pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0232963**
Facility Type	**Industrial**	APS ID	**1092348**
Major / Minor	**Minor**	Authorization ID	**1446408**

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

Applicant and Facility Information

Applicant Name	**American Truck Plazas, LLC**	Facility Name	**Penn 80 Milton/Flying J**
Applicant Address	1460 N Ridge Road	Facility Address	1460 N Ridge Road
	Milton, PA 17847-7877		Milton, PA 17847-7877
Applicant Contact	Jamie Hummel	Facility Contact	Jamie Hummel
Applicant Phone	(570) 772-4912	Facility Phone	(570) 772-4912
Client ID	282180	Site ID	257348
SIC Code	4952	Municipality	Turbot Township
SIC Description	Trans. & Utilities - Sewerage Systems	County	Northumberland
Date Application Received	June 30, 2023	EPA Waived?	Yes
Date Application Accepted	July 12, 2023	If No, Reason	

Purpose of Application: Renewal of a NPDES Permit

Summary of Review

This American Truck Plazas facility is a truck/auto stop including diesel and gasoline fueling, truck maintenance, convenience store, restaurant and truck wash in Turbot Township, Northumberland County. A map indicating the location is attached (Attachment A).

Sludge use and disposal description and location(s): The facility's sludge is sent to other wastewater treatment facilities for further processing.

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		Keith C. Allison Keith C. Allison / Project Manager	January 18, 2024
X		N. W. H. Nicholas W. Hartranft, P.E. / Environmental Engineer Manager	January 18, 2024

Discharge, Receiving Waters and Water Supply Information

Outfall No.	005	Design Flow (MGD)	0.075
Latitude	41º 1' 24.68"	Longitude	-76º 47' 50.09"
Quad Name	Milton, PA	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Limestone Run	Stream Code	19094
NHD Com ID	66919497	RMI	3.8
Drainage Area	8.4 mi^2	Yield (cfs/mi^2)	0.132
Q_{7-10} Flow (cfs)	1.11	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	487	Slope (ft/ft)	0.00154
Watershed No.	10-D	Chapter 93 Class.	WWF, MF
Existing Use	N/A	Existing Use Qualifier	N/A
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	SILTATION, PATHOGENS		
Source(s) of Impairment	AGRICULTURE		
TMDL Status	Final	Name	Limestone Run TMDL
Nearest Downstream Public Water Supply Intake	PA American Water Company – Milton, PA		
PWS Waters	West Branch Susquehanna River	Distance from Outfall (mi)	Approx. 4.5

Changes Since Last Permit Issuance: None. The above stream and drainage characteristics were determined for previous review and remain adequate.

Other Comments:

In addition to sewage, the treatment plant also receives wastewater from a truck wash.

This discharge is not expected to affect the impairment to Limestone Run at this time with the limitations and monitoring proposed. The Limestone Run TMDL does not list specific point source discharges in the watershed but does include a sediment Wasteload allocation for point sources of 80 pounds per day. This discharge at design flow of 0.075 MGD and the average monthly limit of 30 mg/L TSS would contribute only 0.27 pounds per day to the watershed. Therefore, no more stringent wasteload limit should be included in the permit at this time. In addition, this discharge consistently meets its fecal coliform limits.

No downstream water supply is expected to be affected by this discharge at this time with the requirements, effluent limitations, and monitoring requirements proposed for this NPDES permit.

Stormwater Discharges from Industrial Activities

Stormwater discharges from the facility have been regulated under requirements of the Pennsylvanian Clean Streams Law and 40 CFR 122.26(a)(9)(i)(D) due to the prior occurrence of polluting discharges from the facility's stormwater system.

Four outfalls have been identified in the application as receiving stormwater runoff, designated as 001, 002, 003 and 004.

The closest applicable Appendix of the PAG-03 General Permit for the Discharge of Stormwater from Industrial Activities would be Appendix L for Petroleum Stations and Terminals. Appendix L currently requires twice per year monitoring of stormwater discharges for Total Nitrogen, Total Phosphorus, Total Suspended Solids (TSS), and Oil and Grease. This monitoring will be applied including the addition of TN and TP monitoring and the reduction in frequency from quarterly to 2/year.

