

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

**NPDES PERMIT FACT SHEET
INDIVIDUAL SEWAGE**

Application No. PA0247944
APS ID 563505
Authorization ID 1435055

Applicant and Facility Information

Applicant Name	<u>Spring Grove Area School District</u>	Facility Name	<u>Paradise Elementary School</u>
Applicant Address	<u>100 E College Avenue</u> <u>Spring Grove, PA 17362</u>	Facility Address	<u>6923 Lincoln Highway West</u> <u>Thomasville, PA 17364</u>
Applicant Contact	<u>Mark Czapp</u>	Facility Contact	<u>Mark Czapp</u>
Applicant Phone	<u>(717) 225-4731</u>	Facility Phone	<u>(717) 225-4371</u>
Client ID	<u>71189</u>	Site ID	<u>452628</u>
Ch 94 Load Status	<u>Not Overloaded</u>	Municipality	<u>Paradise Township</u>
Connection Status	<u>No Limitations</u>	County	<u>York</u>
Date Application Received	<u>April 4, 2023</u>	EPA Waived?	<u>Yes</u>
Date Application Accepted	<u>April 11, 2023</u>	If No, Reason	<u></u>
Purpose of Application	<u>Renewal of existing NPDES permit</u>		

Summary of Review

The Spring Grove Area School District (SGASD) has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its NPDES permit for the Paradise Elementary STP. The permit was last reissued to SGASD on September 28, 2018. The permit expired on September 30, 2023 but the terms and conditions of the permit have been administratively extended since that time.

Based on the review outlined in this fact sheet, it is recommended that the permit be drafted and a notice of the draft permit be published in the *Pennsylvania Bulletin* for public comments for 30 days. A file review of documents associated with the discharge or permittee may be available at the PA DEP southcentral regional office (SCRO), 909 Elmerton Avenue, Harrisburg, PA 17110. To make an appointment for file reviews, contact the SCRO file review coordinator at 717.705.4700.

Sludge use and disposal description and location(s): Hauled offsite to Smith's Disposal Facility (Adams County).

Public Participation

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Approve	Deny	Signatures	Date
x		Aaron Baar Aaron Baar / Project Manager	June 1, 2024
x		Maria D. Bebenek for Daniel W. Martin, P.E. / Environmental Engineer Manager	June 20, 2024

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	.004
Latitude	39° 55' 9.02"	Longitude	-76° 55' 36.01"
Quad Name	Abbottstown	Quad Code	1930
Wastewater Description: Sewage Effluent			
Receiving Waters	Unnamed Tributary of Paradise Run (WWF)	Stream Code	08765
NHD Com ID	57470733	RMI	0.74
Drainage Area	0.17 sq. mi.	Yield (cfs/mi ²)	0.0060
Q ₇₋₁₀ Flow (cfs)	0.00102	Q ₇₋₁₀ Basis	USGS StreamStats
Elevation (ft)	507.52	Slope (ft/ft)	
Watershed No.	7-F	Chapter 93 Class.	WWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	SILTATION		
Source(s) of Impairment	CROP PRODUCTION (CROP LAND OR DRY LAND)		
TMDL Status		Name	
Nearest Downstream Public Water Supply Intake	Wrightsville Water Supply Company		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	28.51	Distance from Outfall (mi)	~55 mi.

Changes Since Last Permit Issuance: No changes since the last issuance of the this NPDES permit.

Drainage Area

The discharge is to UNT of Paradise Run at RMI 0.74. A drainage area upstream of the discharge is determined to be 0.17 sq. mi. according to USGS PA StreamStats available at <https://streamstats.usgs.gov/ss/>.

Stream Flow

According to StreamStats, the watershed has a Q₇₋₁₀ of 0.00102 cfs. This information was used to obtain a LFY, a chronic 30-day (Q₃₀₋₁₀) and acute (Q₁₋₁₀) exposure stream flows for the discharge point as follows (Guidance No. 391-2000-023).

$$\begin{aligned}
 Q_{7-10} &= 0.00102 \text{ cfs} \\
 Q_{30-10} &= 1.36 * 0.00102 \text{ cfs} = 0.0014 \text{ cfs} \\
 Q_{1-10} &= 0.64 * 0.00102 \text{ cfs} = 0.0007 \text{ cfs} \\
 LFY &= 0.00102 \text{ cfs} / 0.17 \text{ mi}^2 = 0.0060 \text{ cfs/mi}^2
 \end{aligned}$$

UNT of Paradise Run

25 Pa Code §93.9 classifies the receiving water, UNT of Paradise Run, with a WWF designation. The discharge is in a stream segment listed as not attaining use (siltation) in the 2024 Integrated Report; the source of the impairment has been identified as crop production. Effluent limits for this discharge have been developed to ensure that existing in-stream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

Local Watershed Total Maximum Daily Loads (TMDLs)

According to PA's 2024 Integrated Water Quality Monitoring and Assessment Report, UNT of Paradise Run in the vicinity of the point of discharge is impaired for aquatic life (siltation) due to crop production and recreation (pathogens) due to an unknown source. The both the aquatic life and recreation impairments are listed as Category 5 in the 2024 integrated report, indicating that UNT of Paradise Run is impaired for one or more uses by a pollutant that require the development of a TMDL. A TMDL for this waterway has not been developed to date.

