Pennsylvania Department of Environmental Protection

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0205079**
Facility Type	**Industrial**	APS ID	**785236**
Major / Minor	**Minor**	Authorization ID	**1497994**

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

Applicant and Facility Information

Applicant Name	**American Beverage Corporation**	Facility Name	**Verona Facility**
Applicant Address	1 Daily Way	Facility Address	1 Daily Way
	Verona, PA 15147-1135		Verona, PA 15147-1199
Applicant Contact	Shawn Nihoff	Facility Contact	Michael Obringer
Applicant Phone	(412) 828-9020	Facility Phone	(412) 828-9020
Client ID	264354	Site ID	263473
SIC Code	2086	Municipality	Verona Borough
SIC Description	Bottled and Canned Soft Drinks and Carbonated Waters	County	Allegheny
Date Application Received	August 30, 2024	EPA Waived?	Yes
Date Application Accepted	September 3, 2024	If No, Reason	

Purpose of Application: Renewal of Individual NPDES permit for discharge of NCCW and industrial stormwater

Summary of Review

The Department received an NPDES permit application for renewal coverage of the American Beverage Corporation Verona Facility on 8/30/2024. The prior permit was issued on 2/5/2020 with an effective date of 3/1/2020 and an expiration date of 2/28/2025.

American Beverage Corporation Verona Facility manufactures beverage products including Daily's Cocktails, Little Hugs, and Sunny-D as well as other fruit drinks. Oakmont Water Authority supplies water that is treated onsite with activated carbon filters and then used for production. The filter backwash, wash water, wastewater, and boiler blowdown are all discharged to the ALCOSAN sanitary sewer system. Pasteurizers used in production are cooled using noncontact cooling water (NCCW) pumped from groundwater wells. All NCCW outfalls are configured the same way, in that, the well water is pumped from the well and has two flow paths. The first flow path is through the pasteurization units, where the water is used for once-through noncontact cooling and then directed to the outfall. The second flow path is to a bypass line that directs the well water around the pasteurizer to tie in with the heated NCCW, cooling it prior to being discharged at the outfall. The typical well water flow path for NCCW is illustrated in Figure 1.

There are six total outfalls at the facility. Outfall 001 discharges NCCW, compressor cooling water, stormwater, and in winter months, rail car condensate. Outfall 003 and Outfall 004 discharge NCCW along with stormwater. Outfalls 006, 007, and 008 discharge only stormwater. Outfall 008 is a newly added existing outfall based on observations during a site visit by the facility's consultant on 7/27/2024. All outfalls discharge to Plum Creek which has a 25 PA Code Chapter 93 Warm Water Fishes designation and is impaired for oil & grease and sulfate, both from urban runoff/storm sewers, and acid mine drainage metals at the point of discharge.

Approve	Deny	Signatures	Date
X		Jace William Marsh / Environmental Engineering Specialist	January 27, 2025
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	January 30, 2025

Summary of Review

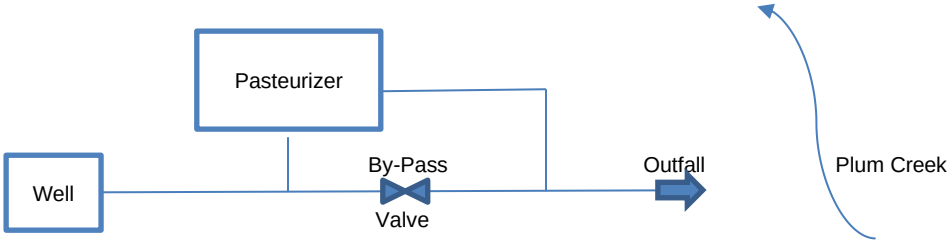


Figure 1. Well water flow path for NCCW

The facility has historically used this configuration, as illustrated above, as the typical well water flow path. Pursuant to 40 CFR 125.3(f):

> "*Technology-based treatment requirements cannot be satisfied through the use of "non-treatment" techniques such as flow augmentation and in-stream mechanical aerators. However, these techniques may be considered as a method of achieving water quality standards on a case-by-case basis when: . . . (3) The discharger demonstrates that such a technique is the preferred environmental and economic method to achieve that standards after consideration of alternatives such as advanced waste treatment, recycle and reuse, land disposal, changes in operating methods, and other available methods.*"

This existing passive method does not add any pollutants to the discharge, is sustainable (not energy intensive), and is able to maintain consistent compliance with existing thermal limits without many significant violations. The environmental downside for this system is that technical analysis of the discharge for thermal effluent limits becomes challenging during colder months which naturally have lower surface water temperature goals. In months like December, January, and February, raw well water flow would have to be increased relative to NCCW flow, past the average flows recorded at the outfalls used for modeling thermal limits. Having a higher actual discharge flow than modeled relative to the $Q_{7\text{-}10}$ low flow of Plum Creek creates even lower temperature effluent limits for the outfalls in theory, which necessitates *even more flow* needed from the wells to reach temperature goals. This constant cyclical exceedance of modeled flow leading to lower theoretical effluent temperature goals in attempts to reach current temperature goals is not productive and would lead to an excessive volume of effluent from this facility in Plum Creek during low-flow conditions, so a compromise must be made to utilize average flows for temperature modeling during these colder months to continue use of this environmentally advantageous passive system.