The facility had three oil/water separators (OWSs), one serving the diesel fuel dispenser area, one serving the truck maintenance garage, and one serving the truck wash. The OWS for the truck fueling island discharges to the sedimentation basin that discharges at Outfall 004. The OWS for the maintenance garage has been converted to a storage tank and therefore should not discharge unless it overflows. The truck wash OWS discharges to the Sewage Treatment Plant.

The permittee has conducted periodic spray down or grit wash of the diesel fuel dispenser area. To monitor the potential pollutant impacts of discharges from this operation, monitoring is required at the discharge from the Oil Water Separator (OWS) when discharging for Total Suspended Solids and Oil and Grease.

In addition, to avoid washout of grit or oily substances from the OWS serving the diesel dispenser area and holding tank serving the truck maintenance building, a weekly check of each OWS will be included in the permit. These will be identified in the permit as IMPs 104 and 105, respectively. Monitoring will be of both the grit depth and the oil layer thickness.

All stormwater Outfalls 001-004 ultimately discharge to the Limestone Run (WWF). The Part C condition of this NPDES permit will also include the applicable benchmark values from the PAG-03 (100 mg/L for TSS and 30 mg/L for Oil and Grease).

Outfall Nos	001, 002, 003, & 004	Design Flow (MGD)	0
Latitude	001 – 41º 1' 8.3" 002 – 41º 1' 11.2" 003 – 41º 1' 10.7" 004 – 41º 1' 11.7"	Longitude	001 – 76º 47' 32.4" 002 – 76º 47' 38.3" 003 – 76º 47' 42.1" 004 – 76º 48' 1.0"

Wastewater Description: Stormwater for 001, 002 and 003, Stormwater and Industrial Wastewater for 004

Receiving Waters	Limestone Run (UNT to Limestone Run for 001)	Stream Code	19094
NHD Com ID	66919497	RMI	3.8 – 4.2

Treatment Facility Summary

Treatment Facility Name: American Truck Plazas LLC WWTP

WQM Permit No.	Issuance Date	Permit For:
4993404	Original-3/1/94 Transfer – 11/9/09 Transfer – 11/8/10	Construction and operation of the existing treatment plant.

Waste Type	Degree of Treatment	Process Type	Disinfection	Avg Annual Flow (MGD)
Sewage	Secondary	Extended Aeration	Sodium Hypochlorite	0.075

Hydraulic Capacity (MGD)	Organic Capacity (lbs/day)	Load Status	Biosolids Treatment	Biosolids Use/Disposal
0.075	200.16	Not Overloaded	Sludge holding	Other STP

Changes Since Last Permit Issuance: None

Other Comments: The sewage treatment facility, as permitted under WQM permit No. 4993404-T2, consists of a 25,000-gallon equalization tank, two 37,500-gallon aeration tanks, two clarifiers, liquid hypochlorite disinfection with contact tank, and 25,000-gallon sludge holding tank.

Compliance History

DMR Data for Outfall 001 (from December 1, 2022 to November 30, 2023)

Parameter	3rd Quarter 2023	2nd Quarter 2023	1st quarter 2023	4th quarter 2022
TSS (mg/L) Daily Maximum	10.0	10.4	22.4	106
Oil and Grease (mg/L) Daily Maximum	< 5.60	< 5.45	< 5.45	< 6.00

DMR Data for Outfall 002 (from December 1, 2022 to November 30, 2023)

Parameter	3rd Quarter 2023	2nd Quarter 2023	1st quarter 2023	4th quarter 2022
TSS (mg/L) Daily Maximum	9.20	12.4	10.4	54.8
Oil and Grease (mg/L) Daily Maximum	< 5.20	< 5.45	< 5.35	< 6.25

DMR Data for Outfall 003 (from December 1, 2022 to November 30, 2023)

Parameter	3rd Quarter 2023	2nd Quarter 2023	1st quarter 2023	4th quarter 2022
TSS (mg/L) Daily Maximum	5.20	10.4	18	13.2
Oil and Grease (mg/L) Daily Maximum	< 5.50	< 5.55	< 6.10	< 6.15

DMR Data for Outfall 004 (from December 1, 2022 to November 30, 2023)

Parameter	3rd Quarter 2023	2nd Quarter 2023	1st quarter 2023	4th quarter 2022
TSS (mg/L) Daily Maximum	11.6	7.60	14.8	728
Oil and Grease (mg/L) Daily Maximum	< 5.25	< 5.15	< 5.45	< 6.15