Public Water Supply Intake

The nearest downstream public water supply intake is the Wrightsville Water Supply Co. on the Susquehanna River in York County, approximately 55 miles downstream of this discharge. Considering the distance and nature, the discharge is not expected to significantly affect the water supply.

Class A Wild Trout Streams

The receiving stream is not a Class A Wild Trout stream; therefore, no Class A Wild Trout Fishery is impacted by this discharge.

Treatment Facility Summary				
Treatment Facility Name: Paradise Elementary School - STP				
WQM Permit No.	Issuance Date			
WQM 6705409	May 25, 2006			
Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary With Ammonia Reduction	Extended Aeration	Hypochlorite	0.004
Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.004 mgd	8.01 lbs BOD5/day	Not Overloaded	Aerobic Digestion	Combination of methods

The Spring Grove Area School District (SGASD) owns and operates the sanitary wastewater treatment facility located in Paradise Township, York County. This NPDES permit covers discharges of sewage treated by the Paradise Elementary School STP. The facility only serves the Paradise Elementary School; all sewer systems are 100% separated. With an annual average design flow 0.0040 MGD and a hydraulic design capacity of 0.004 MGD, this facility utilizes an extended aeration system consisting of The WWTP train is as follows:

Bar Screen (1) ⇒ EQ Tank (1) ⇒ Aeration Tank (1) ⇒ Grease Trap (1) ⇒ Clarifier (1) ⇒ Tablet Chlorinator / Chlorine Contact Tank (1) ⇒ Tablet Dechlorinator / Dechlorination Contact Tank (1) ⇒ Discharge

Chemical additions to the treatment process include chlorine tablets, sodium sulfite, and alum. There is no industrial/commercial user contributing industrial wastewater to the sewer system.

Compliance History	
Summary of DMRs:	DMR results for the past year are presented below.
Summary of Inspections:	<p>Since the last renewal of the facility's NPDES permit, the following inspections have been logged:</p> <p>May 5, 2020: An administrative inspection was conducted by Austen Randecker. Operational recommendations were made to monitor ammonia, monitor influent for chemicals during periods of low flow, and collecting daily samples when there is forward flow at the plant, but no violations were noted.</p> <p>May 20, 2020: A CEI was conducted by Austen Randecker. Operational recommendations were made to locate and mark the outfall, to monitor ammonia and nitrogen on a regular basis and to update emergency contacts, but no violations were noted.</p>

Other Comments: As of June 1, 2024, there are no open violations associated with this facility.

Existing Effluent Limitations and Monitoring Requirements

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) ⁽¹⁾		Concentrations (mg/L)				Minimum ⁽²⁾ Measurement Frequency	Required Sample Type
	Monthly	Annual Report Total Annual	Monthly	Monthly Average	Maximum	Instant. Maximum		
Total Nitrogen (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Ammonia (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Phosphorus (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation

Compliance Sampling Location: Outfall 001

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	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	6.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.11	XXX	0.34	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50	1/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60	1/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab

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		
Nitrate-Nitrite (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	6.0	XXX	12.0	1/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	2.0	XXX	4.0	1/month	Grab
Ammonia (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
TKN	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
TKN (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Total Phosphorus (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation

Compliance Sampling Location: Outfall 001

Compliance History

DMR Data for Outfall 001 (from May 1, 2023 to April 30, 2024)

Parameter	APR-24	MAR-24	FEB-24	JAN-24	DEC-23	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23
Flow (MGD) Average Monthly	0.00025	0.00013 9	0.00017	0.00041	0.00013	0.0001	0.00011	0.00031	0.00019	0.00001	0.00002	0.00040 4
Flow (MGD) Daily Maximum	0.00139	0.00048 2	0.0005	0.00577	0.00067	0.00019	0.00023	0.00099	0.00098	0.00013	0.00022	0.00152
pH (S.U.) Instantaneous Minimum	6.21	6.2	6.11	6.54	6.61	6.6	6.45	6.45	6.67	6.6	6.38	6.21
pH (S.U.) Instantaneous Maximum	8.41	8.69	8.3	8.16	7.61	7.63	7.68	7.67	7.48	7.2	7.76	7.98
DO (mg/L) Instantaneous Minimum	7.3	10.59	10.03	6.53	10.03	8.61	7.77	7.89	6.7	8.1	7.37	9.02
TRC (mg/L) Average Monthly	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
TRC (mg/L) Instantaneous Maximum	< 0.02	0.03	0.03	0.02	0.09	0.02	0.03	0.02	< 0.02	< 0.02	< 0.02	< 0.02
CBOD5 (mg/L) Average Monthly	2.8	5.3	4.2	2.7	< 2.4	3.7	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4
CBOD5 (mg/L) Instantaneous Maximum	2.8	5.6	4.2	2.7	< 2.4	3.7	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4
TSS (mg/L) Average Monthly	9.0	5.0	7.0	8.0	4.0	8.0	6.0	4.0	14.0	2.0	4.0	10.0
TSS (mg/L) Instantaneous Maximum	9.0	6.0	7.0	8.0	4.0	8.0	6.0	4.0	14.0	2.0	4.0	10.0
Fecal Coliform (No./100 ml) Geometric Mean	< 1	< 1	< 1	55	< 1	< 1	< 1	9.0	< 1	< 1	1	< 1
Fecal Coliform (No./100 ml) Instantaneous Maximum	< 1	1	< 1	55	< 1	< 1	< 1	9.0	< 1	< 1	1	< 1
Nitrate-Nitrite (mg/L) Average Monthly	< 29.4	< 35.4	< 27.4	< 39.4	< 47.4	< 40.4	< 44.4	< 36.4	< 52.4	< 59.4	< 49.4	< 34.4

