pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL SEWAGE

Application Type	**Renewal**	Application No.	**PA0085197**
Facility Type	**Non-Municipal**	APS ID	**34061**
Major / Minor	**Minor**	Authorization ID	**1316537**

Applicant and Facility Information

Applicant Name	**Kampel Enterprises Inc.**	Facility Name	**Kampel Enterprises Airplane & Metalwork**
Applicant Address	8930 Carlisle Road	Facility Address	8930 Carlisle Road
	Wellsville, PA 17365-9735		Wellsville, PA 17365-9735
Applicant Contact	Tom Kampel	Facility Contact	Tom Kampel
Applicant Phone	(717) 432-9688	Facility Phone	(717) 432-9688
Client ID	44613	Site ID	452390
Ch 94 Load Status	Not Overloaded	Municipality	Warrington Township
Connection Status		County	York
Date Application Received	May 21, 2020	EPA Waived?	Yes
Date Application Accepted	June 15, 2020	If No, Reason	

Purpose of Application: NPDES permit renewal.

Summary of Review

Kampel Enterprises, Inc. has applied to the Pennsylvania Department of Environmental Protection (DEP) for reissuance of its National Pollutant Discharge Elimination System (NPDES) permit for Kampel Enterprises wastewater treatment plant. This permit renewal application was received on May 21, 2020. The permit was last reissued on November 17, 2015, authorizing discharge of treated sewage from the existing treatment plant located in Warrington Township, York County into UNT North Branch Bermudian Creek. The permit was expired on November 30, 2020 but the terms and conditions of the permit have been extended since that time.

The WWTP has a design flow and hydraulic design capacity of 0.0025 MGD.

Sludge use and disposal description and location(s): N/A due to the liquid sludge is hauled by Walter's Environmental.

The WQM No. 6793414 was issued on 6/01/1994.

- Changes from the previous permit:
  - Unit of Fecal Coliform changed from CFU/100 ml to No./100 ml.
  - The E. Coli. monitoring and report requirements will add to the proposed permit.
  - The summer Ammonia-Nitrogen average monthly changed from 5.0 mg/l to 2.36 mg/l (IMAX changed to 4.72 mg/l), and winter average monthly changed to 7.08 mg/l (IMAX changed to 14.16 mg/l).

Based on the review outlined in this report, it is recommended that the permit be drafted and published in the *Pennsylvania Bulletin* for public comments for 30 days.

Approve	Deny	Signatures	Date
X		*Hilaryle* Hilary H. Le / Environmental Engineering Specialist	August 13, 2021
X		*Maria D. Bebenek for Daniel W. Martin* Daniel W. Martin, P.E. / Environmental Engineer Manager	August 27, 2021

Discharge, Receiving Waters and Water Supply Information			
Outfall No.	001	Design Flow (MGD)	0.0025
Latitude	40º 2' 58.0"	Longitude	-75º 58' 31.0"
Quad Name	Wellsville	Quad Code	
Wastewater Description:	Sewage Effluent		
Receiving Waters	Unnamed Tributary of North Branch Bermudian Creek (WWF)	Stream Code	08643
NHD Com ID	57467649	RMI	2.0 miles
Drainage Area	0.11 mi.^{2}	Yield (cfs/mi^2)	0.014
Q_{7-10} Flow (cfs)	0.0015	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	568.56	Slope (ft/ft)	
Watershed No.	7-F	Chapter 93 Class.	WWF
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	
Nearest Downstream Public Water Supply Intake	Wrightsville Water Supply Co., York County		
PWS Waters	Susquehanna River	Flow at Intake (cfs)	
PWS RMI	43.54 miles	Distance from Outfall (mi)	Approximate 51 miles

Changes Since Last Permit Issuance: none

Drainage Area
The discharge is to Trib. 08643 of North Branch Bermudian Creek at RMI 2.0 miles. A drainage area upstream of the discharge is estimated to be 0.11 mi.^{2}, according to USGS StreamStats available at https://streamstats.usgs.gov/ss/.

Stream Flow
According to StreamStats, the point of first use has a Q_{7-10} of 0.0015 cfs and a drainage area of 0.11 mi^2, which results in a Q_{7-10} low flow yield of 0.014 cfs/mi^2. This information is used to obtain a chronic or 30-day (Q_{30-10}), and an acute or 1-day (Q_{1-10}) exposure stream flow for the discharge point as follows (Guidance No. 391-2000-023):

Q_{7-10} = 0.0015 cfs
Low Flow Yield = 0.0015 cfs / 0.11 mi^2 = 0.014 cfs/mi^2
Q_{30-10} = 1.36 * 0.0015 cfs = 0.002 cfs
Q_{1-10} = 0.64 * 0.0015 cfs = 0.00096 cfs

The resulting Q_{7-10} dilution ratio is: Q_{stream} / $Q_{discharge}$ = 0.0015 cfs / [0.0025 MGD * (1.547 cfs/MGD)] =0.39:1

Trib. 08643 of North Branch Bermudian Creek
25 Pa. Code § 93.9o classifies Trib. 08643 of North Branch Bermudian Creek as Warm Water Fishes (WWF) surface water. Based on the 2020 Integrated Report, Trib. 08643 of North Branch Bermudian Creek, assessment unit IDs 12028; & 18609, is not impaired. A TMDL currently does not exist for this stream segment, therefore, no TMDL has been taken into consideration during this review.

Public Water Supply
The nearest downstream public water supply intake is the Wrightsville Water Supply Co. on Susquehanna River in York County, approximately 51 miles downstream of this discharge. Given the nature and dilution, the discharge is not expected to significantly impact the water supply.