DMR Data for Outfall 005 (from December 1, 2022 to November 30, 2023)

Parameter	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22
Flow (MGD) Average Monthly	0.005	0.005	0.005	0.006	0.006	0.005	0.005	0.005	0.004	0.007	0.004	0.005
pH (S.U.) Instantaneous Minimum	7.6	7.8	7.3	7.4	7.5	7.5	7.3	7.6	7.8	7.7	7.5	7.3
pH (S.U.) Instantaneous Maximum	8.2	8.8	8.0	7.8	7.8	8.1	8.0	8.2	8.2	8.2	8.0	7.7
DO (mg/L) Instantaneous Minimum	9.8	8.08	6.3	7.0	6.1	7.1	7.5	7.61	1.65	4.7	3.51	5.2
TRC (mg/L) Average Monthly	0.3	0.4	0.31	0.25	0.3	0.3	0.3	0.17	0.29	0.2	0.26	0.3
TRC (mg/L) Instantaneous Maximum	0.7	0.9	0.67	0.7	1.0	0.9	0.8	0.74	0.54	0.6	0.63	0.8
CBOD5 (mg/L) Average Monthly	7.0	< 3.00	< 4.0	< 3.00	< 3.00	< 3.00	< 5.0	3.6	5.8	< 3.00	5.0	10.5
CBOD5 (mg/L) Instantaneous Maximum	8.0	< 3.00	4.0	< 3.00	< 3.00	< 3.00	7.0	4.23	8.7	< 3.00	7.0	12.8
TSS (mg/L) Average Monthly	7.0	6.0	6.0	5.2	8.00	3.00	4.0	10.6	2.8	22.8	20.1	48.1
TSS (mg/L) Instantaneous Maximum	7.0	8.0	8.0	8.80	8.00	4.00	4.0	10.8	2.8	22.8	28.5	44.2
Total Dissolved Solids (mg/L) Daily Maximum			1610			1710			2980			1490
Oil and Grease (mg/L) Average Quarterly			< 4.9			< 5.00			< 5.0			< 4.80
Oil and Grease (mg/L) Instantaneous Maximum			< 4.9			< 5.00			< 5.0			< 4.80
Fecal Coliform (No./100 ml) Geometric Mean	15.0	3.0	5.0	2.28	25.0	< 1.0	2.0	24.9	< 1.0	17.3	22.6	202.8
Fecal Coliform (No./100 ml) Instantaneous Maximum	17.0	7.0	7.0	5.2	125.0	2.0	3.0	32.7	< 1.0	17.3	83.9	1046.2
Ammonia (mg/L) Average Monthly	< 0.1000	< 0.1000	< 0.1000	< 0.1000	< 0.1000	< 0.1000	< 0.1000	< 0.1000	< 0.1000	< 0.1000	0.77	< 0.2000

Ammonia (mg/L) Instantaneous Maximum	< 0.1000	< 0.1000	< 0.1000	< 0.1000	< 0.1000	< 0.1000	< 0.1000	< 0.1000	< 0.1000	< 0.1000	1.340	< 0.2000

DMR Data for Outfall 104 (from December 1, 2022 to November 30, 2023)

Parameter	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22
TSS (mg/L) Internal Monitoring Point Daily Maximum	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG
Oil and Grease (mg/L) Internal Monitoring Point Daily Maximum	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG	GG
Depth to Water Level (In) Internal Monitoring Point Daily Maximum	2	2	2	2	2	2	2	2	2	2	2	2
Depth to Water Level (In) Internal Monitoring Point Daily Maximum	19	19	19	19	15	15	15	15	15	13	13	13

DMR Data for Outfall 105 (from December 1, 2022 to November 30, 2023)

Parameter	NOV-23	OCT-23	SEP-23	AUG-23	JUL-23	JUN-23	MAY-23	APR-23	MAR-23	FEB-23	JAN-23	DEC-22
Depth to Water Level (In) Internal Monitoring Point Daily Maximum	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water Level (In) Internal Monitoring Point Daily Maximum	1	1	1	1	1	1	1	1	1	1	1	1

Compliance History, Cont'd

Effluent Violations for Outfall 005, from: December 1, 2022 to: November 30, 2023

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
TSS	12/31/22	Avg Mo	48.1	mg/L	30	mg/L

Compliance History, Cont'd

Summary of Inspections:	The facility has been inspected at least annually over the past permit term. The most recent inspection on June 23, 2023 noted a TSS effluent violation but identified no operational violations at the time of inspection.
Other Comments:	There are no open violations for American Truck Plazas in eFACTS.

