

**Maryland Department of The Environment
Groundwater Discharge Permit
Summary Report and Fact Sheet**

Executive Summary

Industrial Groundwater Discharge Permit

State Discharge Application Number: 25-DP-1430

Project Type: Industrial/ Groundwater/ Renewal

Facility Name: Perdue Farms Inc. - Hatchery No. 10

Facility Location: 9891 Old Princess Anne Road
Princess Anne, MD 21871

County: Somerset

Facility Discharges: Chicken hatchery tray wastewater and vehicle washwater.

Pollutants Limited: Total Nitrogen, Fecal Coliform

Changes from Previous Permit:

1. Page 2, Condition I.A.2. - Added PFAS to influent and effluent sampling.
2. Pages 3-4, Condition I.C.3. - Added PFAS and Total Dissolved Solids to groundwater monitoring requirements.
3. Pages 4-5, Condition I.E.3. - Authorized additional chemical additives.
4. Page 7, Condition I.F.11. - Added a requirement to submit a copy of the Annual Implementation Report to the Department annually, should spray irrigation resume.
5. Page 7, Condition I.F.12. - Added prohibition against winter spray.
6. Pages 7-8, Condition I.G. - Added section for PFAS monitoring and reporting requirements.

Contact: Nicole Bell, Environmental Manager

Phone: (410) 341-2544

SIC Codes: 0254, Poultry Hatcheries

Applicant is engaged in: Hatching of chicks.

Legal Name of Applicant: Perdue Foods, LLC

Mailing Address: 31149 Old Ocean City Road
Salisbury, MD 21804

Basin Code: 02.13.02.08

Receiving Water Name (Class): Quaternary Deposits, Class I Aquifer

Latitude: 38°09'11" N **Longitude:** 75°41'12" W

Controversial Provisions: None

Unusual Conditions: The permittee is not required to test for PFAS, or submit to the Department an updated NMP unless the spray irrigation resumes at the facility. The Permittee is also only required to maintain a 7-day onsite wastewater storage tank due to frequency of pump and hauling.

MDE Environmental Justice Score: Per MD Environmental Article § 1-602(a)(2), an EJ score was calculated for this facility. The EJ Score is 54.50. This score has been calculated considering a combination of the following factors: Pollution Burden Exposure Percentile, Pollution Burden Environmental Effects Percentile, and Sensitive Population Percentile. For more information on how the score was calculated, launch the MDEnviroScreen tool from this website: <https://mdewwp.page.link/EJ>.

Operations Which Generate Wastewater

Wastewater at Perdue's No. 10 Hatchery is generated primarily on hatching days, i.e., Monday, Tuesday, Thursday and Friday, although some wastewater is generated everyday except Sunday. Approximately 150,000 chickens are hatched each week at this facility. Water is supplied from onsite wells in the Manokin aquifer.

Wastewater generated at the hatchery consists of wash water from plant cleanup activities, the washing of chick hatching trays, and occasional discharges of non-contact cooling water. In addition, exterior vehicle washing is performed on chick delivery vehicles at a frequency of about 2 times per week. The vehicle wash water stream used to combine with the other chick hatchery operations wastewater; however, exterior vehicle washing in a designated area has been approved where the washwater will be discharged directly to ground via overland flow.

Wastewater from the tray wash machine is collected via floor drains and passed through a Hydro-siv screen to remove solids. After screening the wastewater enters a 4,000-gallon capacity septic tank for further settling and solids removal. The wastewater then flows to a 6,000-gallon equalization tank before land application via spray irrigation.

Process wastewater is land applied to a 20-acre site. This 20-acre site sits on the southern end of the property and is divided into 6 spray zones, approximately 3 to 4 acres each. The 3 spray zones closest to the building are used the most because the fields farthest from the building are closer to a stream and may, at times, contain standing water which does not allow for spray application. Land application of process wastewater occurs on a daily basis, conditions permitting.

Solids removed from the screening device consist primarily of chick down feathers and egg shell particles. American Dehydrated Foods collects the solids, which are used as an ingredient in the processing of animal food.