Treatment Facility Summary				
Treatment Facility Name: Kampel Enterprises				
WQM Permit No.	**Issuance Date**			
6793414	6/01/1994			
Waste Type	**Degree of Treatment**	**Process Type**	**Disinfection**	**Avg Annual Flow (MGD)**
Sewage	Secondary	Extended Aeration	Gas Chlorine	0.0025
Hydraulic Capacity (MGD)	**Organic Capacity (lbs/day)**	**Load Status**	**Biosolids Treatment**	**Biosolids Use/Disposal**
0.0025		Not Overloaded		

Changes Since Last Permit Issuance: none

The current treatment process is as follows:

Bar screen → EQ tank → Aeration tank → Clarifier → Chlorinator Disinfection → Chlorine Contact tank → Discharge.

The chemical uses such as calcium hypochlorite for disinfection, alum for coagulation & removal/lower TSS, and soda ash for pH adjustment.

Compliance History	
Summary of DMRs:	The DMRs reported from July 1, 2020 to June 30, 2021 are summarized in the Table below (Page # 4).
Summary of Inspections:	6/27/2019: Austen Randecker, DEP WQS, conducted a compliance evaluation inspection. The recommendations were to upgrade chlorine tablets for specific wastewater treatment and report sent electronically to Mr. Kern. Effluent was clear. There were no identified violations during inspection. The field test results were within permit limits.
Other Comments:	There are no open violations associated to the facility or the permittee.

Other Comments:

Compliance History

DMR Data for Outfall 001 (from July 1, 2020 to June 30, 2021)

Parameter	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20	AUG-20	JUL-20
Flow (MGD) Average Monthly	0.00026	0.0004743	0.000347	0.001557	0.001136	0.000656	0.000542	0.000304	0.000317	0.000259	0.000236	0.000443
Flow (MGD) Daily Maximum	0.001269	0.001375	0.00112	0.009705	0.004839	0.003994	0.010146	0.002981	0.000732	0.001235	0.000844	0.001378
pH (S.U.) Minimum	6.9	6.82	7.01	6.98	7.0	6.8	7.01	7.01	7.03	6.93	7.04	6.96
pH (S.U.) Maximum	7.5	7.31	7.63	7.75	7.4	8.1	7.56	8.61	8.35	8.56	7.35	7.5
DO (mg/L) Minimum	8.3	8.75	9.45	10.67	10.6	10.2	10.37	10.33	9.59	10.01	10.34	10.77
TRC (mg/L) Average Monthly	0.24	0.25	0.24	0.22	0.26	0.24	0.27	0.25	0.27	0.27	0.26	0.23
TRC (mg/L) Instantaneous Maximum	0.38	0.36	0.33	0.3	0.35	0.34	0.38	0.35	0.4	0.4	0.37	0.4
CBOD5 (mg/L) Average Monthly	< 2.7	< 5.1	2.5	< 2.3	< 2	< 2	< 2	< 2	< 2.1	< 1.4	< 6	< 2
CBOD5 (mg/L) Instantaneous Maximum	3.4	8.1	2.9	2.6	< 2	< 2	< 2	< 2	2.1	2.6	9	< 2
TSS (mg/L) Average Monthly	< 6	6	7	7	17	17	15	10	21	20	13	6
TSS (mg/L) Instantaneous Maximum	7	6	8	9	20	23	15	11	28	20	16	6
Fecal Coliform (CFU/100 ml) Geometric Mean	< 1	< 1	< 1	< 4	< 1	< 81	< 2	< 1	< 66	< 1	< 1	< 2
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	< 1	< 1	< 1	15	< 1	6500	4	< 1	4400	< 1	< 1	7
Total Nitrogen (mg/L) Average Quarterly	< 43.3			< 21.6			< 29.6			34.4		
Ammonia (mg/L) Average Monthly	< 0.1	0.191	< 0.207	< 0.1	< 0.123	< 0.1	< 0.1	< 0.129	< 0.1	< 0.184	< 0.21	< 0.187
Ammonia (mg/L) Instantaneous Maximum	< 0.1	0.2	0.313	< 0.1	0.146	< 0.1	< 0.1	0.157	< 0.1	0.268	0.21	0.273
Total Phosphorus (mg/L) Average Quarterly	3.2			2.8			3.4			3.7		

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 0.0025
Latitude 40º 3' 0.87" **Longitude** -75º 58' 31.0"
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)

Water Quality-Based Limitations

Carbonaceous Biochemical Oxygen Demand ($CBOD_5$):
The attached computer printout of the WQM 7.0 stream model (version 1.1) indicates that a monthly average limit of 25.0 mg/L, or secondary treatment, is adequate to protect the water quality of the stream. However, the existing limits of 25.0 mg/L monthly average (AML), and 50.0 mg/L instantaneous maximum (IMAX) will remain in the proposed permit as per guidance document 391-2000-014. Recent DMRs and inspection reports show that the facility has been consistently achieving these limits.