NPDES Permit Fact Sheet
Paradise Elementary School

NPDES Permit No. PA0247944

Nitrate-Nitrite (lbs) Total Monthly	< 0.07	< 0.9	< 1	< 0.3	< 2	< 0.7	< 2	< 0.6	< 0.4	< 0.2	< 0.9	< 3
Total Nitrogen (mg/L) Average Monthly	< 37.4	< 42.2	< 31.3	< 41.9	< 49.9	< 40.9	< 44.9	< 36.9	< 52.9	< 59.9	< 49.9	< 34.9
Total Nitrogen (lbs) Total Monthly	< 0.09	< 1	< 2	< 0.3	< 2	< 0.7	< 2	< 0.6	< 0.4	< 0.2	< 0.9	< 3
Ammonia (mg/L) Average Monthly	1.7	4.1	3.9	0.29	0.68	0.19	0.13	0.19	0.15	0.25	0.3	0.36
Ammonia (mg/L) Instantaneous Maximum	1.7	7.0	3.9	0.29	0.68	0.19	0.13	0.19	0.15	0.25	0.3	0.36
Ammonia (lbs) Total Monthly	0.004	0.1	0.2	0.002	0.03	0.003	0.005	0.003	0.001	0.0006	0.005	0.03
TKN (mg/L) Average Monthly	8	< 6.8	3.9	< 2.5	< 2.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
TKN (lbs) Total Monthly	0.02	< 0.2	0.2	< 0.02	< 0.1	< 0.009	< 0.02	< 0.009	< 0.004	< 0.001	< 0.009	< 0.04
Total Phosphorus (mg/L) Average Monthly	2	3.4	2.6	3.2	6	4.5	5.5	2.9	5.5	7	7	5.5
Total Phosphorus (lbs) Total Monthly	0.005	0.08	0.1	0.02	0.2	0.08	0.2	0.05	0.04	0.02	0.1	0.5

Development of Effluent Limitations

Outfall No.	001	Design Flow (MGD)	.004
Latitude	39° 55' 9.00"	Longitude	-76° 55' 36.00"
Wastewater Description:	Sewage Effluent		

Technology-Based Limitations

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

Pollutant	Limit (mg/l)	SBC	Federal Regulation	State Regulation
CBOD ₅	25	Average Monthly	133.102(a)(4)(i)	92a.47(a)(1)
	40	Average Weekly	133.102(a)(4)(ii)	92a.47(a)(2)
Total Suspended Solids	30	Average Monthly	133.102(b)(1)	92a.47(a)(1)
	45	Average Weekly	133.102(b)(2)	92a.47(a)(2)
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)
Fecal Coliform (5/1 – 9/30)	200 / 100 ml	Geo Mean	-	92a.47(a)(4)
Fecal Coliform (5/1 – 9/30)	1,000 / 100 ml	IMAX	-	92a.47(a)(4)
Fecal Coliform (10/1 – 4/30)	2,000 / 100 ml	Geo Mean	-	92a.47(a)(5)
Fecal Coliform (10/1 – 4/30)	10,000 / 100 ml	IMAX	-	92a.47(a)(5)
Total Residual Chlorine	0.5	Average Monthly	-	92a.48(b)(2)

Comments: These standards apply, subject to water quality analysis and BPJ where applicable.

Water Quality-Based Limitations

CBOD₅, NH₃-N and Dissolved Oxygen (DO)

WQM 7.0 version 1.0b is a water quality model designed to assist DEP to determine appropriate permit requirements for CBOD₅, NH₃-N and DO. DEP's guidance no. 391-2000-007 provides the technical methods contained in WQM 7.0 for conducting wasteload allocation and for determining recommended NPDES effluent limits for point source discharges. The discharge from the Paradise Homes STP (PA0083721) into the UNT of Paradise Run at RMI 0.12 was considered in the modeling.

The model was utilized, and the model output indicated that existing WQBEL of 25 mg/L (AVG) and 50.0 (Peak Instant) for CBOD₅ is still appropriate.

