pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0239283**
Facility Type	**Industrial**	APS ID	**997469**
Major / Minor	**Minor**	Authorization ID	**1280483**

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Applicant and Facility Information

Applicant Name	**Whitehall Specialties, Inc.**	Facility Name	**Whitehall Specialties**
Applicant Address	2850 Perry Highway	Facility Address	2850 Perry Highway
	Slippery Rock, PA 16057		Slippery Rock, PA 16057
Applicant Contact	Dominic Galassi	Facility Contact	Dominic Galassi
Applicant Phone	(724) 923-4215	Facility Phone	(724) 923-4215
Client ID	330475	Site ID	551655
SIC Code	2022	Municipality	Scott Township
SIC Description	Manufacturing - Cheese, Natural and Processed	County	Lawrence County
Date Application Received	June 27, 2019	EPA Waived?	Yes
Date Application Accepted	July 16, 2019	If No, Reason	-
Purpose of Application	Renewal of an IW NPDES Permit for the discharge of wastewaters associated with the production of imitation cheese products.		

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. Right of Way
B. Solids Handling
C. NPDES Permit Supersedes WQM Permits
D. Modification of Revocation of Permit for changes to BAT or BCT

SPECIAL CONDITIONS:

II. N/A

There are no open violations in efacts associated with the subject Client ID (330475) as of 10/1/2021.

Approve	Deny	Signatures	Date
X		Stephen A. McCauley Stephen A. McCauley, E.I.T. / Environmental Engineering Specialist	10/1/2021
X		Justin C. Dickey Justin C. Dickey, P.E. / Environmental Engineer Manager	10/1/2021

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	0.01
Latitude	41º 00' 22.32"	Longitude	-80º 10' 23.69"
Quad Name	-	Quad Code	-
Wastewater Description:	IW Process Effluent without ELG		
Receiving Waters	Unnamed Tributary to the Slippery Rock Creek (CWF)	Stream Code	N/A (trib to 34032)
NHD Com ID	126219836	RMI	N/A (0.43)
Drainage Area	0.44 mi^2	Yield (cfs/mi^2)	0.119
Q_{7-10} Flow (cfs)	0.052	Q_{7-10} Basis	calculated
Elevation (ft)	1180	Slope (ft/ft)	0.0439
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 (°C)	-	-
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	0.2	Distance from Outfall (mi)	20.6

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 0.01 MGD of treated Industrial Waste from an imitation cheese manufacturing facility in Scott Township, Lawrence County.

Treatment permitted under WQM Permit 3704201 consists of: A grinder pump station, a dual train sequential batch reactor, and UV light disinfection.

This facility is currently collecting its sanitation/clean-in-place process wastewaters, sanitary wastewaters, boiler blowdown, and water softener regeneration in a holding tank which is pumped and hauled off site daily.

1. Streamflow

The Q_{7-10} low flow was determined by calculating the yieldrate of the nearest downstream gage station:

Slippery Rock Creek at Wurtemburg, PA:	Q_{7-10}:	47.5	cfs	USGS Streamstats
USGS Gage no. 03106500 (1971-2008)	Drainage Area:	398	sq. mi.	USGS Streamstats
	Yield Rate:	0.119	cfsm	(calculated)

The Q_{7-10} low flow for the receiving stream at Outfall 001 was determined by using the calculated yieldrate above and the Drainage Area.

Unnamed Tributary to the Slippery	Yieldrate:	0.119	cfsm	from above
Rock Creek at Outfall 001:	Drainage Area:	0.44	sq. mi.	USGS Streamstats
	% of stream allocated:	100%	Basis:	No nearby discharges
	Q_{7-10}:	0.052	cfs	calculated

2. Wasteflow: Outfall 001

Permitted discharge flow:	0.01	MGD =	0.015	cfs	
Average discharge flow:	N/A	MGD =	N/A	cfs	(For IW discharges, the flow to use in modeling is the average flow during production or operation - since there has not been a discharge in some time, the permitted flow will be retained)

Runoff flow period: 12 hours Basis: Runoff flow set in previous NPDES Permits

24 hour flow = 0.01 MGD x 24/12 = 0.02 MGD = 0.03 cfs

The calculated stream flow is greater than 3 parts to the discharge flow. In accordance with the SOP, since this is an existing discharge, and there is more than 3 parts stream flow (Q7-10) to 1 part effluent (design flow), no treatment requirements will be required from document number 391-2000-014, titled, "Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers", dated April 12, 2008.