Ammonia (NH_3-N):
NH_3N calculations are based on the Department's Implementation Guidance of Section 93.7 Ammonia Criteria, dated 11/4/97 (ID No. 391-2000-013). The following data is necessary to determine the in-stream NH_3-N criteria used in the attached WQM 7.0 computer model of the stream:

*	Discharge pH	=	7.0	(Default)
*	Discharge Temperature	=	20°C	(Default)
*	Stream pH	=	7.0	(Default)
*	Stream Temperature	=	25ºC	(Default)
*	Background NH_3-N	=	0 mg/L	(Default)

Regarding NH_3-N limits, the attached computer printout of the WQM 7.0 stream model (version 1.1) indicates that a limit of 2.36 mg/L as a monthly average and 4.72 mg/L IMAX are necessary to protect the aquatic life from toxicity effects at the point of discharge. These values are more stringent than the existing limits, and will be in the proposed permit, which were based on secondary treatment standards. The winter effluent limit will be set at three-times the summer limits. The Recent DMRs and inspection reports show that the facility has been consistently achieving these limits.

Dissolved Oxygen (D.O.):
A minimum D.O. of 6.0 mg/L is required per 25 Pa. Code § 93.7. It is recommended that this limit be maintained in the proposed permit to ensure the protection of water quality standards. This approach is consistent with DEP's current Standard Operating Procedure (SOP) No. BPNPSM-PMT-033 and has been applied to other point source dischargers throughout the state.

pH:
The effluent discharge pH should remain above 6.0 and below 9.0 standard units according to 25 Pa. Code § 95.2(1).

Fecal Coliform:
The recent coliform guidance in 25 Pa. Code § 92a.47.(a)(4) requires a summer technology limit of 200/100 ml as a geometric mean and an instantaneous maximum not greater than 1,000/100 ml and 25 Pa. Code § 92a.47.(a)(5) requires a winter limit of 2,000/100 ml as a geometric mean and an instantaneous maximum not greater than 10,000/100 ml.

E. Coli:
As recommended by DEP's SOP no. BPNPSM-PMT-033, a routine monitoring for E. Coli will be included in the proposed permit under 25 Pa Code §92a.61. This requirement applies to all sewage dischargers greater than 0.002 MGD in their new and reissued permits. A monitoring frequency of 2/month will be included in the permit to be consistent with the recommendation from this SOP.

Total Residual Chlorine (TRC):
DEP's guidance (391-2000-014) generally recommends evaluating WQBELs at the point of first surface water use (POFU) for dry stream dischargers. In early 1990s, a DEP biologist conducted a stream survey and determined that the POFU is approximately 6,000 ft. downstream of the actual point of discharge. At this point, the USGS StreamStats produced a Q7-10 of 0.0084 cfs and a drainage area of 0.38 sq. mi. Using this information, output from TRC-CALC shows average monthly limit of 0.326 mg/L and IMAX limit of 1.07 mg/L which are slightly more stringent and round off will be same as the existing limits as 0.33 mg/L average monthly and 1.1 mg/L IMAX. Therefore, the existing permit limits and monitoring frequency of 1/day will remain in the proposed permit, which is consistent with table 6-3 of Permit Writers Manual.

Total Suspended Solids (TSS):
The existing technology-based limits of 30.0 mg/L average monthly, and 60.0 mg/L instantaneous maximum will remain in the proposed permit based on the minimum level of effluent quality attainable by secondary treatment based on 25 Pa. Code § 92a.47. Recent DMRs and inspection reports show that the facility has been consistently achieving these limits.

Chesapeake Bay TMDL:
The facility is categorized as a Phase 5 facility, a facility with a design flow greater than 0.002 MGD and less than 0.2 GMD. DEP's Phase II Watershed Implementation Plan (WIP) recommends monitoring of Total Nitrogen (TN) and Total Phosphorus (TP) for these Phase 5 facilities at a frequency no less than annually. DEP's SOP also recommends monitoring of TN and TP for any sewage facilities. However, the existing quarterly monitoring of TN and TP will remain in the proposed permit.

Stormwater
There is no known stormwater outfall associated with this facility.

Antidegradation (93.4):
The 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. No High-Quality Waters are impacted by this discharge. No Exceptional Value Waters are impacted by this discharge.

Class A Wild Trout Fisheries:
No Class A Wild Trout Fisheries are impacted by this discharge.

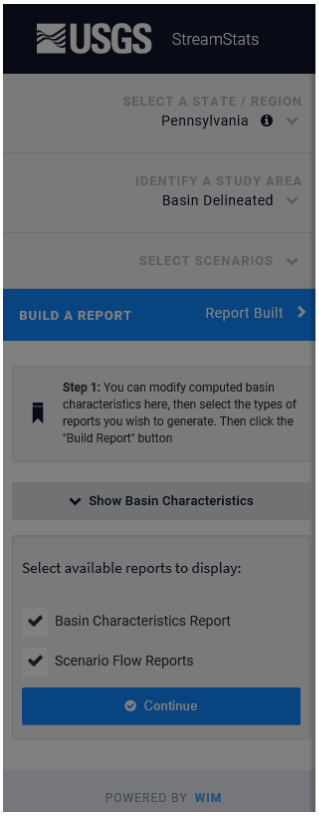
303(d) Listed Streams:
This discharge is not located on a 303(d) listed stream segment.

Additional Considerations

Considering the nature and quantity of discharge, this private well is unlikely impacted by the discharge. Part C, item F - *"The attention of the permittee is directed to the fact that effluent is discharged to a location with little or no assimilative capacity or dilution during critical periods. If the effluent creates a health hazard or nuisance, the permittee shall, upon notice from DEP, provide such additional treatment as may be required by DEP."* will remain in the proposed permit.