Existing Effluent Limitations and Monitoring Requirements – Outfall 001, 002, 003, & 004 (Stormwater)								
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**	**Daily Maximum**	**Instant. Maximum**		
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

Existing Effluent Limitations and Monitoring Requirements – IMP 104 (Diesel dispenser OWS)								
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**	**Daily Maximum**	**Maximum**	**Instant. Maximum**		
TSS Internal Monitoring Point	XXX	XXX	XXX	Report	XXX	XXX	Daily when Discharging	Grab
Oil and Grease Internal Monitoring Point	XXX	XXX	XXX	Report	XXX	XXX	Daily when Discharging	Grab
Depth to Water Level (In) Internal Monitoring Point	XXX	Report*	XXX	Report**	XXX	XXX	1/week	Measured

* - Report Oil Layer Thickness
** - Report Sediment Depth

Proposed Effluent Limitations and Monitoring Requirements – IMP 105 (Truck Maintenance OWS)								
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**	**Daily Maximum**	**Maximum**	**Instant. Maximum**		
Depth to Water Level (In) Internal Monitoring Point	XXX	Report*	XXX	Report**	XXX	XXX	1/week	Measured

* - Report Oil Layer Thickness
** - Report Sediment Depth

Existing Effluent Limitations and Monitoring Requirements – Outfall 005 (WWTP)								
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	XXX	XXX	XXX	XXX	XXX	Continuous	Metered
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
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	2/month	Grab
Total Dissolved Solids	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/quarter	Grab
Oil and Grease	XXX	XXX	XXX	15 Avg Qrtly	XXX	30	1/quarter	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
Total Nitrogen	Report Annl Avg	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/year	Grab
Ammonia	XXX	XXX	XXX	Report	XXX	Report	2/month	Grab
Total Phosphorus	Report Annl Avg	Report Daily Max	XXX	Report Daily Max	XXX	XXX	1/year	Grab

Development of Effluent Limitations

Outfall No. 005 **Design Flow (MGD)** 0.075
Latitude 41º 1' 12.00" **Longitude** -76º 48' 1.00"
Wastewater Description: Sewage Effluent

Technology-Based Limitations

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

Parameter	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: The above limits are applicable and included in the existing permit.

Water Quality-Based Limitations

DO, CBOD5 and NH3-N

The WQM7.0 model allows the Department to evaluate point source discharges of dissolved oxygen (DO), carbonaceous BOD ($CBOD_5$), and ammonia-nitrogen (NH_3-N) into free-flowing streams and rivers. To accomplish this, the model simulates two basic processes: the mixing and degradation of NH_3-N in the stream and the mixing and consumption of DO in the stream due to the degradation of $CBOD_5$ and NH_3-N. WQM7.0 modeling was performed for the previous review for this discharge to the Limestone Run (see Attachment B) and showed that no limitations are necessary for these parameters beyond the technology-based secondary treatment limits listed above.

TRC

The above-listed BAT Total Residual Chlorine limit from 92a.48(b)(2) is applicable to the facility. The Department uses a modeling spreadsheet to determine necessary WQBELs for TRC toxicity based on instream dilution. The attached modeling results (See Attachment C) show that the BAT limit of 0.5 mg/l is adequate to protect the receiving stream.

Toxics Management

No additional “Reasonable Potential Analysis” was performed to determine additional toxic parameters as candidates for limitations for this STP discharge. However, see below under BPJ Limitations for requirements for Total Dissolved Solids and Oil and Grease.

Chesapeake Bay Requirements

A portion of the Chesapeake Bay and many of its tidal tributaries have been listed as impaired under Section 303(d) of the Water Pollution Control Act, 33 U.S.C. §1313(d). Total Nitrogen and Total Phosphorus cap loads have been established for significant dischargers in Pennsylvania to reduce the total nutrient load to the Bay and meet State of Maryland Water Quality Standards. This treatment plant is considered an existing Phase 5, insignificant Chesapeake Bay discharger per the Phase III Watershed Implementation Plan (WIP) and thus has not received Cap Loads. Annual monitoring under the current has resulted in an average TN concentration of 14 mg/L and an average TP concentration of 8.0 mg/L. Because adequate monitoring has been performed for the current permit term no additional monitoring for total nitrogen and total phosphorus will be required at this time.

