Pennsylvania Department of Environmental Protection

Northwest Regional Office
CLEAN WATER PROGRAM

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

Application Type	**Renewal**	Application No.	**PA0044041**
Facility Type	**Industrial**	APS ID	**1067281**
Major / Minor	**Minor**	Authorization ID	**1402945**

Applicant and Facility Information

Applicant Name	**Pennsylvania Fish And Boat Commission**	Facility Name	**Corry Fish Culture Station**
Applicant Address	1735 Shiloh Road	Facility Address	13365 Route 6
	State College, PA 16801-8400		Corry, PA 16407-8991
Applicant Contact	Mindy Mcclenahan	Facility Contact	Daniel Donato
Applicant Phone	(814) 353-2229	Facility Phone	(814) 664-2122
Client ID	135455	Site ID	241265
SIC Code	0273	Municipality	Wayne Township
SIC Description	Agriculture - Aniimal Aquaculture	County	Erie
Date Application Received	July 1, 2022	EPA Waived?	Yes
Date Application Accepted		If No, Reason	

Purpose of Application: NPDES Permit renewal for an existing industrial waste discharge.

Summary of Review

Both outfalls discharge wastewater from a fish propagation facility. Outfall 001 flows continuously during operation, Outfall 002 flows continuously for 24-72 hours per use but is only utilized 1-2 times per year.

Chemical usage for aquaculture facilities is regulated under a special condition in Part C of the proposed renewed NPDES Permit. The condition places restrictions on the types of chemicals that can be used but not on usage rates.

This permit does not qualify for a PAG-11 NPDES general permit because of the intake is not drawn from the same body of water to which the discharges occur. This facility intakes from groundwater wells.

Annual PFAS monitoring has been added per Department SOP.

There are currently no open violations for this client (135455) as of 7/10/2025.

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		Jordan A. Frey, E.I.T. Jordan A. Frey, E.I.T. / Project Manager	July 16, 2025
X		Adam Olesnanik Adam Olesnanik, P.E. / Environmental Engineer Manager	July 22, 2025

Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	2.88
Latitude	41º 55' 22.78"	Longitude	-79º 41' 1.41"
Quad Name	Corry	Quad Code	41079H6
Wastewater Description:	IW Process Effluent without ELG		

Receiving Waters	Unnamed Stream	Stream Code	53774
NHD Com ID	134386734	RMI	0.9
Drainage Area	0.81	Yield (cfs/mi^2)	0.05
Q_{7-10} Flow (cfs)	0.041	Q_{7-10} Basis	Streamstats
Elevation (ft)	1381	Slope (ft/ft)	---
Watershed No.	16-A	Chapter 93 Class.	
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)	7.0	Default
Temperature (°F)	20	Default
Hardness (mg/L)	100	Default
Other:		

Nearest Downstream Public Water Supply Intake	Cambridge Springs Borough		
PWS Waters	French Creek	Flow at Intake (cfs)	51.45
PWS RMI	48.35	Distance from Outfall (mi)	>25

Changes Since Last Permit Issuance: None.

Other Comments: Receiving stream is effluent dominated during low flow conditions, based on a review of low flows from streamstats compared to the 2.88 MGD design flow.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	1.053
Latitude	41º 55' 43.18"	Longitude	-79º 40' 11.65"
Quad Name	Corry	Quad Code	41079H6
Wastewater Description:	IW Process Effluent without ELG		
Receiving Waters	Unnamed Tributary of South Branch French Creek (CWF)	Stream Code	53763
NHD Com ID	127347166	RMI	18.78
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)	1377	Slope (ft/ft)	
Watershed No.	16-A	Chapter 93 Class.	CWF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Attaining Use(s)		
Cause(s) of Impairment			
Source(s) of Impairment			
TMDL Status		Name	

Background/Ambient Data		Data Source
pH (SU)		Default
Temperature (°F)		Default
Hardness (mg/L)		Default
Other:		

Nearest Downstream Public Water Supply Intake		Cambridge Springs Borough	
PWS Waters	French Creek	Flow at Intake (cfs)	51.45
PWS RMI	48.35	Distance from Outfall (mi)	>25

Changes Since Last Permit Issuance: None.

Other Comments: None.

Compliance History

DMR Data for Outfall 001 (from June 1, 2024 to May 31, 2025)

Parameter	MAY-25	APR-25	MAR-25	FEB-25	JAN-25	DEC-24	NOV-24	OCT-24	SEP-24	AUG-24	JUL-24	JUN-24
Flow (MGD) Average Monthly	1.512	1.476	1.512	1.512	1.584	1.584	1.512	1.584	1.764	1.836	1.8	1.872
pH (S.U.) Daily Minimum	7.8	7.6	8.1	7.8	7.2	8.0	7.9	7.3	7.7	7.3	7.2	7.1
pH (S.U.) Daily Maximum	8.1	8.3	8.5	9.0	7.8	8.3	8.2	8.4	8.0	8.1	8.4	7.4
DO (mg/L) Daily Minimum	9.3	9.4	9.1	8.2	8.1	8.4	8.6	9.1	8.8	8.7	8.8	8.9
BOD5 (lbs/day) Average Quarterly			122			116			< 45			53
BOD5 (lbs/day) Daily Maximum			122			116			< 45			53
BOD5 (mg/L) Average Quarterly			9.2			8.8			< 3.0			4.1
BOD5 (mg/L) Daily Maximum			9.2			8.8			< 3.0			4.1
TSS (mg/L) Daily Maximum			3.7			3.3			1.1			1.7
Total Nitrogen (mg/L) Daily Maximum			< 3.4			< 4.1			< 3.0			< 3.5
Ammonia (lbs/day) Average Monthly	3.4	8.2	11	14.1	11.4	7.4	6.4	15.7	13.6	6.6	3.8	7
Ammonia (mg/L) Average Monthly	0.3	0.7	0.8	1.1	0.9	0.6	0.5	1.2	0.9243	0.4	0.3	0.5
Total Phosphorus (mg/L) Daily Maximum			0.18			0.17			0.07			0.12

Development of Effluent Limitations

Outfall No. 001 **Design Flow (MGD)** 2.88
Latitude 41º 55' 44.00" **Longitude** -79º 40' 12.00"
Wastewater Description: IW Process Effluent without ELG

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
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)

Comments: None.

Water Quality-Based Limitations

The following limitations were determined through water quality modeling (output files attached):

Parameter	Limit (mg/l)	SBC	Model
Ammonia-Nitrogen (5/01-10/31)	1.3	Average Monthly	WQM 7.0 Ver. 1.0b
Ammonia-Nitrogen (11/01-4/30)	3.9	Average Monthly	WQM 7.0 Ver. 1.0b
BOD_5	6.8	Average Monthly	WQM 7.0 Ver. 1.0b
Dissolved Oxygen	6.0	Average Monthly	WQM 7.0 Ver. 1.0b

Comments: Modeling is for $CBOD_5$, but since the PAG-11 general permit for Aquatic Animal Production Facilities uses BOD_5, our calculated $CBOD_5$ limits will be converted to BOD_5 for this permit. Modeling calculated a 6.8 mg/l limit for $CBOD_5$ and sampling was set to 2/month.

Modeling calculated a summertime Ammonia-Nitrogen limit of 1.36 mg/l, which will be set to 1.3 mg/l per the Department's Roundoff Guidelines for conventional pollutants with general magnitudes between 1.0 and 10.0.

Best Professional Judgment (BPJ) Limitations

Comments: In accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Industrial Permits," effluent limits or monitoring requirements found in the PAG-11 NPDES General Permit pertaining to aquaculture facilities were incorporated into this permit. These parameters include BOD_5, TSS, ammonia nitrogen, total nitrogen, total phosphorus and dissolved oxygen.

Net limits for BOD_5, TSS and total nitrogen from in the general permit were converted to effluent limits due to the source water not coming from the same watercourse as the discharge was to (this facility draws groundwater from wells). In conjunction with that decision, influent monitoring requirements found in the general permit were not place in the permit.

Anti-Backsliding

N/A

Development of Effluent Limitations

Outfall No. 002 **Design Flow (MGD)** 1.053
Latitude 41º 55' 22.00" **Longitude** -79º 41' 4.00"
Wastewater Description: IW Process Effluent without ELG

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
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)

Comments: None.

Water Quality-Based Limitations

No WQM modeling was done for this outfall due to the infrequent nature of the discharge.

Best Professional Judgment (BPJ) Limitations

Comments: Comments: In accordance with the Department's SOP entitled "Establishing Effluent Limitations for Individual Industrial Permits," effluent limits or monitoring requirements found in the PAG-11 NPDES General Permit pertaining to aquaculture facilities were incorporated into this permit. These parameters include BOD_5, TSS, ammonia nitrogen, total nitrogen, total phosphorus and dissolved oxygen.

Net limits for BOD_5, TSS and total nitrogen from in the general permit were converted to effluent limits due to the source water not coming from the same watercourse as the discharge was to (this facility draws groundwater from wells). In conjunction with that decision, influent monitoring requirements found in the general permit were not place in the permit.

Anti-Backsliding

N/A

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 Three Years from Permit Effective Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/month	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0	XXX	1/week	Grab
DO	XXX	XXX	6.0 Daily Min	XXX	XXX	XXX	1/month	Grab
BOD5	288	432	XXX	10.0	10.0	20	2/month	24-Hr Composite
Ammonia Nov 1 - Apr 30, Jul 1 - 31	129	XXX	XXX	3.9	XXX	7.8	1/month	24-Hr Composite
Ammonia May 1 - Jun 30, Aug 1 - Oct 31	43	XXX	XXX	1.3	XXX	2.6	1/month	24-Hr Composite
TSS	XXX	XXX	XXX	XXX	20.0	XXX	1/quarter	24-Hr Composite
Total Nitrogen	XXX	XXX	XXX	XXX	20.0	XXX	1/quarter	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
PFOA (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
PFOS (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
PFBS (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
HFPO-DA (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: The permittee may discontinue monitoring for PFOA, PFOS, HFPO-DA, and PFBS if the results in 4 consecutive monitoring periods indicate non-detect results at or below Quantitation Limits of 4.0 ng/L for PFOA, 3.7 ng/L for PFOS, 3.5 ng/L for PFBS and 6.4 ng/L for HFPO-DA. When monitoring is discontinued, permittees must enter a No Discharge Indicator (NODI) Code of "GG" on DMRs.

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: Three Years from Permit Effective Date through Permit Expiration Date.

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	XXX	XXX	XXX	XXX	XXX	1/month	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	9.0	XXX	1/week	Grab
DO	XXX	XXX	6.0 Daily Min	XXX	XXX	XXX	1/month	Grab
BOD5	163	244	XXX	6.8	6.8	13.6	2/month	24-Hr Composite
Ammonia Nov 1 - Apr 30, Jul 1 - 31	129	XXX	XXX	3.9	XXX	7.8	1/month	24-Hr Composite
Ammonia May 1 - Jun 30, Aug 1 - Oct 31	43	XXX	XXX	1.3	XXX	2.6	1/month	24-Hr Composite
TSS	XXX	XXX	XXX	XXX	20.0	XXX	1/quarter	24-Hr Composite
Total Nitrogen	XXX	XXX	XXX	XXX	20.0	XXX	1/quarter	24-Hr Composite
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	24-Hr Composite
PFOA (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
PFOS (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
PFBS (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab
HFPO-DA (ng/L)	XXX	XXX	XXX	Report	XXX	XXX	1/year	Grab

Compliance Sampling Location: Outfall 001

Other Comments: The permittee may discontinue monitoring for PFOA, PFOS, HFPO-DA, and PFBS if the results in 4 consecutive monitoring periods indicate non-detect results at or below Quantitation Limits of 4.0 ng/L for PFOA, 3.7 ng/L for PFOS, 3.5 ng/L for PFBS and 6.4 ng/L for HFPO-DA. When monitoring is discontinued, permittees must enter a No Discharge Indicator (NODI) Code of "GG" on DMRs.

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 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		
Flow (MGD)	Report Avg Qrtly	XXX	XXX	XXX	XXX	XXX	1/quarter	Measured
pH (S.U.)	XXX	XXX	6.0 Daily Min	XXX	Report	XXX	1/quarter	Grab
DO	XXX	XXX	6.0 Daily Min	XXX	XXX	XXX	1/quarter	Grab
BOD5	XXX	XXX	XXX	XXX	10.0	XXX	1/quarter	Grab
TSS	XXX	XXX	XXX	XXX	20.0	XXX	1/quarter	Grab
Total Nitrogen	XXX	XXX	XXX	XXX	20.0	XXX	1/quarter	Grab
Ammonia	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab
Total Phosphorus	XXX	XXX	XXX	XXX	Report	XXX	1/quarter	Grab

Compliance Sampling Location: Outfall 002

Other Comments: All samples at Outfall 002 are grab samples per request granted to permittee during the previous permit cycle.

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
0.900	Corry Fish Cult	6.78	6.81	6.78	6.81	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
0.900	Corry Fish Cult	1.35	1.36	1.35	1.36	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)		
0.90	Corry Fish Cult	6.8	6.8	1.36	1.36	6	6	0	0

WQM 7.0 D.O.Simulation

SWP Basin	Stream Code	Stream Name
16A	53774	Trib 53774 to S Branch French Cr

RMI	Total Discharge Flow (mgd)	Analysis Temperature (°C)	Analysis pH
0.900	3.456	24.962	7.000
Reach Width (ft)	**Reach Depth (ft)**	**Reach WDRatio**	**Reach Velocity (fps)**
14.978	0.704	21.282	0.511
Reach CBOD5 (mg/L)	**Reach Kc (1/days)**	**Reach NH3-N (mg/L)**	**Reach Kn (1/days)**
6.76	1.018	1.35	1.026
Reach DO (mg/L)	**Reach Kr (1/days)**	**Kr Equation**	**Reach DO Goal (mg/L)**
6.017	8.137	Tsivoglou	6
Reach Travel Time (days)			
0.106			

Subreach Results

TravTime (days)	CBOD5 (mg/L)	NH3-N (mg/L)	D.O. (mg/L)
0.011	6.67	1.33	6.02
0.021	6.58	1.32	6.02
0.032	6.49	1.31	6.03
0.043	6.41	1.29	6.03
0.053	6.32	1.28	6.04
0.064	6.23	1.26	6.05
0.075	6.15	1.25	6.07
0.085	6.07	1.24	6.08
0.096	5.99	1.22	6.09
0.106	5.90	1.21	6.11

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)
0.900	Corry Fish Cult	PA0044041	0.000	CBOD5	6.8		
				NH3-N	1.36	2.72	
				Dissolved Oxygen			6

Input Data WQM 7.0

SWP Basin	Stream Code	Stream Name	RMI	Elevation (ft)	Drainage Area (sq mi)	Slope (ft/ft)	PWS Withdrawal (mgd)	Apply FC
16A	53774	Trib 53774 to S Branch French Cr	0.900	1381.00	0.81	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.050	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
Corry Fish Cult	PA0044041	0.0000	0.0000	3.4560	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	10.00	2.00	0.00	1.50
Dissolved Oxygen	6.00	8.24	0.00	0.00
NH3-N	20.00	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
16A	53774	Trib 53774 to S Branch French Cr	**0.010**	1374.00	0.97	0.00000	0.00	☑

Stream Data

Design Cond.	LFY (cfsm)	Trib Flow (cfs)	Stream Flow (cfs)	Rch Trav Time (days)	Rch Velocity (fps)	WD Ratio	Rch Width (ft)	Rch Depth (ft)	Tributary Temp (°C)	Tributary pH	Stream Temp (°C)	Stream pH
Q7-10	0.050	0.00	0.00	0.000	0.000	0.0	0.00	0.00	20.00	7.00	0.00	0.00
Q1-10		0.00	0.00	0.000	0.000							
Q30-10		0.00	0.00	0.000	0.000							

Discharge Data

Name	Permit Number	Existing Disc Flow (mgd)	Permitted Disc Flow (mgd)	Design Disc Flow (mgd)	Reserve Factor	Disc Temp (°C)	Disc pH
		0.0000	0.0000	0.0000	0.000	25.00	7.00

Parameter Data

Parameter Name	Disc Conc (mg/L)	Trib Conc (mg/L)	Stream Conc (mg/L)	Fate Coef (1/days)
CBOD5	25.00	2.00	0.00	1.50
Dissolved Oxygen	3.00	8.24	0.00	0.00
NH3-N	25.00	0.00	0.00	0.70

WQM 7.0 Hydrodynamic Outputs

SWP Basin	Stream Code	Stream Name
16A	53774	Trib 53774 to S Branch French Cr

RMI	Stream Flow (cfs)	PWS With (cfs)	Net Stream Flow (cfs)	Disc Analysis Flow (cfs)	Reach Slope (ft/ft)	Depth (ft)	Width (ft)	W/D Ratio	Velocity (fps)	Reach Trav Time (days)	Analysis Temp (°C)	Analysis pH
Q7-10 Flow												
0.900	0.04	0.00	0.04	5.3464	0.00149	.704	14.98	21.28	0.51	0.106	24.96	7.00
Q1-10 Flow												
0.900	0.03	0.00	0.03	5.3464	0.00149	NA	NA	NA	0.51	0.107	24.98	7.00
Q30-10 Flow												
0.900	0.06	0.00	0.06	5.3464	0.00149	NA	NA	NA	0.51	0.106	24.95	7.00

WQM 7.0 Modeling Specifications

Parameters	Both	Use Inputted Q1-10 and Q30-10 Flows	☑
WLA Method	EMPR	Use Inputted W/D Ratio	☐
Q1-10/Q7-10 Ratio	0.64	Use Inputted Reach Travel Times	☐
Q30-10/Q7-10 Ratio	1.36	Temperature Adjust Kr	☑
D.O. Saturation	90.00%	Use Balanced Technology	☑
D.O. Goal	6		

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.3, March 2021

Discharge Information

Instructions | Discharge | Stream

Facility: **Corry Fish Culture Station** NPDES Permit No.: **PA0044041** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **IW Process Effluent without ELG**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
3.456	100	7.6						

					0 if left blank		0.5 if left blank		0 if left blank			1 if left blank	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Strea m CV	Fate Coeff	FOS	Criteri a Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L		1.344									
	Chloride (PWS)	mg/L		17									
	Bromide	mg/L		0.4									
	Sulfate (PWS)	mg/L		19.2									
	Fluoride (PWS)	mg/L		2									
Group 2	Total Aluminum	µg/L											
	Total Antimony	µg/L											
	Total Arsenic	µg/L											
	Total Barium	µg/L											
	Total Beryllium	µg/L											
	Total Boron	µg/L											
	Total Cadmium	µg/L											
	Total Chromium (III)	µg/L											
	Hexavalent Chromium	µg/L											
	Total Cobalt	µg/L											
	Total Copper	µg/L											
	Free Cyanide	µg/L											
	Total Cyanide	µg/L											
	Dissolved Iron	µg/L											
	Total Iron	µg/L											
	Total Lead	µg/L											
	Total Manganese	µg/L											
	Total Mercury	µg/L											
	Total Nickel	µg/L											
	Total Phenols (Phenolics) (PWS)	µg/L											
	Total Selenium	µg/L											
	Total Silver	µg/L											
	Total Thallium	µg/L											
	Total Zinc	µg/L											
	Total Molybdenum	µg/L											
	Acrolein	µg/L	<										
	Acrylamide	µg/L	<										
	Acrylonitrile	µg/L	<										
	Benzene	µg/L	<										
	Bromoform	µg/L	<										

Group 3	Carbon Tetrachloride	µg/L	<										
	Chlorobenzene	µg/L											
	Chlorodibromomethane	µg/L	<										
	Chloroethane	µg/L	<										
	2-Chloroethyl Vinyl Ether	µg/L	<										
	Chloroform	µg/L	<										
	Dichlorobromomethane	µg/L	<										
	1,1-Dichloroethane	µg/L	<										
	1,2-Dichloroethane	µg/L	<										
	1,1-Dichloroethylene	µg/L	<										
	1,2-Dichloropropane	µg/L	<										
	1,3-Dichloropropylene	µg/L	<										
	1,4-Dioxane	µg/L	<										
	Ethylbenzene	µg/L	<										
	Methyl Bromide	µg/L	<										
	Methyl Chloride	µg/L	<										
	Methylene Chloride	µg/L	<										
	1,1,2,2-Tetrachloroethane	µg/L	<										
	Tetrachloroethylene	µg/L	<										
	Toluene	µg/L	<										
	1,2-trans-Dichloroethylene	µg/L	<										
	1,1,1-Trichloroethane	µg/L	<										
	1,1,2-Trichloroethane	µg/L	<										
	Trichloroethylene	µg/L	<										
	Vinyl Chloride	µg/L	<										
Group 4	2-Chlorophenol	µg/L	<										
	2,4-Dichlorophenol	µg/L	<										
	2,4-Dimethylphenol	µg/L	<										
	4,6-Dinitro-o-Cresol	µg/L	<										
	2,4-Dinitrophenol	µg/L	<										
	2-Nitrophenol	µg/L	<										
	4-Nitrophenol	µg/L	<										
	p-Chloro-m-Cresol	µg/L	<										
	Pentachlorophenol	µg/L	<										
	Phenol	µg/L	<										
	2,4,6-Trichlorophenol	µg/L	<										
Group 5	Acenaphthene	µg/L	<										
	Acenaphthylene	µg/L	<										
	Anthracene	µg/L	<										
	Benzidine	µg/L	<										
	Benzo(a)Anthracene	µg/L	<										
	Benzo(a)Pyrene	µg/L	<										
	3,4-Benzofluoranthene	µg/L	<										
	Benzo(ghi)Perylene	µg/L	<										
	Benzo(k)Fluoranthene	µg/L	<										
	Bis(2-Chloroethoxy)Methane	µg/L	<										
	Bis(2-Chloroethyl)Ether	µg/L	<										
	Bis(2-Chloroisopropyl)Ether	µg/L	<										
	Bis(2-Ethylhexyl)Phthalate	µg/L	<										
	4-Bromophenyl Phenyl Ether	µg/L	<										
	Butyl Benzyl Phthalate	µg/L	<										
	2-Chloronaphthalene	µg/L	<										
	4-Chlorophenyl Phenyl Ether	µg/L	<										
	Chrysene	µg/L	<										
	Dibenzo(a,h)Anthrancene	µg/L	<										
	1,2-Dichlorobenzene	µg/L	<										
	1,3-Dichlorobenzene	µg/L	<										
	1,4-Dichlorobenzene	µg/L	<										
	3,3-Dichlorobenzidine	µg/L	<										
	Diethyl Phthalate	µg/L	<										
	Dimethyl Phthalate	µg/L	<										
	Di-n-Butyl Phthalate	µg/L	<										
	2,4-Dinitrotoluene	µg/L	<										