WQM 7.0

Node 1:	Point of first use on Trib. 08643 of North Branch Bermudian Creek (08643)	
	Elevation:	568.56 ft (USGS National Map Viewer)
	Drainage Area:	0.11 mi^2 (USGS PA StreamStats)
	River Mile Index:	2.0 (PA DEP eMapPA)
	Low Flow Yield:	0.014 cfs/mi^2
	Discharge Flow:	0.0025 MGD
Node 2:	Just before confluence of Trib. 08641 to North Branch Bermudian Creek	
	Elevation:	445.19 ft (USGS National Map Viewer)
	Drainage Area:	0.58 mi^2 (USGS PA StreamStats)
	River Mile Index:	0.001 (PA DEP eMapPA)
	Low Flow Yield:	0.014 cfs/mi^2
	Discharge Flow:	0.000 MGD



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.11	square miles
BSLOPD	Mean basin slope measured in degrees	2.4455	degrees
ROCKDEP	Depth to rock	4.2	feet
URBAN	Percentage of basin with urban development	0.3283	percent

Low-Flow Statistics Parameters [Low Flow Region 1]

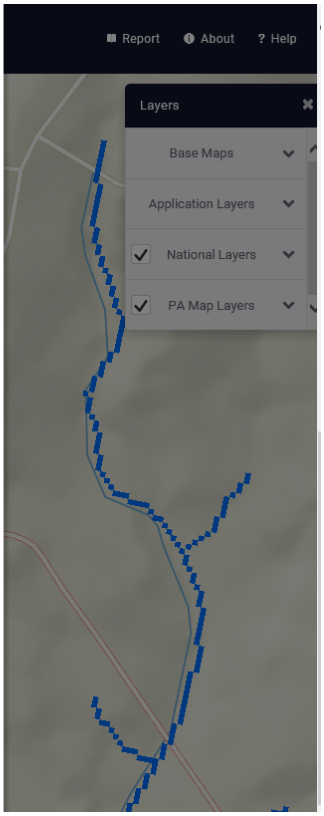
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.11	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	2.4455	degrees	1.7	6.4
ROCKDEP	Depth to Rock	4.2	feet	4.13	5.21
URBAN	Percent Urban	0.3283	percent	0	89

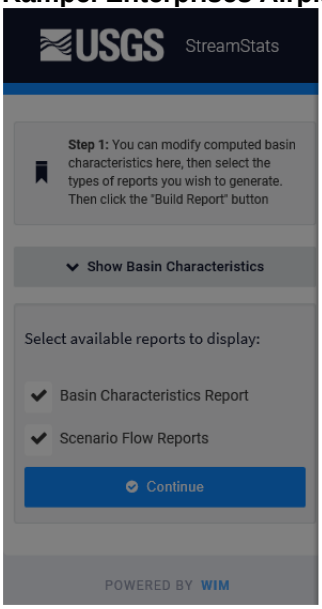
Low-Flow Statistics Disclaimers [Low Flow Region 1]

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	0.00557	ft^3/s
30 Day 2 Year Low Flow	0.00925	ft^3/s
7 Day 10 Year Low Flow	0.00149	ft^3/s
30 Day 10 Year Low Flow	0.00273	ft^3/s
90 Day 10 Year Low Flow	0.00683	ft^3/s





Low-Flow Statistics Parameters [Low Flow Region 1]

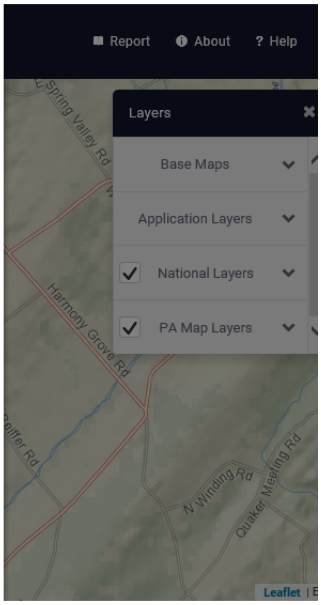
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.58	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	2.9927	degrees	1.7	6.4
ROCKDEP	Depth to Rock	4.2	feet	4.13	5.21
URBAN	Percent Urban	0.1745	percent	0	89

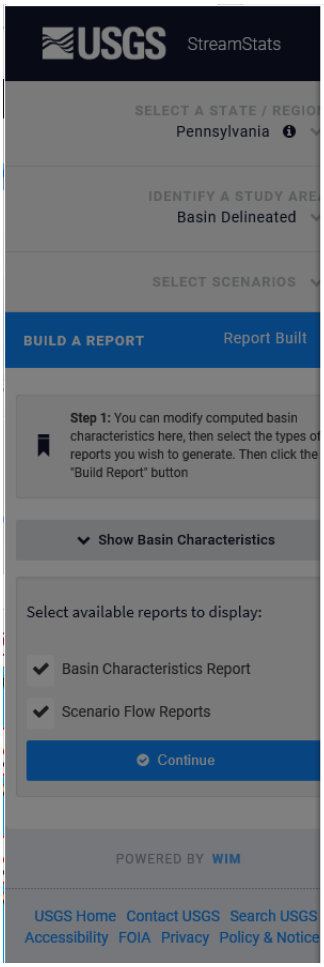
Low-Flow Statistics Disclaimers [Low Flow Region 1]

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	0.0382	ft^3/s
30 Day 2 Year Low Flow	0.06	ft^3/s
7 Day 10 Year Low Flow	0.0118	ft^3/s
30 Day 10 Year Low Flow	0.0201	ft^3/s
90 Day 10 Year Low Flow	0.0443	ft^3/s





Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.38	square miles
BSLOPD	Mean basin slope measured in degrees	3.1715	degrees
ROCKDEP	Depth to rock	4.2	feet
URBAN	Percentage of basin with urban development	0.2662	percent

Low-Flow Statistics Parameters [Low Flow Region 1]

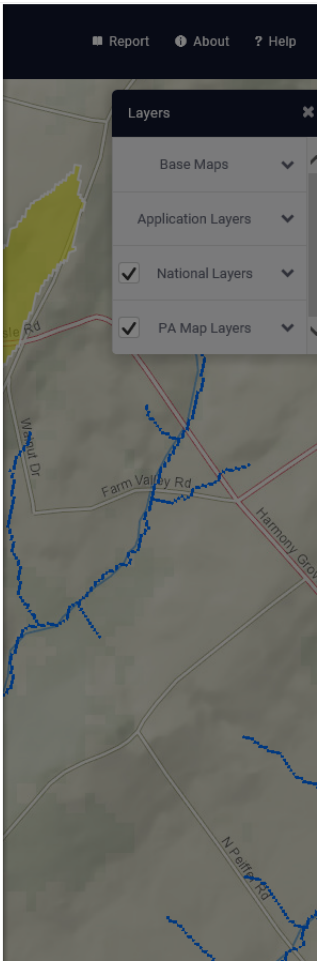
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.38	square miles	4.78	1150
BSLOPD	Mean Basin Slope degrees	3.1715	degrees	1.7	6.4
ROCKDEP	Depth to Rock	4.2	feet	4.13	5.21
URBAN	Percent Urban	0.2662	percent	0	89

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	0.0269	ft^3/s
30 Day 2 Year Low Flow	0.0418	ft^3/s
7 Day 10 Year Low Flow	0.00835	ft^3/s
30 Day 10 Year Low Flow	0.0141	ft^3/s
90 Day 10 Year Low Flow	0.0304	ft^3/s



TRC EVALUATION

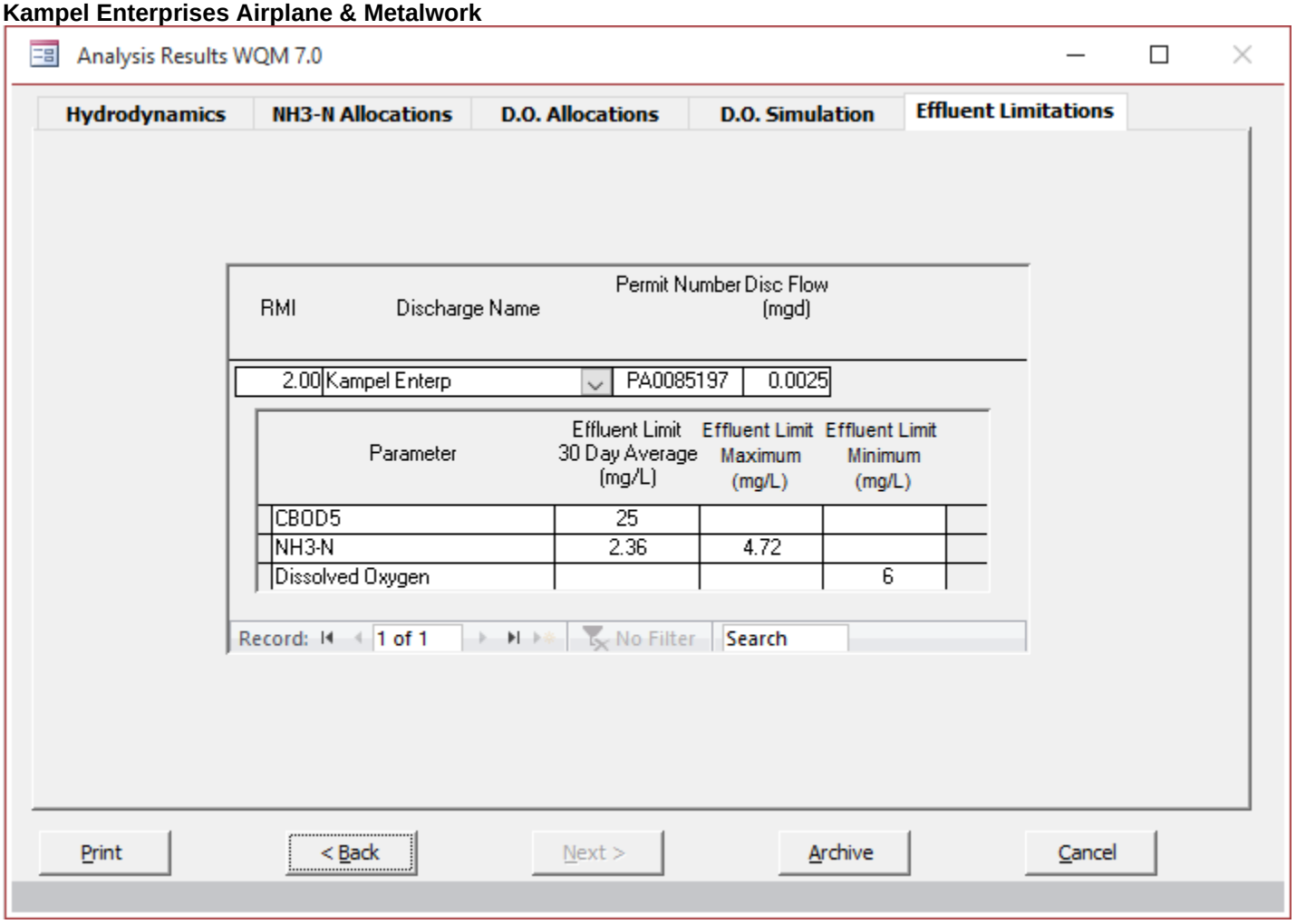
Input appropriate values in A3:A9 and D3:D9

