Mountaire Farms, Inc. (Selbyville, DE facility) NPDES Permit Review and Public Comment

Submitted to Delaware Natural Resources and Environmental Control (DNREC)

The following written public comments are submitted to Delaware Natural Resources and Environmental Control (DNREC) regarding permit modification and renewal:

State Permit Number WPCC 3026F/75 NPDES Permit Number DE 0050326
Published: Sept. 29, 2021 Public Hearing: Nov 2, 2021
Public Comments Due: Nov. 17, 2021

From the public notice published September 29, 2021, the Mountaire Selbyville facility discharges stormwater to Sandy Branch as follows::[1]

> "The Department of Natural Resources and Environmental Control (DNREC), Division of Water, hereby gives notice that Mountaire Farms Inc., has applied for reissuance of its NPDES Permit No. DE0050326 (State Number WPCC 3026F/75) to discharge storm water to Sandy Branch, which leads to the Bunting Branch, and ultimately discharges to the Isle of Wight Bay in Maryland. This facility is located at Hosier St. and Railroad Avenue in Selbyville, Sussex County, Delaware. The facility is a poultry processing plant. Live chickens arrive by truck and are staged in a live receiving cooling/storage shed prior to processing. The facility utilizes a pretreatment plant for process wastewater treatment, and then subsequently discharges pretreated wastewater into the collection system for the Town of Selbyville for treatment and disposal at the Selbyville Wastewater Treatment Plant. Therefore, the nine current outfalls at Mountaire's Selbyville facility only discharge storm water runoff to Sandy Branch, and no process wastewater is discharged from this facility. This site houses processing buildings, warehouses, maintenance facilities and office buildings."

Discharge pathway as described in permit: discharge storm water to Sandy Branch, which leads to the Bunting Branch, and ultimately discharges to the Isle of Wight Bay in Maryland.

Public Concern: Buntings Branch misspelled, does not mention Bishopville Prong.

1. Applicable Total Maximum Daily Loads (TMDLs) for the surface waters associated with the stormwater discharge from the Mountaire Selbyville poultry processing plant include Buntings Branch TMDL (Delaware) and Coastal Bays (Maryland). Information about each surface water TMDL is provided below.

[1] See: https://dnrec.alpha.delaware.gov/public-notices/notice-of-npdes-permits-and-public-hearing-mountaire-farms-inc/

The 2004 Total Maximum Daily Load (TMDL) Analysis of Buntings Branch report by DNREC includes this information about the impaired nature of the surface water body:[2]

> "The Delaware Department of Natural Resources and Environmental Control (DNREC) has identified that the water quality of Buntings Branch (4.6 miles of 11.1 miles segment DE070-001) was impaired because of its elevated nutrient levels and low dissolved oxygen concentrations (1) (2). This segment had been placed on the State's 1996, 1998, and 2002 303(d) lists and targeted for development of TMDLs. Buntings Branch Watershed is located just north of DE-MD state line. The stream flows southeastward through Selbyville and crosses the state line into Maryland's Bishopville Prong. It is the headwater of Bishopville Prong. The drainage area of Buntings Branch Watershed within Delaware is 6300 acres and is about 58% of the total drainage area of the Bishopville Prong. There are no active point sources discharging nutrients into Buntings Branch, Therefore, all pollutants are coming from nonpoint sources."

Figure 1 – Topographic map showing Selbyville top left and Isle of Wight bottom right.[3]

[2] See: http://www.dnrec.delaware.gov/swc/wa/Documents/TMDL_TechnicalAnalysisDocuments/22_BuntingsBranchTMDLAnalysis.pdf

[3] See: https://www.topozone.com/maryland/worcester-md/stream/saint-martin-river/

The 2004 Buntings Branch TMDL analysis report refers to the Maryland Water Quality Standards as follows:

> "Taking into consideration of this watershed's unique geographical location and the existing TMDLs established by Maryland MDE for this area, Delaware DNREC plans to apply and implement Maryland's existing TMDL to the Buntings Branch in Delaware if its independent monitoring and modeling study shows that the reduction rates specified by Maryland MDE is sufficient to meet State of Delaware's water quality standards and nutrient target values.
>
> To check the sufficiency of the MDE's prescribed load reduction rates, DNREC developed water quality model for Buntings Branch using U.S. EPA's Enhanced Stream Water Quality Model (Qual2E) as a framework. Water quality data collected during 2000 – 2002 was used to calibrate the model. Load reduction rates of 31% for nitrogen and 19% for phosphorous established by Maryland MDE were then applied to the Buntings Branch using the calibrated model.
>
> Under both average and summer low flow conditions, water quality standard of 5.5 mg/l for dissolved oxygen was met at all reaches. Total nitrogen concentrations were under 3 mg/l and total phosphorous concentrations were below 0.1 mg/l. This modeling study showed that the load reduction rates established by Maryland MDE were adequate to meet State of Delaware's water quality standards and nutrient targets in Buntings Branch. Therefore, the same load reduction rates will be applied and implemented for Buntings Branch Watershed in Delaware."

The Maryland Department of Natural Resources (MDNR) prepared a report in 2004 titled Priority Areas for Wetland Restoration, Preservation, and Mitigation in Maryland's Coastal Bays. The report identifies surface water issues related to Buntings Branch (See Figure 3) determined in a 1999 MDNR study as follows (page 43 of 164) [**emphasis added**]:[4]

> "A MDNR study also found high nutrient concentrations at three stations: a tributary to St. Martin at St. Martin Neck Road, Buntings Branch at Delaware Rt. 54 in Selbyville, and Church Creek at Rt. 113 (Primrose, 2002). **The area with the highest total dissolved nitrogen load (79.5 mg/L) was on Buntings Branch at Delaware Route 54 in Selbyville.**"

[4] See: https://mde.state.md.us/programs/water/WetlandsandWaterways/AboutWetlands/Documents/www.mde.state.md.us/assets/document/wetlandswaterways/CB_all.pdf

