Draft Fact Sheet

Last Printed/Revised/Created on ***June 16, 2026***

Tentative Determination

MARYLAND DEPARTMENT OF THE ENVIRONMENT
WATER AND SCIENCE ADMINISTRATION
INDUSTRIAL AND GENERAL PERMITS DIVISION

SUMMARY REPORT AND FACT SHEET

The Region III EPA Permit Checklist has been used as a guide to the permit review process. The results of the review and supporting rationale for the draft permit are summarized below. Supporting documents are attached, including the application status memo, draft permit, application, and copies of the previous fact sheet and the previous permit's cover page and special conditions.

Permit Type:	WMA1M (Major)	**Project Type:**	Industrial/Surface/Renewal
State Application No.:	21-DP-0359	**EPA No.:**	MD0000060
Application Received:	07/11/2022	**Permit Expiration:**	2/28/2022
Basin Code:	02130304	**Basin Name:**	Wicomico River Headwaters
Legal Name of Applicant:	Perdue AgriBusiness, LLC		
Mailing Address:	6906 Zion Church Road, Salisbury, MD 21804		
Facility Name:	Perdue AgriBusiness, LLC – Zion Church Road Complex		
Location:	6906 Zion Church Road, Salisbury, MD 21804		
County:	Wicomico		
Contact (Name, Title):	Jaclyn Mays, Regional Environmental Manager		
Contact Address:	6906 Zion Church Road, Salisbury, MD 21804		
Contact Phone:	410-341-2055	**FAX:**	N/A
Contact Email:	jaclyn.mays@perdue.com		
SIC Code(s):	2040 grain mill products, 2075 soybean oil mills, 0254 poultry hatchery, 2048 prepared feeds and feed ingredients, 7609 industrial truck repair		
Applicant discharges from:	a chicken hatchery and plant processing poultry feed and soybean products		
Via Outfall(s):	001 (no longer regulates discharge from 002, 005, or 006)		

RECEIVING WATER INFORMATION

Name of Receiving Water Body (& any Comments):	**Designated USE Class**	**Salinity**	**Tidal**	**Discharge to Tier II Waters**
Peggy Branch to Johnson Pond, a tributary to Wicomico River.	Use I	Fresh	Non-Tidal	No
MD Coordinates of Facility:	**East:**	1734.22	**North:**	263.84

Project Mgr.:	Jonathan Rice (originally Rob Pudmericky)	**Subject to EPA Review:**	Yes
Phone:	410-537-3859	**Assigned:**	3/1/2021
Site Visit(s) Dates:	12/7/2022		

Date Completed:	1/25/2023	**Revision Dates:**	2/28/2023	6/6/2023	6/22/2023
			12/8/2023	12/13/2023	8/7/2024
			5/23/2025	10/8/2025	2/12/2026
Reviewed by:	Marcus Gaskins	(Initial) MG	**Date:**	1/27/2023	
Accepted by:	Jonathan Rice	(Initial) JWR	**Date:**	6/16/2026	

I. Summary of Changes from the Previous Permit

#	Type of Change (New, Update, etc.)	Type of Change (Limitation, Monitoring, Special Condition)	Brief Description of the Change	Section of the Permit	Section of the Fact Sheet
1	Update	All Monitoring	This renewal permit has taken into account a potential flow increase to an average of 1 MGD.	I.A, I.T	II, VIII, IX, X, XII, XIII, XIV
2	Removal	Outfalls/Monitoring' Limitations	Outfalls 002, 005, and 006 have been removed from the permit.	N/A	II, VIII, IX, XIII
3	New	Special Condition	Biomonitoring will be required in the renewal permit since the expanded facility's average discharge volume is estimated at 1 MGD (per COMAR26.08.03.07-C.b).	I.K	IX, XIV.K
4	Removal	Special Condition	Special Condition S, containing language limiting the printshop operations, has been removed. The print shop has been closed and is no longer present at the site	N/A	XIV (Notes)
5	New	Special Condition	The language from Special Condition T of the previous permit pertaining to the nutrient trading has been removed since there has been no viable nutrient trading market established in Maryland to date.	N/A	XIII.A, XIV (Notes)
6	Removal	Special Condition	Former Special Condition O addressing the spray irrigation has been removed because the permittee no longer discharges via spray.	N/A	XIII, XIV Notes
7	New	Special Condition	New Special Condition O has been added regarding sufficiently sensitive test procedures.	I.O	XIV.O
8	Update	Special Condition	Special Condition P pertaining to groundwater monitoring has been updated to incorporate the updated appropriate language. Groundwater quality standards, which were enforceable limits during spray irrigation, now require notification if exceeded.	I.P	XIII, XIV.P
9	Removal	Special Condition	Former Special Condition Q regarding a groundwater study has been removed because applicable studies have been completed, and no further studies are proposed. Some portions of this former condition are added to Special Condition P.	N/A	XIII, XIV Notes
10	Removal	Special Condition	Former Special Condition T pertaining to nutrient trading have been removed.	N/A	XIV Notes
11	New	Limitations	New limitations for ammonia have been established at Outfall 001 based on recently updated water quality criteria. Chronic criteria will initially be limited by an annual average, with monthly average limitations	I.A.1, I.R	XIII.C, XIII.D, XIV.R

#	Type of Change (New, Update, etc.)	Type of Change (Limitation, Monitoring, Special Condition)	Brief Description of the Change	Section of the Permit	Section of the Fact Sheet
			beginning following a compliance schedule of seven years.		
12	New	Special Condition	New Special Condition R requires specific requirements which implement the compliance schedule for the monthly average ammonia limitations.	I.R	XII, XIV
13	Update	Special Condition	Former Special Condition U regarding industrial stormwater requirements has been updated to reflect the facility's existing general permit. This condition has also been moved to Special Condition T.	I.T	XIV.T
14	New	Limitations	A new maximum daily loading limitation has been added for *E. coli* based on a local TMDL for bacteria.	I.A.1	X, XIII.I
15	New	Limitations /Special Conditions	Annual load limits are added for Total PFAS. Action levels for PFOA and PFOS are added at non-detectable level for two years, after which they become limits. New Special Condition S contains additional requirements regarding PFAS.	I.A.1, I.S	XIII.L, XIV.S

II. Description of Facility and Activities Generating Discharge

Perdue Zion Church Road Complex (ZCR) is a producer of commercial poultry products, poultry feed, and soybean products. The Perdue ZCR facility consists of a Soybean Processing Plant, a Feed Mill, a Boiler House, a Grain Receiving and Storage, an Edible Oil Refinery, two Hatcheries, and a Truck Fleet Garage. No discharge goes to the municipal sanitary sewer since there is an on-site sanitary wastewater treatment plant. Source water for the entire facility comes from on-site wells. Perdue ZCR treats all process wastewater from manufacturing activities on-site. Sanitary waste is directed to the Wastewater Treatment Facility (WWTF) for treatment and disposal. The existing WWTF includes a flow equalization tank, dissolved air flotation unit (DAF) for preliminary treatment, aerated lagoon system and clarifiers for secondary biological treatment, and a chlorination system for disinfection.

Perdue Agribusiness, LLC (the permittee) owns and operates the Perdue ZCR and its WWTF. The permittee submitted an updated permit renewal application to the Maryland Department of the Environment (Department) requesting an increase of the current average daily flow limitation due to anticipated expansion at the Perdue ZCR. The permittee anticipates incremental production increases at the Perdue ZCR beginning in 2022. The production increases will result in a greater average daily discharge flow at Outfall 001 to Peggy Branch and will require improved WWTF performance to meet the existing permit limits. The permittee expects the daily flow to increase from the current permitted average daily flow limitation of 170,000 gallons per day to a maximum of 1,000,000 gallons per day. The permittee anticipates that this expansion will use additional land at the Perdue ZCR. As a result, on June 29, 2023, the permittee indicated that they wished to cease use of spray irrigation and take Outfalls 005 and 006 out of commission. This communication also indicated that the permittee had no plans for Outfall 002. Finally, the permittee confirmed that it had ceased use of spray irrigation as of November 2023. As such, Outfalls 002, 005, and 006 have been removed from this permit, leaving Outfall 001 as the sole, authorized point of discharge from the WWTF to waters of the State. While the removal of spray

irrigation outfalls has resulted in a slight increase in flow at Outfall 001, such increases will be restricted based on the ability to meet permit limits.