0.0084	= Q stream (cfs)	0.5	= CV Daily
0.0025	= 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 = 0.712	1.3.2.iii	WLA cfc = 0.686
PENTOXSD TRG	5.1a	LTAMULT afc = 0.373	5.1c	LTAMULT cfc = 0.581
PENTOXSD TRG	5.1b	LTA_afc= 0.265	5.1d	LTA_cfc = 0.399

Source		Effluent Limit Calculations	
PENTOXSD TRG	5.1f	AML MULT = 1.231	
PENTOXSD TRG	5.1g	AVG MON LIMIT (mg/l) = 0.326	AFC
		INST MAX LIMIT (mg/l) = 1.068	

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)**


Analysis Results WQM 7.0
Hydrodynamics
NH3-N Allocations
D.O. Allocations
D.O. Simulation
Effluent Limitations
RMI
Discharge Name
Permit Number
Disc Flow (mgd)
2.00
Kampel Enterp
PA0085197
0.0025
Parameter
Effluent Limit 30 Day Average (mg/L)
Effluent Limit Maximum (mg/L)
Effluent Limit Minimum (mg/L)
CBOD5
25
NH3-N
2.36
4.72
Dissolved Oxygen
6
Record: 1 of 1
No Filter
Search
Print
< Back
Next >
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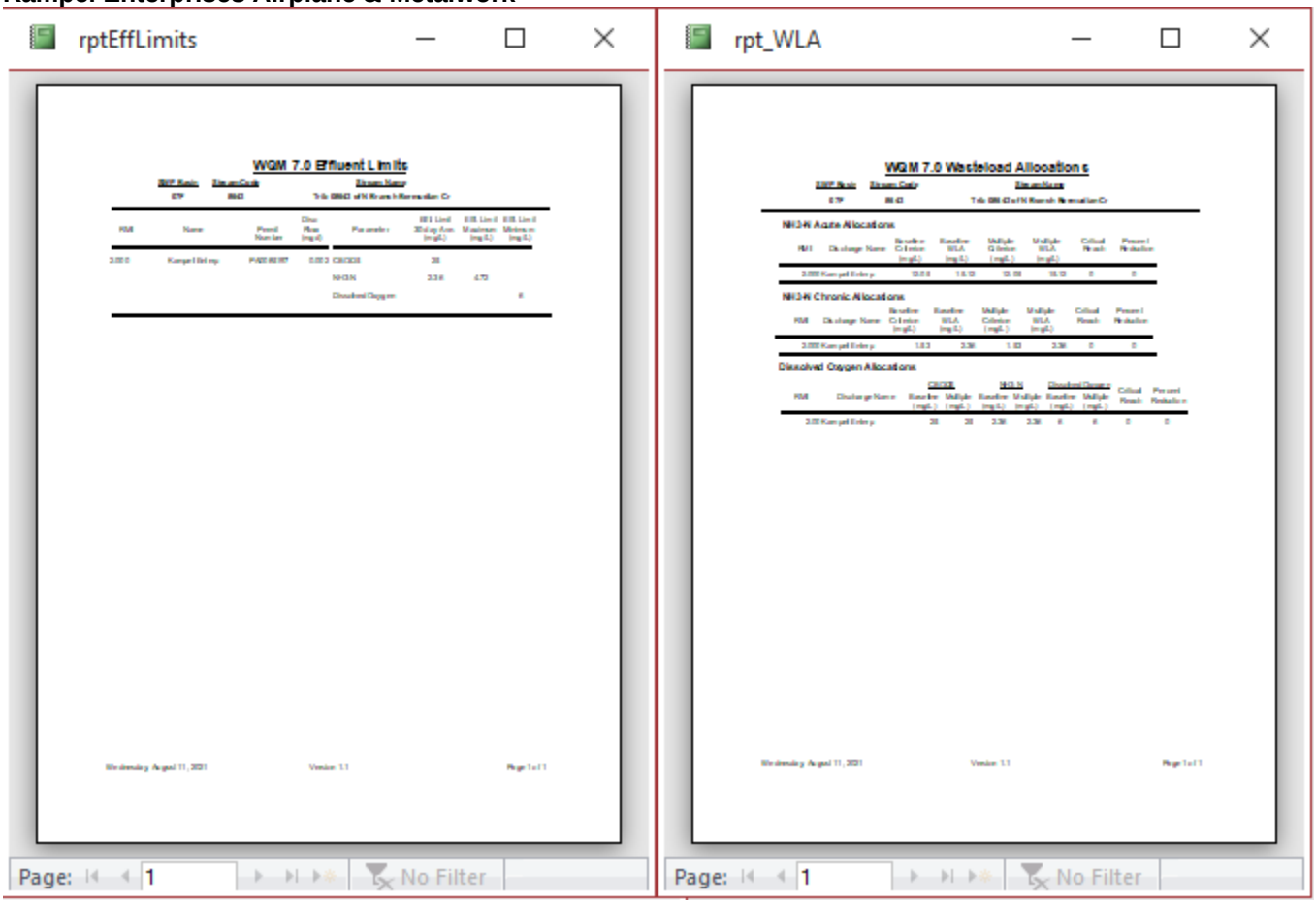
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WQM 7.0 Effluent Limits
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rpt_WLA
WQM 7.0 Wasteload Allocations
NH3-N Acute Allocations
NH3-N Chronic Allocations
Dissolved Oxygen Allocations
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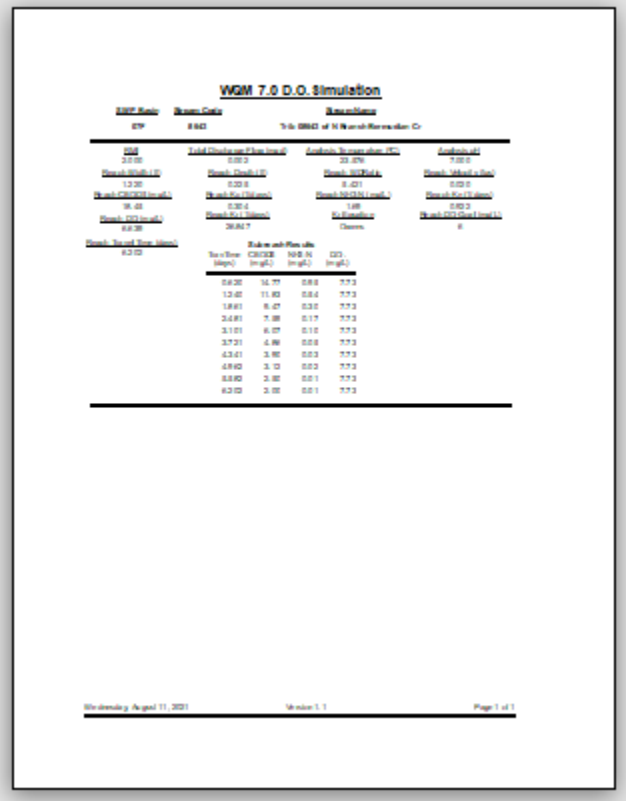