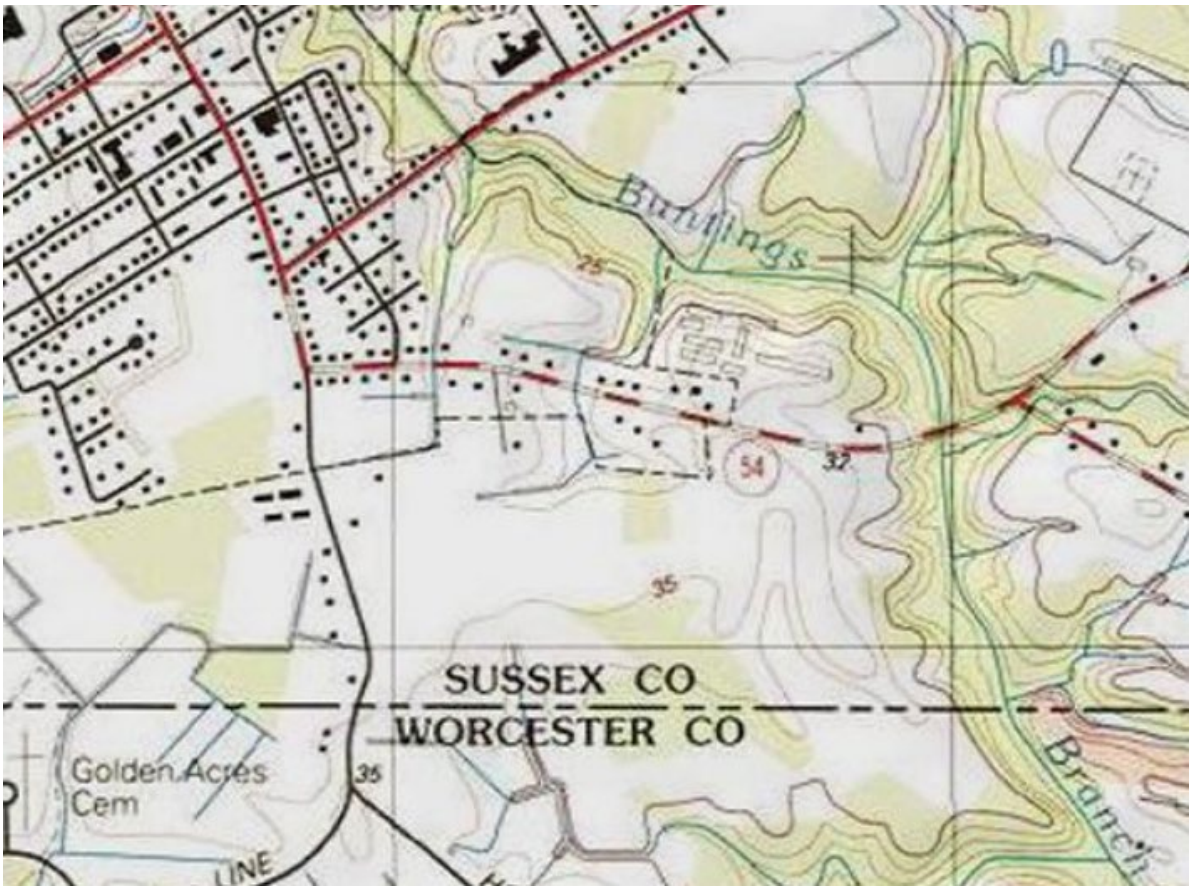

Figure 2 – Topographic map showing Bunting Branch from Selbyville in Sussex County, Delaware flowing south to Worcester County, Maryland.[5]

2014 MDNR report on TMDLs for Coastal Bay Watersheds included this information about nutrient loading at Bishopville Prong (See Figure 4) [**emphasis added**]:[6]

> "Based on the results of the exploratory scenarios, **it was determined that the Bishopville Prong/Shingle Landing Prong tributaries required the highest nutrient reductions in order to meet water quality standards**, i.e., MPAR reductions. The reductions applied to atmospheric deposition were based off the allocation scenario (2025) for Worcester County in the Chesapeake Bay TMDL. See USEPA (2010) for further details regarding atmospheric deposition reductions. The reductions from controllable sources required to meet water quality standards in the future conditions scenario are presented in Table 14. See Wang *et al.* 2013 for more detailed information about the TMDL scenario."

[5] See: https://www.topozone.com/maryland/worcester-md/stream/saint-martin-river/
[6] See: https://mde.state.md.us/programs/Water/TMDL/DocLib_CoastalBays_Nutrient/MCB_TMDL_Report_092314_revisedfinal.pdf

Figure 3 – Topographic map showing Buntings Branch flow into Bishopville Prong.

The DNREC Fact Sheet for the proposed permit includes this information about updating Buntings Branch TMDL to correspond to Maryland's TMDL on Bishopville Prong:

> "The Department is currently in the process of updating the 2004 TMDL for the Buntings Branch to be in agreement with the updated Maryland TMDL for the Bishopville Prong. As part of this update, the Department will include discharges from storm water as a point source and part of the Waste Load Allocation. This permit shall be modified accordingly based on the established Waste Load Allocation in the future."

Table B23: Bishopville Prong Average Annual Nitrogen TMDL (lbs/yr)

Basin Name	TMDL	Upstream Loads[1] (WLA+LA)	WLA Process Water	WLA_{CAFO}	LA	MOS
Bishopville Prong	54,619	25,434	655	2,823	25,697	Implicit

[1] Upstream Loads denotes loadings from outside Maryland's portion of the watershed. This allocation includes point and nonpoint sources

Table B24: Bishopville Prong Growing Season Nitrogen TMDL (lbs/growing season)

Basin Name	TMDL	Upstream Loads[1] (WLA+LA)	WLA Process Water	WLA_{CAFO}	LA	MOS
Bishopville Prong	25,592	11,777	333	1,411	12,071	Implicit

[1] Upstream Load denotes loadings from outside Maryland's portion of the watershed. This allocation includes point and nonpoint sources.