In support of anticipated expansion, the permittee has submitted a projected schedule for the WWTF upgrade, which indicates a completion date of September 2030. The submission outlines each step of the process and includes recent examples where equipment lead times for other similar projects have been extended.

The permittee has also indicated that the project will include the removal of the WWTF's existing treatment lagoons. As the permittee moves away from spray irrigation and the treatment lagoons, the Department will continue to evaluate the groundwater monitoring wells. The closure of lagoons will be subject to regulation and oversight by the Department's Land and Materials Administration.

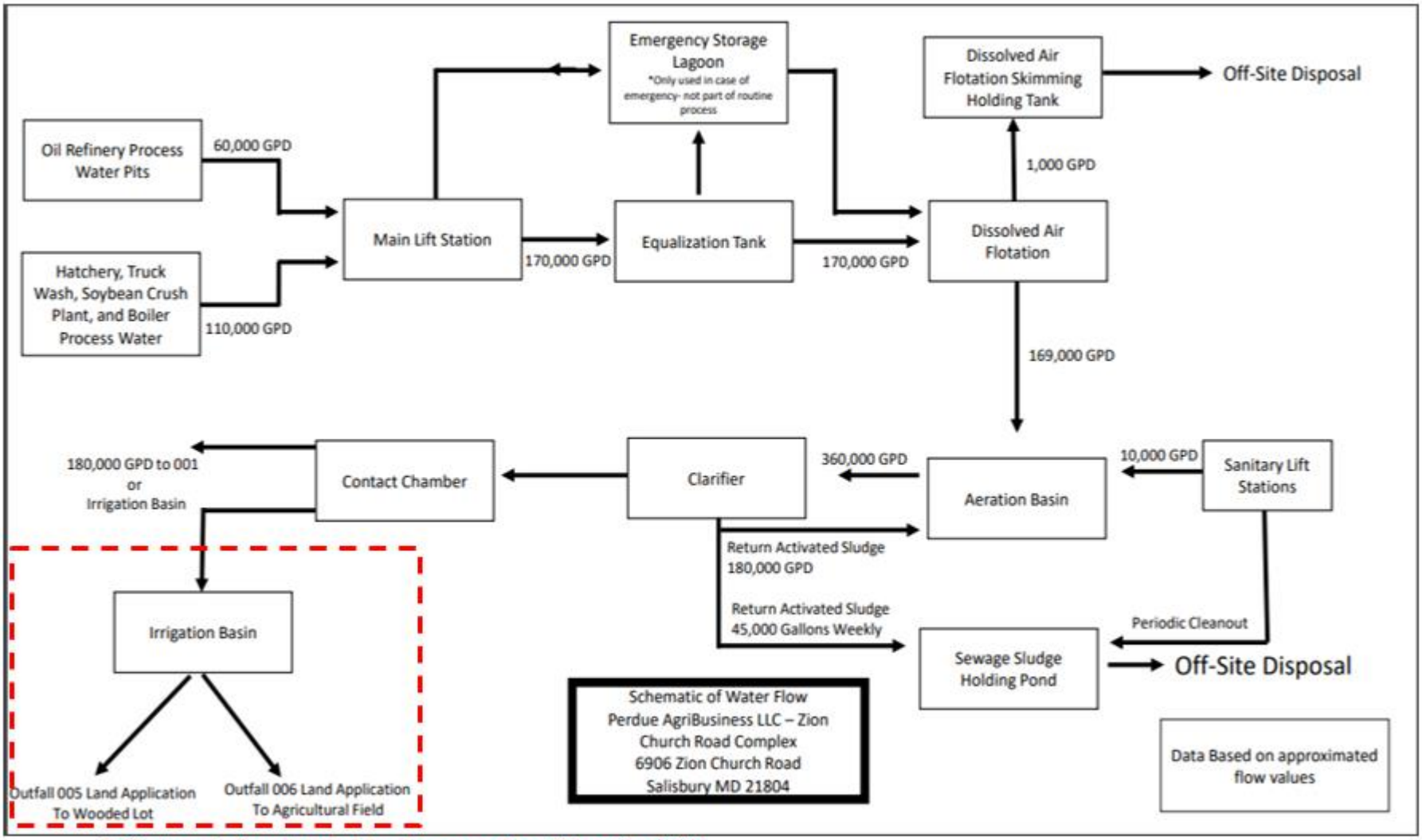
Outfall 001 and Former Outfalls 005 and 006

Sources of wastewater in the effluent from the WWTF include flows from the vegetable oil refinery, the vegetable oil refinery truck wash, garage and truck wash, boiler blowdown, feed mill, soybean extraction, and sanitary wastewater. Wastewater from the Perdue ZCR flows by gravity to the WWTF's influent pump station well. The influent is then pumped to the WWTF's equalization tank. The combined wastewater from the equalization tank is pumped to the dissolved air flotation unit (DAF). Caustic soda, aluminum chloride, and a polymer are added to the DAF for pH control and to coagulate the solids for better removal. The facility has also recently added granular activated carbon on the back end for PFAS reduction.

The solids from the DAF are stored in the sludge tank, then transported off-site to the Delaware County Regional Water Quality Control Authority (DELCORA).

Figure 1. View of the Equalization tank (larger tank) and the DAF sludge tank (smaller)