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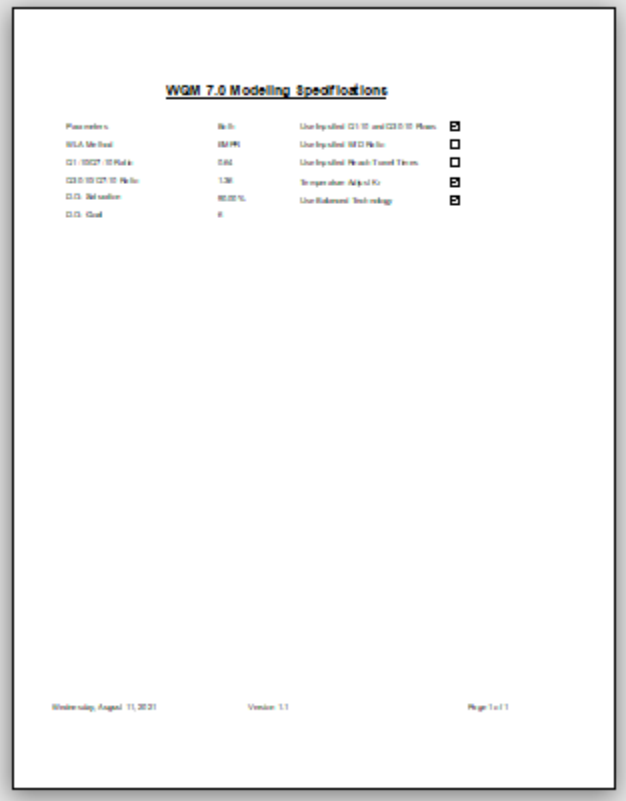
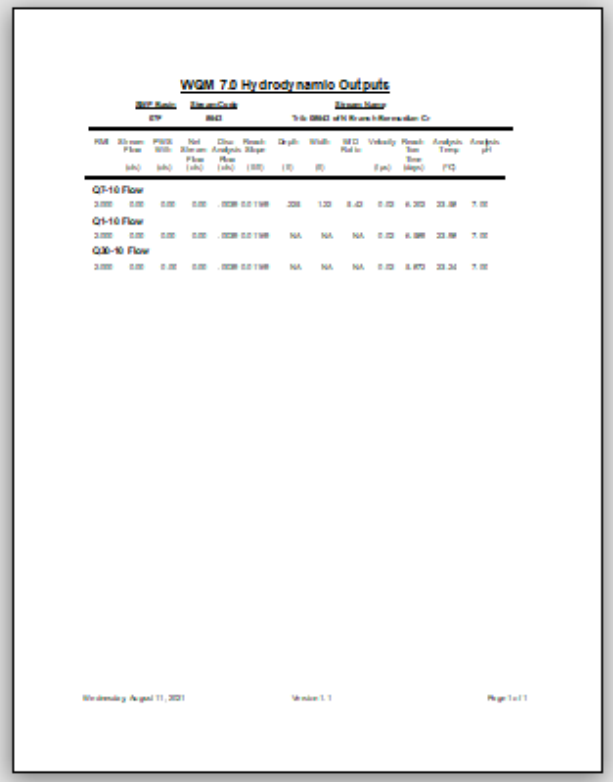
rptModelSpecs