Table B25: Bishopville Prong Nitrogen Maximum Daily Load (lbs/day)

Basin Name	MDL	Upstream Loads[1] (WLA+LA)	WLA Process Water	WLA_{CAFO}	LA	MOS
Bishopville Prong	410	184	2	8	216	Implicit

[1] Upstream Load denotes loadings from outside Maryland's portion of the watershed. This allocation includes point and nonpoint sources.

Table B26: Bishopville Prong Average Annual Phosphorus TMDL (lbs/yr)

Basin Name	TMDL	Upstream Loads[1] (WLA+LA)	WLA Process Water	WLA_{CAFO}	LA	MOS
Bishopville Prong	5,603	2,890	0	232	2,481	Implicit

[1] Upstream Load denotes loadings from outside Maryland's portion of the watershed. This allocation includes point and nonpoint sources.

Figure 4 – Snapshot of Bishopville Prong TMDL for nitrogen.[7]

Table B27: Bishopville Prong Growing Season Phosphorus TMDL (lbs/growing season)

Basin Name	TMDL	Upstream LA[1]	WLA Process Water	WLA_{CAFO}	LA	MOS
Bishopville Prong	2,797	1,450	0	116	1,231	Implicit

[1] Upstream Load denotes loadings from outside Maryland's portion of the watershed. This allocation includes point and nonpoint sources.

Table B28: Bishopville Prong Phosphorus Maximum Daily Load (lbs/day)

Basin Name	MDL	Upstream LA[1]	WLA Process Water	WLA_{CAFO}	LA	MOS
Bishopville Prong	46	22	0.00	0.6	24	Implicit

[1] Upstream Load denotes loadings from outside Maryland's portion of the watershed. This allocation includes point and nonpoint sources.

Table B29: Bishopville Prong Baseline Nitrogen Load, TMDL, and Total Reduction Percentage

Baseline Load (lbs/yr)	TMDL (lbs/yr)	Total Reduction (%)
128,760	54,619	58%

Table B30: Bishopville Prong Baseline Phosphorus Load, TMDL, and Total Reduction Percentage

Baseline Load (lbs/yr)	TMDL (lbs/yr)	Total Reduction (%)
9,095	5,603	38%

Figure 5 - Snapshot of Bishopville Prong TMDL for phosphorus.

[7] See: https://mde.maryland.gov/programs/Water/TMDL/DocLib_CoastalBays_Nutrient/Appendix_B_IsleofWight_031014_final.pdf

Maryland published the "Total Maximum Daily Loads of Nitrogen and Phosphorus for Assawoman Bay, Isle of Wight Bay, Sinepuxent Bay, Newport Bay and Chincoteague Bay in the Coastal Bays Watersheds in Worcester County, Maryland" in 2014. The document includes the TMDL for Bishopville Prong as follows: [8]

> "To assure that critical conditions are addressed, the growing season TMDLs for nitrogen and phosphorus are presented in Tables ES-2 and ES-3 below. These TMDLs apply from May 1 through October 31. The allowable loads have been allocated between point and nonpoint sources. Load Allocations (LAs) have been assigned to the nonpoint sources, and Wasteload Allocations (WLAs) have been assigned to National Pollutant Discharge Elimination System (NPDES) – regulated point sources, as well as Concentrated Animal Feeding Operations (CAFOs). Furthermore, all TMDLs must include a Margin of Safety (MOS) to account for any lack of knowledge and uncertainty concerning the relationship between loads and water quality (CFR 2013a). An implicit MOS, consisting of a number of conservative assumptions incorporated into the modeling process, was used."