Figure 2. Schematics of the Plant's Waterflow



** - Features in the red dashed box have ceased as of November 2023.*

Figure 3. Perdue Agribusiness LLC Site Location Map

Figure 4. Map of Monitoring Wells and Outfall 001 Locations

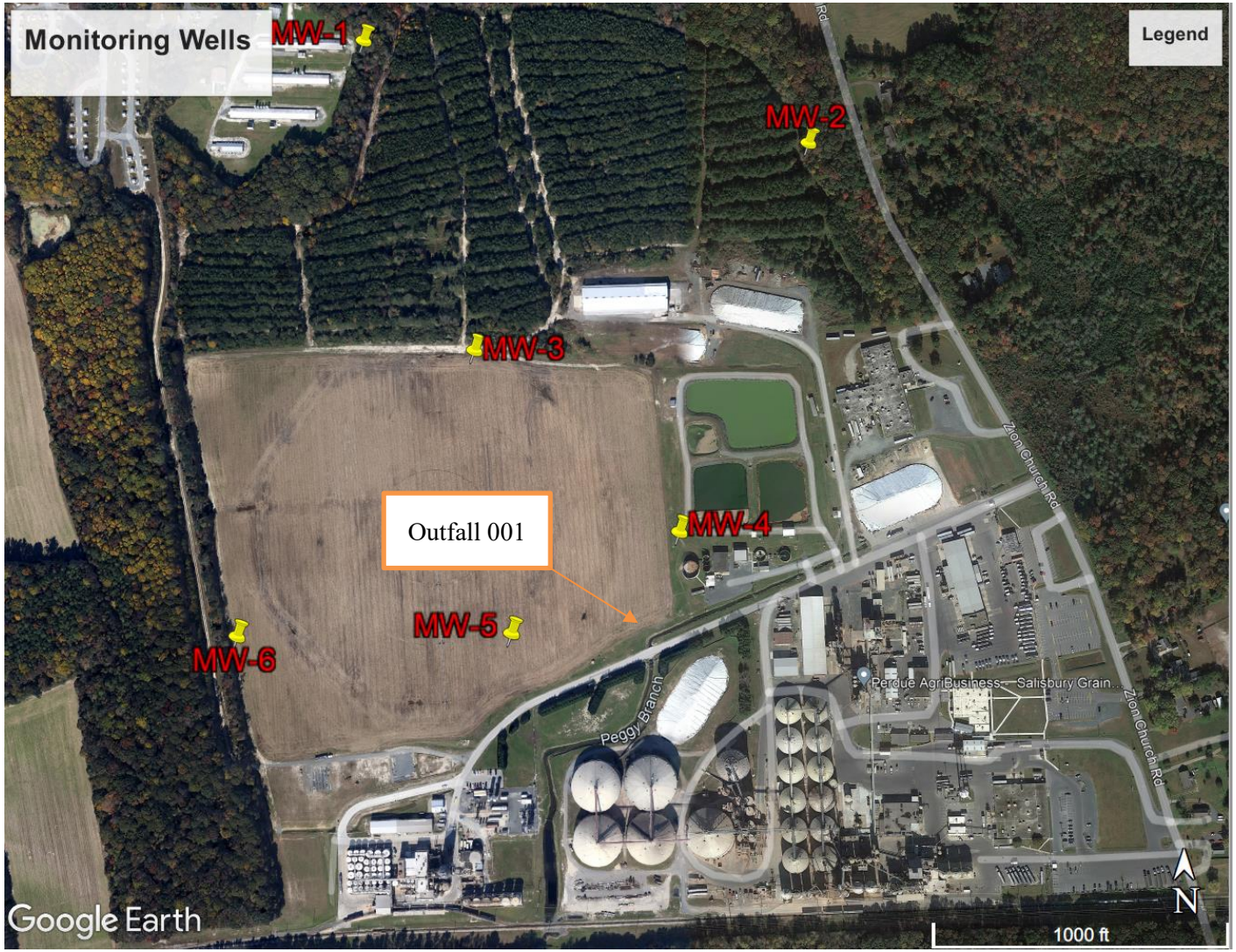


Figure 5. View of the Dissolved Air Flotation Unit from the catwalk

The wastewater from the DAF is pumped to the aerated lagoon. The WWTF's wastewater flows into and is mixed in the lagoon with the wastewater from the industrial influent pump station. The return sludge from the secondary clarifier is also pumped to the aerated lagoon. The waste sludge from the aerated lagoon unit is then pumped to the waste lagoon and periodically transported off site to DELCORA for disposal. Perdue ZCR operates with the Department's Sewage Sludge Utilization Permit 2010-STR-5545.

The wastewater flow from the aerated lagoon is pumped to the upgrade building where aluminum chloride and a polymer are added prior to the secondary clarifier units. The wastewater then flows from the secondary clarifier by gravity to the chlorination/de-chlorination unit.

Figure 6. View of the aeration lagoon from the back side of the baffle

Figure 7. View of one of the clarifier (currently empty for maintenance) and the chlorine contact chamber

Until November 2023, the wastewater operator could then choose to send the same industrial process wastewater through Outfall 001 (Figure 8) or to spray irrigation via Outfalls 005 or 006 (Figure 9). However, in anticipation of facility upgrades, as well as stricter requirements for spray irrigation and groundwater monitoring, the permittee has ceased using

former Outfalls 005 or 006. As discussed above, Outfalls 005 and 006 have been removed from this permit, so no discharge from these Outfalls is permitted.

Figure 8. View of the final effluent – Outfall 001

Figure 9. View of the former spray field and the edge of the former woods spray zones

Outfall 002

Discharge from Outfall 002 was comprised solely of non-contact cooling water. Based on the discharge monitoring reports (DMRs) and the information from the permittee's application, no discharge has occurred from Outfall 002 since 2010. During the renewal process, the permittee requested that the Department remove Outfall 002 from the permit, as the permittee has no future plans to use Outfall 002. As such, Outfall 002 has been removed from the permit, and no discharge from Outfall 002 may occur.

Figure 10. Outfall 002 (no longer permitted)

III. Review of Stormwater Pollution Prevention Plan (SWPPP)

The permittee maintains an updated SWPPP in accordance with general permit registration 20-SW-3337. A general review of the SWPPP found it to be administratively complete. Stormwater-only outfalls at the property are not regulated by this individual permit, but rather by the aforementioned general permit registration.

IV. Results of File Review

Review of the files for analysis of the Discharge Monitoring Report (DMR) data did not find any missing or blank DMRs. A letter from permittee dated October 27, 2021 was received informing the Department of anticipated incremental production increases at the Perdue ZCR facility beginning in 2022. In lieu of this, an expansion and extensive modernization of the WWTFwill be performed. This upgrade is addressed in multiple other sections of this fact sheet.

V. Results of Studies

Biomonitoring studies conducted in 2001, 2002, and 2012 concluded that the effluent was not acutely toxic to aquatic organisms. A groundwater study was conducted in 2017. The purpose of the study was to assess the groundwater flow direction and characteristics as referenced by Special Condition Q of the State Discharge Permit 15-DP-0359.

VI. Results of a Review of the Compliance History

DMRs were reviewed for discharges occurring between January 2013 and June 2022. There was only one violation of established effluent limits: a pH of 6.11 on 12/21/2021.

There were also a number of other instances where groundwater sampling exceeded the applicable standards. There were 14 instances where dissolved solids exceeded the standard of 500 mg/L between 6/2017 and 4/2022 (samples ranged from 508 mg/L to 940 mg/L), 13 instances where nitrates exceeded the standard of 10 mg/L between 9/2020 and 9/2022 (samples ranged from 10.3 mg/L to 15.5 mg/L), and 9 instances where fecal coliform exceeded the standard of 10 MPN between 6/2017 and 9/2018 exceeding the limit of 10 MPN (samples ranged from 3.1 MPN to 2419.6 MPN). The Department has included conditions in the renewal permit to investigate the sources of pollutants in groundwater.

After the permittee's application for this permit was received, the Department received new information regarding the presence of elevated concentrations of several per- and polyfluoroalkyl substances (PFAS) congeners in the WWTF's effluent. Accordingly, the Department requested the permittee to begin sampling the WWTF's effluent for PFAS in November 2024 to supplement the permittee's application for this permit to include information regarding the presence, type(s), concentration(s), and amount of PFAS, and the permittee began doing so. Additional information regarding PFAS is discussed elsewhere in this Fact Sheet.

VII. Description of Receiving Stream(s)

There is no stream gauge located on Peggy Branch, nor is one located on the Wicomico River. Peggy Branch (Basin Code 02130304) is a Use I water. At the time of the site visit, Peggy Branch was approximately one foot deep, and five feet wide at the property. Peggy Branch flows to Johnson Pond, some 3.4 miles downstream. The drainage area at the point of discharge is estimated at 3.24 square miles. To protect the water quality in the receiving stream, all permit limits are applicable at the end of pipe, and no mixing zone is authorized.

VIII. Outfall Details

During the renewal process, the permittee made the decision to cease spray irrigation as of November 2023. Therefore, Outfalls 005 and 006, listed in Table 1 below, are no longer included as authorized outfalls in this renewal. However, the Department has listed information about these Outfalls in Table 1 because continued groundwater monitoring at the site makes the prior existence of these Outfalls relevant. Moving forward, all process water effluent will discharge via Outfall 001.

The permittee also indicated no future plans to bring Outfall 002 back into service, so Outfall 002 has likewise been removed from the renewal permit.