The facility is presently hauling wastewater offsite when it cannot be discharged due to poor site conditions. They currently have 35,000 gallons of onsite storage for wastewater, which is about 7 days of storage. The Department requires 75 days of onsite wastewater storage for land application permits because of the prohibition of land application during the winter. Since Perdue, however, has been consistently hauling wastewater offsite since they obtained the permit, the new permit will require only 7 days of onsite storage for wastewater. This is consistent with the storage requirements for holding tanks found in COMAR 26.04.02.02L.

To comply with the 7-day onsite storage requirement, the permittee recently installed a 23,000 gallon above-ground storage tank. With the 12,000 gallons of storage previously onsite, this equals approximately 7 days of storage.

Site Hydrogeology

Quaternary Deposits underlie this facility. These are undifferentiated gray to buff sands and gravels, interlayered with silts and clays. The area of Westover is considered an aquifer recharge area for the Pocomoke aquifer of the Yorktown and Cohansey Formations. The present use of this aquifer is mainly domestic, but it has potential for industrial use. The aquifer yields waters with high iron content (4.5 mg/L), moderate chloride content (19 mg/L), and relatively low dissolved solids (187 mg/L).

Projected Impact

Supply Well Review: A review of the well applications processed by the Division of Residential Sanitation since 1969 indicates that 167 wells were drilled within MD grid coordinates: East 1175-1181 and North 166-172. All wells are within approximately a ½-mile radius of the facility. Thirty-four (34) wells are less than 99 feet deep, 55 wells are from 100 to 199 feet deep, and 78 wells are from 200 to 261 feet deep. No major impact to groundwaters is expected.

Wellhead Protection Area: The facility is not within a community Wellhead Protection Area.

Detailed Assessment of Liquid Wastes

Type of wastewater in Outfall 001: Hatchery plant washdown, chick hatch tray washwater

Type of wastewater in Outfall 002: Exterior vehicle washwater

Discharge: Type - Intermittent Period - Daily

Flow: Average - 4,500 gpd Maximum - 18,000 gpd

pH Range: N/A

Temperature: Ambient

Stormwater Contribution: Annual - N/A 10-yr/24-hr storm - N/A

Wastewater Analysis: Sample collected 10/16/2020

Total N - 13.0 mg/L

NO₃ + NO₂ - 7.55 mg/L

NH₃ - 0.28 mg/L

TKN - 5.44 mg/L

TDS - 13,500 mg/L

TSS - 1,140 mg/L

Total Phosphorus - 6.09 mg/L

Chloride - 9,890 mg/L

Fecal Coliform - ND MPN/100 mL

Sodium - 4,330 mg/L

MSDS Review:

No products used have chemicals with either a drinking water Maximum Contaminant Level (MCL), or a listed Health Advisory. This is based on “Drinking Water Standards and Health Advisories”, EPA 822-F-18-001 (Spring 2018).

Tentative Agency Decision:

Issue permit with the following limitations and conditions:

1. Proposed effluent limitations for Outfall 001 - wastewater generated from washdown water of the hatchery floor and incubators, chick hatch trays, and noncontact cooling water

Table 1: Effluent Limitations and Monitoring Frequencies (Outfall 001)

| <u>Parameter Code</u> <u>(STORET)</u> | <u>Effluent</u> <u>Characteristics</u> | <u>Effluent Limitations</u> | | | <u>Monitoring</u> <u>Requirements</u> | |
|--|---|--|--|--|--|--|
| | | <u>Loading</u> | | <u>Concentration</u> | <u>Monitoring</u> <u>Frequency</u> | <u>Sample</u> <u>Type</u> |
| | | <u>Quarterly</u> <u>Average</u> | <u>Daily</u> <u>Maximum</u> | <u>Daily</u> <u>Maximum</u> | | |
| 00600 | Total Nitrogen (N) | NA | N/A | (1) | Monthly | Grab ⁽⁴⁾ |
| 50050 | Flow | (1) | (1) | (1) | Continuous ⁽²⁾ | Measured |
| 51040 | E. coli ⁽³⁾ | N/A | N/A | 125 MPN/100 mL ⁽³⁾ | Monthly | Grab ⁽⁴⁾ |
| (6) | PFAS Compounds (influent) ⁽⁶⁾ | N/A | N/A | Report Maximum ⁽⁵⁾ | 2 times per year ⁽⁵⁾⁽⁶⁾ | Composite Grab |
| (6) | PFAS Compounds (effluent) ⁽⁶⁾ | N/A | N/A | Report Maximum ⁽⁵⁾ | 2 times per year ⁽⁵⁾⁽⁶⁾ | Composite Grab |

(1) Monitoring and reporting are required without limitation.