However, the model output indicated that the existing WQBELs for NH₃-N (2.0 mg/L (AVG) and 4.0 (Peak Instant) for warm weather months and 6.0 mg/L (AVG) and 12.0 (Peak Instant) for cold weather months) are no longer protective of water quality. New limits are proposed in this permit:

- Warm Weather: 1.6 mg NH₃-N/L (AVG) and 3.3 mg NH₃-N/L (Peak Instant)
- Cold Weather: 4.8 mg NH₃-N/L (AVG) and 9.9 mg NH₃-N/L (Peak Instant)

A review of the facility's DMR records indicate that the existing facility is already meeting the proposed limits on a consistent basis.

The model indicates that the existing DO limit of 5.0 mg/L is no longer protective of water quality. A new limit of 6.0 mg DO/L is proposed. A review of the facility's DMR records indicate that the existing facility is already meeting the proposed limits on a consistent basis.

Toxics

DEP's NPDES permit application for minor sewage facilities (less than 0.1 MGD) does not require sampling for heavy metals including Total Copper, Total Lead, and Total Zinc unless the facility receives commercial or industrial wastewater.

Best Professional Judgment (BPJ) Limitations

Total Phosphorus & Total Nitrogen

DEP's SOP no. BPNPSM-PMT-033 (Establishing Effluent Limitations for Individual Sewage Permits) recommends monitoring requirements for Total Phosphorus and Total Nitrogen for all sewage facilities. Therefore, a routine monitoring for TKN, Nitrate-Nitrite, and TN are recommended to be continued in this permit. Sampling frequency for TKN, Nitrate-Nitrite, TN, and TP are currently required 1/month. No change is proposed in this renewal.

Total Residual Chlorine

Since chlorine is used for disinfection, Total Residual Chlorine (TRC) effluent levels must be regulated in accordance with 25 Pa Code §92a.48(b). DEP's TRC_CALC worksheet was utilized to determine if the existing limits are still appropriate. The worksheet indicated that existing limits for TRC (0.11 mg/L AVG/0.34 mg/L Peak Instant) are no longer protective of water quality. Updated TRC limits (0.03 mg/L AVG/0.10 mg/L Peak Instant) are proposed in this permit. A review of the facility's DMR records indicate that the existing facility is already meeting the proposed limits on a consistent basis.

Additional Considerations

Flow Monitoring

The requirement to monitor the volume of effluent will remain in the permit per 40 CFR § 122.44(i)(1)(ii).

E. Coli Monitoring

In conformity with the Department's *Establishing Effluent Limitations for Individual Sewage Permits* (SOP No. BCW-PMT-033) and as authorized by § 92a.61 of the PA Code, annual E. Coli monitoring has been proposed in this permit. The collection method will be via grab sample.

Chesapeake Bay TMDL

The Department formulated a strategy in April 2007, to comply with the EPA's and Chesapeake Bay Foundation's requirements to reduce point source loadings of Total Nitrogen (TN) and Total Phosphorus (TP) to the Bay. In the Strategy, sewage dischargers have been prioritized by Central Office based on their delivered TN loadings to the Bay. The highest priority (Phases 1, 2, and 3) dischargers received annual loading caps based on their design flow on August 29, 2005 and concentrations of 6 mg/l TN and 0.8 mg/l TP. Phase 4 (0.2 -0.4mgd) and Phase 5 (below 0.2mgd) facilities were required to monitor and report TN and TP during permit renewal at a monitoring frequency following Table 6-3 of DEP's Technical Guidance for Development and Specification of effluent Limitations (No. 362-0400-001).

EPA published the Chesapeake Bay Total Maximum Daily Load (TMDL) in December of 2010. Despite extensive restoration efforts during the past 25 years, the TMDL was prompted by insufficient progress and continued poor water quality in the Chesapeake Bay and its tidal tributaries.

In order to address the TMDL, Pennsylvania developed, in addition to the Bay Strategy, a Chesapeake Watershed Implementation Plan (WIP) Phase 1 in January 2011, Phase 2 in March 2012 and Phase 3 in December 2019. In accordance with the Phase 3 WIP, re-issuing permits for significant dischargers follow the same phased approach formulated in the original Bay strategy, whilst Phase 4 and Phase 5 will be required to monitor and report TN and TP during permit renewal.

The Phase 3 WIP categorizes this facility as a phase 5 non-significant sewage facility that has a design flow less than 0.2 MGD but greater than 0.002 MGD. The WIP recommends monitoring and reporting for Total Nitrogen and Total Phosphorus throughout the permit term at a frequency no less than annual. As discussed previously, monthly testing of these pollutants is proposed in this permit.

Monitoring Frequency and Sample Type

Unless discussed otherwise above, the permit's monitoring frequency and sample type for all parameters will remain unchanged from the last permit renewal.

Antidegradation Requirements

All effluent limitations and monitoring requirements have been developed to ensure that existing instream water uses and the level of water quality necessary to protect the existing uses are maintained and protected.

Anti-backsliding Requirement

All effluent limits proposed in this fact sheet are as stringent as effluent limits specified in the existing permit renewal. This approach is in accordance with 40 CFR §122.44(l)(1).