Table 1: Outfall Characteristics

Outfall or Monitoring Point #	Where will the Discharge be Monitored	What are the Waste Streams that contribute to the Discharge	Average Flow (MGD)	Comments	Outfall Coordinates (in 1000 ft)	
					Northing	Easting
001	10-inch cast iron pipe at the treatment plant	vegetable oil refinery, vegetable oil refinery truck wash, garage and truck wash, boiler blowdown, noncontact cooling water feed mill, soybean extraction, sanitary wastewater, and contaminated stormwater	0.175	The Outfall 001 flow is to Peggy Branch. The permittee has requested to expand, increasing flow to a potential 1 MGD.	264.59	1733.38
002	16-inch steel pipe	Non-contact cooling from soybean oil extraction plant & hatcheries	n/a	The outfall is currently not being utilized and has not been discharging since 2010. Outfall 002 is removed from the permit.	264.80	1733.84
005	The outfall is monitored at the same point as Outfall 001	Same as Outfall 001	0 *(0.013)*	The Outfall 005 discharge previously went to groundwater in a forested area. Outfall 005 is removed from the permit.	264.84	1732.34
006	The outfall is monitored at the same point as Outfall 001	Same as Outfall 001	0 *(0.027)*	The Outfall 006 discharge previously went to groundwater in a 40-acre spray field. Outfall 006 is removed from the permit.	266.13	1732.54
		Total	**0.175**			

Shaded rows indicate that the Outfalls has been removed for the renewal permit.

IX. Detailed Assessment of Liquid Wastes

Effluent Characteristics – Outfall 001

Table 2: Outfall 001 Waste Stream Characteristics

Type of Wastewater Discharged:	Vegetable oil refinery, vegetable oil refinery truck wash, garage and truck wash, boiler blowdown, feed mill, soybean extraction, and sanitary wastewater.		
Treatment Unit:	The wastewater treatment processes involve dissolved air flotation, aeration, chemical addition, pH adjustment, settling, chlorination, and de-chlorination.		
Discharge Type:	Continuous	**Period:**	Throughout the year
Potential Basis for Whole Effluent Toxicity Testing (Biomonitoring):	COMAR 26.08.03.07D(1)(b) requires industrial dischargers with a wastewater flow greater or equal to 1 MGD to conduct monitoring for toxic substances. Therefore, biomonitoring will be required in the renewal permit.		

The samples for Outfall 001 and former Outfalls 005 and 006 were taken from the same location per the previous permit, as the wastewater was treated identically. The DMRs for the outfalls display somewhat different sampling results due to different numbers of samples being averaged together based on the timeframe when discharges were directed to each outfall, respectively. The DMR only requires reporting for the specific outfall during the weeks when discharges were directed to that outfall. This can cause some differences in reported values because if, for example, the WWTF only discharged to Outfall 005 for one week of the month, the numbers reported on the DMR would only be the samples for that week. If the WWTF discharged to Outfall 001 for the other 3 weeks, the other sampling events would be attributed to that Outfall. All data for Outfalls 001, 005, and 006 have been included as part of this analysis, but moving forward, all discharges will solely be directed to Outfall 001.

Table 3: Outfall 001 Effluent Characteristics

Pollutant	Maximum Value		Average Value		Units		Source of Data
	Conc.	Other	Conc.	Other	Conc.	Other	
Chemical Oxygen Demand (COD)	19.7				mg/L		Form 2C
Total Organic Carbon (TOC)	4.1				mg/L		Form 2C
Ammonia (as N)	13.3		2.8		mg/L		DMRs
Flow				0.175		MGD	DMRs
Temperature (winter)		16.8 (62.2)				°C (°F)	Form 2C
Temperature (summer)		26.8 (80.2)				°C (°F)	Form 2C
Total PFAS	151.49		106.74		ng/L		Required Samples**

**** Permittee requesting potential flow increase to 1 MGD contingent upon plant expansion and modernization***
***** See Section XIII.L for further explanation about PFAS for this site.***

Table 4: Outfall 005 Effluent Characteristics

Pollutant	Maximum Value		Average Value		Units		Source of Data
	Conc.	Other	Conc.	Other	Conc.	Other	
Chemical Oxygen Demand (COD)	-						Form 2C
Total Organic Carbon (TOC)	-						Form 2C
Ammonia (as N)	-						Form 2C
Flow		0.08		0.013		MGD	Form 2C
Temperature (winter)	-						Form 2C
Temperature (summer)	-						Form 2C

Table 5: Outfall 006 Effluent Characteristics

Pollutant	Maximum Value		Average Value		Units		Source of Data
	Conc.	Other	Conc.	Other	Conc.	Other	
Chemical Oxygen Demand (COD)	43.3				mg/L		Form 2C
Total Organic Carbon (TOC)	11.3				mg/L		Form 2C
Ammonia (as N)	0.33				mg/L		Form 2C
Flow		0.14		0.027		MGD	Form 2C
Temperature (winter)		16.8 (62.2)				°C (°F)	Form 2C
Temperature (summer)		26.8 (80.2)				°C (°F)	Form 2C

Table 6: Outfalls 001, 005 and 006 Common Effluent Characteristics

Pollutant	Maximum Value		Average Value		Units		Source of Data
	Conc.	Other	Conc.	Other	Conc.	Other	
Biochemical Oxygen Demand (BOD)	16.5	39.36	1.08	2.28	mg/L	lbs/day	Form 2C
pH		6.53 (min) 8.3 (max)		7.2 - 7.4		s.u.	DMRs
Total Suspended Solids (TSS)	8		3.04		mg/L		Form 2C
Chlorine, total	1.92		0.11		mg/L		Form 2C
Fecal coliform		11			mg/L	MPN/ 100mL	Form 2C
Nitrate-nitrate	20.44		6.57		mg/L		Form 2C
Nitrogen, total	21.8	68.18	9.75	-	mg/L	Lbs/day	Form 2C
Oil and grease	5		0.5		mg/L		Form 2C

Pollutant	Maximum Value		Average Value		Units		Source of Data
	Conc.	Other	Conc.	Other	Conc.	Other	
Phosphorus, total	0.18	0.41	0.05	0.11	mg/L	Lbs/day	Form 2C
Iron, total	ND						Form 2C

There has been ongoing groundwater monitoring required under the previous permit. Groundwater monitoring will continue under the renewal permit according to the established schedule. The well locations and labeling are included in Table 7 below:

Table 7: Groundwater Monitoring Wells

NPDES Designation	County Well ID	GPS Coordinates
MW #1	WI-81-3467	38.38929N 075.53574W
MW #2	WI-81-3469	38.38826N 075.53016W
MW #3	WI-81-3468	38.38641N 075.53382W
MW #4	WI-92-1140	38.38444N 075.53179W
MW #5	WI-92-1139	38.38348N 075.53382W
MW #6	None	38.38345N 075.53713W

Outfall 001: Assessment of Nutrients (Total Nitrogen (TN) & Phosphorus (TP)) and Total Suspended Solids (TSS) in the Discharge.

The average daily TSS concentration reported on Form 2C is 3.04 mg/L. The reported average concentrations for Nitrogen and Phosphorus taken from Form 2C were 9.75 mg/L and 0.05 mg/L, respectively. Using the average flow for Outfall 001 of 0.175 MGD and the above concentrations, the current estimated sediment and nutrient loads can be calculated using following formula:

Average Annual Flow (in MGD) X Concentration (in mg/l) X 8.34 = Annual Load (in lbs/day) x 365 = Annual Load (in pounds/year)

TSS = (0.175 MGD) x(3.04 mg/L) x 8.34 = 4.4 lbs/day x 365 = 1,619 lbs/year

Nitrogen = (0.175 MGD) x (9.75 mg/L) x 8.34 = 14.2 lbs/day x 365 = 5,194 lbs/year

Phosphorus = (0.175 MGD) x (0.05 mg/L) x 8.34 = 0.072 lbs/day x 365 = 26.6 lbs/year

If concentrations stay the same and flow is increased to 1 MGD, below would be the estimated loadings:

TSS = (1 MGD) x (3.04 mg/L) x 8.34 = 25.4 lbs/day x 365 = 9,271 lbs/year

Nitrogen = (1 MGD) x (9.75 mg/L) x 8.34 = 81.3 lbs/day x 365 = 29,680 lbs/year

Phosphorus = (1 MGD) x (0.05 mg/L) x 8.34 = 0.42 lbs/day x 365 = 152.2 lbs/year

X. Total Maximum Daily Load (TMDL) Status of the Receiving Waters from Outfall 001

TMDLs REQUIRED (Listing Category 5)

For the Non-Tidal Wicomico River Headwaters watershed (basin code 02130304), there are no parameters identified as impairments pursuant to Section 303(d) of the Clean Water Act[1] which do not yet have a TMDL developed (Listing Category 5).

