, then modeling is completed for the winter period (November through April). This is in accordance with DEP’s *Implementation Guidance of Section 93.7 Ammonia Criteria* [Do. No. 391-2000-013] (Ammonia Guidance).

River Mile Index (RMI) was measured in eMAP PA as the distance from Outfall 001 to the mouth of Lost Creek. Discharge point and end of reach elevations were determined using Google Earth Pro. Discharge point and end of reach drainage areas as well as Q7-10 were generated by USGS Stream Stats. USGS Stream Stats files are included in Attachment A. In the absence of site-specific data, discharge temperature, stream temperature, and stream pH are assumed to be 20, 25, and 7 in accordance with the Ammonia Guidance. Stream width to depth was assumed to be 10 in accordance with DEP’s *Technical Reference Guide (TRG) WQM 7.0 for Windows Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen Version 1* [Doc. No. 391-2000-007]. The effluent CBOD₅, ammonia-nitrogen, and dissolved oxygen concentrations were set equal to TBEL and BPJ limits defined above. The DO Goal was set equal to the minimum instream DO criteria defined for CWF in 25 PA Code Section 93.7 in accordance with DEP’s SOP for *Establishing Effluent Limitations for Individual Sewage Permits* [SOP No. BCW-PMT-033 revised March 24, 2021, Version 1.9].

WQM 7.0 summer inputs are documented in the table below:

Discharge Characteristics		Basin/Stream Characteristics	
Parameter	Value	Parameter	Value
River Mile Index (RMI)	0.1	Drainage Area	4.13
Discharge Flow (MGD)	0.012	Q ₇₋₁₀ (cfs)	0.0632

Discharge Temp (°C)	20	Low-flow yield (cfs/mi ²)	0.0153
Discharge Ammonia-Nitrogen (mg/L)	25	Elevation (ft)	1754
Discharge CBOD ₅ (mg/L)	25	Stream Width/Depth	10
Discharge Dissolved Oxygen (mg/L)	4	Stream Temp (°C)	20
DO Goal	5.0	Stream pH (s.u.)	7
In-stream DO (mg/L)	9.01		

The Ammonia Guidance documents that when modeling for Winter, the in-stream temperature should be 5 °C and the yield is doubled. The instream dissolved oxygen concentration was also changed to 12.51 mg/L and the discharge temperature changed to 15 °C.

The discharge was modeled using WQM 7.0 to evaluate water quality-based limits for ammonia-nitrogen, CBOD₅, and DO. Modeling determined that a summer ammonia-nitrogen limit was necessary to protect in-stream water quality. A TBEL for CBOD₅ and BPJ limits for winter ammonia-nitrogen and dissolved oxygen are adequate.

In accordance with DEP's SOP for *Establishing Effluent Limitations for Individual Sewage Permits* [SOP No. BCW-PMT-033 revised March 24, 2021, Version 1.9], winter ammonia-nitrogen limits are assessed by comparing winter WQM 7.0 output value with one calculated by multiplying the summer limit by a multiplier of three. The more restrictive limit is then imposed. For this facility, the winter modeling results will be imposed. WQM 7.0 output files are included in Attachment B.

Parameter	Limit (mg/l)	SBC	Basis
Ammonia-Nitrogen Summer (mg/L)	12.6	Average Monthly	WQBEL
Ammonia-Nitrogen Winter (mg/L)	25	Average Monthly	BPJ
CBOD ₅ (mg/L)	25	Average Monthly	TBEL
Dissolved Oxygen	4.0	Average Monthly	BPJ

The Department's *Technical Guidance for the Development and Specification of Effluent Limitations* [Doc No.362-0400-001] stipulates that for sewage related pollutants instantaneous maximum limits be calculated by multiplying the average monthly limit by a conversion factor of 2.0.

Ammonia-Nitrogen limits are being added to the permit as a result of modeling. Based on 2024 DMR records, Scottyland Camping Resort is able to meet the new limits. The limits will therefore go into effect from the permit effective date.

Total Residual Chlorine

DEP's Total Residual Chlorine (TRC) Spreadsheet is a Microsoft Excel ® Program used to evaluate WQBELs for TRC using a mass balance. In accordance with the Department's SOP for *Establishing Effluent Limitations for Individual Sewage Permits* [SOP No. BCW-PMT-033 Version 1.9], default values of 0.3 mg/L and 0 mg/L for in-stream and discharge chlorine demand were used. Additionally, a discharge flow of 0.0102 MGD and a Q7-10 of 0.0632 were used. TRC modeling confirmed that a WQBEL for TRC is adequate to protect instream water quality. The TRC output file is provided in Attachment C.