Best Professional Judgment (BPJ) Limitations

Comments: Pursuant to BPJ and due to discharge from the car wash and other potential sources quarterly monitoring of the STP discharge for Total Dissolved Solids (TDS) and Oils and Grease (O&G) has been included in the permit. These parameters have the potential to result from the truck wash operation and would typically pass through the aerobic treatment process with minimal removal. The limitations for Oil and Grease of 15 mg/L and 30 mg/L for Monthly Average and Instantaneous Maximum, respectively, from 25 Pa. Code 95.2(2)(ii) are included.

E. Coli

Quarterly E. coli monitoring will be required at this time due to recent changes to Chapter 93 of the Departments regulations and Department policy.

Anti-Backsliding

No proposed limitations in this proposed draft permit were made less stringent consistent with the anti-backsliding requirements of 40 CFR 122.44(I).

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	Daily Maximum	Instant. Maximum		
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Calculation
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 001

Other Comments: Monitoring for Total Nitrogen and Total Phosphorus is new and the measurement frequency has been reduced from 1/quarter to 1/6 months

Outfall 002, 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	Daily Maximum	Instant. Maximum		
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Calculation
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 002

Other Comments: Monitoring for Total Nitrogen and Total Phosphorus is new and the measurement frequency has been reduced from 1/quarter to 1/6 months

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 003, 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	Daily Maximum	Instant. Maximum		
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Calculation
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 003

Other Comments: Monitoring for Total Nitrogen and Total Phosphorus is new and the measurement frequency has been reduced from 1/quarter to 1/6 months

Outfall 004, 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	Daily Maximum	Instant. Maximum		
TSS	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Oil and Grease	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Calculation
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/6 months	Grab

Compliance Sampling Location: Outfall 004

Other Comments: Monitoring for Total Nitrogen and Total Phosphorus is new and the measurement frequency has been reduced from 1/quarter to 1/6 months.

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 005, Effective Period: Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	Continuous	Metered
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
TRC	XXX	XXX	XXX	0.5	XXX	1.6	1/day	Grab
CBOD5	XXX	XXX	XXX	25	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	2/month	Grab
Total Dissolved Solids	XXX	XXX	XXX	Report Daily Max	XXX	XXX	1/quarter	Grab
Oil and Grease	XXX	XXX	XXX	15 Avg Qrtly	XXX	30	1/quarter	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
Ammonia	XXX	XXX	XXX	Report	XXX	Report	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	Report Daily Max	10000	1/quarter	Grab

Compliance Sampling Location: Outfall 005 (STP Discharge)

Other Comments: Total Nitrogen and Total Phosphorus have been removed as noted above. E. Coli monitoring is new as noted above.

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 104, 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	Daily Maximum	Maximum	Instant. Maximum		
TSS Internal Monitoring Point	XXX	XXX	XXX	Report	XXX	XXX	Daily when Discharging	Grab
Oil and Grease Internal Monitoring Point	XXX	XXX	XXX	Report	XXX	XXX	Daily when Discharging	Grab
Depth to Water Level (In) Internal Monitoring Point	XXX	Report*	XXX	Report**	XXX	XXX	1/week	Measured

* - Report Oil Layer Thickness
** - Report Sediment Depth

Compliance Sampling Location: at Outfall 104 – Diesel Fuel Dispenser Area Oil/Water Separator discharge for TSS and Oil and Grease from performing grit washing and Levels in the OWS for depth levels

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 105, 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	Daily Maximum	Maximum	Instant. Maximum		
Depth to Water Level (In) Internal Monitoring Point	XXX	Report	XXX	Report	XXX	XXX	1/week	Measured