TMDLS COMPLETED (Listing Category 4a)

The *Total Maximum Daily Loads of Phosphorus and Sediments to Johnson Pond in the Upper Wicomico Watershed, Wicomico County, Maryland,* were approved on February 13, 2001. Per the technical memorandum, *Significant Phosphorus and Sediment Point and Non-Point Sources in the Johnson Pond Watershed*, the wasteload allocation (WLA) attributed to this facility is 146 lbs/year for phosphorus and 6.6 tons/year for sediment.

The *Total Maximum Daily Loads of Fecal Bacteria for the Non-Tidal Wicomico River Headwaters Basin in Wicomico County, Maryland,* were approved on September 20, 2007. Per Table 4.8.2 on Page 41 of the TMDL document, the WLA attributed to this facility is 0.8 billion MPN/day *E. coli* bacteria.

This facility is also subject to the *Chesapeake Bay Total Maximum Daily Load for Sediments, Nitrogen, and Phosphorus* ("Bay TMDL"), approved on December 29, 2010, which limits total (net) discharges of these pollutants that ultimately reach the Chesapeake Bay. This facility is included in an aggregate WLA for industrial facilities labeled as non-significant. A further discussion of the history of nutrient limitations in this permit and how it aligns with the non-significant industrial aggregate load is found in Section XIII of this Fact Sheet. In the 05-DP-0359 iteration of this permit (issued in 2010), the Department established a loading limitation of 2,070 lbs/year for total nitrogen, derived based on a flow of 0.170 MGD for 8 months out of the year at a BPJ-determined concentration of 6.0 mg/L (based on biological nutrient reduction levels determined achievable for minor WWTPs). The Bay TMDL load allocation for nitrogen is 3,553 lbs/year calculated from adding the 1483 lbs/year of nitrogen to the 2010 Permit (05-DP-0359) limit, that was set at 2,070 lbs/year, due to the applicant not being able to discharge during the winter months. The basis for this limit was that Outfall 001 would be used approximately 8 months of the year, at a daily average flow of 0.17 MGD and land application the other 4 months, and using 6 mg/l concentration based on similar biological nutrient reduction at a minor municipal wastewater treatment plant. The WWTF's limits were revised subsequently, as discussed below.

DELISTED PARAMETERS – WQA

No impairments for the Non-Tidal Wicomico River Headwaters watershed have been delisted.

XI. Antidegradation Review of the Receiving Stream for Outfall 001

This discharge does not go (directly or downstream) to Tier II waters. Consequently, this permit has been constructed to protect and maintain the receiving streams' existing uses and the basic uses associated with its designated use.

XII. Overall Rationale for Effluent Limitations and Monitoring in the Draft Permit

There are no effluent limitation guidelines (ELGs) for a facility of this type. All parameters and pollutants in the discharges were compared with technology standards (ELGs) and water quality criteria to determine if any discharge

[1] Under Section 303(d) of the Clean Water Act states are required to develop a list of impaired waters (known as the "303(d) list") for which technology-based regulations and other pollutant controls are not able to achieve water quality standards for that water body's designated use, and to establish Total Maximum Daily Loads (TMDLs) for such waters.

would be likely to violate these standards. The limits, monitoring, and special conditions of the previous permit and potential use of General Permits for Stormwater were reviewed to determine if updates or modifications to the monitoring, limits, or conditions were needed. The review resulted in the limitations, monitoring, and monitoring frequencies from the previous permit being continued with certain changes as discussed in this Fact Sheet. These requirements are no less stringent than the requirements in the prior permit, and the requirements are often more stringent as discussed in this Fact Sheet. The details of these decisions can be found below.

XIII. Outfall - Specific Rationale for Effluent Limitations and Monitoring

Outfall 001

(A) Nitrogen: In the 05-DP-0359 iteration of this permit (issued in 2010), the Department established a loading limitation of 2,070 lbs/year for total nitrogen, derived based on a flow of 0.170 MGD for 8 months out of the year at a BPJ-determined concentration of 6.0 mg/L (based on biological nutrient reduction levels determined achievable for minor WWTPs).

Due to changing regulations that reduced the amount of wastewater which the permittee could discharge via spray irrigation, the 15-DP-0359 iteration of this permit (issued in 2017) established a limit of 3,553 lbs/year on an interim basis. The additional 1,483 lbs/year was reassigned from a Nustar Terminals Operations Partnership (MD0024716), an inactive facility that no longer required a WLA. However, pursuant to Special Condition T of the 15-DP-0359 permit, the additional 1,483 lbs/year was provided on an interim basis and would be made permanent if the permittee generated 1,500 lbs/year of onsite nitrogen credits or facilitated nitrogen trading credits (an initial sum of 4,500 lbs and ongoing sum of 1,500 lbs/year) made available by offsite, unaffiliated properties.

While the permittee has not facilitated such trading, the Department has determined that it resulted from the lack in development of a trading market and not from the lack of effort by the permittee. The potential for generating onsite credits via additional stormwater controls or other reductions is relatively minimal and would not allow for a significant reduction in nutrient load. As a result, the Department has determined it is appropriate to maintain the full load of 3,553 lbs/year for this renewal permit with no such trading requirements. This load will remain the same if the Perdue ZCR facility expands, meaning additional treatment will be required to meet this loading limit for a flow rate of 1 MGD.

(B) TKN (Total Kjeldahl Nitrogen): The previous permit carried over limitations for TKN based on modeling that was done several permit iterations ago (predates the 97-DP-0359 iteration). TKN (and BOD) limitations were considered based on the specific nature of the watershed and the downstream Johnson Pond, to protect the waters from depletion of oxygen. These were both selected to be seasonal, since the receiving waters can assimilate these at different rates based on the weather. While the annual loading limitations for total nitrogen are significantly more restrictive overall, it is not certain that meeting them will also ensure meeting the established TKN limits. Therefore, the limitations from the previous permit shall be continued. Specifically, those limitations are 42.5 lbs/day (monthly average), 85.0 lbs/day (daily max) for October through March, 15.6 lbs/day (monthly average), and 31.2 lbs/day (daily maximum) for April through September.

(C) Ammonia: New ammonia water quality limits will be introduced in the renewal permit. The current Maryland limits for ammonia (COMAR 26.08.02.03-2) have been recently updated to correct an error in standards updates from the latest triennial review. Based on the correct standards for ammonia, the new monthly average limit is 0.97 mg/l and a daily maximum of 6.1 mg/l during summer months (April 1 - September 30), with a monthly average of 1.94 mg/l and a daily maximum of 15.1 mg/l during winter months (October 1- March 31). In calculating total ammonia limits, the Department used two tables from COMAR as referenced above. One table addresses the chronic water quality criterion with fish in early form of life stages present, and the other table addresses the acute water criterion with salmonoids absent. The pH values were taken from DMRs; two low/high averages for summer were 7.15 and 7.4, and for winter, 7.065 and 7.34. The temperatures provided in the permit application were 80.2 °F (summer) and 62.2 °F (winter). The discharge comprises a

significant portion of the receiving stream, particularly at low flow, so effluent data were used in limit calculations to be conservative.

(D) Ammonia Compliance Schedule: The permittee has requested a compliance schedule to meet the monthly average limitations for ammonia. Over the past several years of monitoring, there have been occasional spikes in the ammonia concentration at Outfall 001. There were no limits previously, other than the loading limitations for total nitrogen, and the spikes did not cause exceedances of the annual load. As the permittee is already undertaking a significant upgrade in its treatment system, the permittee has requested that the Department delay the effective date of the new monthly average limitations for ammonia until the upgrade can be completed. Documentation was provided by the permittee, which outlines each of the individual steps required for construction of the updated system, indicating that the project may take seven years based on recent experiences with timelines for obtaining permits and relevant equipment. As a result, the permittee requested that they be granted a compliance schedule until the start of 2031.

The Department has reviewed the information provided by the permittee and believes it is sufficient to justify such a timeline. While the Department recognizes that some of the steps could happen faster than projected, there has been large variability in timelines for these steps over the past several years, and there is simply no means to know if any of the steps will actually be faster. However, the Department does recognize that the WWTF upgrade is necessary for the Perdue ZCR facility to expand its operation, which is something the permittee desires to do, so the permittee is incentivized to complete the installation as soon as possible. Additionally, the Department recognizes that the term of this NPDES permit will be five years, with an application due in four years, so there will be an automatic step where re-evaluation of the compliance schedule must occur (during the next renewal). Furthermore, the Department can always reopen a permit mid-cycle as per the terms of the permit and 40 C.F.R. §§ 122.62-122.63, *et seq.*. If progress updates indicate that the WWTF upgrade will be completed significantly earlier than original projections, the Department can opt to adjust the effective date of the new ammonia limitations appropriately.

For the Department to consider the proposed compliance schedule, interim requirements and goals must be established. With regard to ammonia limitations, the daily maximum limitations remain valid and necessary to prevent acute excursions in the receiving stream. Upon examination of the monitoring data for ammonia provided by the permittee, the Department was noted that there were typically only one or two spiked data points each year. Thus, the Department has determined that the existing treatment processes are generally effective, and if the average is spread over a longer period, will enforce the chronic water quality standard to an appropriate degree given the ongoing upgrades. Since the permittee is already completing a significant overhaul of the WWTF, it would not be reasonable to expect the permittee to invest significant capital into first upgrading the existing system in a shorter period. As a result, before the implementation of the monthly average concentration limitation for ammonia, the same limit will be applied as an annual average limitation. With regard to interim goals, a table of deliverables is established in Special Condition R, which corresponds with the timeline of activities projected by the permittee.

As a result of all the above considerations, the Department has determined that the compliance schedule proposed is acceptable and will allot seven years before the effective date of the monthly average limitations for ammonia, beginning on January 1, 2024. Thus, the permittee is expected to fully comply with the ammonia monthly average limits upon completion of the upgrade/expansion of the wastewater treatment plant by December 31, 2030 (monthly average limits are effective for January 2031).

(E) Phosphorus: The TMDL for phosphorus is 146 lbs/year. This limit will continue in the renewal permit without any change. Should the Perdue ZCR facility opt to increase operations, any increase in flow must be offset by increased treatment capabilities to lower effluent concentration and meet the loading limit. The concentration limit of 0.28 mg/l monthly average is also continued.

(F) Total Suspended Solids (TSS): For this renewal, the Department is continuing concentration-based limits of an average of 10 mg/l and a maximum of 20 mg/L for the entire year. The existing DMR data indicate that the effluent concentrations are continuously below 10 mg/L year-round. Due to anticipated daily flow increase from the current 0.17 MGD to a

maximum of 1 MGD, the existing concentration limit may not be protective of the in-stream water quality. Therefore, the renewal permit will implement a new TMDL loading limit of 6.6 Tons/year (13,200 lbs/year) for Outfall 001. The loading limit will ensure protection of the receiving stream even upon a future flow expansion.

(G) Biochemical Oxygen Demand (BOD_5): The limits were established using the Streeter-Phelps model. Based on DMR data, the facility has routinely met the following seasonal loading limits. The limits will stay the same upon completion of the expansion and upgrade of the WWTF. No change will be made in loading limits or monitoring for BOD upon the expansion and upgrade of the WWTF since these requirements are protective of the water quality in the watershed. Concentration limits shall also be continued.

BOD5: Months of April-September
14.2 lbs/day monthly average, 10 mg/L monthly average
28.4 lbs/day daily maximum, 20 mg/L daily maximum

BOD5: Months October-March
42.5 lbs/day monthly average, 30 mg/L monthly average
85.0 lbs/day daily maximum, 60 mg/L daily maximum

(H) Oil & Grease: This parameter and limit is continued from the previous permit. The permittee has demonstrated the ability to meet both the average and maximum limits. Best professional judgment for treatment of water containing oil & grease is 10 mg/l monthly average and 15 mg/l maximum based on achievability of conventional treatment such as oil-water separation..

(I) E. coli: Bacteria are limited by the TMDL allocation of 0.8 billion MPN/day. This limit is based on the annual average flow of 0.170 MGD and will stay the same in the renewal permit. Upon the WWTF expansion and resulting flow increase, the permittee must continue to meet the set loading limit. The limit of 126 MPN/100 ml that was applicable in the previous permit will also be continued.

(J) Dissolved oxygen (DO): This parameter is limited in the permit because the WWTF includes dechlorination. DO levels in the effluent have continuously maintained above 5 mg/l, and this limit will continue from the previous permit. The limit is water quality-based and is applicable at the end of the pipe. The BOD and TKN limits were modeled in an effort to prevent the depletion of DO. Maintaining an effluent limitation for DO ensures protection against this concern and thus represents a key point in allowing a future flow increase to 1 MGD

(K) pH: The limitation is based on water quality criteria (6.5 to 8.5), and the facility consistently maintains its discharge within those limits. No changes from the previous permit for monitoring or limits.

(L) PFAS: Per- and polyfluoroalkyl substances (PFAS) are a family of synthetic chemicals that have been used in many industrial processes. The Department has been conducting monitoring at various facilities across the State to determine reasonable potential for PFAS contributions. The Perdue ZCR facility was chosen for monitoring because it was approved for spray irrigation. Results from an initial round of PFAS testing indicated levels of approximately 1,770 ng/L for combined PFAS congeners in the WWTF effluent. Notable congener levels included 694 ng/L for perfluorooctanesulfonic acid (PFOS), 160 ng/L for perfluorooctanoic acid (PFOA), 319 ng/L for perfluorohexanesolfonic acid (PFHxS), and 163 ng/L for perflouorohexanoic acid (PFHxA).

After review of various sampling events conducted across the site, in November 2024, the Department initiated a requirement for the site to conduct monthly PFAS monitoring and provide monthly progress reports. As of April 2026, the Department has received the monthly sample results shown in Table 8. The results presented in Table 8 represent wastewater prior to any treatment to remove PFAS (back-end treatment added in July 2025, as discussed later in this section).

Table 8: PFAS Monitoring at Outfall 001

Date	Total PFAS (ng/L)	PFOS (ng/L)	PFOA (ng/L)
11/20/2024	118.06	39.4	5.31
12/17/2024	121.79	47.7	6.77
1/15/2025	58.94	19.2	3.63
2/12/2025	98.96	27.9	5
3/12/2025	151.49	36.4	15.3
4/16/2025	91.17	31.3	5.41
5/14/2025	122.65	25.1	7.81
6/11/2025	247.82	20.9	7.72
7/16/2025	95.78	24.0	6.08
8/13/2025	105.29	21.7	6.64
9/10/2025	163.76	39.3	6.60
10/8/2025	68.32	20.0	3.68
11/5/2025	58.14	15.4	4.07
1/7/2026	53.88	9.75	4.85
2/4/2026	44.08	15.1	2.44
3/2/2026	77.76	22.5	3.74
Average	**104.9**	**26.0**	**5.94**

On October 7, 2024, the U.S. EPA published a Final Recommended Aquatic Life Criteria for Select PFAS in the Federal Register.[2] For PFOA, the proposed acute standard is 3.1 mg/L (3,100,000 ng/L) and the proposed chronic standard is 0.10 mg/L (100,000 ng/L). For PFOS, the proposed acute standard is 0.071 mg/L (71,000 ng/L) and the proposed chronic standard is 0.00025 mg/L (250 ng/L). On January 24, 2025, the Department published an amended advanced notice of public rulemaking to announce its intent to adopt these criteria into Maryland regulation. Notably, drinking water maximum contaminant levels (MCLs) are not applicable for the surface water discharge because the receiving stream is not designated for use as a public water supply. However, since this site is planning an expansion, it is important to consider the potential impacts of PFAS loading for the future.

