pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0223069**
Facility Type	**Municipal**	APS ID	**1015902**
Major / Minor	**Minor**	Authorization ID	**1313548**

NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE

Applicant and Facility Information

Applicant Name	**Coolspring Jackson Lake Latonka Joint Authority**	Facility Name	**Coolspring Jackson Lake Latonka STP**
Applicant Address	644A Franklin Road	Facility Address	State Route 62
	Mercer, PA 16137		Mercer, PA 16137
Applicant Contact	Robert McGhee	Facility Contact	Tina Graham
Applicant Phone	(724) 662-2091	Facility Phone	(724) 662-2091
Client ID	142959	Site ID	533781
Ch 94 Load Status	Not Overloaded	Municipality	Coolspring Township
Connection Status	No Limitations	County	Mercer County
Date Application Received	April 24, 2020	EPA Waived?	Yes
Date Application Accepted	May 7, 2020	If No, Reason	-

Purpose of Application: Renewal of an NPDES Permit for an existing discharge of treated sanitary wastewater from a municipal sewer system.

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 continue 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

SPECIAL CONDITIONS:

II. Solids Management

There are no open violations in efacts associated with the subject Client ID (142959) as of 3/24/2021.

Approve	Return	Deny	Signatures	Date
X			Stephen A. McCauley Stephen A. McCauley, E.I.T. / Environmental Engineering Specialist	3/24/2021
X			Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager	3/25/2021

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.15
Latitude	41° 15’ 28.00”	Longitude	80° 11’ 08.00”
Quad Name	-	Quad Code	-
Wastewater Description:	Sewage Effluent		
Receiving Waters	Cool Spring Creek (TSF)	Stream Code	35748
NHD Com ID	130029474	RMI	5.5
Drainage Area	14.0	Yield (cfs/mi^2)	0.052
Q_{7-10} Flow (cfs)	0.72	Q_{7-10} Basis	calculated
Elevation (ft)	1140	Slope (ft/ft)	0.0018
Watershed No.	20-A	Chapter 93 Class.	TSF
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	Beaver Falls Municipal Authority		
PWS Waters	Beaver River	Flow at Intake (cfs)	561
PWS RMI	3.5	Distance from Outfall (mi)	45.0

Sludge use and disposal description and location(s): 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 0.15 MGD of treated sewage from an existing Publicly Owned Treatment Works (POTW) in Coolspring Township, Mercer County.

Treatment permitted under Sewerage Permit No. 4300409 consists of the following: 78,000 feet of low pressure sewers with grinder pumps pumped through a manual bar screen, a flow splitter box, two 75,000 gallon extended aeration tanks, two 25,810 gallon settling tanks, parallel ultraviolet (UV) light disinfection tanks, two 19,525 gallon aerated sludge holding tanks, two additional 8,461 gallon sludge holding chambers, and four covered 660 square foot sludge drying beds.

1. Streamflow:

The yieldrate for the receiving stream at the outfall was calculated using the nearest USGS gage station.

Little Shenango River at Greenville, PA:	Drainage Area:	104	sq. mi.	(from StreamStats)
(USGS gage 03102500)	Q_{7-10}:	5.5	cfs	(from StreamStats)
	Yieldrate:	0.052	cfsm	(calculated)
Cool Spring Creek at Outfall 001:	Yieldrate:	0.052	cfsm	(calculated above)
	Drainage Area:	14	sq. mi.	(from StreamStats)
	% of stream allocated:	100%	Basis:	no nearby discharges
	Q_{7-10}:	0.72	cfs	(calculated)

2. Wasteflow:

Outfall 001:

Maximum discharge: 0.15 MGD = 0.23 cfs

Runoff flow period: 24 hours Basis: Runoff flow for a Municipal STP

There is slightly more than 3 parts stream flow (Q7-10) to 1 part effluent (design flow). In addition, since this is an existing discharge, the more stringent treatment requirements cannot be achieved, and the receiving stream is not impaired by the discharge, the standards in DEP guidance (391-2000-014) will not 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, Phosphorus, NH_3-N, $CBOD_5$, Dissolved Oxygen, and Total Residual Chlorine. NH_3-N, $CBOD_5$, and Dissolved Oxygen were evaluated using WQM 7.0 at the discharge point.