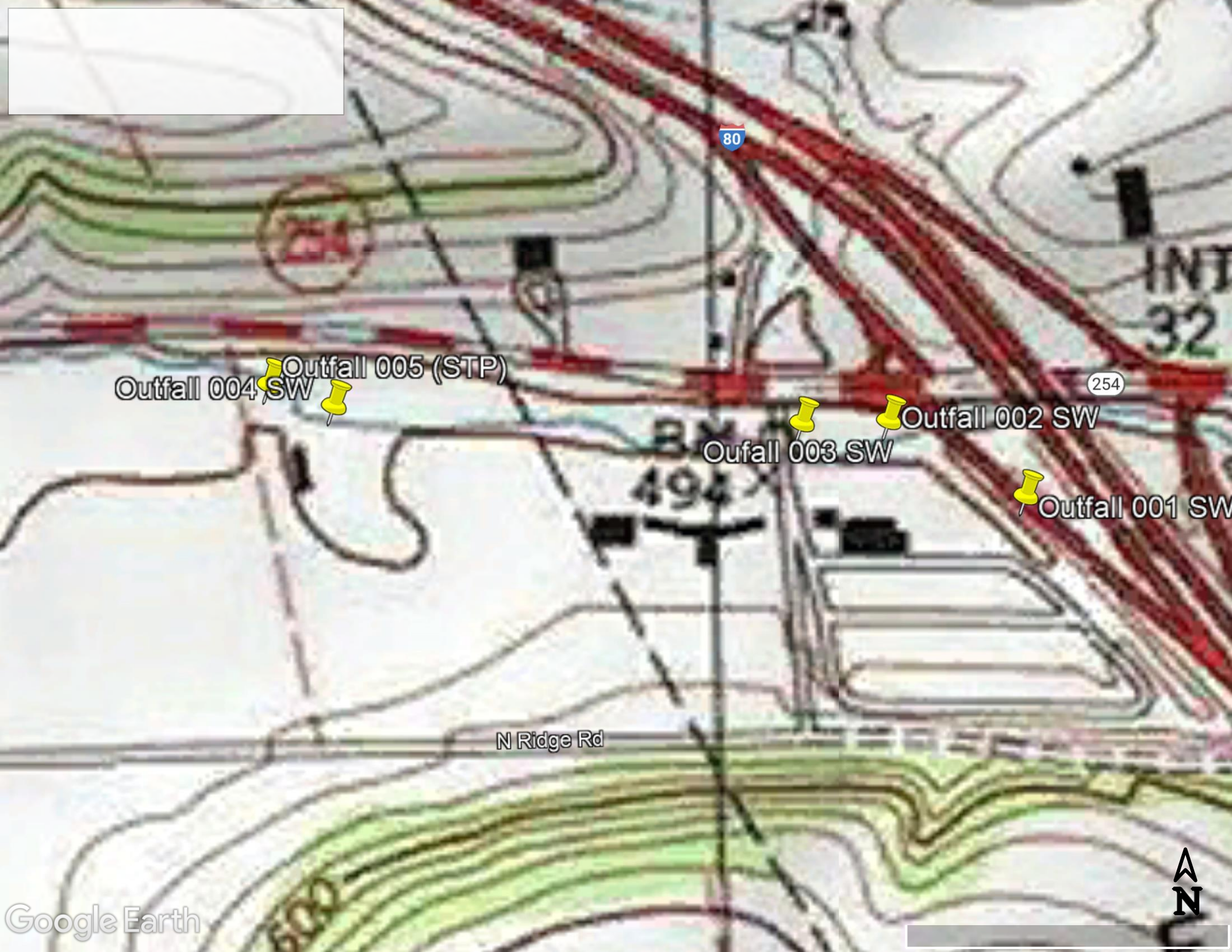
* - Report Oil Layer Thickness
** - Report Sediment Depth

Compliance Sampling Location: Outfall 105 – Levels in Truck Maintenance Building Oil/Water Separator

Tools and References Used to Develop Permit	
☒	WQM for Windows Model (see Attachment)
☐	Toxics Management Spreadsheet (see Attachment)
☒	TRC Model Spreadsheet (see Attachment)
☐	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☒	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☒	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☒	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☒	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.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☒	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☒	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	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.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	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.
☒	Design Stream Flows, 386-2000-003, 9/98.
☐	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.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☒	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: Establishing Effluent Limitations for Individual Sewage Permits, 03/21, Establishing Effluent Limitations for Individual Industrial Permits, 9/10/13
☐	Other:

Attachments:

A. Discharge Location Map
B. WQM7.0 Model
C. TRC Model


80
254
Outfall 005 (STP)
Outfall 004 SW
Outfall 002 SW
Oufall 003 SW
Outfall 001 SW
N Ridge Rd
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Google Earth