(2) Continuous flow measurement applies to the effluent leaving the lift station.

(3) The E. coli shall be determined as a geometric mean of the monthly data.

(4) Grab samples shall be obtained from the effluent line just prior to spray irrigation.

(5) PFAS monitoring requirements shall not take effect unless the facility resumes spray irrigation. If spray irrigation resumes, all conditions of section I.G of the permit shall take effect.

(6) PFAS monitoring shall consist of sampling of PFAS compounds two (2) times per year - once during the wet season (March-April) and once during the dry season (May-November). Samples shall be taken in the following locations:

Influent - before entering the lagoon, and effluent - after the chlorine chamber and before spraying. See permit Section I.G.4 for testing methods.

2. Proposed effluent limitations for Outfall 002 - Exterior vehicle washwater prohibited from discharging or causing to be discharged any waste oil, fuels, grease, ethylene glycol (antifreeze), organic solvents, paint, or wastewater from engine or undercarriage cleaning to surface waters or groundwaters of the State, including wetlands.
3. Groundwater quality limitations for nitrate, chloride, dissolved solids, E. coli, pH, and PFAS compounds

Table 2: Groundwater Quality Limitations and Monitoring Frequencies

| Parameter Code (STORET) | Parameter Description | Concentration ⁽²⁾⁽³⁾ | Monitoring Frequency | Sample Type |
|-------------------------|----------------------------------|---------------------------------|----------------------|-------------|
| | | Daily Maximum | | |
| 00620 | NO ₃ Nitrate Nitrogen | 10 mg/L | Once every 3 months | Grab |
| 00400 | pH | (1) | Once every 3 months | Grab |
| 70295 | Total Dissolved Solids | 500 mg/L | Once every 3 months | Grab |
| 00940 | Chloride | 250 mg/L | Once every 3 months | Grab |
| 51040 | E. coli ⁽⁶⁾ | Non-Detect | Once every 3 months | Grab |
| (5) | PFAS Compounds | (4) (5) | Once every 6 months | Grab |

- (1) Monitoring required without limitation.
- (2) For any reported exceedance in the downgradient wells, if the average groundwater quality in either background upgradient well (MW5 and MW6), the Department may evaluate whether a violation exists on a case-by-case basis.
- (3) The groundwater quality limitations are not applicable to the upgradient wells, MW5 and MW6, as shown on Map B.
- (4) PFAS monitoring shall consist of sampling PFAS compounds two (2) times per year - once during the wet season (March-April) and once during the dry season (May-November). One upgradient monitoring well (MW5) and two downgradient wells (MW1, MW4) will be sampled for PFAS compounds. If two consecutive results exceed the action level set by the Department, per permit section I.F.6., additional testing may be required by the Department.
- (5) PFAS monitoring requirements shall not take effect unless the facility resumes spray irrigation. If spray irrigation resumes, all conditions of permit section I.F. shall take effect.
- (6) E. coli shall be reported as an annual geometric mean.

Source of Water: Private Well.

Summary of Plant Visits and Meetings:

- 7/15/2025 - Site inspection and meeting with Nicole Bell, Jacob Robinson, and Luke Hudson. Inspected holding tanks and facility treatment system.
- 9/25/2018 - Site inspection and meeting with Parker Burdell, Tyler Fink, Rich Tudor and Tracy Rocca-Weikart
- 5/20/2013 - Site inspection and meeting with Tanya Rogers-Vickers and Tracy Rocca-Weikart

6/13/2000 - Site inspection and meeting with Jim Parsons and Tanya Rogers of Perdue, and Don Bradley of MDE.

Wastewater Operator Requirement: No.

Sanitary Waste Handling: On-site septic system.

Other Environmental Permits: None.

Recommended Enforcement Activities: Periodic inspections of facility.