Annual Fees

An annual fee clause was added to the permit in accordance with 25 Pa. Code § 92a.62. The facility covered by the permit is classified in the Minor Sewage Facility <0.05 MGD fee category, which has an annual fee of \$500.

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
	Monthly	Annual	Monthly	Monthly Average	Maximum	Instant. Maximum		
Total Nitrogen (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Ammonia (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation
Total Phosphorus (lbs)	XXX	Report Total Annual	XXX	XXX	XXX	XXX	1/year	Calculation

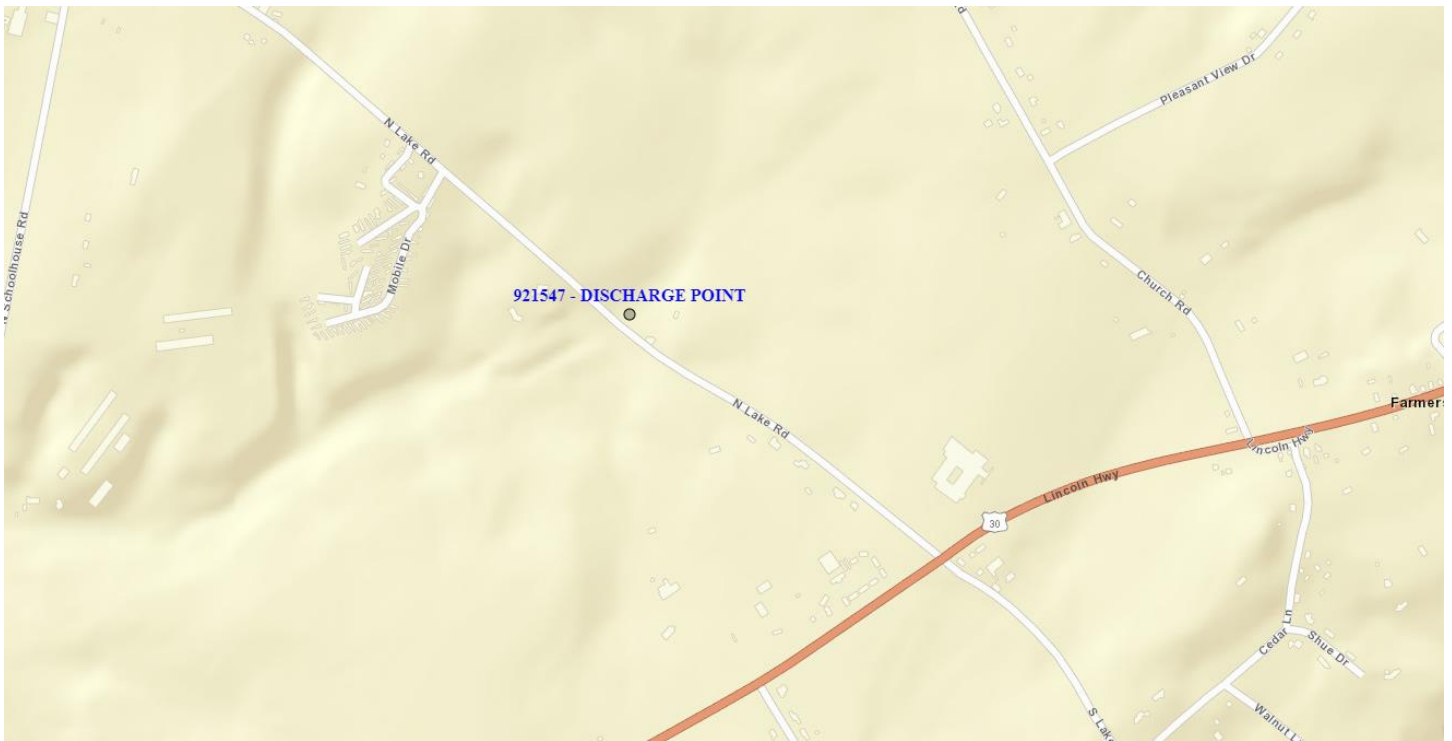
Compliance Sampling Location: Outfall 001

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	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
DO	XXX	XXX	6.0 Inst Min	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.03	XXX	0.10	1/day	Grab
CBOD5	XXX	XXX	XXX	25.0	XXX	50	1/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60	1/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000	1/month	Grab

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		
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000	1/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Nitrate-Nitrite	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Nitrate-Nitrite (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Nitrogen	XXX	XXX	XXX	Report	XXX	XXX	1/month	Calculation
Total Nitrogen (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	4.8	XXX	9.9	1/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	1.6	XXX	3.3	1/month	Grab
Ammonia (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
TKN	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
TKN (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation
Total Phosphorus	XXX	XXX	XXX	Report	XXX	XXX	1/month	Grab
Total Phosphorus (lbs)	Report Total Mo	XXX	XXX	XXX	XXX	XXX	1/month	Calculation