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), which will be retained.

b. Total Suspended Solids

Limits are 30 mg/l as a monthly average and 60 as a daily maximum.

Basis: Application of Chapter 92a47 technology-based limits

c. Fecal Coliform

05/01 - 09/30: 200/100ml (monthly average geometric mean)
1,000/100ml (instantaneous maximum)

10/01 - 04/30: 2,000/100ml (monthly average geometric mean)
10,000/100ml (instantaneous maximum)

Basis: Application of Chapter 92a.47 technology-based limits

d. E. Coli

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

Basis: Application of Chapter 92a.61 as recommended by the SOP.

e. Phosphorus

☐ Limit necessary due to:

☐ Discharge to lake, pond, or impoundment
☐ Discharge to stream

☒ Limit not necessary

Basis: 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. NO_2-NO_3, Fluoride, Phenolics, Sulfates, and Chlorides

Nearest Downstream potable water supply (PWS): Beaver Falls Municipal Authority

Distance downstream from the point of discharge: 45.0 miles (approximate)

☒ No limits necessary
☐ Limits needed

Basis Significant dilution available.

h. Ammonia-Nitrogen (NH_3-N)

Median discharge pH to be used: 7.0 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: 25˚C (default value used for TSF modeling purposes)

Background NH_3-N concentration: N/A mg/l

Basis: No background data available for NH_3-N.

calculated NH_3-N Summer limits: 7.0 mg/l (monthly average) - previous limit was 8 mg/l
14.0 mg/l (instantaneous maximum)

NH_3-N Winter limits: 21.0 mg/l (monthly average) - previous limit was 24 mg/l
42.0 mg/l (instantaneous maximum)

Result: WQ modeling resulted in the NH_3-N limits above (see Attachment 1), which are the same as the previous permit and will be retained. The winter limits are calculated as three times the summer limits.

i. $CBOD_5$

Median discharge pH to be 7.0 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: 25˚C (default value used for TSF modeling purposes)

Background $CBOD_5$ concentration: 2.0 mg/l

Basis: Default value

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

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

Result: WQ modeling resulted in the above $CBOD_5$ limits (see Attachment 1). The previous NPDES Permit had 20/40 mg/l $CBOD_5$ for summer and 25/50 mg/l for winter. Since the Permittee has not had any trouble meeting those limits, they will be retained for this renewal.

j. Dissolved Oxygen (DO)

- ☐ 3.0 mg/l - minimum required due to discharge going to a drainage swale or ditch.
- ☒ 4.0 mg/l - minimum desired in effluent to protect all aquatic life.
- ☐ 5.0 mg/l - desired in effluent for Warm Water / Trout-Stocked Fisheries.
- ☐ 6.0 mg/l - desired in effluent for Cold Water Fisheries.
- ☐ 7.0 mg/l - required due to discharge going to a High Quality / Exceptional Value stream

Discussion: The Dissolved Oxygen minimum of 4.0 mg/l will be retained with this renewal. The technology-based minimum is recommended by the WQ Model (see Attachment 1) and the SOP based on Chapter 93.7, under the authority of Chapter 92a.61. 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), which will be retained.

k. Total Residual Chlorine (TRC)

☒ No limit necessary
☐ TRC limits: _____ mg/l (monthly average)
_____ mg/l (instantaneous maximum)

Basis: Ultraviolet (UV) light disinfection will continue to be used. Monitoring for UV Intensity (µw/cm²) will continue to be required with this renewal. The measurement frequency was reduced from 1/week 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).

l. Influent Total Suspended Solids and BOD_5

Monitoring for these two parameters will be retained as recommended in the SOP for POTWs, and as authorized under Chapter 92a.61.