An evaluation of the economic methods to achieve the standard would require the operator to consider installing an active cooling system. This work would include the following: 1) Rework plumbing to connect water cooling system to non-contact cooling water to mitigate waste heat after the pasteurizer; 2) Run additional electrical lines to cooling water system location; 3) Purchase and installation of water cooling system; 4) Operation and management of cooling water system (including annual maintenance and electrical cost). Since the facility would have a direct added cost per 1°F temperature change in the NCCW water discharge, it would be incentivized to discharge just below permitted effluent temperature limitations (which vary over the course of the year), producing discharges at higher temperatures to Plum Creek than the existing passive method.

In conclusion, for this situation, to change the current operations to install a water cooling system would come at an environmental and economic cost. The environmental cost is that the discharge from the facility would be at a higher temperature through the course of the year using an energy intensive system instead of the cool temperatures that can already be achieved passively. The economic cost is having the facility invest in installing, operating, and maintaining a water cooling system that would likely produce higher temperature discharges. The determination for this facility pursuant to 40 CFR 125.3(f) is that the historic treatment method of cooling the non-contact cooling water is preferred both environmentally and economically. This treatment method has been proven effective at achieving regulatory compliance of the WQBELs thermal effluent limitations imposed at the facility.

See Page 10 of the Draft fact sheet for a brief summary of recent compliance history.

Monitoring requirements and effluent limits for Outfall 001, Outfall 003, and Outfall 004 in the draft permit originate from regulatory effluent standards and the Thermal Limits Spreadsheet. Stormwater Outfalls 006, 007, and 008 monitoring requirements are based on PAG-03 Appendix I—Food and Kindred Products monitoring requirements.

Summary of Review
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.	001	Design Flow (MGD)	.047
Latitude	40º 30' 42.98"	Longitude	-79º 50' 29.36"
Quad Name	New Kensington West	Quad Code	1407
Wastewater Description:	Noncontact Cooling Water (NCCW) and stormwater		
Receiving Waters	Plum Creek (WWF)	Stream Code	42246
NHD Com ID	123972638	RMI	0.46
Drainage Area	20.5	Yield (cfs/mi^2)	0.0260
Q_{7-10} Flow (cfs)	0.534	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1095	Slope (ft/ft)	0.148 (mean basin slope)
Watershed No.	18-A	Chapter 93 Class.	WWF
Existing Use	n/a	Existing Use Qualifier	n/a
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, Oil and Grease, Sulfate		
Source(s) of Impairment	Acid Mine Drainage, Urban Runoff/Storm Sewers, Urban Runoff/Storm Sewers		
TMDL Status	Final	Name	Plum Creek Watershed
Nearest Downstream Public Water Supply Intake	Wilkinsburg-Penn Joint Water Authority		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2390
PWS RMI	8.91	Distance from Outfall (mi)	3.11

Changes Since Last Permit Issuance:

Similar to the prior permit, the modeled Q_{7-10} flow of 0.324 cfs is adjusted by an additional 66% to account for the 66% margin of error cited by USGS in their low-flow regression modeling for PA, bringing Q_{7-10} flow to 0.534 cfs

Other Comments: Outfall 001 is the furthest downstream of all the outfalls and is within a negligible distance of the furthest upstream Outfall 008 along Plum Run (<0.10 miles), so StreamStats Q_{7-10} flow modeling and distance to the nearest downstream public water supply intake are based on the location of Outfall 001.

Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	.043
Latitude	40º 30' 45.92"	Longitude	-79º 50' 25.74"
Quad Name	New Kensington West	Quad Code	1407
Wastewater Description:	Noncontact Cooling Water (NCCW) and stormwater		
Receiving Waters	Plum Creek (WWF)	Stream Code	42246
NHD Com ID	123972638	RMI	0.51
Drainage Area	20.5	Yield (cfs/mi^2)	0.0260
Q_{7-10} Flow (cfs)	0.534	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1095	Slope (ft/ft)	0.148 (mean basin slope)
Watershed No.	18-A	Chapter 93 Class.	WWF
Existing Use	n/a	Existing Use Qualifier	n/a
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, Oil and Grease, Sulfate		
Source(s) of Impairment	Acid Mine Drainage, Urban Runoff/Storm Sewers, Urban Runoff/Storm Sewers		
TMDL Status	Final	Name	Plum Creek Watershed
Nearest Downstream Public Water Supply Intake	Wilkinsburg-Penn Joint Water Authority		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2390
PWS RMI	8.91	Distance from Outfall (mi)	3.11

Changes Since Last Permit Issuance:

Other Comments:

Discharge, Receiving Waters and Water Supply Information

Outfall No.	004	Design Flow (MGD)	.048
Latitude	40º 30' 42.58"	Longitude	-79º 50' 24.57"
Quad Name	New Kensington West	Quad Code	1407
Wastewater Description:	Noncontact Cooling Water (NCCW) and stormwater		
Receiving Waters	Plum Creek (WWF)	Stream Code	42246
NHD Com ID	123972638	RMI	0.53
Drainage Area	20.5	Yield (cfs/mi^2)	0.0260
Q_{7-10} Flow (cfs)	0.534	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1095	Slope (ft/ft)	0.148 (mean basin slope)
Watershed No.	18-A	Chapter 93 Class.	WWF
Existing Use	n/a	Existing Use Qualifier	n/a
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, Oil and Grease, Sulfate		
Source(s) of Impairment	Acid Mine Drainage, Urban Runoff/Storm Sewers, Urban Runoff/Storm Sewers		
TMDL Status	Final	Name	Plum Creek Watershed
Nearest Downstream Public Water Supply Intake	Wilkinsburg-Penn Joint Water Authority		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2390
PWS RMI	8.91	Distance from Outfall (mi)	3.11

Changes Since Last Permit Issuance:

Other Comments:

Discharge, Receiving Waters and Water Supply Information

Outfall No.	006	Design Flow (MGD)	0
Latitude	40º 30' 43.01"	Longitude	-79º 50' 28.41"
Quad Name	New Kensington West	Quad Code	1407
Wastewater Description:	Stormwater		

Receiving Waters	Plum Creek (WWF)	Stream Code	42246
NHD Com ID	123972638	RMI	0.48
Drainage Area	20.5	Yield (cfs/mi^2)	0.0260
Q_{7-10} Flow (cfs)	0.534	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1095	Slope (ft/ft)	0.148 (mean basin slope)
Watershed No.	18-A	Chapter 93 Class.	WWF
Existing Use	n/a	Existing Use Qualifier	n/a
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Impaired		

Nearest Downstream Public Water Supply Intake		Wilkinsburg-Penn Joint Water Authority	
PWS Waters	Allegheny River	Flow at Intake (cfs)	2390
PWS RMI	8.91	Distance from Outfall (mi)	3.11

Changes Since Last Permit Issuance:

Other Comments:

Discharge, Receiving Waters and Water Supply Information

Outfall No.	007	Design Flow (MGD)	0
Latitude	40º 30' 42.85"	Longitude	-79º 50' 25.67"
Quad Name	New Kensington West	Quad Code	1407
Wastewater Description:	Stormwater		
Receiving Waters	Plum Creek (WWF)	Stream Code	42246
NHD Com ID	123972638	RMI	0.52
Drainage Area	20.5	Yield (cfs/mi^2)	0.0260
Q_{7-10} Flow (cfs)	0.534	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1095	Slope (ft/ft)	0.148 (mean basin slope)
Watershed No.	18-A	Chapter 93 Class.	WWF
Existing Use	n/a	Existing Use Qualifier	n/a
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, Oil and Grease, Sulfate		
Source(s) of Impairment	Acid Mine Drainage, Urban Runoff/Storm Sewers, Urban Runoff/Storm Sewers		
TMDL Status	Final	Name	Plum Creek Watershed
Nearest Downstream Public Water Supply Intake	Wilkinsburg-Penn Joint Water Authority		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2390
PWS RMI	8.91	Distance from Outfall (mi)	3.11

Changes Since Last Permit Issuance:

Other Comments:

Discharge, Receiving Waters and Water Supply Information

Outfall No.	008	Design Flow (MGD)	0
Latitude	40º 30' 42.38"	Longitude	-79º 50' 22.46"
Quad Name	New Kensington West	Quad Code	1407
Wastewater Description:	Stormwater		
Receiving Waters	Plum Creek (WWF)	Stream Code	42246
NHD Com ID	123972638	RMI	0.55
Drainage Area	20.5	Yield (cfs/mi^2)	0.0260
Q_{7-10} Flow (cfs)	0.534	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1095	Slope (ft/ft)	0.148 (mean basin slope)
Watershed No.	18-A	Chapter 93 Class.	WWF
Existing Use	n/a	Existing Use Qualifier	n/a
Exceptions to Use	n/a	Exceptions to Criteria	n/a
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, Oil and Grease, Sulfate		
Source(s) of Impairment	Acid Mine Drainage, Urban Runoff/Storm Sewers, Urban Runoff/Storm Sewers		
TMDL Status	Final	Name	Plum Creek Watershed
Nearest Downstream Public Water Supply Intake	Wilkinsburg-Penn Joint Water Authority		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2390
PWS RMI	8.91	Distance from Outfall (mi)	3.11

Changes Since Last Permit Issuance:

Other Comments:

Compliance History

Effluent Violations for Outfall 001, from: December 1, 2023 To: October 31, 2024

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Temperature	01/31/24	IMAX	70.0	ºF	69.1	ºF
Temperature	12/31/23	IMAX	71.0	ºF	63.9	ºF

Effluent Violations for Outfall 004, from: December 1, 2023 To: October 31, 2024

Parameter	Date	SBC	DMR Value	Units	Limit Value	Units
Temperature	02/29/24	IMAX	74.0	ºF	71.9	ºF

Summary of Inspections: The facility last had a compliance evaluation inspection on 9/27/2022 by Zac Flannigan with no violations noted.

Other Comments: The permittee currently has no open violations.

Development of Effluent Limitations

Outfall No.	001	**Design Flow (MGD)**	.047
Latitude	40º 30' 42.98"	**Longitude**	-79º 50' 29.36"
Wastewater Description:	Noncontact Cooling Water (NCCW) and stormwater		

Outfall No.	003	**Design Flow (MGD)**	.043
Latitude	40º 30' 45.92"	**Longitude**	-79º 50' 25.74"
Wastewater Description:	Noncontact Cooling Water (NCCW) and stormwater		

Outfall No.	004	**Design Flow (MGD)**	.048
Latitude	40º 30' 42.58"	**Longitude**	-79º 50' 24.57"
Wastewater Description:	Noncontact Cooling Water (NCCW) and stormwater		

Effluent limitation analysis of the NCCW outfalls follows the reasoning of the prior permit. Since all three outfalls consist of NCCW and stormwater and all discharge to Plum Creek within 0.1 miles, the three outfall discharges will be combined to develop thermal effluent limitations. The limitations will be the same for each outfall and combining the discharges as one discharge will properly account for the Plum Creek assimilative capacity for the evaluation of thermal WQBELs. Stormwater will be monitored through representative Outfalls 006, 007, and 008

Technology-Based Limitations

Federal Effluent Limitation Guidelines

Outfalls 001, 003 and 004 discharges consist of NCCW which are not subject to Federal Effluent Limitation Guidelines (ELGs) as the SIC code is not listed under 40 CFR parts 405 through 471.

Regulatory Effluent Standards and Monitoring Requirements

Flow monitoring is required pursuant to 25 Pa. Code § 92a.61(d)(1) as indicated in Table 1 below.

The pH effluent range for all industrial waste process and non-process discharges pursuant of 25 Pa. Code § 92a.48(a)(2) and 25 Pa. Code § 95.2 is indicated in Table 1 below.

Temperature monitoring is required pursuant to 25 Pa. Code § 92a.61(d)(2) as indicated in Table 1 below.

Table 1. Regulatory Effluent Standards

Parameter	Monthly Avg	Daily Max	Instantaneous Max
Flow (MGD)	Monitor	Monitor	—
pH (S.U.)	Wastes must have a pH of not less than 6.0 nor greater than 9.0		
Temperature	—	—	Monitor

Total Residual Chlorine (TRC)

TRC technology-based limits do not apply to Outfalls 001, 003 and 004. The facility uses a ground water well as a source from the NCCW activities. The facility does not conduct chlorination activities. 25 Pa. Code § 92a.48 applies to facilities or activities that use chlorination. American Beverage Corporation does not use chlorine, therefore, 25 Pa. Code § 92a.48 does not apply and TRC technology-based limits are not evaluated.

Total Dissolved Solids (TDS)

This facility is exempt from 25 Pa. Code § 95.10 which outlines treatment requirements for new and expanding mass loadings of TDS and clarifies which facilities are exempt. The relevant section qualifying the exemption states:

> *(a) The following are not considered new and expanding mass loadings of TDS and are exempt from the treatment requirements in this section:*

(1) Maximum daily discharge loads of TDS or specific conductivity levels that were authorized by the Department prior to August 21, 2010. These discharge loads will be considered existing mass loadings by the Department.

Water Quality-Based Effluent Limitations (WQBEL)

Thermal WQBELs for Heated Discharges (Non-Contact Cooling Water)

Thermal WQBELs are evaluated using the Department's program called "Thermal Discharge Limit Calculation Spreadsheet" created with Microsoft Excel for Windows. The program calculates temperature WLAs through the application of a heat transfer equation, which takes two forms in the program depending on the source of the facility's cooling water. In Case 1, intake water to a facility is from the receiving stream. In Case 2, intake water is from a source other than the receiving stream (e.g., municipal water supply). The determination of which case applies to a given discharge is determined by the input data which includes the receiving stream flow rate ($Q_{7\text{-}10}$ or the minimum regulated flow for large rivers), the stream intake flow rate, external source intake flow rates, consumptive flow rates and site-specific ambient stream temperatures. Case 1 limits are generally expressed as heat rejection rates while Case 2 limits are usually expressed as temperatures.

Since the temperature criteria from 25 Pa. Code Chapter 93.7(a) are expressed on monthly and semi-monthly bases for three different aquatic life-uses—cold water fishes, warm water fishes and trout stocking—the program generates monthly and semi-monthly limits for each use. The Department selects the output that corresponds to the aquatic life-use of the receiving stream and consequently which limits apply to the discharge. Temperature WLAs are bounded by an upper limit of 110°F for the safety of sampling personnel and anyone who may come into contact with the heated discharge where it enters the receiving water. If no WLAs below 110°F are calculated, an instantaneous maximum limit of 110°F is recommended by the program.

The Department's *Implementation Guidance for Temperature Criteria* directs permit writers to assume instantaneous complete mixing of the discharge with the receiving stream when calculating thermal effluent limits unless adverse factors exist. One such factor listed in the guidance is that the "discharge is to a receiving water that is very wide, resulting in restricted dispersion of the plume, and horizontal stratification of the plume." Since combined wastewaters from the three outfalls will be discharged to the relatively narrow Plum Creek, the dispersion of the discharge plume is assumed to be instantaneous.

Discharges from Outfalls 001, 003 and 004 are classified under Case 2 because the facility's water is obtained from a groundwater well. Previously, the thermal discharge limits for this permit were based on the sum of the three outfall design flows provided on the application, but the sum of real flows reported via eDMR are more analogous to the sum of average flows provided on the application so that sum will be used for this renewal.

$$\boldsymbol{Prior\ Thermal\ Discharge\ Limit\ Calculation\ Flow} = 0.047\ cfs\ + 0.043\ cfs + 0.048\ cfs\ = \mathbf{0.138\ cfs}$$

$$\boldsymbol{Updated\ Thermal\ Discharge\ Limit\ Calculation\ Flow} = 0.078\ cfs\ + 0.050\ cfs + 0.037\ cfs\ = \mathbf{0.165\ cfs}$$

The results of the thermal analysis, included in Attachment C, indicate that limits for temperature are required at Outfall 001, 003 and 004. The summary of limits for temperature are provided below in Table 2.

Table 2. Thermal discharge limits for Outfalls 001, 003, and 004

Semi-Monthly Increment	WWF Target Max Instream Temperature (°F)	Daily Temperature Limit (°F)
Jan 1-31	40	73.5
Feb 1-29	40	76.6
Mar 1-31	46	110.0
Apr 1-15	52	110.0
Apr 16-30	58	110.0
May 1-15	64	110.0
May 16-31	72	110.0
Jun 1-15	80	110.0
Jun 16-30	84	110.0
Jul 1-31	87	110.0
Aug 1-15	87	110.0
Aug 16-31	87	110.0
Sep 1-15	84	110.0
Sep 16-30	78	107.9
Oct 1-15	72	102.1
Oct 16-31	66	96.1
Nov 1-15	58	91.5
Nov 16-30	50	76.8
Dec 1-31	42	67.1

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l), and are displayed below in Table 3.

Table 3. Previous thermal discharge limits for Outfalls 001, 003, and 004

Semi-Monthly Increment	WWF Target Max Instream Temperature (°F)	Daily Temperature Limit (°F)
Jan 1-31	40	69.1
Feb 1-29	40	71.9
Mar 1-31	46	110.0
Apr 1-15	52	110.0
Apr 16-30	58	110.0
May 1-15	64	110.0
May 16-31	72	110.0
Jun 1-15	80	110.0
Jun 16-30	84	110.0
Jul 1-31	87	110.0
Aug 1-15	87	110.0
Aug 16-31	87	110.0
Sep 1-15	84	110.0
Sep 16-30	78	104.0
Oct 1-15	72	98.2
Oct 16-31	66	92.2
Nov 1-15	58	87.1
Nov 16-30	50	73.3
Dec 1-31	42	63.9

Proposed Effluent Limitations and Monitoring Requirements

Effluent limits applicable at Outfall 001, Outfall 003, and Outfall 004 are the more stringent of TBELs, WQBELs, regulatory effluent standards, and monitoring requirements as summarized in Table 4.

Table 4. Effluent limits and monitoring requirements for Outfalls 001, 003, and 004

Parameter	Mass (pounds)		Concentration (mg/L)		Samples	
	Average Monthly	Daily Maximum	Average Monthly	Instantaneous Maximum	Frequency	Sample Type
Flow (MGD)	Report	Report	—	—	2/month	Measured
pH (S.U.)	—	—	6.0-9.0 at all times		2/month	Grab
Temperature (°F)	—	—	—	—	2/month	Measured
Jan 1-31	—	—	—	73.5	2/month	Measured
Feb 1-29	—	—	—	76.6	2/month	Measured
Mar 1-31	—	—	—	110.0	2/month	Measured
Apr 1-15	—	—	—	110.0	2/month	Measured
Apr 16-30	—	—	—	110.0	2/month	Measured
May 1-15	—	—	—	110.0	2/month	Measured
May 16-31	—	—	—	110.0	2/month	Measured
Jun 1-15	—	—	—	110.0	2/month	Measured
Jun 16-30	—	—	—	110.0	2/month	Measured
Jul 1-31	—	—	—	110.0	2/month	Measured
Aug 1-15	—	—	—	110.0	2/month	Measured
Aug 16-31	—	—	—	110.0	2/month	Measured
Sep 1-15	—	—	—	110.0	2/month	Measured
Sep 16-30	—	—	—	107.9	2/month	Measured
Oct 1-15	—	—	—	102.1	2/month	Measured
Oct 16-31	—	—	—	96.1	2/month	Measured
Nov 1-15	—	—	—	91.5	2/month	Measured
Nov 16-30	—	—	—	76.8	2/month	Measured
Dec 1-31	—	—	—	67.1	2/month	Measured

Development of Effluent Limitations

Outfall No.	006	**Design Flow (MGD)**	0
Latitude	40º 30' 43.01"	**Longitude**	-79º 50' 28.41"
Wastewater Description:	Stormwater		

Outfall No.	007	**Design Flow (MGD)**	0
Latitude	40º 30' 42.85"	**Longitude**	-79º 50' 25.67"
Wastewater Description:	Stormwater		

Outfall No.	008	**Design Flow (MGD)**	0
Latitude	40º 30' 42.38"	**Longitude**	-79º 50' 22.46"
Wastewater Description:	Stormwater		

Since Outfalls 006, 007, and 008 discharge stormwater only with no differences between the drainage areas significant enough to warrant separate analyses, effluent limitations for all three outfalls are derived together in this section. No stormwater sampling was provided with the renewal application so the most recent four points of DMR data from Outfall 006 and Outfall 007 are shown in Table 5. Outfall 008 is a new outfall included in this renewal so there is no DMR data available

Table 5. Most recent four points of DMR data

Outfall	Parameter	Average Concentration (mg/L)	Maximum Concentration (mg/L)	# of Storm Events Sampled	Benchmark Concentration (mg/L)
006	pH (S.U.)	7.9	8.3	4	XXX
	BOD5	<14	39.6	4	30
	TSS	180[1]	523	4	100
	COD	<44	86.6	4	120
	Nitrate + Nitrite-Nitrogen	<1.1	<2.0	4	XXX
	Oil & Grease	<8.4	<12.5	4	30
007	pH (S.U.)	8.1	8.3	4	XXX
	BOD5	<8.2	20	4	30
	TSS	<170[2]	566	4	100
	COD	38.1	92.6	4	120
	Nitrate + Nitrite-Nitrogen	<1	<2.0	4	XXX
	Oil & Grease	<10	12.5	4	30

[1] Average of concentrations 47 mg/L, 523 mg/L, 16.5 mg/L, and 128 mg/L
[2] Average of concentrations 90 mg/L, 566 mg/L, 19.0 mg/L, and 5.0 mg/L

Technology-Based Limitations

The outfalls will be subject to 2022 PAG-03 General Stormwater permit conditions as a minimum requirement because the outfalls discharge stormwater associated with industrial activity. The SIC code for the facility is 2086—Bottled and Canned Soft Drinks and Carbonated Waters so the corresponding appendix of the PAG-03 that applies is Appendix I—Food and Kindred Products. The reporting requirements applicable to stormwater discharges under this appendix are shown in Table 6 below. PAG-03 Appendix I best management practices (BMPs) will be included in Part C of the Draft Permit. These benchmark values are not effluent limitations, and an exceedance of the benchmark value is not a violation. An exceedance of the benchmark provides permittees with an indication that the facility's BMPs may not be sufficiently controlling pollutants in stormwater. A Part C condition is included in the Draft Permit requiring a Corrective Action Plan to evaluate site stormwater controls and BMPs when there are two consecutive exceedances of the benchmark values.

Table 6. 2022 PAG-03 Appendix I monitoring requirements

Parameter	Benchmark Values (mg/L)	Measurement Frequency	Sample Type
Total Nitrogen	XXX	1/6 Months	Grab
Total Phosphorus	XXX	1/6 Months	Grab
pH (S.U.)	9.0	1/6 Months	Grab
5-Day Biochemical Oxygen Demand (BOD5)	30	1/6 Months	Grab
Total Suspended Solids (TSS)	100	1/6 Months	Grab
Chemical Oxygen Demand (COD)	120	1/6 Months	Grab
Nitrate + Nitrite-Nitrogen	XXX	1/6 Months	Grab
Oil and Grease	30	1/6 Months	Grab

Water Quality-Based Limitations

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q7-10) stream conditions. Stormwater discharges occur at variable rates and frequencies but not however during Q7-10 conditions. Since the discharges from the outfalls are composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, water quality-based effluent limitations are not proposed.

Anti-Backsliding

Previous limits can be used pursuant to EPA's anti-backsliding regulation, 40 CFR 122.44(l). Shown in Table 7, previous benchmarks imposed were from Appendix of the 2016 PAG-03.

Table 7. Benchmarks from previous permit

Parameter	Benchmark Values (mg/L)	Measurement Frequency	Sample Type
pH (S.U.)	9.0	1/6 Months	Grab
Total Suspended Solids (TSS)	100	1/6 Months	Grab
Total Aluminum	XXX	1/6 Months	Grab
Total Iron	XXX	1/6 Months	Grab
Total Manganese	XXX	1/6 Months	Grab
Total Zinc	XXX	1/6 Months	Grab

Proposed Effluent Limitations and Monitoring Requirements

Effluent limits imposed at Outfalls 006, 007 and 008 are the more stringent of TBELs, WQBELs, regulatory effluent standards, and monitoring requirements as summarized in Table 8.

Table 8. Proposed stormwater effluent limitations

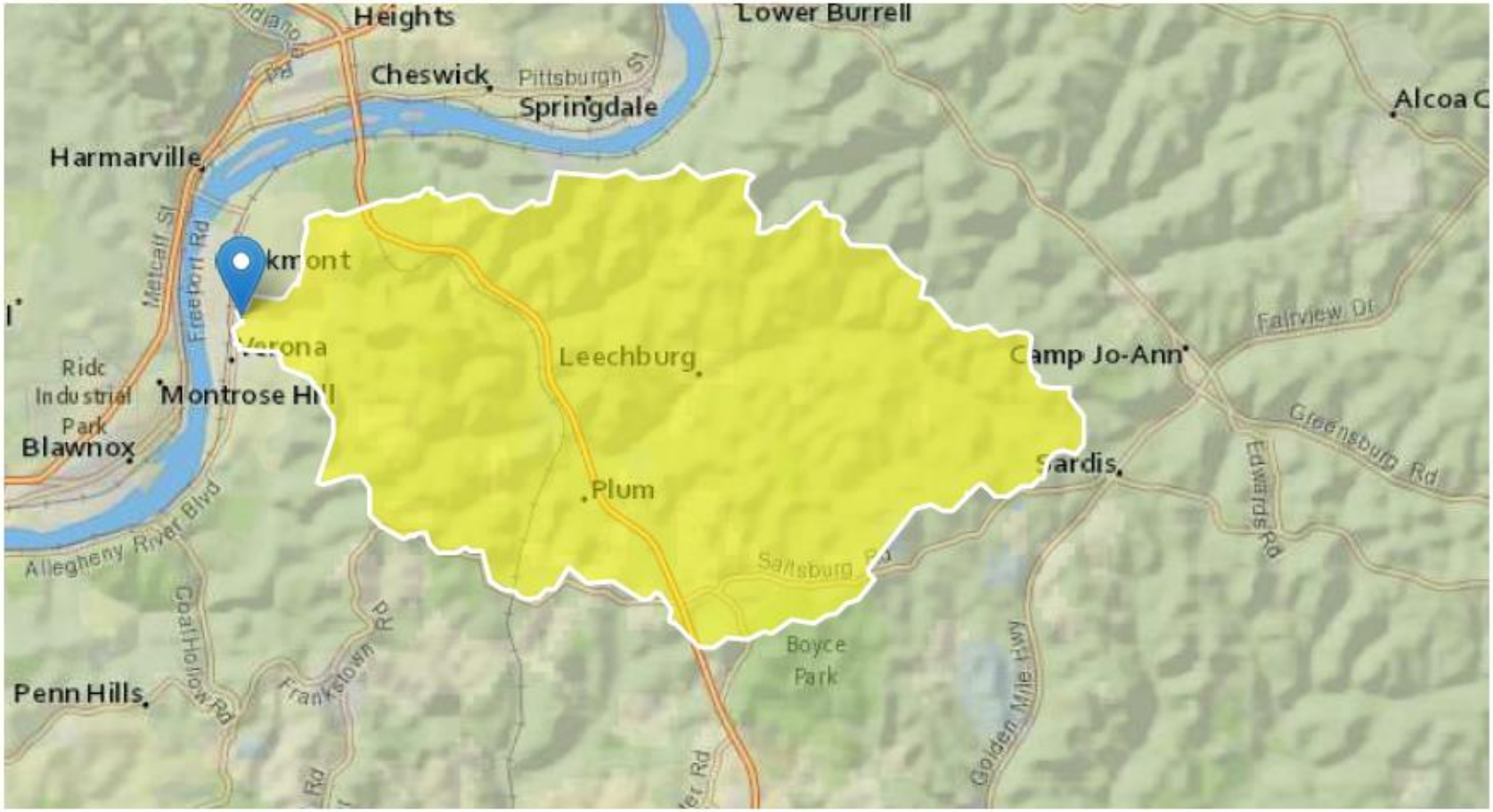
Parameter	Daily Maximum (mg/L)	Benchmark Value (mg/L)	Monitoring Frequency	Sample Type
Total Nitrogen	Report	XXX	1/6 Months	Grab
Total Phosphorus	Report	XXX	1/6 Months	Grab
pH (S.U.)	Report	9.0	1/6 Months	Grab
5-Day Biochemical Oxygen Demand (BOD5)	Report	30	1/6 Months	Grab
Total Suspended Solids (TSS)	Report	100	1/6 Months	Grab
Chemical Oxygen Demand (COD)	Report	120	1/6 Months	Grab
Nitrate + Nitrite-Nitrogen	Report	XXX	1/6 Months	Grab
Oil and Grease	Report	30	1/6 Months	Grab

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 **B**)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 386-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 386-2000-019, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 386-2000-018, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 386-2183-001, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 386-2183-002, 12/97.
☐	Pennsylvania CSO Policy, 386-2000-002, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 386-2000-008, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 386-2000-004, 12/97.
☐	Implementation Guidance Design Conditions, 386-2000-007, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 386-2000-016, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 386-2000-012, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 386-2000-009, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 386-2000-015, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 386-2000-022, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 386-2000-013, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 386-2000-011, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 386-2000-001, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 386-2000-021, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 386-2000-020, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 386-2000-005, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 386-2000-010, 3/1999.
☐	Design Stream Flows, 386-2000-003, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 386-2000-006, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 386-3200-001, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: Establishing Effluent Limits for Individual Industrial Permits (BCW-PMT-032)
☒	Other: USGS StreamStats (see Attachment A)

Attachment A:
USGS StreamStats

PA0205079 StreamStats Report

Region ID: PA
Workspace ID: PA20241230155251226000
Clicked Point (Latitude, Longitude): 40.51185, -79.84181
Time: 2024-12-30 10:53:14 -0500



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
BSLOPD	Mean basin slope measured in degrees	8.3908	degrees
DRNAREA	Area that drains to a point on a stream	20.5	square miles
ELEV	Mean Basin Elevation	1095	feet

Low-Flow Statistics

Low-Flow Statistics Parameters [Low Flow Region 4]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	20.5	square miles	2.26	1400
ELEV	Mean Basin Elevation	1095	feet	1050	2580

Low-Flow Statistics Flow Report [Low Flow Region 4]

PIL: Lower 90% Prediction Interval, PIU: Upper 90% Prediction Interval, ASEp: Average Standard Error of Prediction, SE: Standard Error, PC: Percent Correct, RMSE: Root Mean Squared Error, PseudoR^2: Pseudo R Squared (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	0.812	ft^3/s	43	43
30 Day 2 Year Low Flow	1.35	ft^3/s	38	38
7 Day 10 Year Low Flow	0.324	ft^3/s	66	66
30 Day 10 Year Low Flow	0.548	ft^3/s	54	54
90 Day 10 Year Low Flow	0.947	ft^3/s	41	41

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

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Application Version: 4.25.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.2.1

Attachment B:
Thermal Limits Spreadsheet

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Instructions | *Inputs*

Facility: **American Beverage Corporation Verona Facility**

Permit No.: **PA0205079**

Stream Name: **Plum Creek**

Analyst/Engineer: **Jace Marsh**

Stream Q7-10 (cfs)*: **0.5**

Outfall No.:

Analysis Type*: **WWF**

Facility Flows

Semi-Monthly Increment	Intake (Stream) (MGD)*	Intake (External) (MGD)*	Consumptive Loss (MGD)*	Discharge Flow (MGD)
Jan 1-31		0.165		0.165
Feb 1-29		0.165		0.165
Mar 1-31		0.165		0.165
Apr 1-15		0.165		0.165
Apr 16-30		0.165		0.165
May 1-15		0.165		0.165
May 16-31		0.165		0.165
Jun 1-15		0.165		0.165
Jun 16-30		0.165		0.165
Jul 1-31		0.165		0.165
Aug 1-15		0.165		0.165
Aug 16-31		0.165		0.165
Sep 1-15		0.165		0.165
Sep 16-30		0.165		0.165
Oct 1-15		0.165		0.165
Oct 16-31		0.165		0.165
Nov 1-15		0.165		0.165
Nov 16-30		0.165		0.165
Dec 1-31		0.165		0.165

Stream Flows

Q7-10 Multipliers (Default Shown)	PMF	Seasonal Stream Flow (cfs)	Downstream Stream Flow (cfs)
3.2	1.00	1.71	1.96
3.5	1.00	1.87	2.12
7	1.00	3.74	3.99
9.3	1.00	4.97	5.22
9.3	1.00	4.97	5.22
5.1	1.00	2.72	2.98
5.1	1.00	2.72	2.98
3	1.00	1.60	1.86
3	1.00	1.60	1.86
1.7	1.00	0.91	1.16
1.4	1.00	0.75	1.00
1.4	1.00	0.75	1.00
1.1	1.00	0.59	0.84
1.1	1.00	0.59	0.84
1.2	1.00	0.64	0.90
1.2	1.00	0.64	0.90
1.6	1.00	0.85	1.11
1.6	1.00	0.85	1.11
2.4	1.00	1.28	1.54

Instructions | *WWF Results*

Recommended Limits for Case 1 or Case 2

Semi-Monthly Increment	**WWF** Target Maximum Stream Temp. (ºF)	**Case 1** Daily WLA (Million BTUs/day)	**Case 2** Daily WLA (ºF)
Jan 1-31	40	N/A -- Case 2	73.5
Feb 1-29	40	N/A -- Case 2	76.6
Mar 1-31	46	N/A -- Case 2	110.0
Apr 1-15	52	N/A -- Case 2	110.0
Apr 16-30	58	N/A -- Case 2	110.0
May 1-15	64	N/A -- Case 2	110.0
May 16-31	72	N/A -- Case 2	110.0
Jun 1-15	80	N/A -- Case 2	110.0
Jun 16-30	84	N/A -- Case 2	110.0
Jul 1-31	87	N/A -- Case 2	110.0
Aug 1-15	87	N/A -- Case 2	110.0
Aug 16-31	87	N/A -- Case 2	110.0
Sep 1-15	84	N/A -- Case 2	110.0
Sep 16-30	78	N/A -- Case 2	107.9
Oct 1-15	72	N/A -- Case 2	102.1
Oct 16-31	66	N/A -- Case 2	96.1
Nov 1-15	58	N/A -- Case 2	91.5
Nov 16-30	50	N/A -- Case 2	76.8
Dec 1-31	42	N/A -- Case 2	67.1