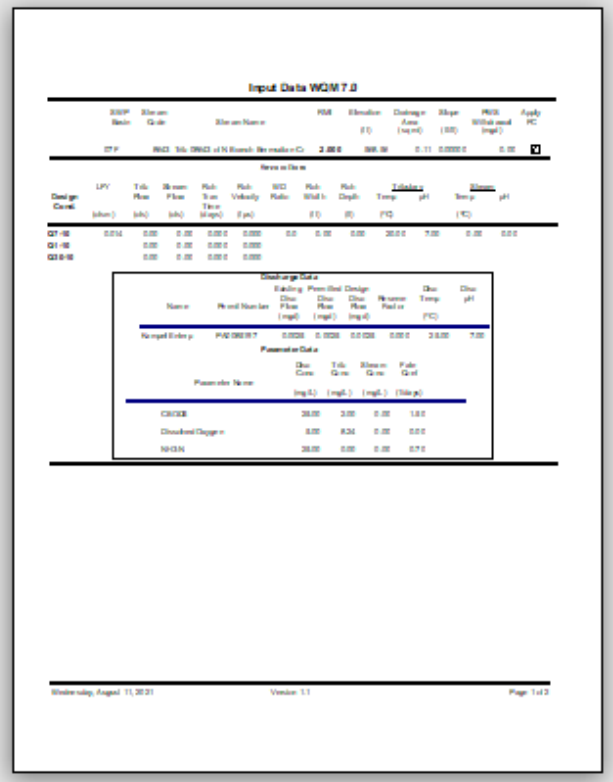
WQM 7.0 Modeling Specifications

rptHydro

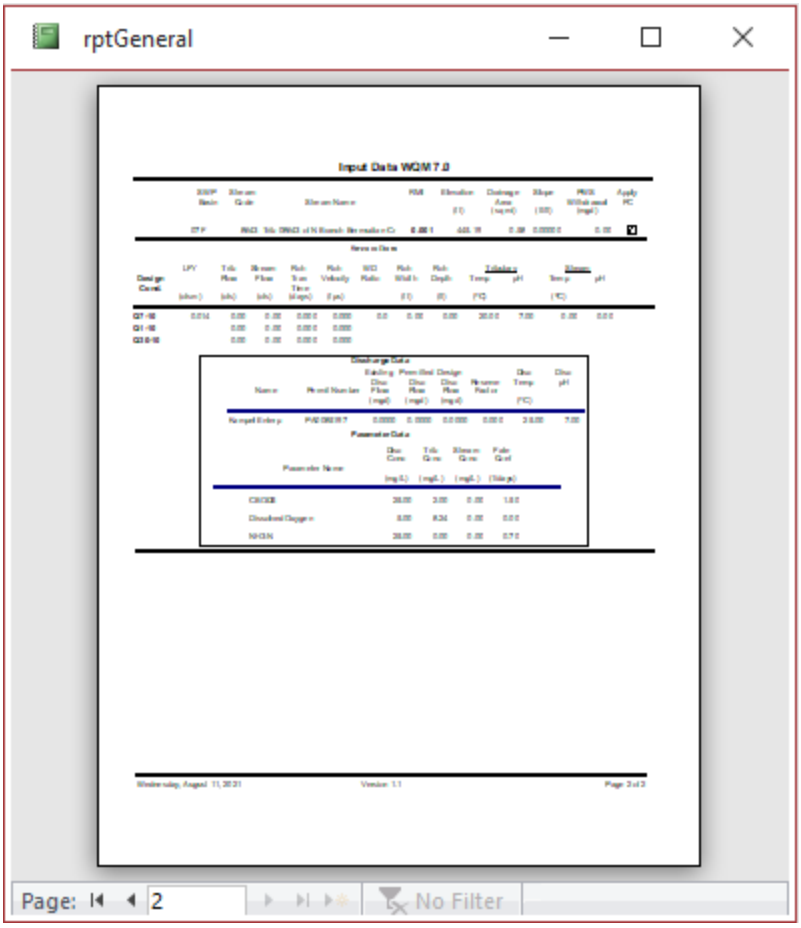


WQM 7.0 Hydrodynamic Outputs

rptGeneral



Input Data WQM 7.0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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
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
D.O.	XXX	XXX	6.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.33	XXX	1.1	1/day	Grab
$CBOD_5$	XXX	XXX	XXX	25	XXX	50	2/month	Grab
TSS	XXX	XXX	XXX	30	XXX	60	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	, Geo Mean	XXX	10,000	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	5.0	XXX	10.0	2/month	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	15.0	XXX	30.0	2/month	Grab
Total Nitrogen	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	Grab
Total Phosphorus	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	Grab

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	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
D.O.	XXX	XXX	6.0	XXX	XXX	XXX	1/day	Grab
TRC	XXX	XXX	XXX	0.33	XXX	1.1	1/day	Grab
$CBOD_5$	XXX	XXX	XXX	25.0	XXX	50.0	2/month	Grab
TSS	XXX	XXX	XXX	30.0	XXX	60.0	2/month	Grab
Fecal Coliform (No./100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1,000	2/month	Grab
Fecal Coliform (No./100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2,000 Geo Mean	XXX	10,000	2/month	Grab
E. Coli (No./100 ml)	XXX	XXX	XXX	XXX	XXX	Report	2/month	Grab
Ammonia May 1 - Oct 31	XXX	XXX	XXX	2.36	XXX	4.72	2/month	Grab
Ammonia Nov 1 - Apr 30	XXX	XXX	XXX	7.08	XXX	14.16	2/month	Grab
Total Nitrogen	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	Grab
Total Phosphorus	XXX	XXX	XXX	Report Avg Qrtly	XXX	XXX	1/quarter	Grab

Compliance Sampling Location:

Other Comments:

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, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☒	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☒	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☒	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☒	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☒	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☒	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 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, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 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, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☒	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☐	SOP:
☐	Other: