pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northeast Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0007919**
Facility Type	**Industrial**	APS ID	**541569**
Major / Minor	**Major**	Authorization ID	**1250756**

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

Applicant and Facility Information

Applicant Name	**Cascades Tissue Group PA Inc.**	Facility Name	**Cascades Tissue PA/Division Of Cascades Tissue Group LLC**
Applicant Address	901 Sathers Drive	Facility Address	1 Main Street
	Pittston, PA 18640-9589		Ransom, PA 18653
Applicant Contact	William Roepke	Facility Contact	William Roepke
Applicant Phone	(570) 388-6161	Facility Phone	(570) 388-6161
Client ID	161320	Site ID	245407
SIC Code	2621	Municipality	Ransom Township
SIC Description	Manufacturing - Paper Mills	County	Lackawanna
Date Application Received	October 31, 2018	EPA Waived?	No
Date Application Accepted		If No, Reason	Major Facility, Significant CB Discharge

Purpose of Application: RENEWAL OF EXISTING NPDES PERMIT.

Summary of Review

The applicant is requesting the renewal of its NPDES permit to discharge up to 0.335 MGD of precipitator overflow (Outfall 005), 1.86 MGD of treated industrial wastewater (Outfall 101), 0.0011 MGD of treated sewage (Outfall 201) and stormwater (Outfalls 002, 003 and 004) into the Susquehanna River, a WWF- MF receiving stream. These values remain unchanged from the previous Permit and are taken from the submitted water use schematic. Per the Department's current existing use list, the receiving water does not have an existing use classification that is more protective than the designated use. The discharge is not expected to affect public water supplies.

The permit is being renewed with most of the effluent limits as the previous permit since the treatment processes and design flows have not changed. The production based effluent limitations associated with Outfall 101 will be adjusted with updated TSS data. The production tonnage remains unchanged from the previous Permit with 2017 as the highest submitted year @ 150 tons/day. Outfall 101 discharges treated industrial wastewater from the secondary fiber process water treatment system and is subject to Part 430 of the Code of Federal Regulations through Outfall 001. Limits for Total lead will be introduced this permit cycle due to toxics modelling. Additional Outfall 101 sampling is required for Group 4 and 5 toxics down to the proper QL's or more limits will apply to the final Permit. See the WQ modelling pdf for details.

The Application Certifies that the facility does not use cooling water thus 316b is non-applicable to the 2.365 MGD intake usage from the Susquehanna River. The applicant certified that they are a Non-Deink Mill and are not using any chlorophenolic-containing biocides. The permittee is only authorized to use chemical additives that are published on DEP's Approved Chemical Additives List.

The Part C condition will be continued from the Previous Permit stating that:

Cascades Tissue PA has certified that they are not using chlorophenolic-containing biocides. If Cascades Tissue PA starts to

Approve	Deny	Signatures	Date
X		Bernard Feist, P.E. / Environmental Engineer /s/	September 20, 2019
X		Amy M. Bellanca, P.E. / Environmental Engineer Manager /s/	September 23, 2019

Summary of Review

use chlorophenolic - containing biocides, Cascades Tissue Pennsylvania must inform the Department of Environmental Protection immediately and CFR 430.104 Effluent limitations apply.

Outfall 201 receives treated sewage from the paper mill's wastewater treatment plant. The effluent limits are BPT-based secondary treatment and will remain unchanged. It also discharges through Outfall 001.

Outfalls 002, 003 and 004 are stormwater Outfalls that will be sampled 1/6 months.

Outfall 005 is the discharge point for effluent from the facility's raw water treatment plant. Water from the Susquehanna River is treated and used as process water. The water is first screened and directed to precipitator beds prior to filtration through sand filters. The precipitator bed overflows to provide flow control and is discharged at Outfall 005. The pH limits remain between 6.0 and 9.0 S.U. at all times and are technology-based requirements per Chapter 95.

The WMS Report query "Water Management System Inspections" was run. On 02/20/2019 a Compliance Evaluation was done with Violations noted.

The WMS "Open Violations by Client Report" was run and there are 12 Open Violations, these must be closed before a Permit renewal is allowed.

WMS_Open_Violations_by_Client.docx

The Existing Permit expired on October 31, 2018 and the renewal was submitted October 30, 2018.

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.

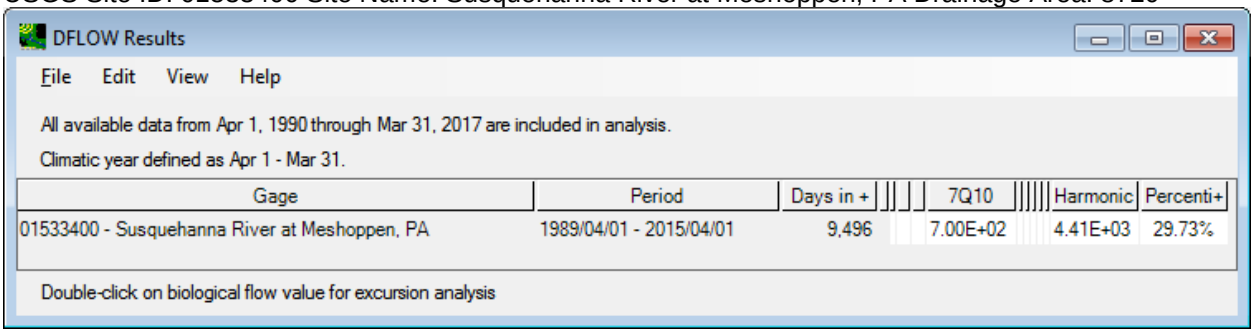
Discharge, Receiving Waters and Water Supply Information

Outfall No.	101 & 201 through 001	Design Flow (MGD)	1.86; 0.0011
Latitude	41º 23' 20.70"; 41º 23' 25.00"	Longitude	-75º 49' 20.16"; -75º 49' 18.00"
Quad Name		Quad Code	
Wastewater Description:	101-IW Process Effluent with ELG; 201-Sewage Effluent		
Receiving Waters	Susquehanna River	Stream Code	6685
NHD Com ID	66410151	RMI	187
Drainage Area	9520 mi^2	Yield (cfs/mi^2)	0.08
Q_{7-10} Flow (cfs)	762	Q_{7-10} Basis	USGS 01533400 Dflow
Elevation (ft)	542	Slope (ft/ft)	
Watershed No.	4-G	Chapter 93 Class.	WWF, MF
Existing Use		Existing Use Qualifier	
Assessment Status	Impaired		
Cause(s) of Impairment	Mercury, PCB		
Source(s) of Impairment	Source Unknown		
TMDL Status	Final	Name	Susquehanna River PCB & Metals

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

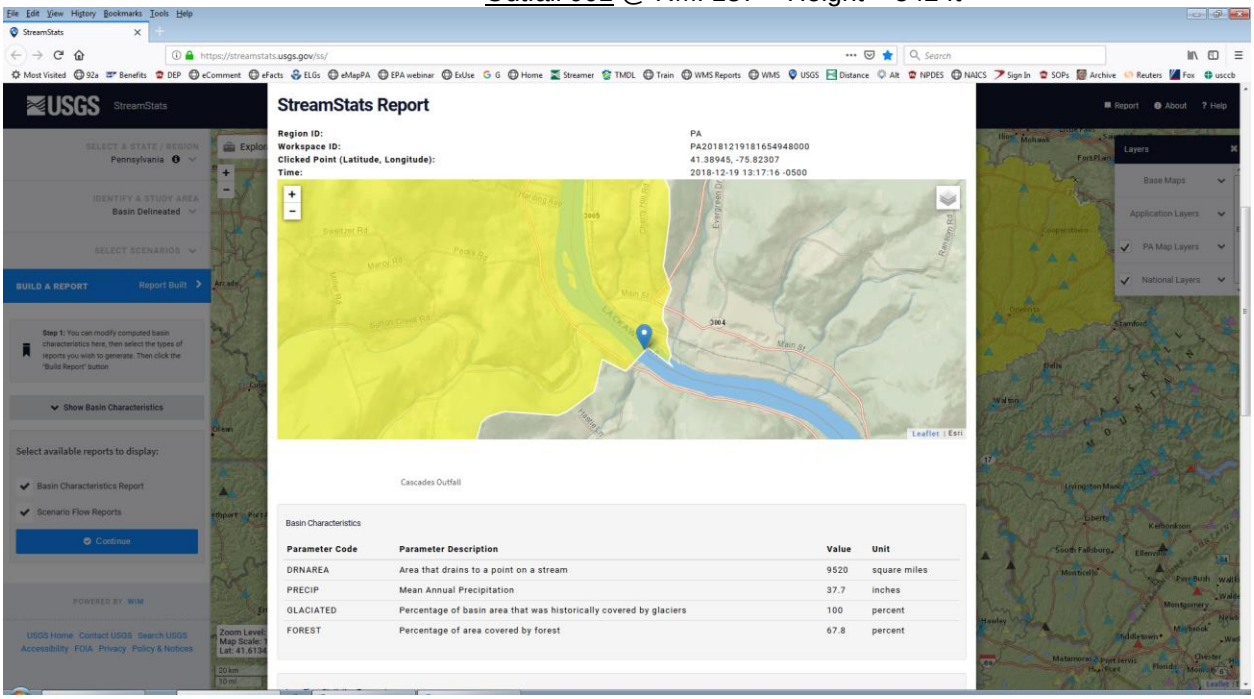
Nearest Downstream Public Water Supply Intake		Danville Municipal Water	
PWS RMI		Distance from Outfall (mi)	> 65 miles

@RMI 187 -- Hydrologic Unit Code: 2050106
USGS Site ID: 01533400 Site Name: Susquehanna River at Meshoppen, PA Drainage Area: 8720



Q7-10 LowFlowYield (cfs/mi2)= 700/8720 = 0.080

Outfall 001 @ RMI 187 - Height = 542 ft

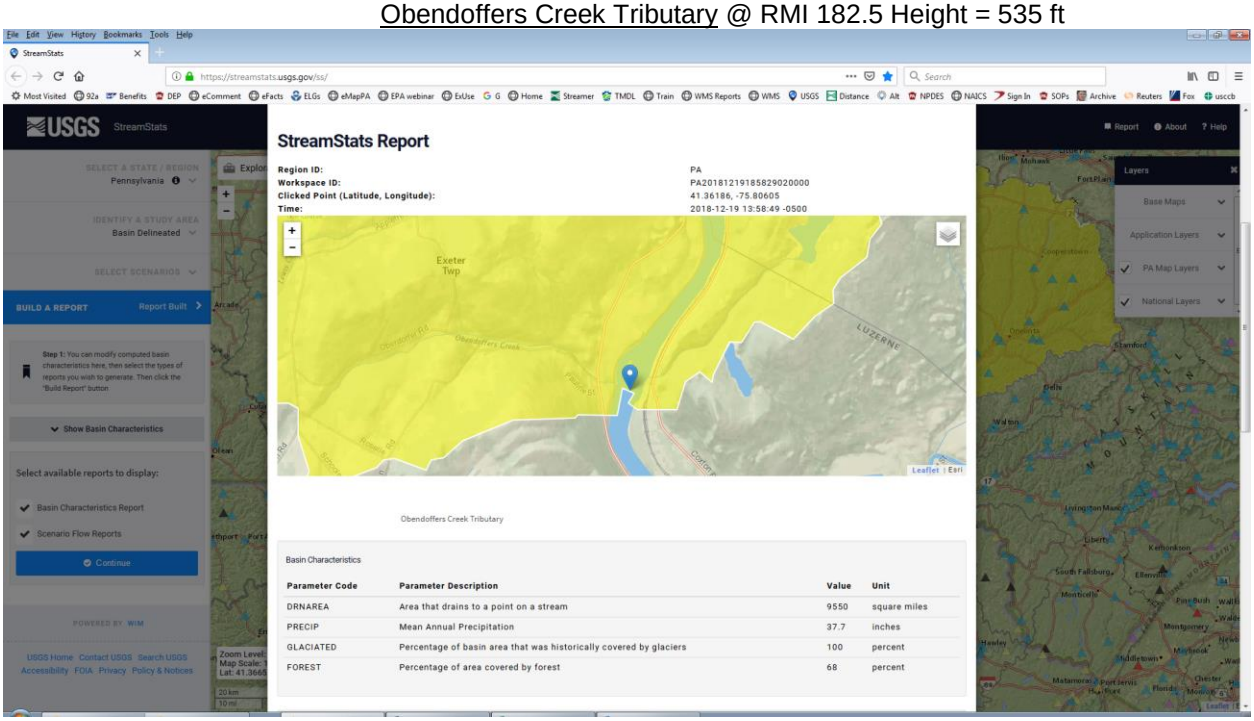


Clicked Point (Latitude, Longitude): 41.38945, -75.82307
DRNAREA Area that drains to a point on a stream = 9520 square miles

Statistic	Value	Unit
7 Day 10 Year Low Flow =	819	ft^3/s

Q7-10 LowFlowYield (cfs/mi2) = 819/9520 = 0.086
Effluent flow = 1.86 MGD or 2.87742 CFS
Dilution = 819/2.88 = 284:1

Obendoffers Creek Tributary @ RMI 182.5 Height = 535 ft



Clicked Point (Latitude, Longitude): 41.36186, -75.80605
DRNAREA Area that drains to a point on a stream= 9550 square miles

Development of Sewage Effluent Limitations

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.

Technology-Based Limitations

The following sewage 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	1.5	Average Monthly	-	92a.48(b)(2)

Comments:
The following EPA promulgated initial Effluent Guidelines and Standards apply for the Pulp, Paper and Paperboard category (40 CFR Part 430) in 1974 and 1977, amended the regulations in 1982 and 1986, and promulgated a major amendment covering toxic pollutants in 1998.

The regulated pollutants vary by subcategory, and include:

Conventional pollutants

- biochemical oxygen demand
- suspended solids
- pH (abnormally high or low)

Priority pollutants

- 2,4,6-trichlorophenol
- 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (TCDD)
- pentachlorophenol
- zinc

Nonconventional pollutants

- adsorbable organic halides (AOX)
- chemical oxygen demand
- chloroform
- trichlorosyringol
- 2,4,5-trichlorophenol
- 3,4,5-trichlorocatechol
- 3,4,5-trichloroguaiacol
- 3,4,6-trichlorocatechol
- 3,4,6-trichloroguaiacol
- 4,5,6-trichloroguaiacol
- tetrachlorocatechol
- tetrachlorguaiacol
- 2,3,4,6-tetrachlorophenol
- 2,3,7,8-tetrachlorodibenzofuran (TCDF)

Title 40: Protection of Environment
PART 430—THE PULP, PAPER, AND PAPERBOARD POINT SOURCE CATEGORY
40 CFR 430.100 Secondary Fiber Non- Deink / Subpart J

Subpart J—Secondary Fiber Non-Deink Subcategory

§ 430.100 Applicability; description of the secondary fiber non-deink subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of: Paperboard from wastepaper; tissue paper from wastepaper without deinking at secondary fiber mills; molded products from wastepaper without deinking at secondary fiber mills; and builders' paper and roofing felt from wastepaper.

§ 430.102 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

(a) Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

Subpart J

[BPT effluent limitations for secondary fiber non-deink facilities where tissue from wastepaper is produced without deinking]

Pollutant or pollutant property	Kg/kkg (or pounds per 1,000 lb) of product		
	Continuous dischargers		Non-continuous dischargers (annual average days)
	Maximum for any 1 day	Average of daily values for 30 consecutive days	
BOD5	13.7	7.1	4.0
TSS	17.05	9.2	5.1
pH	(1)	(1)	(1)

[1]Within the range of 5.0 to 9.0 at all times.

Using Cascade's Current Tissue Production Rate with Year 2017 as the highest year at 53,196 Tons Annual @ 30 Days/Month = 53,196 Tons / 12 months / 30 Days = @ 150 ton/day.
This remains unchanged from the previous Permit.

150 ~~ton~~/day x 2,000 lbs/~~ton~~ = **300,000 lbs/day**

Effluent limitations for continuous dischargers:

BOD5
Average
7.1 lbs/1,000 ~~lb product~~ x 300,000 ~~lbs~~/day = 2,130 lbs/day
Maximum
13.7 lbs/1,000 ~~lb product~~ x 300,000 ~~lbs~~/day = 4,110 lbs/day

TSS
Average
9.2 lbs/1,000 ~~lb product~~ x 300,000 ~~lbs~~/day = 2,760 lbs/day
Maximum
17.05 lbs/1,000 ~~lb product~~ x 300,000 ~~lbs~~/day = 5,115 lbs/day

pH
Shall remain within the range of 6.0 to 9.0 at all times per Chapter 95.2(1) Effluent standards for industrial wastes and are more protective than the ELG-based limits of 5.0 – 9.0 S.U.

Stormwater

For Outfalls 002,003 and 004 the Following PaDEP's General Stormwater Permit Appendix E applies to SIC Code 2621 facilities:

APPENDIX E

PAPER AND ALLIED PRODUCTS

I. APPLICABILITY

The requirements in Appendix E apply to stormwater discharges associated with industrial activity from Paper and Allied Products facilities as identified by the following SIC Codes: 2611, 2621, 2631, 2652 – 2657 and 2671 – 2679. Other facilities may be required to comply with this appendix if notified by DEP in writing.

II. MONITORING REQUIREMENTS

The permittee must monitor and report analytical results for the parameters listed below on Discharge Monitoring Reports (DMRs) for representative Outfalls, subject to footnotes provided.

Parameter	Monitoring Requirements (1)		Limits
	Minimum Measurement Frequency (2)	Sample Type	
pH (S.U.)	1 / 6 months	Grab	XXX
Chemical Oxygen Demand (COD) (mg/L)	1 / 6 months	Grab	120
Total Suspended Solids (TSS) (mg/L)	1 / 6 months	Grab	100

Footnotes

(1) In accordance with Part C V.B, the permittee shall conduct additional monitoring if specified by DEP in the letter authorizing permit coverage or other correspondence.

(2) This is the minimum number of sampling events required. Permittees are encouraged to perform more than the minimum number of sampling events.

Water Quality-Based Limitations

In the Previous Permit the ELG prescribed average monthly mass limit of 2,130 1bs./day for BOD5 was converted to a concentration (BOD5 conc. = 2,130 lbs./day ÷ 8.34 x 1.86 MGD = 137 mg/l) and was substituted for CBOD5 in the model. The default value of 25 mg/L was used as the discharge concentration of NH3-N and a default D.O. of 3.0 mg/L was used. The modeling concurred that the ELG based mass limit for BOD5 controls, and no water quality-based effluent limits are required for NH3-N or D.O.

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

Outfall 101 – IW Toxics

TOXICS SCREENING ANALYSIS
WATER QUALITY POLLUTANTS OF CONCERN
VERSION 2.5

Facility: **Cascades IW** NPDES Permit No.: **PA0007919** Outfall: **101**
Analysis Hardness (mg/L): **167** Discharge Flow (MGD): **1.86** Analysis pH (SU): **7**

	Parameter	Maximum Concentration in Application or DMRs (µg/L)		Most Stringent Criterion (µg/L)	Candidate for PENTOXSD Modeling?	Most Stringent WQBEL (µg/L)	Screening Recommendation
Group 1	Total Dissolved Solids		720000	500000	Yes		
	Chloride		100000	250000	No		
	Bromide		124	N/A	No		
	Sulfate		27700	250000	No		
	Fluoride		100	2000	No		
Group 2	Total Aluminum		568	750	No		
	Total Antimony		0.5	5.6	No		
	Total Arsenic		2.5	10	No		
	Total Barium		92.1	2400	No		
	Total Beryllium		1	N/A	No		
	Total Boron		50	1600	No		
	Total Cadmium	<	0.3	0.271	Yes	10.73	No Limits/Monitoring
	Total Chromium		5.59	N/A	No		
	Hexavalent Chromium		0.047	10.4	No		
	Total Cobalt		0.639	19	No		
	Total Copper		3.26	9.3	No		
	Total Cyanide		5	N/A	No		
	Total Iron		394	1500	No		
	Dissolved Iron		215	300	No		
	Total Lead		826	3.2	Yes	154.1	Establish Limits
	Total Manganese		151	1000	No		
	Total Mercury	<	0.1	0.05	No (Value < QL)		

*Where the maximum reported value in an application for a pollutant is "non-detect" using a QL that is greater than the corresponding Target QL identified in the application instructions, the pollutant is a pollutant of concern if the maximum reported value exceeds the applicable Chapter 93 criterion. Application managers may request or otherwise provide the applicant with the opportunity to collect additional data using the Target QL. This applies to the following:

p-Chloro-m-Cresol	<	12.5	30	No		
Pentachlorophenol	<	62.5	0.27	Yes	43.9	Establish Limits
Phenol	<	12.5	10400	No		
2,4,6-Trichlorophenol	<	12.5	1.4	Yes	402	No Limits/Monitoring
Acenaphthene	<	12.5	17	No		
Acenaphthylene	<	12.5	N/A	No		
Anthracene	<	12.5	8300	No		
Benzidine	<	12.5	0.000086	No (Value < QL)		
Benzo(a)Anthracene	<	12.5	0.0038	Yes	0.855	Establish Limits
Benzo(a)Pyrene	<	12.5	0.0038	Yes	0.855	Establish Limits
3,4-Benzofluoranthene	<	12.5	0.0038	Yes	0.855	Establish Limits
Benzo(ghi)Perylene	<	12.5	N/A	No		
Benzo(k)Fluoranthene	<	12.5	0.0038	Yes	0.855	Establish Limits
Bis(2-Chloroethoxy)Methane	<	12.5	N/A	No		
Bis(2-Chloroethyl)Ether	<	12.5	0.03	Yes	6.748	Establish Limits
Bis(2-Chloroisopropyl)Ether	<	12.5	1400	No		
Bis(2-Ethylhexyl)Phthalate	<	12.5	1.2	Yes	270	No Limits/Monitoring
4-Bromophenyl Phenyl Ether	<	12.5	54	No		

4-Chlorophenyl Phenyl Ether	<	12.5	N/A	No		
Chrysene	<	12.5	0.0038	Yes	0.855	Establish Limits
Dibenzo(a,h)Anthrancene	<	12.5	0.0038	Yes	0.855	Establish Limits
1,2-Dichlorobenzene	<	12.5	160	No		
1,3-Dichlorobenzene	<	12.5	69	No		
1,4-Dichlorobenzene	<	12.5	150	No		
3,3-Dichlorobenzidine	<	12.5	0.021	Yes	4.723	Establish Limits
Diethyl Phthalate	<	12.5	800	No		
Dimethyl Phthalate	<	12.5	500	No		
Di-n-Butyl Phthalate	<	12.5	21	No		
2,4-Dinitrotoluene	<	12.5	0.05	Yes	8047	No Limits/Monitoring
2,6-Dinitrotoluene	<	12.5	0.05	Yes	4979	No Limits/Monitoring
1,4-Dioxane	<	2.5	N/A	No		
Di-n-Octyl Phthalate	<	12.5	N/A	No		
1,2-Diphenylhydrazine	<	12.5	0.036	Yes	8.1	Establish Limits
Fluoranthene	<	12.5	40	No		
Fluorene	<	12.5	1100	No		
Hexachlorobenzene	<	12.5	0.00028	Yes	0.063	Establish Limits
Hexachlorobutadiene	<	12.5	0.44	Yes	50.295	No Limits/Monitoring
Hexachlorocyclopentadiene	<	12.5	1	Yes	25.148	Monitor
Hexachloroethane	<	12.5	1.4	Yes	301.8	No Limits/Monitoring
Indeno(1,2,3-cd)Pyrene	<	2.5	0.0038	No (Value < QL)		
Isophorone	<	12.5	35	No		
Naphthalene	<	12.5	43	No		
Nitrobenzene	<	12.5	17	No		
n-Nitrosodimethylamine	<	12.5	0.00069	Yes	0.155	Establish Limits
n-Nitrosodi-n-Propylamine	<	12.5	0.005	Yes	1.125	Establish Limits
n-Nitrosodiphenylamine	<	12.5	3.3	Yes	742.3	No Limits/Monitoring
Phenanthrene	<	12.5	1	Yes	25.148	Monitor

Additional Outfall 101 samples are required for some toxics to the proper QL's or more limits will apply to the final Permit. Remaining toxics of concern that limits may apply are :

Pentachlorophenol
Benzo(a)Anthracene
Benzo(a)Pyrene
3,4-Benzofluoranthene
Benzo(ghi)Perylene
Benzo(k)Fluoranthene
Bis(2-Chloroethyl)Ether
Chrysene
Dibenzo(a,h)Anthrancene
3,3-Dichlorobenzidine
1,2-Diphenylhydrazine
Hexachlorobenzene
Hexachlorocyclopentadiene
n-Nitrosodimethylamine
n-Nitrosodi-n-Propylamine
Phenanthrene

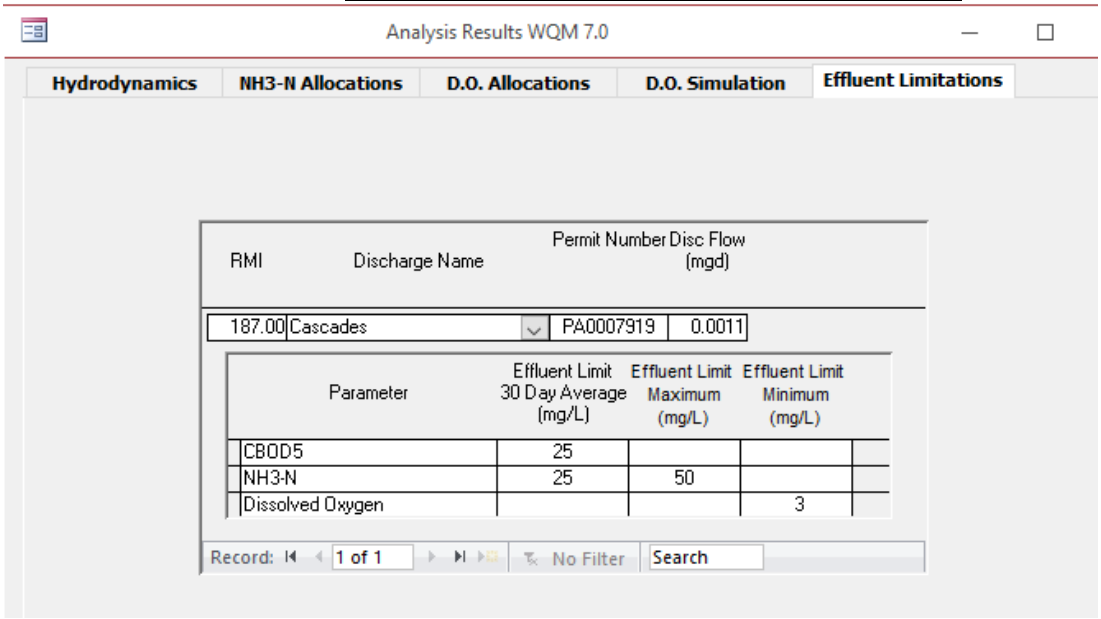
Outfall 201 – Sewage Toxics

TOXICS SCREENING ANALYSIS
WATER QUALITY POLLUTANTS OF CONCERN
VERSION 2.5

Facility: **Cascades 201 Sewage** NPDES Permit No.: **PA0007919** Outfall: **201**
Analysis Hardness (mg/L): **160** Discharge Flow (MGD): **0.0011** Analysis pH (SU): **7**

	Parameter		Maximum Concentration in Application or DMRs (µg/L)	Most Stringent Criterion (µg/L)	Candidate for PENTOXSD Modeling?	Most Stringent WQBEL (µg/L)	Screening Recommendation
Group 1	Total Dissolved Solids		810000	500000	Yes		
	Chloride		109000	250000	No		
	Bromide		124	N/A	No		
	Sulfate		8240	250000	No		
	Fluoride		100	2000	No		
Group 2	Total Aluminum		139	750	No		
	Total Antimony		247	5.6	Yes	448669	No Limits/Monitoring
	Total Arsenic		5.22	10	No		
	Total Barium		23.3	2400	No		
	Total Beryllium		1	N/A	No		
	Total Boron		2560	1600	Yes	60000000	No Limits/Monitoring
	Total Cadmium	<	0.3	0.271	Yes	10.73	No Limits/Monitoring
	Total Chromium		5.36	N/A	No		
	Hexavalent Chromium		640	10.4	Yes	120778.1	No Limits/Monitoring
	Total Cobalt		1.01	19	No		
	Total Copper		200	9.3	Yes	103772	No Limits/Monitoring
	Total Cyanide		15.7	N/A	No		
	Total Iron		325	1500	No		
	Dissolved Iron		58.2	300	No		
	Total Lead		0.576	3.2	No		
	Total Manganese		45.5	1000	No		
	Total Mercury	<	0.125	0.05	No (Value < QL)		
	Total Molybdenum		50	N/A	No		
	Total Nickel		6.03	52.2	No		
	Total Phenols (Phenolics)		3.33	5	No		
	Total Selenium		24.8	5.0	Yes	399728	No Limits/Monitoring
	Total Silver		0.5	3.8	No		

Outfall 201 – Sewage WQM 7.0



Cascade 2019 WQ Modelling.pdf

Best Professional Judgment (BPJ) Limitations

From the last Permit cycle – A TSS reduction of 68% of the allowed ELG 1,007,400 lbs/year occurred due to the Chesapeake Bay TMDL based on 3 years of data.

In a letter dated December 20, 2012, EPA expressed concerns with the methodology used to calculate TSS effluent limitations. To gain a better understanding of Cascades' process, we held a meeting on March 7, 2013, during which Cascades provided the last three years of TSS sampling data. This lead to the reevaluation of TSS effluent limitations and the calculation of a TSS Total Annual Mass Load in consideration of the Chesapeake Bay TMDL. The data was used to develop a reasonable cap for TSS Total Annual Mass Loads based on monthly average concentrations generated from the actual production of facial tissue, as follows:

$TSS_{\text{Total Annual Mass Load}}$ *= design flow (MGD) x TSS 3-yr avg conc (mg/L) x 8.34 (conversion factor) x 365 (days/year)*

= 1.86 x 56.9 x 8.34 x 365
= 322,165 lbs

The TSS (Total Mass Load, lbs.) parameter has been retained in the permit to have Cascades calculate the facility's Total Monthly TSS load in lbs. and the Total Annual TSS load in lbs. at Outfall 101.

It is anticipated that the above calculated Total Annual Mass Load may become part of a future update to the Chesapeake Bay Phase II Watershed Implementation Plan taking into account actual production based concentrations and mass loads at this facility.

Updated for this Permit Cycle –

The Present TSS yearly average from 10/1/2014 to 9/30/2017 returns a value of 299,193 lbs/ year.
A yearly maximum of 407,442 lbs/ year occurred from 10/1/2015 to 9/30/2016

Total Suspended Solids (Total Load, lbs) (51530)				
	10/1/2016	9/30/2017		271935
	10/1/2015	9/30/2016		407442
	10/1/2014	9/30/2015		218203

With this updated data a more realistic limit will be set at **407,442 lbs/year** which is still a 60% reduction of the amount allowed by the ELG.

Effluent Limitations
OUTFALL 101:

	Specific Substance	Technology-based Requirements (1)		Requirements to (1) Meet Water Quality Standards	
		Monthly Avg. (2)	Daily Max. (3)	Monthly Avg. (2)	Annual
1.	BOD_5 (lbs/day)	2,130	4,110		
2.	TSS (lbs/day)	2,760	5,115		
3.	TSS (lbs)	Report Total Mon	**407,442*** Total Annual		
4.	pH	5.0 to 9.0 S.U. at all times		6.0 to 9.0 S.U. at all times	
5.	Oil and Grease (mg/L)	15	30		
6.	Net Total Nitrogen			40,569 lbs/yr	
7.	Net Total Phosphorus			1,941 lbs/yr	
8.	Total Lead (mg/l)	0.154	0.240		

(1) Permit requirements would be the more stringent of the two.
(2) Specify as daily average, 7-day average, or **30-day average**.
(3) Maximum not to be exceeded for any one day or at any time.
*** This load limit was established using Best Engineering Judgment based upon existing performance.**

Anti-Backsliding

EFFLUENT LIMITATIONS FOR **OUTFALL 005** BASED ON A FLOW OF **0.335 MGD**: (precipitator overflow)

Effluent Limitations

Parameters	Mass (lb/day)		Concentration (mg/l)			
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0

Plus Add flow monitoring

EFFLUENT LIMITATIONS FOR **OUTFALL 101** BASED ON A FLOW OF **1.86 MGD**: (secondary fiber process water)

Effluent Limitations

Parameters	Mass (lb/day)			Concentration (mg/l)			
	Average Monthly	Daily Maximum	Annual	Minimum	Average Monthly	Daily Maximum	Instant. Maximum
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	XXX
pH (S.U.)	XXX	XXX	XXX	6.0	XXX	XXX	9.0
BOD5	2,130	4,110	XXX	XXX	Report	Report	XXX
Total Suspended Solids	2,760	5,115	XXX	XXX	Report	Report	XXX
Total Suspended Solids (Total Mass Load, lbs)	Report Total Mon (lbs)	XXX	**407,442*** Total Annual (lbs)	XXX	XXX	XXX	XXX
Oil and Grease	XXX	XXX	XXX	XXX	15	30	XXX

EFFLUENT LIMITATIONS FOR **OUTFALL 201** BASED ON A FLOW OF **0.0011 MGD**: (this sewage discharge is exempt from Chesapeake Bay Nutrient monitoring requirements since the flow is less than 0.002 MGD)

Effluent Limitations

Parameters	Mass (lb/day)		Concentration (mg/l)			
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0
Total Residual Chlorine	XXX	XXX	XXX	1.5	XXX	2.5
CBOD5	XXX	XXX	XXX	25	XXX	50
Total Suspended Solids	XXX	XXX	XXX	30	XXX	60
Fecal Coliform (CFU/100 ml) May 1 - Sep 30	XXX	XXX	XXX	200 Geo Mean	XXX	1000
Fecal Coliform (CFU/100 ml) Oct 1 - Apr 30	XXX	XXX	XXX	2000 Geo Mean	XXX	10000

Section 7 of Pennsylvania's Phase 2 Chesapeake Bay Watershed Implementation Plan (Phase 2 WIP) describes Pennsylvania's strategy for reducing nutrients to the Chesapeake Bay from wastewater facilities.

Appendix Q of the Chesapeake Bay TMDL segregates Pennsylvania's point sources into four sectors – significant sewage dischargers, significant industrial waste (IW) dischargers, combined sewer overflows (CSOs) and non-significant dischargers (both sewage and IW facilities). All sectors contain a listing of individual facilities with NPDES permits that were believed to be discharging at the time the TMDL was published (2010). All sectors with the exception of the non-significant dischargers have individual wasteload allocations (WLAs) for TN and TP assigned to specific facilities. Non-significant dischargers have a bulk or aggregate allocation for TN and TP based on the facilities in that sector that were believed to be discharging at that time and their estimated nutrient loads.

The Chesapeake Bay TMDL specifies individual WLAs for 183 significant sewage treatment facilities. A sewage facility is considered significant if it has a design flow of at least 0.4 MGD. For rollout of its permitting strategy, DEP classified these facilities into three phases.

Phase 2 WIP Wastewater Supplement
Revised, October 25, 2018

Table 7-2: Significant IW Dischargers According to Bay TMDL

NPDES Permit No.	Facility	TN WLA (lbs/yr)	TP WLA (lbs/yr)
PA0007498	Wise Foods Inc.	19,957	898
PA0007552	Empire Kosher Poultry	21,928	740
PA0007919	Cascades Tissue Group	40,569	1,941

Note that nutrient monitoring limits required by the Chesapeake Bay strategy were previously established .
An update is that the minimum monitoring frequency for TN species and TP in new or renewed NPDES permits for Significant Sewage dischargers is 2/week.

Facilities with NPDES permits must use DEP's eDMR system for reporting, except small flow treatment facilities. An Annual DMR must be submitted by the end of the Truing Period, November 28. As attachments to the Annual DMR a facility must submit a completed Annual Chesapeake Bay Spreadsheet, available through DEP's Supplemental Reports website, which contains an Annual Nutrient Monitoring worksheet and an Annual Nutrient Budget worksheet. This Spreadsheet will be submitted once per Compliance Year only, and reflect all nutrient sample results (for the period October 1 – September 30), Credit transactions (including the Truing Period) and Offsets applied during the Compliance Year

In accordance with the Chesapeake Bay Tributary Strategy, Chesapeake Bay Nutrient reduction requirements specify annual mass load limits for Net Total Nitrogen and Net Total Phosphorus as 40,569 lbs./yr and 1,94 lbs./yr, respectively. Chesapeake Bay Requirements - combined effluent from Outfalls 101, 201 and 005.

	Mass (lbs)		Concentration (mg/l)		
Parameters	**Monthly**	**Annual**	**Minimum**	**Average Monthly**	**Daily Maximum**
Ammonia-Nitrogen	Report	Report	XXX	Report	XXX
Total Kjeldahl Nitrogen	Report	XXX	XXX	Report	XXX
Nitrate-Nitrite as N	Report	XXX	XXX	Report	XXX
Total Nitrogen	Report	Report	XXX	Report	XXX
Total Phosphorus	Report	Report	XXX	Report	XXX
Total Nitrogen Effluent Net	Report	40,569	XXX	XXX	XXX
Total Phosphorus Effluent Net	Report	1,941	XXX	XXX	XXX

The permit contains the following major special conditions:

Chesapeake Bay Schedule
Requirements Applicable to Stormwater Outfalls by SIC Code
Chemical Additives

- A permittee that desires to use a chemical additive will check DEP's Approved List of Chemical Additives ("Approved List"). Please see the Instructions for Using DEP's Approved List (PDF).
- If the name of the chemical the permittee wishes to use is identified on the Approved List, the permittee will complete and submit the Chemical Additives Notification Form (3800-FM-BCW0487) to the DEP regional office that issued the NPDES permit. The permittee will calculate the maximum safe usage rate for the chemical based on toxicity information contained in the Approved List.
- If the name of the chemical is not on the Approved List, the permittee may complete and submit the New Chemical Additives Request Form (3800-FM-BCW0486) with the MSDS sheet to DEP's Bureau of Clean Water for review.
- If the Bureau of Clean Water approves the request, the chemical additive will be added to the Approved List, and the permittee may then submit the Chemical Additives Notification Form to the DEP regional office.
- Permittees will record actual usage rates on the Chemical Additives Usage Form (3800-FM-BCW0439) and submit the form with the Discharge Monitoring Report (DMR).

Compliance History

DMR Data for Outfall 001 (from November 1, 2017 to October 31, 2018)

Parameter	OCT-18	SEP-18	AUG-18	JUL-18	JUN-18	MAY-18	APR-18	MAR-18	FEB-18	JAN-18	DEC-17	NOV-17
Nitrate-Nitrite (mg/L) Average Monthly	< 2.0	0.061	< 0.05	< 0.05	0.10	0.12	0.0297	0.13	2.25	0.32	0.21	0.20
Nitrate-Nitrite (lbs) Total Monthly	< 23.85	107.85	< 0.546	< 0.530	51	37.18	0.284	38.42	497.04	79.72	35.42	39.65
Total Nitrogen (mg/L) Average Monthly	3.05	24.06	3.48	3.26	2.93	2.84	3.59	3.43	7.00	4.18	4.08	4.73
Total Nitrogen (lbs) Effluent Net Total Monthly	1059.27	731.62	107.88	849	849	894.31	34.43	1037.62	1537.84	1158.95	692.42	943.94
Total Nitrogen (lbs) Total Monthly	31.97	731.62	2285	29.35	849	894.31	34.43	1037.62	1537.84	1158.95	694.42	943.94
Ammonia (mg/L) Average Monthly	0.10	0.12	< 0.50	< 0.500	< 0.500	0.44	< 0.500	0.50	0.3	0.48	0.50	0.50
Ammonia (lbs) Total Monthly	46.87	34.98	< 4.92	< 5.463	< 148	140.19	< 4.79	153.69	66.27	134.50	85.32	99.66
TKN (mg/L) Average Monthly	3.05	3.14	3.48	3.26	2.89	2.73	3.58	3.31	4.75	3.87	3.87	4.53
TKN (lbs) Total Monthly	31.97	915.26	1007.19	288.76	837	857.12	34.34	999.20	1040.80	1079.23	659.01	904.29
Total Phosphorus (mg/L) Average Monthly	0.20	1.90	0.12	0.21	0.12	0.11	0.141	0.54	0.20	0.25	0.23	0.63
Total Phosphorus (lbs) Effluent Net Total Monthly	68.2	553.82	32.86	16.41	35	34.86	1.35	168.16	43.63	72.95	38.47	121.81
Total Phosphorus (lbs) Total Monthly	85.93	553.82	32.86	16.41	35	34.86	1.35	168.16	43.63	72.95	38.47	121.81

DMR Data for Outfall 101 (from November 1, 2017 to October 31, 2018)

Parameter	OCT-18	SEP-18	AUG-18	JUL-18	JUN-18	MAY-18	APR-18	MAR-18	FEB-18	JAN-18	DEC-17	NOV-17
Flow (MGD) Average Monthly	1.26	1.165	1.189	1.18	1.18	1.18	1.15	1.15	1.14	1.11	0.96	0.91
Flow (MGD) Daily Maximum	1.94	1.37	1.78	1.48	1.51	1.48	1.35	1.41	1.39	2.06	1.70	1.03
pH (S.U.) Minimum	7.1	6.7	6.9	6.9	7.1	7.2	7.5	7.5	7.4	7.5	7.5	7.7
pH (S.U.) Maximum	7.7	7.6	7.3	7.4	7.4	7.6	8.1	7.7	7.7	7.8	7.9	7.9
BOD5 (lbs/day) Average Monthly	1652.24	1256.9	2057	1800	1800	2656.49	3179	2991.13	2993.15	3151.85	1245.13	1637.27
BOD5 (lbs/day) Daily Maximum	3925.89	2027.3	3425	3061	3061	3682.61	5989	3929.81	4222.13	4982.32	2627.60	2481.73
BOD5 (mg/L) Average Monthly	137	119.8	222.7	107	182	262	319	302.94	323.71	311.71	177.33	215.89
BOD5 (mg/L) Daily Maximum	221	206	370	262	276	351	544	380.00	396	397.00	354	327
TSS (lbs/day) Average Monthly	836	585.9	485.64	410.56	544	428.38	614	910.84	713.85	1004.27	1271.56	817.67
TSS (lbs/day) Daily Maximum	1066	1102.2	859.35	729.46	819	767.28	950	1459.50	792.63	1620.11	2688.40	1151.09
TSS (mg/L) Average Monthly	74	61.4	53.8	48.01	51	42.73	63	91.30	77.76	101.05	185.17	108.39
TSS (mg/L) Daily Maximum	96	91.3	112	83.3	66	80	89	126.00	88	125	307	145
Total Suspended Solids (lbs) Total Monthly	25908	17894	15054	12727	82800	3427.01	5892	8197.53	4996.94	6025.63	7629.35	6540.85
Oil and Grease (mg/L) Average Monthly	< 5.00	< 5.06	0.92	6.26	< 5.0	5.1	< 5.0	7.64	5.0	10.47	8.90	6.25
Oil and Grease (mg/L) Daily Maximum	< 5.00	< 5.21	8.30	36.3	< 5.9	5.4	6.4	17.20	14.3	20	16.70	25

DMR Data for Outfall 201 (from November 1, 2017 to October 31, 2018)

Parameter	OCT-18	SEP-18	AUG-18	JUL-18	JUN-18	MAY-18	APR-18	MAR-18	FEB-18	JAN-18	DEC-17	NOV-17
Flow (MGD) Average Monthly	0.0005	0.0002	0.0002	0.0003	0.0006	0.0004	0.0003	0.0006	0.0003	0.0002	0.0003	0.0004
Flow (MGD) Daily Maximum	0.0062	0.0005	0.0009	0.0017	0.0019	0.0019	0.0006	0.0022	0.0021	0.0004	0.0006	0.0007
pH (S.U.) Minimum	6.8	6.9	6.9	6.8	6.5	7.5	6.6	6.9	6.5	6.6	6.7	6.7
pH (S.U.) Maximum	7.6	7.6	7.2	7.4	7.4	8.8	7.8	7.3	7.3	7.2	7.4	7.9
TRC (mg/L) Average Monthly	0.58	0.17	0.62	0.67	0.66	0.5	0.83	0.68	0.14	0.56	0.63	0.67
TRC (mg/L) Instantaneous Maximum	0.97	0.88	1.14	1.18	1.45	1.16	1.26	1.21	0.77	1.02	1.12	1.05
CBOD5 (mg/L) Average Monthly	4.60	< 3.00	< 3.00	< 3.00	< 3.00	3	< 3.00	3.0	12	12	2.7	20
TSS (mg/L) Average Monthly	4	9.17	8.50	9.33	7.80	2.5	7.00	8.33	2.5	2.5	12	13
Fecal Coliform (CFU/100 ml) Geometric Mean	2	< 1	1	1	31.3	7.4	1	7.4	1	1	1	1
Fecal Coliform (CFU/100 ml) Instantaneous Maximum	2	< 1	1	1	31.3	7.4	1	7.4	1	1	1	1

DMR Data for Outfall 005 (from November 1, 2017 to October 31, 2018)

Parameter	OCT-18	SEP-18	AUG-18	JUL-18	JUN-18	MAY-18	APR-18	MAR-18	FEB-18	JAN-18	DEC-17	NOV-17
pH (S.U.) Minimum	8.1	8.2	8.0	7.7	7.5	7.6	7.2	7.2	7.1	7.2	7.8	7.8
pH (S.U.) Instantaneous Maximum	8.5	8.6	8.4	8.1	8.8	8.6	7.8	8.1	7.6	8.0	8.4	8.0