Appendix B to the 2014 Maryland TMDL includes this explanation [**emphasis added**]:[9]

> "Major tributaries draining to MD 8-Digit Isle of Wight Bay include the Bishopville Prong, Shingle Landing Prong, St. Martin's River, Herring Creek, Turville Creek, and Manklin Creek. TMDLs have been developed for the MD 8-Digit Isle of Wight Bay and the tributaries listed above. Specific WLAs and LAs are provided for the portions of the watersheds within Maryland; **however, aggregate Upstream LAs are also specified for the portions of the watersheds within Delaware**. In the sections below, more detailed information regarding watershed characteristics, water quality, baseline nutrient loadings, and the specific TMDLs developed for the MD 8-Digit Isle of Wight Bay and its tributaries are provided."

Public Concerns: Is there a reason why Delaware has not amended the Buntings Branch TMDL in the past six years to accommodate Maryland's TMDL (2014 to 2021)? What will change after this permit is issued that will cause DNREC to modify the Buntings Branch TMDL? What is the expected outcome of that modification? Would the proposed stormwater discharge from Mountaire Farms Inc Selbyville facility be affected by the modified TMDL? In what way would this permit be changed to accommodate nutrient loading reductions needed in Maryland for Bishopville Prong TMDL?

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[8] See: https://mde.state.md.us/programs/Water/TMDL/DocLib_CoastalBays_Nutrient/MCB_TMDL_Report_092314_revisedfinal.pdf

[9] See: https://mde.maryland.gov/programs/Water/TMDL/DocLib_CoastalBays_Nutrient/Appendix_B_IsleofWight_031014_final.pdf

3. Site History of Mountaire Farms, Inc Selbyville location:
1977 - Mountaire Farms purchased H&H Poultry Processing.[10]
2011 – Secretary Order to clean up Outfall 002 (live animal holding area)
2014 – USEPA Guidelines for live animal holding areas
2015 – DNREC levies $48,00 civil penalty for Outfall 002 discharge violations
2015 – Environmental group sues over discharge to Sandy Branch[11]
2020 - Town of Selbyville approves changes to land-use agreement with Mountaire

The 2011 DNREC Secretary's Order No. 2011-W-0012 to Mountaire Farms, Inc. (Selbyville) identifies the basis of the Order in these paragraphs:

> "WHEREAS, Mountaire Farms of Delmarva, Inc., referred to herein as Mountaire, operates a poultry processing facility at Hoosier Street and Railroad A venue in Selbyville, Delaware; and,
>
> WHEREAS, the noncontact cooling water and stormwater run-off from this site are permitted under a National Pollution Discharge Elimination System (NPDES) Permit No. DE0050326 and State Permit No. WPCC 3026D/75, last re-issued on May 20, 2004, by the Department of Natural Resources and Environmental Control's (Department) Division of Water; and
>
> WHEREAS, Federal Regulations under 40CFR §432, "Subpart K-Poultry First Processing, promulgated in 69 FR 54541 on Sept. 8, 2004 and effective on October 8, 2004, includes requirements that apply to water from animal holding areas at this facility; and,
>
> WHEREAS, pursuant to 7 Del. Admin. C. § 7201-6.14.3.2, Mountaire had timely submitted its application for permit re-issuance to the Department; and,
>
> WHEREAS, pursuant to 7 Del. Admin. C. § 7201-6.14.3.3, the terms and conditions of NPDES Permit No. DE0050326 were continued beyond the permit's expiration date and would remain fully effective and enforceable until the permit was re-issued by the Department; and
>
> WHEREAS, upon reissuance the referenced NPDES permit will include new limits for the runoff from the animal holding area, per the aforementioned "Subpart K-Poultry First Processing" requirements; and,
>
> WHEREAS, the Department expects that Mountaire will need and should be provided a reasonable compliance schedule to design and construct improvements in the animal holding area in order to achieve full compliance with those new limits; and,"