	2,6-Dinitrotoluene	µg/L	<										
	Di-n-Octyl Phthalate	µg/L	<										
	1,2-Diphenylhydrazine	µg/L	<										
	Fluoranthene	µg/L	<										
	Fluorene	µg/L	<										
	Hexachlorobenzene	µg/L	<										
	Hexachlorobutadiene	µg/L	<										
	Hexachlorocyclopentadiene	µg/L	<										
	Hexachloroethane	µg/L	<										
	Indeno(1,2,3-cd)Pyrene	µg/L	<										
	Isophorone	µg/L	<										
	Naphthalene	µg/L	<										
	Nitrobenzene	µg/L	<										
	n-Nitrosodimethylamine	µg/L	<										
	n-Nitrosodi-n-Propylamine	µg/L	<										
	n-Nitrosodiphenylamine	µg/L	<										
	Phenanthrene	µg/L	<										
	Pyrene	µg/L	<										
	1,2,4-Trichlorobenzene	µg/L	<										
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<										
	4,4-DDE	µg/L	<										
	4,4-DDD	µg/L	<										
	Dieldrin	µg/L	<										
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	µg/L	<										
	PCB-1221	µg/L	<										
	PCB-1232	µg/L	<										
	PCB-1242	µg/L	<										
	PCB-1248	µg/L	<										
	PCB-1254	µg/L	<										
	PCB-1260	µg/L	<										
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<										
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											

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Toxics Management Spreadsheet
Version 1.3, March 2021

Stream / Surface Water Information

Corry Fish Culture Station, NPDES Permit No. PA0044041, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: _____ No. Reaches to Model: 1

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	053774	0.9	1381	0.81			Yes
End of Reach 1	053774	0.01	1374	0.97			Yes

$Q_{7\text{-}10}$

Location	RMI	LFY (cfs/mi^2)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	0.9	0.05										100	7		
End of Reach 1	0.01	0.05													

Q_h

Location	RMI	LFY (cfs/mi^2)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	0.9														
End of Reach 1	0.01														

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Toxics Management Spreadsheet
Version 1.3, March 2021

Model Results

Corry Fish Culture Station, NPDES Permit No. PA0044041, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | All | Inputs | Results | Limits

☐ ***Hydrodynamics***

☑ ***Wasteload Allocations***

☑ ***AFC*** CCT (min): 0.001 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.59

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***CFC*** CCT (min): 0.001 PMF: 1 Analysis Hardness (mg/l): 100 Analysis pH: 7.59

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***THH*** CCT (min): 0.001 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	500,000	500,000	N/A	
Chloride (PWS)	0	0		0	250,000	250,000	N/A	
Sulfate (PWS)	0	0		0	250,000	250,000	N/A	
Fluoride (PWS)	0	0		0	2,000	2,000	N/A	

☑ ***CRL*** CCT (min): 0.078 PMF: 1 Analysis Hardness (mg/l): N/A Analysis pH: N/A

Pollutants	Stream Conc (µg/L)	Stream CV	Trib Conc (µg/L)	Fate Coef	WQC (µg/L)	WQ Obj (µg/L)	WLA (µg/L)	Comments
Total Dissolved Solids (PWS)	0	0		0	N/A	N/A	N/A	
Chloride (PWS)	0	0		0	N/A	N/A	N/A	
Sulfate (PWS)	0	0		0	N/A	N/A	N/A	
Fluoride (PWS)	0	0		0	N/A	N/A	N/A	

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments

☑ ***Other Pollutants without Limits or Monitoring***

The following pollutants do not require effluent limits or monitoring based on water quality because reasonable potential to exceed water quality criteria was not determined and the discharge concentration was less than thresholds for monitoring, or the pollutant was not detected and a sufficiently sensitive analytical method was used (e.g., <= Target QL).

Pollutants	Governing WQBEL	Units	Comments
Total Dissolved Solids (PWS)	N/A	N/A	PWS Not Applicable
Chloride (PWS)	N/A	N/A	PWS Not Applicable
Bromide	N/A	N/A	No WQS
Sulfate (PWS)	N/A	N/A	PWS Not Applicable
Fluoride (PWS)	N/A	N/A	PWS Not Applicable