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.

a. pH

Between 6.0 and 9.0 at all times

Basis: Application of Chapter 95.2 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

Basis: The previous mass loading limitations for TSS were based on federal natural cheese making effluent standards. Since there has not been a discharge in recent years to

recalculate the loading, the previous limitations will be retained.

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 92a47 technology-based limits

d. Total Phosphorus

☐ Limit necessary due to:

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

☒ Limit not necessary

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

e. Total Nitrogen

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

f. NO_2-NO_3, Fluoride, Phenolics, Sulfates, Chlorides, and TDS

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

Distance downstream from the point of discharge: 20.6 miles (approximate)

☒ No limits necessary
☐ Limits needed

Basis: Significant dilution available

g. Ammonia-Nitrogen (NH_3-N)

Median discharge pH to be used: 7.5 Standard Units (S.U.)

Basis: Default value used in the absence of data

Discharge temperature: 25°C (default value used in the absence of data)

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

Basis: Default value used in the absence of data

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

Background NH_3-N concentration: 0.1 mg/l

Basis: Default value.

Calculated Summer NH_3-N limits:	25.0	mg/l (monthly average)
	50.0	mg/l (instantaneous maximum)
Calculated Winter NH_3-N limits:	25.0	mg/l (monthly average)
	50.0	mg/l (instantaneous maximum)

Result: WQ modeling resulted in the NH3-N limits above (see Attachment 2), which are the same as the previous permit. The winter limits are calculated as three times the summer limits, but since the summer limits are technology-based, the winter limits will also be technology-based. The previous permit did not require any monitoring or limitations for NH3-N. Per the SOP, and to collect discharge data on NH3-N from this facility (if/when it discharges), monitoring for NH3-N will be added to this renewal.

h. $CBOD_5$

Median discharge pH to be used:	7.5	Standard Units (S.U.)
		Basis: Default value used in the absence of data
Discharge temperature:	25°C	(default value used in the absence of data)
Median stream pH to be used:	7.0	Standard Units (S.U.)
		Basis: Default value used in the absence of data
Stream Temperature:	20˚C	(default value used for CWF modeling)
Background BOD concentration:	2.0	mg/l
		Basis: Default value
Calculated $CBOD_5$ Summer limits:	25.0	mg/l (monthly average)
	50.0	mg/l (instantaneous maximum)
Calculated $CBOD_5$ Winter limits:	25.0	mg/l (monthly average)
	50.0	mg/l (instantaneous maximum)

Result: WQ modeling resulted in the CBOB5 limits above (see Attachment 2), which are the same as the previous permit. The winter limits are calculated as three times the summer limits, but since the summer limits are technology-based, the winter limits will also be technology-based.

The previous mass loading limitations are based on federal natural cheese making effluent standards. Since there has not been a discharge in recent years to recalculate the loading, the previous limitations will be retained.

i. 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 2) 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), and will be retained.

j. Total Residual Chlorine (TRC)

☒ No limit necessary

☐ TRC limits: _____ mg/l (monthly average)
_____ mg/l (instantaneous maximum)

Basis: TRC limits are not required with this renewal. Monitoring for Ultraviolet (UV) intensity will be retained. The measurement frequency was increased 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).

4. Antibacksliding

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

5. Attachment List:

Attachment 1 - WQ Modeling Printouts - Dry Reach
Attachment 2 - WQ Modeling Printouts - Perennial Reach

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

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	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	Report Inst Min	XXX	XXX	XXX	1/day	Grab
CBOD5	2.7	5.3	XXX	Report	Report	80	2/month	24-Hr Composite
TSS	2.8	4.6	XXX	Report	Report	85	2/month	24-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
UV Intensity (µw/cm²)	XXX	XXX	XXX	Report	XXX	XXX	1/day	Measured
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Ammonia-Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	2/month	24-Hr Composite

Samples taken at the following location: Outfall 001, after ultraviolet (UV) light disinifection.