Parameter	Limit (mg/l)	SBC	Basis
Total Residual Chlorine (mg/L)	0.5	Average Monthly	WQBEL

Best Professional Judgment (BPJ) Limitations

In accordance with Section 1.A. Note 6 of the Department's SOP for *Establishing Effluent Limitations for Individual Sewage Permits* [SOP No. BCW-PMT-033 Version 1.9] and 25 Pa. Code §93, a dissolved oxygen minimum of 4.0 mg/L will be imposed based on BPJ in order to ensure adequate operation and maintenance. The previous permit did not impose a limit or monitoring for dissolved oxygen. Therefore, sufficient data is not available at this time to demonstrate that the facility is able to meet the BPJ DO limit. A three-year compliance period is being included for DO in this permit.

Additional Considerations

In accordance with Section I.A. of DEP's SOP for *Establishing Effluent Limitations for Individual Sewage Permits* [SOP No. BCW-PMT-033 Version 1.9], pursuant to EPA's approval of Pennsylvania's 2017 Triennial Review of Water Quality Standards and corresponding regulatory changes published in the Pennsylvania Bulletin on July 11, 2020 and under the authority of 25 Pa. Code § 93.7(a) and § 92.a.61, sewage dischargers will include monitoring for *E. coli*. For new and reissued permit, a monitoring frequency of 1/year will be imposed for design flows ≥ 0.002 MGD and < 0.05 MGD.

In accordance with Section I.A of the DEP's SOP for *Establishing Effluent Limitations for Individual Sewage Permits* [SOP No. BCW-PMT-033 Version 1.9], and under the authority of 25 Pa. Code § 92a.61(b), nutrient monitoring for total nitrogen and total phosphorus will be imposed for sewage facilities with a design flow greater than 2,000 GPD. The intent of this monitoring is to establish the nutrient load of the wastewater and evaluate the impact that load may have on the quality of the receiving stream. The SOP states that if the receiving stream is not impaired for nutrients, then discretion may be used in setting the monitoring frequency. Lost Creek is not impaired for nutrients; therefore, a monitoring frequency of 1/year will again be imposed. Scottyland Camping Resort has not been providing sampling results for total nitrogen and total phosphorus.

Conventional limits are rounded in accordance with the guidelines in Chapter 5 Section C.2. of DEP's *Technical Guidance for the Development and Specification of Effluent Limitations* [Doc. No. 362-0400-001].

Monitoring frequency for the proposed effluent limits are based on Table 6-3, Self -Monitoring Requirements for Sewage Dischargers, from DEP's *Technical Guidance for the Development and Specification of Effluent Limitations* [Doc. No. 362-0400-001].

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: Three Years Following Permit Issuance 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		
DO	XXX	XXX	4.0 Inst Min	XXX	XXX	XXX	1/day	Grab

Compliance Sampling Location: Outfall 001

Other Comments: None

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 Three Years Following Permit Issuance

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		
DO	XXX	XXX	Report Inst Min	XXX	XXX	XXX	1/day	Grab

Compliance Sampling Location: Outfall 001

Other Comments: None

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)	0.0102	XXX	XXX	XXX	XXX	XXX	2/month	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD ₅	XXX	XXX	XXX	10	XXX	20	2/month	Grab
TSS	XXX	XXX	XXX	25	XXX	50	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
<i>E. Coli</i> (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab
Ammonia-Nitrogen Nov 1 - Apr 30	XXX	XXX	XXX	25.0	XXX	50.0	2/month	Grab
Ammonia-Nitrogen May 1 - Oct 31	XXX	XXX	XXX	12.16	XXX	24.32	2/month	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/year	Grab