Compliance Sampling Location: Outfall 001

Tools and References Used to Develop Permit	
<input checked="" type="checkbox"/>	WQM for Windows Model (see Attachment [REDACTED])
<input type="checkbox"/>	Toxics Management Spreadsheet (see Attachment [REDACTED])
<input checked="" type="checkbox"/>	TRC Model Spreadsheet (see Attachment [REDACTED])
<input type="checkbox"/>	Temperature Model Spreadsheet (see Attachment [REDACTED])
<input type="checkbox"/>	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
<input checked="" type="checkbox"/>	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
<input type="checkbox"/>	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
<input type="checkbox"/>	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
<input type="checkbox"/>	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
<input type="checkbox"/>	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
<input type="checkbox"/>	Pennsylvania CSO Policy, 386-2000-002, 9/08.
<input type="checkbox"/>	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
<input type="checkbox"/>	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
<input checked="" type="checkbox"/>	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
<input type="checkbox"/>	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
<input type="checkbox"/>	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
<input type="checkbox"/>	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
<input type="checkbox"/>	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
<input type="checkbox"/>	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
<input type="checkbox"/>	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
<input type="checkbox"/>	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
<input type="checkbox"/>	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
<input type="checkbox"/>	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
<input type="checkbox"/>	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
<input type="checkbox"/>	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
<input type="checkbox"/>	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
<input type="checkbox"/>	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
<input type="checkbox"/>	Design Stream Flows, 386-2000-003, 9/98.
<input type="checkbox"/>	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
<input type="checkbox"/>	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
<input type="checkbox"/>	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
<input type="checkbox"/>	SOP: [REDACTED]
<input type="checkbox"/>	Other: [REDACTED]

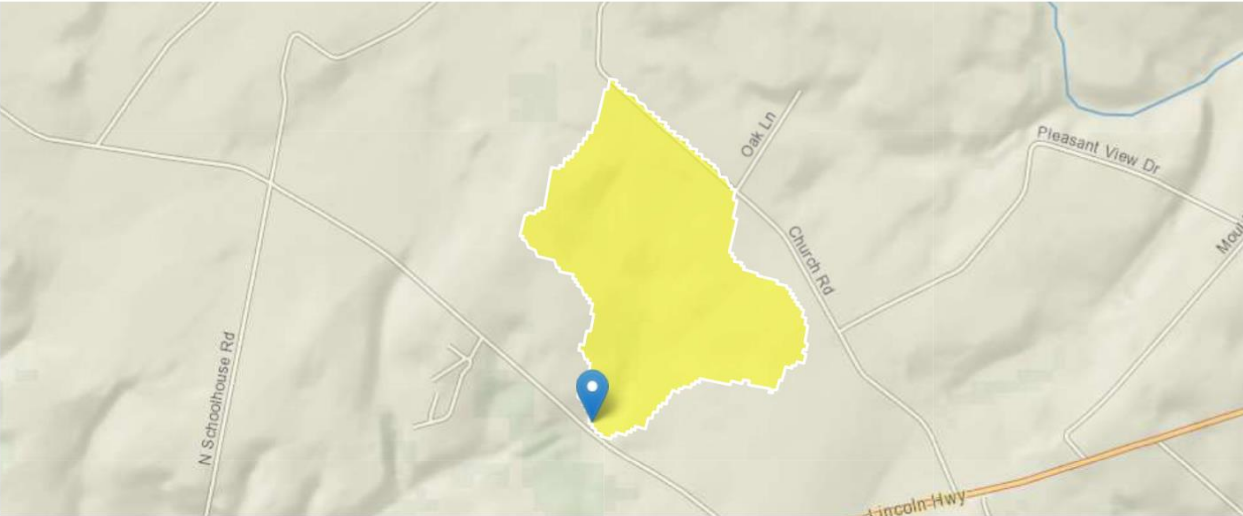


TRC_CALC

1A	B	C	D	E	F	G
2	TRC EVALUATION					
3	Input appropriate values in B4:B8 and E4:E7					
4	0.00102	= Q stream (cfs)		0.5	= CV Daily	
5	0.004	= Q discharge (MGD)		0.5	= CV Hourly	
6	30	= no. samples		1	= AFC_Partial Mix Factor	
7	0.3	= Chlorine Demand of Stream		1	= CFC_Partial Mix Factor	
8	0	= Chlorine Demand of Discharge		15	= AFC_Criteria Compliance Time (min)	
9	0.11	= BAT/BPJ Value		720	= CFC_Criteria Compliance Time (min)	
	0	= % Factor of Safety (FOS)			=Decay Coefficient (K)	
10	Source	Reference	AFC Calculations		Reference	CFC Calculations
11	TRC	1.3.2.iii	WLA_afc = 0.072		1.3.2.iii	WLA_cfc = 0.062
12	PENTOXSD TRG	5.1a	LTAMULT_afc = 0.373		5.1c	LTAMULT_cfc = 0.581
13	PENTOXSD TRG	5.1b	LTA_afc= 0.027		5.1d	LTA_cfc = 0.036
14						
15	Source	Effluent Limit Calculations				
16	PENTOXSD TRG	5.1f	AML_MULT = 1.231			
17	PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.033		AFC	
18			INST MAX LIMIT (mg/l) = 0.107			
	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)				