The renewal permit includes a requirement to monitor PFAS monthly at Outfall 001 using EPA Test Method 1633A. Given that the Department has announced its intent to adopt the EPA standards, the Department has determined it is appropriate to consider them as applicable to this renewal permit.

The Department must also consider whether technology-based limitations are applicable. At this time, there are no Federal Effluent Limitation Guidelines (ELGs) for PFAS in any industrial category. Thus, any consideration of technology-based limitations must be based on the Department's best professional judgment (BPJ) regarding what treatment methods represent BAT – the Best Available Technology Economically Achievable – and what levels of PFAS removal are consistently attainable by those methods.

[2] 89 FR 81077

As of July 2025, the permittee has installed additional treatment at the end of the existing WWTF for PFAS removal. As of April 1, 2026, the permittee has provided results for eight monthly samples for pre- and post-treatment wastewater, as shown in Table 9. Seven of those post-treatment samples were below the reporting limit for PFOA and six were below the reporting limit for PFOS (with reporting limits no higher than 1.5 ng/L). On average, the total PFAS concentration was reduced by 78.6%. The five congeners which have demonstrated pass-through will continue to be monitored with monthly testing. The Department may reopen the permit to establish new requirements for PFAS based on these monitoring results, new law, or for any other reason specified in Special Condition S.4 of the permit.

Table 9: Pre- and Post-Treatment PFAS Monitoring at Outfall 001

Date	PFOS (ng/L)		PFOA (ng/L)		Total PFAS (ng/L)		Percent (%) Removal of Total PFAS	PFAS Congeners Present Post-Treatment[3]
	Pre	Post	Pre	Post	Pre	Post		
7/16/2025	24.0	< 1.47	6.08	< 1.47	95.78	4.22	95.6	PFPeA (4.22 ng/L)
8/13/2025	21.7	< 1.47	6.64	< 1.47	105.29	28.25	73.2	PFPeA (26.3 ng/L) PFHxA (1.95 ng/L)
9/10/2025	39.3	< 1.48	6.60	< 1.48	163.76	50.71	69.0	PFPeA (31.7 ng/L) PFHxA (8.3 ng/L) PFHpA (1.52 ng/L) PFBA (9.19 ng/L)
10/8/2025	20.0	< 1.46	3.68	< 1.46	68.32	11.67	82.9	PFPeA (9.07 ng/L) PFHxA (2.6 ng/L)
11/5/2025	15.4	< 1.42	4.07	< 1.42	58.14	< RL[4]	100	
1/7/2026	9.75	< 1.43	4.85	< 1.43	53.88	< RL[4]	100	
2/4/2026	15.1	1.99	2.44	< 1.6	44.08	9.75	77.9	PFPeA (4.56 ng/L) PFHxA (1.6 ng/L) PFHxS (1.6 ng/L)
3/2/2026	22.5	8.86	3.74	2.05	77.76	37.92	51.2	PFPeA (10.1 ng/L) PFHxA (6.0 ng/L) PFHxS (7.25 ng/L) PFHpA (3.66 ng/L)
Average	**21.0**	**1.36**	**4.76**	**0.26**	**83.4**	**17.8**	**78.6**	

On February 13, 2026, the Department shared a draft permit with Perdue personnel which proposed to implement non-detectable limitations for PFOS and PFOA based on analytical results demonstrating that those levels were generally achievable. In response, Perdue provided information which showed that there were several operational concerns with the PFAS treatment systems, requiring frequent maintenance, due to media clogging and inability to consistently handle the full output from the WWTF. The information provided matched observations from a WSA Compliance Program inspection which noted that the facility had been storing wastewater which had been treated by the WWTF, but was unable to pass through the PFAS treatment train. Given the operational concerns, Perdue contended that non-detectable limitations were inappropriate at this time.

The Department has generally recognized that the utilization of granular activated carbon, other adsorptive resins, and/or ion exchangeis representative of BAT for PFAS removal. However, any of these technologies would need to be optimized for the specific matrix of pollutants present in a wastewater stream (including trace levels after any previous treatments) to determine the appropriate sizing and operational parameters which would allow for optimal PFAS removal. While initial returns have demonstrated that this facility has the ability to achieve non-detectable levels of PFOS and PFOA (to the limits of quantitation (LOQs) attainable via EPA Method 1633A), the operational challenges suggest that maintenance of these levels may not be sustainable. Perdue has represented to the Department that maintenance of these levels may not be sustainable as a result of operational challenges.

[3] PFPeA - Perfluoropentanoic Acid; PFHxA - Perfluorohexanoic Acid; PFHpA - Perfluoroheptanoic acid; PFBA - Perfluorobutanoic acid

[4] Data for all congeners were below the reporting limit.

The Department has determined the appropriate approach would be to establish action levels reflective of a daily maximum concentration at non-detectable levels for PFOS and PFOA for at least two years. The permit stipulates that the action levels are to become enforceable effluent limitations after two years, unless the permittee submits a modification request which justifies different BAT limitations. Should a modification request be submitted, the action levels shall continue until the Department makes a determination regarding the modification request. Progress reports regarding operations of the PFAS treatment system are required on a quarterly basis and must include a summary of all delays in treatment and actions taken to maintain and/or optimize the system. The reporting requirement is part of Special Condition S.

Note that per Table 9 of EPA Method 1633A[5], the range for LOQs for PFOA and PFOA is expected to be between 1 and 4 ng/L. In order to comply with the non-detectable level limitations for this permit, any sample result must be reported as below the reporting limit and that reporting limit must be no higher than 4 ng/L (the upper bound of the Test Method LOQs; 4 ng/L is not a default LOQ). All values which are above the reporting limit of the actual test method used must be reported and shall be considered detections – but for the test to be considered valid, the reporting limit can be no higher than 4 ng/L (for PFOA and PFOS).

The Department may also re-open this permit during its term to establish new requirements if any new technology and information become available, and State and federal standards continue to evolve to address PFAS. These limitations are more stringent than the proposed aquatic life criteria for both PFOS and PFOA.

The permittee is also planning a significant expansion of operations, which could increase effluent flow by up to 5 times. Since the study of PFAS is an ever-evolving field, the Department recognizes that new standards may develop rapidly. In order to ensure protection of the downstream water quality and prevent potential degradation caused by an expanded flow, a baseline load will also be established using the data collected at Outfall 001. The elimination of spray irrigation makes the historical discharges from the site, which now flow to Outfall 001, equal to 205,000 gallons per day. Applying this flow and the average concentration for Total PFAS yields the following loading calculation:

PFAS Loading = 0.00010674 mg/L x 0.205 MGD x 8.34 x 365 days/year = 0.0666 lbs/year

This loading is applied as an annual loading limit in the renewal permit. Including this loading limit ensures that the expended flow from the site will not allow an expanded load of total PFAS from the site. Any flow expansion will have to be offset by a comparable reduction in PFAS concentration in the effluent. When calculating Total PFAS, the permittee need not include in Total PFAS any congeners below the reporting limit of the lab test performed on the sample. However, in order to ensure that the lab test achieves a minimum level of sensitivity, new Special Condition S of the permit includes a list of the maximum reporting limits which are acceptable for each congener. The list was derived based on the upper bound of the range of LOQs expressed in EPA Method 1633A. Any result which is above the reporting limit of the actual lab test performed must be reported and included in the calculation of Total PFAS.