Compliance Sampling Location: Outfall

Other Comments: None

ATTACHMENT A

USGS Stream Stats Output Files

Discharge Point

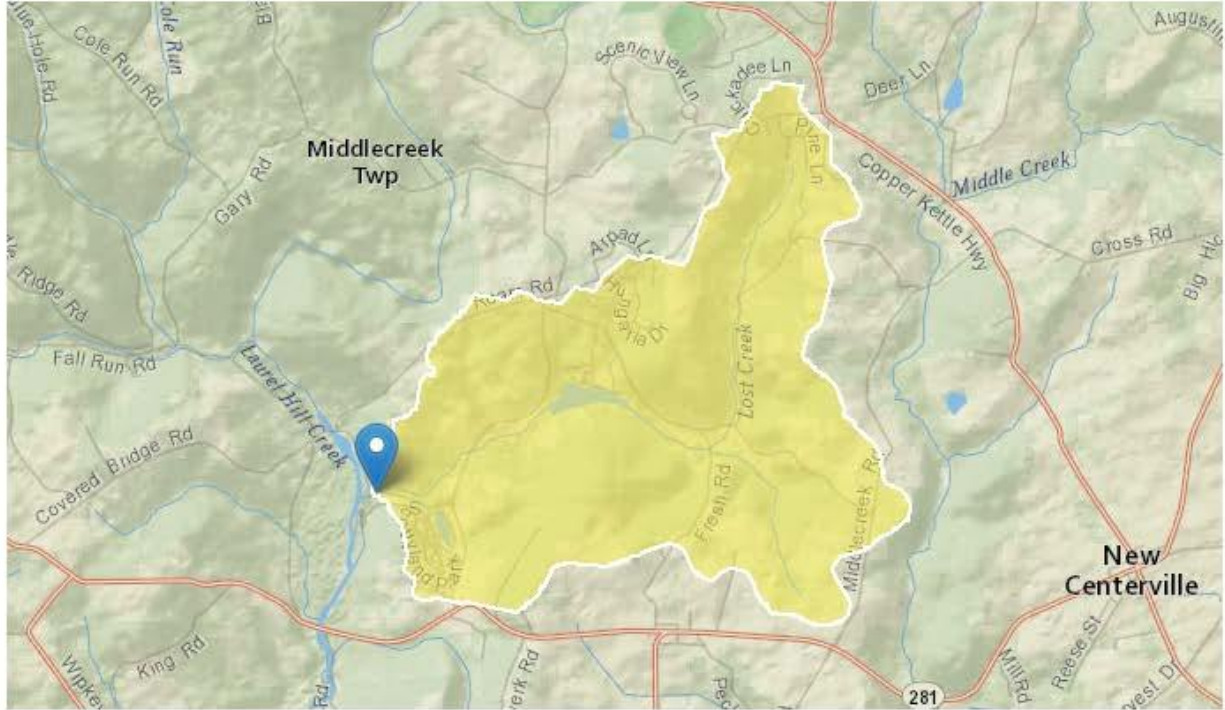
StreamStats Report


Region ID: PA

Workspace ID: PA20250206144640331000

Clicked Point (Latitude, Longitude): 39.94771, -79.26593

Time: 2025-02-06 09:47:05 -0500



 Collapse All

➤ Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	4.13	square miles
ELEV	Mean Basin Elevation	2014	feet

➤ Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.13	square miles	2.26	1400
ELEV	Mean Basin Elevation	2014	feet	1050	2580

Low-Flow Statistics Flow Report [Low Flow Region 4]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	0.218	ft^3/s	43	43
30 Day 2 Year Low Flow	0.405	ft^3/s	38	38
7 Day 10 Year Low Flow	0.0632	ft^3/s	66	66
30 Day 10 Year Low Flow	0.128	ft^3/s	54	54
90 Day 10 Year Low Flow	0.274	ft^3/s	41	41

Low-Flow Statistics Citations

Stuckey, M.H., 2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (<http://pubs.usgs.gov/sir/2006/5130/>)