[10] See: https://mountaire.com/about-us/our-history/
[11] See: https://www.delawarepublic.org/science-health-tech/2015-08-06/environmental-watchdog-threatens-to-sue-mountaire-farms-over-clean-water-act-violations

The Secretary's Order includes these Findings and Conclusion related to wastewater discharge from live animal holding areas:

> Findings: "The referenced NPDES Permit DE000086 became effective on June 1, 2004, and required runoff from the animal holding area to be monitored at a place designated "Outfall 002." Monitoring results since then indicate that the actual run-off will not immediately meet the new limits for Outfall 002 in the NPDES permit, as public noticed on August 4, 2010."
>
> Conclusion:" The Department has determined that Mountaire Farms should be provided a Schedule of Compliance for achieving the new requirements of the re-issued NPDES Permit No. DE0000086 for Outfall 002. The permittee must achieve those requirements as soon as possible but no later than three years from the re-issued permit effective date."

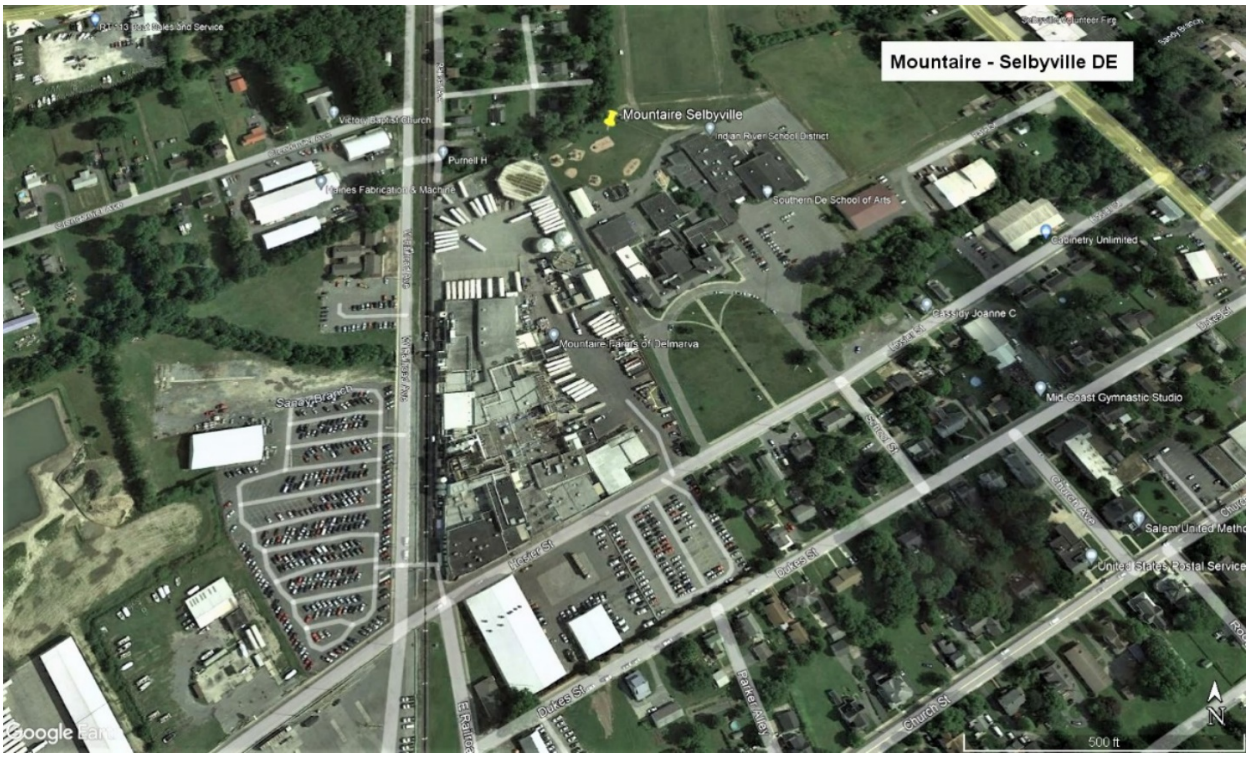


Figure 6 – Google Earth image of Mountaire Farms Inc Selbyville location.