Additionally, Special Condition S requires that the permittee submit a spreadsheet with monitoring results for total PFAS and each of the 40 congeners monitored by Method 1633A to the Department at the conclusion of each calendar year, at the time of the next permit renewal application, and any time it is requested. PFAS monitoring results will also be submitted to the Department via monthly DMRs.

[5] https://www.epa.gov/system/files/documents/2024-12/method-1633a-december-5-2024-508-compliant.pdf

XIV. Rationale for Special Conditions in the Draft Permit

B. **DEFINITIONS** - Definitions were selected from a standard list so that only the definitions relevant to this permit are included.

C. **TOXIC POLLUTANT REPORTING** -This condition is continued from the previous permit. If necessary, the text has been updated to reflect current standards and practices to address the release of any toxic pollutants not anticipated in the permit review process.

D. **REMOVED SUBSTANCES** - This condition is continued from the previous permit. If necessary, the text has been updated to reflect current standards and practices to ensure pollutants do not reach State waters by some other route.

E. **ANALYTICAL LABORATORY** -This condition is continued from the previous permit. If necessary, the text has been updated to reflect current standards and practices and is included if the Department needs to know who is conducting testing.

F. **WASTEWATER OPERATOR CERTIFICATION** - Based on COMAR 26.06.01, this requirement is to ensure that a properly trained person is operating the wastewater treatment system (Class 5). It also specifies that the permittee is responsible for compliance with the operator certification requirements in COMAR should the appropriate classification change upon expansion or upgrade of the WWTP.

G. **FLOW MONITORING** - This requirement attempts to assure that flow is monitored competently.

H. **FLOW BASIS FOR ANNUAL DISCHARGE PERMIT FEE** - This condition was added to all new/renewal permits to improve fee determinations. The requirement assures the Department receives accurate flow information on which to base the annual fee.

I. **REAPPLICATION FOR A PERMIT** - This condition assures the Department receives applications in time to reissue permits before their expiration.

J. **PERMIT REOPENER FOR TOTAL MAXIMUM DAILY LOAD (TMDL)** - This condition allows the permit to be reopened if a TMDL is issued for the watershed in which the facility resides and alerts the permittee that finalization of a TMDL is cause to reopen the permit.

K. **BIOMONITORING PROGRAM** - This condition is automatically required for all industrial discharge permits (major and minor) when numerical effluent limits may not address all of the conditions or pollutants with potential to cause aquatic toxicity. All industrial dischargers or treatment plants with a wastewater flow greater than or equal to 1 MGD are required to conduct monitoring for toxic substances.

L. **TOXICITY REDUCTION EVALUATION** - This condition is continued from the previous permit. If necessary, the text has been updated to reflect current standards and practices. If toxicity test data indicate unacceptable, acute, or chronic effluent toxicity, this requirement sets forth the steps to be taken to identify and determine the cause of toxicity and implement necessary control measures.

M. **MIXING ZONES AND POLLUTION PREVENTION** -This condition was added to all new/renewal permits to encourage permittees to implement measures toward the elimination of mixing zones, pursuant to the goals established in the "Chesapeake 2000 Agreement"- a comprehensive agreement among Maryland and other states, the U.S. Environmental Protection Agency, and the Chesapeake Bay Commission for the restoration of the Chesapeake Bay. The goal of eliminating toxic pollutants in discharges generally and eliminating the use of mixing zones, in particular, will not be attainable by

wastewater treatment alone. Therefore, the Department is encouraging permittees to establish a pollution prevention program that will contribute to the attainment of this goal. The condition is marked [Reserved] in this permit because no mixing zone is authorized for the discharge.

N. **PROTECTION OF WATER QUALITY** – This condition puts the permittee on notice that they are responsible for discharging any pollutant that was not disclosed in writing to the Department during the permit application process in accordance with protection of water quality. The permittee is also notified that the Department may reopen the permit to establish appropriate controls and initiate enforcement action if a pollutant is identified in the WWTF's discharge that was not disclosed to the Department.

O. **USE OF SUFFICIENTLY SENSITIVE TEST METHODS** – This condition assures that the permittee analyzes samples with test methods sensitive enough to detect pollutants at or below their permit limits. While its terms have always been required, the addition of this condition is new to this renewal, per the Department's recent decision to include it in all NPDES permits.

P. **GROUNDWATER MONITORING REQUIREMENTS** – Groundwater monitoring is being continued from the previous permit of upgradient and downgradient monitoring wells. Specifically, this condition will focus on determining if any ongoing activities at the site, such as the existing lagoons, are contributing to the migration of pollutants in the groundwater. The condition language has been updated as applicable to reference the current standard language for groundwater permitting. Because the permittee is no longer discharging to groundwater via spray irrigation, the groundwater standards in this condition are no longer permit limits, but rather benchmarks that require notification to the Department if they are exceeded. The Department will evaluate any reported exceedances to determine if additional requirements are appropriate with regard to groundwater and may reopen the permit accordingly if deemed necessary.

Please note that the facility has indicated it may close the lagoons. Any lagoon closures are under the purview of the Department's Land and Materials Administration. It is also anticipated that progress reports required by Special Condition R will include any updates on lagoon closure plans as part of the overall upgrade to the wastewater treatment facility at the site.

Q. **WATER TREATMENT CHEMICALS** – Since COMAR 26.08.03.01A(2) prohibits the discharge of any pollutant in toxic amounts, this is required. The Department must be informed of any change in chemicals used that will be present in the discharge for Outfall 001. In order to maintain the TMDLs, water treatment chemicals containing phosphorus have been prohibited from Outfall 002. This condition is continued from the previous permit.

R. **COMPLIANCE SCHEDULE FOR AMMONIA –** The condition is self-explanatory. See Section XIII of this fact sheet for additional rationale. The condition requires progress reports a minimum of once every six months and establishes milestones corresponding with the schedules and supporting documentation provided by the permittee during the renewal process. NOTE: The Department shared drafts initially in 2023 and indicated to the permittee that the ammonia compliance schedule would not extend further, even if delays in permit issuance occurred. As a result, the permittee has proceeded with the specified schedule from those drafts. Rather than modify the schedule to account for delays in issuance, the permit reflects which reports/requirements have been completed, as the permittee began operating in coordination with the schedule in the draft permit immediately.

S. **PFAS REQUIREMENTS** – This condition has been added to this condition to address a number of permitting issues regarding PFAS. It contains requirements for reporting of action level exceedances and requires the permittee to collect and submit additional PFAS data annually. Specifically, a spreadsheet containing all monthly monitoring results for Total PFAS and each of the 40 congeners tested by EPA

Test Method 1633A shall be reported. See the rationale in Section XIII.L of this fact sheet for additional rationale regarding PFAS and monthly sampling requirements.

T. **STORMWATER ASSOCIATED WITH INDUSTRIAL ACTIVITIES** –This condition requires the permittee to maintain coverage under the Department's General Permit for Discharges from Stormwater Associated with Industrial Activities (currently the 20-SW). The permittee currently holds Permit Registration 20-SW-3337. This requirement is included because 40 CFR 122.26 identifies this activity for stormwater regulation.

NOTES (related to removed or relocated Special Conditions)

- Special Condition O from the previous permit has been removed because the permittee is no longer discharging wastewater via spray irrigation.
- Special Condition Q from the previous permit has been removed because any study requirements were completed, and no future additional study requirements are proposed at this time. Some of its terms have been added to the Groundwater Monitoring condition (now Special Condition P).
- Special Condition S from the previous permit has been removed since there is no printshop on-site currently.
- The language from Special Condition T of the previous permit pertaining to the nutrient trading has been removed.
- Special Conditions R and U from the previous permit are now Special Conditions Q and T due to the removal of conditions outlined above.
- Outfalls 002, 005, and 006 were removed at the request of the permittee. Any references to these outfalls in special conditions have been removed.