Flow is monitor only based on Chapter 92a.61. The limits for pH, CBOD5, and Total Suspended Solids are water quality-based on 40 CFR 405.62(b). The limits for Dissolved Oxygen are technology-based on Chapter 93.7. The limits for CBOD5 and Total Suspended Solids, are based on 40 CFR 405.62(b). The limits for 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

WQM 7.0 D.O.Simulation (Dry Reach)

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

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
0.500	0.010	24.862	7.475
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
2.017	0.266	7.581	0.030
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
24.36	1.490	24.31	1.018
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
3.945	26.717	Owens	2
Reach Travel Time (days)			
1.030			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.103	20.11	21.89	2.00
0.206	16.60	19.71	2.00
0.309	13.70	17.75	2.00
0.412	11.31	15.98	2.00
0.515	9.33	14.39	2.00
0.618	7.70	12.96	2.00
0.721	6.36	11.67	2.00
0.824	5.25	10.51	2.00
0.927	4.33	9.46	2.00
1.030	3.58	8.52	2.00

Use values as inputs in Perennial Reach Model.

WQM 7.0 Modeling Specifications

Parameters	D.O.	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	Simulation	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	2		

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	**0.500**	1180.00	0.44	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	0.001	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
Whitehall - Dry	PA0239283a	0.0100	0.0000	0.0000	0.000	25.00	7.50

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	2.00	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**	1064.00	0.59	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	0.001	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												
0.500	0.00	0.00	0.00	NA	0.04394	.266	2.02	7.58	0.03	1.030	24.86	7.47
Q1-10 Flow												
0.500	0.00	0.00	0.00	NA	0.04394	NA	NA	NA	0.00	0.000	0.00	0.00
Q30-10 Flow												
0.500	0.00	0.00	0.00	NA	0.04394	NA	NA	NA	0.00	0.000	0.00	0.00

Attachment 2

WQM 7.0 Effluent Limits (Perennial Reach)

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)
14.700	Whitehall - Wet	PA0239283b	0.010	CBOD5	3.58		
				NH3-N	8.52	17.04	
				Dissolved Oxygen			2

Perennial Reach Model outputs are the same as the Dry Reach Model inputs, so the following values are protective:

CBOD5 = 25.0 mg/l

NH3-N = 25.0 mg/l

DO = 4.0 mg/l

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
14.700	0.010	20.903	7.057
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
4.496	0.369	12.191	0.052
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
2.29	0.085	1.54	0.750
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
7.116	19.276	Owens	6
Reach Travel Time (days)			
1.502			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.150	2.26	1.37	8.11
0.300	2.23	1.23	8.11
0.451	2.20	1.10	8.11
0.601	2.17	0.98	8.11
0.751	2.14	0.88	8.11
0.901	2.11	0.78	8.11
1.051	2.08	0.70	8.11
1.202	2.05	0.62	8.11
1.352	2.03	0.56	8.11
1.502	2.00	0.50	8.11

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	**14.700**	1064.00	0.59	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	0.119	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
Whitehall - Wet	PA0239283b	0.0100	0.0000	0.0000	0.000	25.00	7.50

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	3.58	2.00	0.00	1.50
Dissolved Oxygen	2.00	8.24	0.00	0.00
NH3-N	8.52	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	**13.430**	1058.00	309.00	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	0.119	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 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
14.700	Whitehall - Wet	13.95	17.04	13.95	17.04	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
14.700	Whitehall - Wet	1.77	8.52	1.77	8.52	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)		
14.70	Whitehall - Wet	3.58	3.58	8.52	8.52	2	2	0	0

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												
14.700	0.07	0.00	0.07	.0155	0.00089	.369	4.5	12.19	0.05	1.502	20.90	7.06
Q1-10 Flow												
14.700	0.04	0.00	0.04	.0155	0.00089	NA	NA	NA	0.04	1.827	21.28	7.08
Q30-10 Flow												
14.700	0.10	0.00	0.10	.0155	0.00089	NA	NA	NA	0.06	1.300	20.70	7.04