4. Flow Information:

50% of the wastewater flow comes from the Coolspring Township. 50% of the wastewater flow comes from the Jackson Township. All the sewers in the Coolspring and Jackson Township systems are separate sewers.

5. Attachment Details:

Attachment 1 - WQ Modeling Printouts

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

Compliance History

DMR Data for Outfall 001 (from February 1, 2020 to January 31, 2021)

Parameter	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20	JUN-20	MAY-20	APR-20	MAR-20	FEB-20
Flow (MGD) Average Monthly	0.072	0.078	0.081	0.077	0.087	0.091	0.093	0.083	0.087	0.083	0.082	0.066
Flow (MGD) Daily Maximum	0.135	0.139	0.140	0.131	0.177	0.141	0.166	0.124	0.143	0.114	0.153	0.124
pH (S.U.) Minimum	6.9	6.4	6.8	6.9	6.4	6.7	6.7	6.7	7.0	7.0	6.5	6.7
pH (S.U.) Maximum	7.9	7.4	7.8	7.6	7.7	7.9	7.5	8.2	8.8	8.8	8.0	8.2
DO (mg/L) Minimum	4.5	4.7	4.3	4.3	4.1	4.0	4.0	4.0	4.0	4.1	4.5	6.0
CBOD5 (lbs/day) Average Monthly	< 2	< 2	< 6	< 3	< 4	< 5	5	5	5	3	4	4
CBOD5 (lbs/day) Weekly Average	2	3	15	4.1	< 9.0	7.8	8.0	6.0	10.6	3	5	6
CBOD5 (mg/L) Average Monthly	< 3	< 3	< 10	< 3	< 5	< 6	6	7	6	5	6	8
CBOD5 (mg/L) Weekly Average	3	4	27	5	< 12	7	8	8	11	7	7	11
BOD5 (lbs/day) Influent Average Monthly	124	176	193	200	194	201	196	159	212	211	137	114
BOD5 (mg/L) Influent Average Monthly	224	258	258	274	267	265	219	227	270	326	201	202
TSS (lbs/day) Average Monthly	< 2.8	< 4.2	9.4	5.0	< 3.9	< 4.6	6.0	< 4.0	< 4.6	< 3.2	< 3.6	10.1
TSS (lbs/day) Influent Average Monthly	80	85	104	149	194	175	103	104	148	129	120	58
TSS (lbs/day) Weekly Average	3	7	13	7	4	8	8	5	7	4	5	14
TSS (mg/L) Average Monthly	< 5	< 6	14	7	< 5	< 6	7	< 6	< 6	< 5	5	18
TSS (mg/L) Influent Average Monthly	141	124	144	211	268	231	116	148	191	199	175	103
TSS (mg/L) Weekly Average	5	9	22	8	6	8	9	7	8	5	6	24

Fecal Coliform (CFU/100 ml) Geometric Mean	12	< 27	23	< 1	< 1	< 1	7	< 13	26	< 6	48	115
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	20	154	2420	2	4	2	20	186	73	20	143	2420
UV Intensity (µw/cm²) Average Monthly	2.9	2.2	1.8	2.1	2.9	3.0	3.6	4	3.7	3.6	2.5	2.3
Total Nitrogen (lbs/day) Average Monthly	15	20	17	19	19	33	14	18	22	13	26	9
Total Nitrogen (mg/L) Average Monthly	26.6	27.19	26.3	28.4	25.7	31.4	15.1	26.8	29.2	28.4	32	19.6
Ammonia (lbs/day) Average Monthly	< 1	< 1	< 1	< 0.6	< 0.6	< 0.6	< 4.5	< 2.0	< 3.0	< 1.2	< 1	< 1
Ammonia (mg/L) Average Monthly	< 1	< 1	< 1	< 0.8	< 0.8	< 0.8	< 4.6	< 2.2	< 3.2	< 2	< 1	< 1
Total Phosphorus (lbs/day) Average Monthly	1	2	0.7	0.9	2	4	0.8	3	3	1	2	1
Total Phosphorus (mg/L) Average Monthly	2.1	3.2	1.1	1.4	2.6	3.9	0.89	4.7	4.0	3.3	2.9	3.1