StreamStats Report

Region ID: PA
Workspace ID: PA20240601121511542000
Clicked Point (Latitude, Longitude): 39.91915, -76.92670
Time: 2024-06-01 08:15:31 -0400



Collapse All

➤ Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	1.7219	degrees
DRNAREA	Area that drains to a point on a stream	0.17	square miles
ROCKDEP	Depth to rock	4	feet
URBAN	Percentage of basin with urban development	0	percent

➤ Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.17	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	1.7219	degrees	1.7	6.4
ROCKDEP	Depth to Rock	4	feet	4.13	5.21
URBAN	Percent Urban	0	percent	0	89

Low-Flow Statistics Disclaimers [Low Flow Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Low-Flow Statistics Flow Report [Low Flow Region 1]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.00447	ft ³ /s
30 Day 2 Year Low Flow	0.00824	ft ³ /s
7 Day 10 Year Low Flow	0.00102	ft ³ /s
30 Day 10 Year Low Flow	0.0021	ft ³ /s
90 Day 10 Year Low Flow	0.0064	ft ³ /s

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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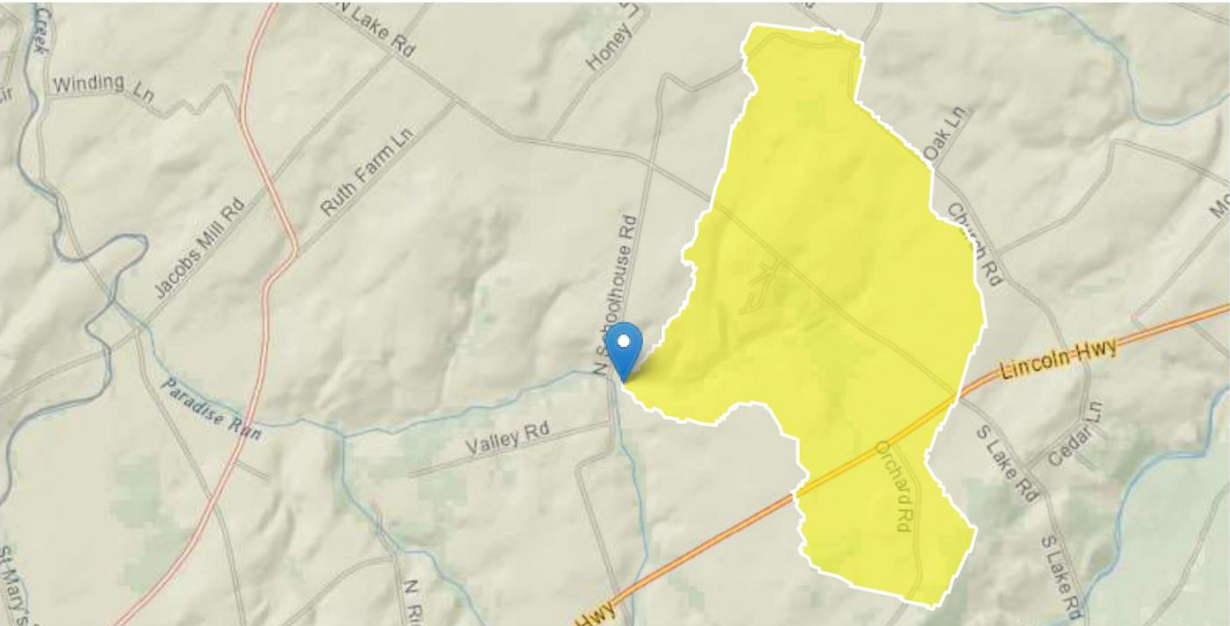
Application Version: 4.20.1

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

StreamStats Report

Region ID: PA
Workspace ID: PA20240601122524955000
Clicked Point (Latitude, Longitude): 39.91606, -76.93895
Time: 2024-06-01 08:25:45 -0400



+ Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	2.2127	degrees
DRNAREA	Area that drains to a point on a stream	0.99	square miles
ROCKDEP	Depth to rock	4	feet
URBAN	Percentage of basin with urban development	0.199	percent

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.99	square miles	4.78	1150

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
BSLOPD	Mean Basin Slope degrees	2.2127	degrees	1.7	6.4
ROCKDEP	Depth to Rock	4	feet	4.13	5.21
URBAN	Percent Urban	0.199	percent	0	89

Low-Flow Statistics Disclaimers [Low Flow Region 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Low-Flow Statistics Flow Report [Low Flow Region 1]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.0363	ft ³ /s
30 Day 2 Year Low Flow	0.0625	ft ³ /s
7 Day 10 Year Low Flow	0.00988	ft ³ /s
30 Day 10 Year Low Flow	0.0185	ft ³ /s
90 Day 10 Year Low Flow	0.0484	ft ³ /s

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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Application Version: 4.20.1

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

WQM 7.0 Effluent Limits

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>					
07F	8765	Trib 08765 of Beaver 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)
0.740	Paradise Elem	PA0247944	0.004	CBOD5	25		
				NH3-N	1.67	3.34	
				Dissolved Oxygen			6
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)
0.120	Paradise Homes	PA0083721	0.020	CBOD5	15		
				NH3-N	1.5	3	
				Dissolved Oxygen			6

WQM 7.0 Wasteload Allocations

<u>SWP Basin</u>	<u>Stream Code</u>	<u>Stream Name</u>
07F	8765	Trib 08765 of Beaver 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
0.740	Paradise Elem	11.07	12.24	11.07	12.24	0	0
0.120	Paradise Homes	16.62	3	15.55	3	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
0.740	Paradise Elem	1.37	1.67	1.37	1.67	0	0
0.120	Paradise Homes	1.86	1.5	1.77	1.5	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)		
0.74	Paradise Elem	25	25	1.67	1.67	6	6	0	0
0.12	Paradise Homes	15	15	1.5	1.5	6	6	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name		
07F	8765	Trib 08765 of Beaver Creek		
<u>RMl</u>	<u>Total Discharge Flow (mgd)</u>	<u>Analysis Temperature (°C)</u>	<u>Analysis pH</u>	
0.740	0.004	25.000	7.000	
<u>Reach Width (ft)</u>	<u>Reach Depth (ft)</u>	<u>Reach WDRatio</u>	<u>Reach Velocity (fps)</u>	
1.536	0.236	6.519	0.020	
<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>	
21.75	0.997	1.44	1.029	
<u>Reach DO (mg/L)</u>	<u>Reach Kr (1/days)</u>	<u>Kr Equation</u>	<u>Reach DO Goal (mg/L)</u>	
6.317	25.686	Owens	6	
<u>Reach Travel Time (days)</u>				
1.903				
	Subreach Results			
	TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
	0.190	17.13	1.18	6.83
	0.381	13.49	0.97	7.15
	0.571	10.63	0.80	7.41
	0.761	8.37	0.66	7.54
	0.951	6.59	0.54	7.54
	1.142	5.19	0.44	7.54
	1.332	4.09	0.37	7.54
	1.522	3.22	0.30	7.54
	1.712	2.54	0.25	7.54
	1.903	2.00	0.20	7.54
<u>RMl</u>	<u>Total Discharge Flow (mgd)</u>	<u>Analysis Temperature (°C)</u>	<u>Analysis pH</u>	
0.120	0.024	20.943	7.000	
<u>Reach Width (ft)</u>	<u>Reach Depth (ft)</u>	<u>Reach WDRatio</u>	<u>Reach Velocity (fps)</u>	
2.175	0.317	6.872	0.055	
<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>	
12.55	1.450	1.26	0.753	
<u>Reach DO (mg/L)</u>	<u>Reach Kr (1/days)</u>	<u>Kr Equation</u>	<u>Reach DO Goal (mg/L)</u>	
6.290	26.815	Owens	6	
<u>Reach Travel Time (days)</u>				
0.131				
	Subreach Results			
	TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
	0.013	12.30	1.24	6.73
	0.026	12.06	1.23	7.05
	0.039	11.82	1.22	7.28
	0.053	11.59	1.21	7.45
	0.066	11.36	1.20	7.58
	0.079	11.14	1.18	7.67
	0.092	10.92	1.17	7.74
	0.105	10.70	1.16	7.80
	0.118	10.49	1.15	7.85
	0.131	10.29	1.14	7.88

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	6		

WQM 7.0 Hydrodynamic Outputs

<u>SWP Basin</u>		<u>Stream Code</u>				<u>Stream Name</u>						
07F		8765				Trib 08765 of Beaver 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												
0.740	0.00	0.00	0.00	.0062	0.00608	.236	1.54	6.52	0.02	1.903	25.00	7.00
0.120	0.00	0.00	0.00	.0371	0.04991	.317	2.18	6.87	0.06	0.131	20.94	7.00
Q1-10 Flow												
0.740	0.00	0.00	0.00	.0062	0.00608	NA	NA	NA	0.02	1.959	25.00	7.00
0.120	0.00	0.00	0.00	.0371	0.04991	NA	NA	NA	0.06	0.132	20.90	7.00
Q30-10 Flow												
0.740	0.00	0.00	0.00	.0062	0.00608	NA	NA	NA	0.02	1.851	25.00	7.00
0.120	0.00	0.00	0.00	.0371	0.04991	NA	NA	NA	0.06	0.131	20.98	7.00

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
07F	8765	Trib 08765 of Beaver Creek	0.740	507.52	0.17	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 Temp (°C)	pH	Stream Temp (°C)	pH
	(cfsm)	(cfs)	(cfs)									
Q7-10	0.100	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
Paradise Elem	PA0247944	0.0040	0.0040	0.0040	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	5.00	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
07F	8765	Trib 08765 of Beaver Creek	0.120	487.62	0.25	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	0.011	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
Paradise Homes	PA0083721	0.0200	0.0200	0.0200	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	15.00	2.00	0.00	1.50
Dissolved Oxygen	5.00	8.24	0.00	0.00
NH3-N	1.50	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
07F	8765	Trib 08765 of Beaver Creek	0.001	456.26	1.04	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	0.013	0.01	0.01	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	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