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (fl/ft)	PWS Withdrawal (mgd)	Apply FC
10D	19094	LIMESTONE RUN	**3.800**	487.00	8.40	0.00000	0.00	

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (els)	Reh Trav Time (days)	Reh Velocity (fps)	WO Ratio	Reh Width (ft)	Reh Depth (ft)	Tributary Temp ('C)	Tributary pH	Stream Temp ('C)	Stream pH
Q?-10	0.132	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
ATP	PA0232963-	0.0750	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Cone (mg/L)	Trib Cone (mg/L)	Stream Cone (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 (fl/ft)	PWS Withdrawal (mgd)	Apply FC
10D	19094	LIMESTONE RUN	**0.480**	460.00	10.00	0.00000	0.00	

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (els)	Stream Flow (els)	Reh Trav Time (days)	Reh Velocity (fps)	WD Ratio	Reh Width (ft)	Reh Depth (ft)	Tributai:y Temp ('C)	Tributai:y pH	Stream Temp ('C)	Stream pH
Q7-10	0.132	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 Cone (mg/L)	Trib Cone (mg/L)	Stream Cone (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 H)ldrod)lnamic Out uts

SWP Basin	Stream Code	Stream Name
100	19094	LIMESTONE RUN

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (fl/fl)	Depth (fl)	Width (fl)	W/O Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp ("C)	Analysis pH
Q7-10 Flow												
3.800	1.11	0.00	1.11	.116	0.00154	.542	16.91	31.2	0.13	1.518	20.47	7.00
Q1-10 Flow												
3.800	0.71	0.00	0.71	.116	0.00154	NA	NA	NA	0.11	1.893	20.70	7.00
Q30-10 Flow												
3.800	1.51	0.00	1.51	.116	0.00154	NA	NA	NA	0.16	1.296	20.36	7.00

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted 01-10 and 030-10 Flows	
WLA Method	EMPR	**Use Inputted W/0 Ratio**	☐
01-10/07-10 Ratio	0.64	**Use Inputted Reach Travel Times**	☐
030-10/07-10 Ratio	1.36	**Temperature Adjust Kr**	
0.0. Saturation	90.00%	**Use Balanced Technology**	
D. O. Goal	5		

WQM 7.0 Wasteload Allocations

SWP Basin	Stream Code	Stream Name
10D	19094	LIMESTONE RUN

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
3.800	ATP	9.19	50	9.19	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
3.800	ATP	1.87	25	1.87	25	0	0

Dissolved Oxygen Allocations

RMI	Discharge Name	CBOD5		NH3-N		Dissolved Oxygen		Critical Reach	Percent Reduction
		Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)	Baseline (mg/L)	Multiple (mg/L)		
3.80	ATP	25	25	25	25	3	3	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
10D	19094	LIMESTONE RUN

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
3.800	O.Q75	20.474	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
16.909	0.542	31.197	0.134
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
4.18	0.462	2.37	0.726
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
7.746	1.978	Tsivoglou	5
Reach Travel Time (days)			
1.518			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.152	3.89	2.12	6.75
0.304	3.62	1.90	6.13
0.455	3.37	1.70	5.79
0.607	3.14	1.52	5.64
0.759	2.92	1.36	5.63
0.911	2.72	1.22	5.70
1.063	2.53	1.09	5.83
1.214	2.36	0.98	6.00
1.366	2.19	0.88	6.18
1.518	2.04	0.79	6.38

WQM 7.0 Effluent Limits

SWP Basin	Stream Code	Stream Name
100	**19094**	**LIMESTONE RUN**

RMI	Name	Permit Number	Disc Flow (mgd)	Parameter	Effl. Limit 30-day Ave. (mg/L)	Ettl. Limit Maximum (mg/L)	Ettl. Limit Minimum (mg/L)
3.800	ATP	PA0232963-	0.075	CBOD5	25		
				NH3-N	25	50	
				Dissolved Oxygen			3

TRC EVALUATION

Input appropriate values in A3:A9 and D3:D9

1.11	= Q stream (cfs)	0.5	= CV Daily
0.075	= 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 = 3.071	1.3.2.iii	WLA cfc = 2.986
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 1.144	5.1d	LTA_cfc = 1.736

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)