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	Weekly Average	Minimum	Average Monthly	Weekly Average	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
CBOD5 Nov 1 - Apr 30	31	50	XXX	25	40	50	1/week	24-Hr Composite
CBOD5 May 1 - Oct 31	25	37.5	XXX	20	30	40	1/week	24-Hr Composite
BOD5 Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
TSS Raw Sewage Influent	Report	XXX	XXX	Report	XXX	XXX	1/week	24-Hr Composite
TSS	37.5	56	XXX	30	45	60	1/week	24-Hr Composite
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/week	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/week	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/quarter	Grab
UV Intensity (µw/cm²)	XXX	XXX	XXX	Report	XXX	XXX	1/day	Measured
Total Nitrogen	Report	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite
Ammonia-Nitrogen Nov 1 - Apr 30	26	XXX	XXX	21	XXX	42	1/week	24-Hr Composite

Outfall 001, Continued (from 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	Weekly Average	Minimum	Average Monthly	Weekly Average	Instant. Maximum		
Ammonia-Nitrogen May 1 - Oct 31	8.5	XXX	XXX	7.0	XXX	14	1/week	24-Hr Composite
Total Phosphorus	Report	XXX	XXX	Report	XXX	XXX	1/month	24-Hr Composite

Compliance Sampling Location: at Outfall 001, after Ultraviolet (UV) light disinfection.

Flow is monitor only based on 92a.61. The limits for pH and Dissolved Oxygen are technology-based on Chapter 93.7. The limits for $CBOD_5$ and Ammonia-Nitrogen are water quality-based. The limits for Total Suspended Solids and Fecal Coliforms are technology-based on Chapter 92a47. Monitoring for influent BOD5 and influent Total Suspended Solids is based on Chapter 92a.61. Monitoring for E. Coli, UV Intensity, Total Nitrogen, and Total Phosphorus is based on Chapter 92a.61.

Attachment 1

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
20A	35748	COOL SPRING 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)
5.250	Coolspring	PA0223069	0.150	CBOD5	25		
				NH3-N	7.06	14.12	
				Dissolved Oxygen			4

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
20A	35748	COOL SPRING CREEK

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
5.250	0.150	25.000	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
17.105	0.532	32.177	0.106
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
7.56	0.348	1.71	1.029
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
7.217	17.437	Owens	5
Reach Travel Time (days)			
3.039			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.304	6.62	1.25	7.54
0.608	5.79	0.91	7.54
0.912	5.07	0.67	7.54
1.215	4.44	0.49	7.54
1.519	3.89	0.36	7.54
1.823	3.40	0.26	7.54
2.127	2.98	0.19	7.54
2.431	2.61	0.14	7.54
2.735	2.28	0.10	7.54
3.039	2.00	0.07	7.54

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	5		

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
20A	35748	COOL SPRING CREEK	**5.250**	1140.00	14.00	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	0.052	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	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
Coolspring	PA0223069	0.1500	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	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
20A	35748	COOL SPRING CREEK	**0.000**	1090.00	50.90	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	0.052	0.00	0.00	0.000	0.000	0.0	0.00	0.00	25.00	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 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
20A	35748	COOL SPRING 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
5.250	Coolspring	6.76	20.34	6.76	20.34	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
5.250	Coolspring	1.34	7.06	1.34	7.06	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)		
5.25	Coolspring	25	25	7.06	7.06	4	4	0	0

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
20A	35748	COOL SPRING 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												
5.250	0.73	0.00	0.73	.2321	0.00180	.532	17.1	32.18	0.11	3.039	25.00	7.00
Q1-10 Flow												
5.250	0.47	0.00	0.47	.2321	0.00180	NA	NA	NA	0.09	3.633	25.00	7.00
Q30-10 Flow												
5.250	0.99	0.00	0.99	.2321	0.00180	NA	NA	NA	0.12	2.654	25.00	7.00