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End of Reach

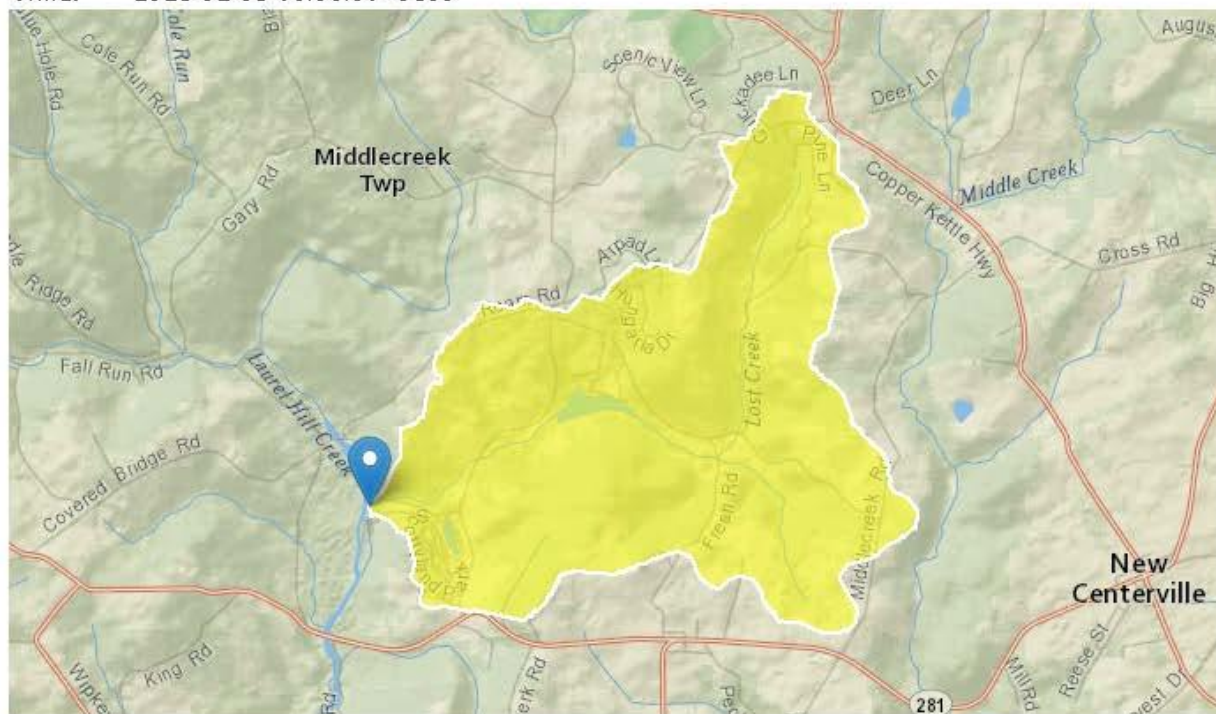
StreamStats Report

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Workspace ID: PA20250206150014341000

Clicked Point (Latitude, Longitude): 39.94738, -79.26728

Time: 2025-02-06 10:00:39 -0500



[+ Collapse All](#)

> Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	4.15	square miles
ELEV	Mean Basin Elevation	2013	feet

ATTACHMENT B

WQM 7.0 Modeling Results

Summer Modeling

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
19E	38653	LOST CREEK	0.100	1754.00	4.13	0.00000	0.00	<input checked="" type="checkbox"/>

Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary		Stream	
	(cfsm)	(cfs)	(cfs)						Temp (°C)	pH	Temp (°C)	pH
Q7-10	0.015	0.00	0.00	0.000	0.000	10.0	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
Scottyland Camp	PA0205087	0.0000	0.0102	0.0000	0.000	20.00	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	4.00	9.01	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
19E	38653	LOST CREEK	0.010	1746.00	4.15	0.00000	0.00	<input checked="" type="checkbox"/>

Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary		Stream	
	(cfsm)	(cfs)	(cfs)						Temp (°C)	pH	Temp (°C)	pH
Q7-10	0.015	0.00	0.00	0.000	0.000	10.0	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	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>							
19E		38653			LOST CREEK							
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)	
Q7-10 Flow												
0.100	0.06	0.00	0.06	.0158	0.01684	.345	5.57	16.14	0.04	0.134	20.00	7.00
Q1-10 Flow												
0.100	0.04	0.00	0.04	.0158	0.01684	NA	NA	NA	0.03	0.162	20.00	7.00
Q30-10 Flow												
0.100	0.09	0.00	0.09	.0158	0.01684	NA	NA	NA	0.05	0.116	20.00	7.00

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	90.00%	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>
19E	38653	LOST 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
0.100	Scottyland Camp	16.76	50	16.76	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
0.100	Scottyland Camp	1.89	12.16	1.89	12.16	0	0

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)		
0.10	Scottyland Camp	25	25	12.16	12.16	4	4	0	0

WQM 7.0 D.O.Simulation

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>		
19E	38653	LOST CREEK		
<u>RMI</u>	<u>Total Discharge Flow (mgd)</u>	<u>Analysis Temperature (°C)</u>	<u>Analysis pH</u>	
0.100	0.010	20.000	7.000	
<u>Reach Width (ft)</u>	<u>Reach Depth (ft)</u>	<u>Reach WDRatio</u>	<u>Reach Velocity (fps)</u>	
5.572	0.345	16.139	0.041	
<u>Reach CBOD5 (mg/L)</u>	<u>Reach Kc (1/days)</u>	<u>Reach NH3-N (mg/L)</u>	<u>Reach Kn (1/days)</u>	
6.60	1.107	2.43	0.700	
<u>Reach DO (mg/L)</u>	<u>Reach Kr (1/days)</u>	<u>Kr Equation</u>	<u>Reach DO Goal (mg/L)</u>	
8.009	18.269	Owens	5	
<u>Reach Travel Time (days)</u>	Subreach Results			
0.134	TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
	0.013	6.50	2.41	8.04
	0.027	6.40	2.39	8.06
	0.040	6.31	2.36	8.08
	0.054	6.22	2.34	8.11
	0.067	6.12	2.32	8.12
	0.080	6.03	2.30	8.14
	0.094	5.95	2.28	8.16
	0.107	5.86	2.25	8.17
	0.121	5.77	2.23	8.19
	0.134	5.69	2.21	8.20

WQM 7.0 Effluent Limits

<u>SWP Basin</u>		<u>Stream Code</u>	<u>Stream Name</u>				
19E		38653	LOST 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)
0.100	Scottyland Camp	PA0205087	0.000	CBOD5	25		
				NH3-N	12.16	24.32	
				Dissolved Oxygen			4

Winter Modeling

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
19E	38653	LOST CREEK	0.010	1746.00	4.15	0.00000	0.00	<input checked="" type="checkbox"/>

Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary		Stream	
	(cfsm)	(cfs)	(cfs)						Temp (°C)	pH	Temp (°C)	pH
Q7-10	0.031	0.00	0.00	0.000	0.000	10.0	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	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

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
19E	38653	LOST CREEK	0.100	1754.00	4.13	0.00000	0.00	<input checked="" type="checkbox"/>

Stream Data

Design Cond.	LFY	Trib Flow	Stream Flow	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary		Stream	
	(cfsm)	(cfs)	(cfs)						Temp (°C)	pH	Temp (°C)	pH
Q7-10	0.031	0.00	0.00	0.000	0.000	10.0	0.00	0.00	5.00	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
Scottyland Camp	PA0205087	0.0000	0.0102	0.0000	0.000	15.00	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	4.00	12.51	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>						
19E		38653				LOST CREEK						
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)	
Q7-10 Flow												
0.100	0.13	0.00	0.13	.0158	0.01684	.378	6.59	17.45	0.06	0.096	6.11	7.00
Q1-10 Flow												
0.100	0.08	0.00	0.08	.0158	0.01684	NA	NA	NA	0.05	0.120	6.63	7.00
Q30-10 Flow												
0.100	0.17	0.00	0.17	.0158	0.01684	NA	NA	NA	0.07	0.083	5.84	7.00

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	90.00%	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>
19E	38653	LOST 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
0.100	Scottyland Camp	24.1	50	24.1	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
0.100	Scottyland Camp	4.36	25	4.36	25	0	0

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)		
0.10	Scottyland Camp	25	25	25	25	4	4	0	0

WQM 7.0 D.O.Simulation

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>			
19E	38653	LOST CREEK			
<u>RMI</u>	<u>Total Discharge Flow (mgd)</u>	<u>Analysis Temperature (°C)</u>		<u>Analysis pH</u>	
0.100	0.010	6.110		7.000	
<u>Reach Width (ft)</u>	<u>Reach Depth (ft)</u>	<u>Reach WDRatio</u>		<u>Reach Velocity (fps)</u>	
6.594	0.378	17.448		0.057	
<u>Reach CBOD5 (mg/L)</u>	<u>Reach Kc (1/days)</u>	<u>Reach NH3-N (mg/L)</u>		<u>Reach Kn (1/days)</u>	
4.55	0.901	2.77		0.240	
<u>Reach DO (mg/L)</u>	<u>Reach Kr (1/days)</u>	<u>Kr Equation</u>		<u>Reach DO Goal (mg/L)</u>	
11.565	13.863	Owens		5	
<u>Reach Travel Time (days)</u>	Subreach Results				
0.096	TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)	
	0.010	4.53	2.77	11.13	
	0.019	4.51	2.76	11.13	
	0.029	4.49	2.76	11.13	
	0.039	4.47	2.75	11.13	
	0.048	4.45	2.74	11.13	
	0.058	4.43	2.74	11.13	
	0.067	4.41	2.73	11.13	
	0.077	4.39	2.72	11.13	
	0.087	4.37	2.72	11.13	
	0.096	4.35	2.71	11.13	

WQM 7.0 Effluent Limits

<u>SWP Basin</u>		<u>Stream Code</u>	<u>Stream Name</u>				
19E		38653	LOST 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)
0.100	Scottyland Camp	PA0205087	0.000	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			4

ATTACHMENT C

TRC Modeling Results

TRC_CALC_Rockwood Realestate

TRC EVALUATION				
Input appropriate values in A3:A9 and D3:D9				
0.0632	= Q stream (cfs)	0.5	= CV Daily	
0.012	= 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 = 1.105	1.3.2.iii	WLA cfc = 1.070
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.412	5.1d	LTA_cfc = 0.622
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)			