Town of Selbyville approves changes to land-use agreement with Mountaire Farms November 2020:[12]

> "Also relating to water quality, Mountaire Farms and the Town agreed to update their existing land-use agreement, allowing Mountaire to stage the loaded live-

[12] See: https://www.coastalpoint.com/news/communities/selbyville/selbyville-digs-into-sewage-agreement-road-issues-mountaire-trucks/article_ee6b4910-2454-11eb-9a65-73ed616814a3.html

haul poultry trucks in a warehouse building before those trucks enter the main receiving area. The purpose of the agreement is to keep a cover over trucks loaded with chickens on slaughter days, just while they're waiting to unload at the Hosier Street poultry processing plant."

In September 2015, DNREC filed complaint against Mountaire Selbyville facility:[13]

"DNREC filed a complaint in Sussex County Superior Court against the poultry producer last week citing Mountaire's failure to comply with wastewater discharge permits, according to a statement from DNREC.

The discharge permits are meant to limit the amount of pollution discharged into local waterways to curtail effects on the environment.
The complaint centered around stormwater runoff and discharges from the "live animal hold" building making its way into the Sandy Branch of the St. Martin River."

In 2015, Mountaire Farms, Inc. fined for discharge to Sandy Branch:[14]

"Mountaire Farms, Inc. will pay a $48,000 civil penalty for pollution violations from a discharge into the Sandy Branch of the St. Martin River, the Delaware Department of Natural Resources and Environmental Control said Sept. 25.

The offending outfall, Outfall 002, has historically consisted of stormwater runoff from the Selbyville plant's processing area and discharge from a live animal hold building, the state said. It was supposed to be in line with Environmental Protection Agency guidelines by June of 2014, according to Delaware Surface Water Discharge Section Manager Bryan Ashby.

The outfall impacts the levels of oxygen and total suspended solids in the water and runoff included things such as oil, grease, enterococci and pneumonia. While Ashby said the discharge was a concern, the issue was not serious enough to require an injunction, he said.

In addition to the fine, Mountaire will reflect on site improvements it has made since a 2011 order from former DNREC Secretary Colin O'Mara to clean up the outfall. It will also add an infiltration basin to eliminate the outfall in the next two years."

[13] See: https://www.heraldtribune.com/story/news/local/2015/09/25/mountaire-farms-hit-wastewater-discharge-fines/72810622/
[14] See: https://www.delmarvanow.com/story/money/2015/09/25/dnrec-mountaire-suit/72815182/

In 2015, environmental group Food and Water Watch sues Mountaire:[15]

> "The Mid-Atlantic Environmental Law Center, representing environmental watchdog group Food and Water Watch, says it's discovered that Mountaire's poultry processing plant in Selbyville is exceeding pollution limits by large amounts.
>
> The pollutants include oil and grease, ammonia nitrate and enterococci, a type of bacteria that's linked with poultry. They claim that for about five years, pollutants have been discharging into the Sandy Branch section of the St. Martin River, close to the Maryland border. The St. Martin River is also one of the most unhealthy areas in the Maryland Coastal Bays.
>
> Leone explained that one major source of the pollution is chicken droppings. Often, trucks carrying the animals will stall at the plant, allowing droppings to fall to the ground and get washed away into Sandy Branch. Mountaire had attempted to remedy this problem by building a structure to catch the droppings. However, Leone says that it's either not being used properly or it's not working altogether.
>
> The Food and Water Watch has sent Mountaire a notice of intent to sue in 60 days. Mountaire Farms did not immediately respond to calls for comment."

Public Concerns: Why did it take 9 years for Mountaire to request a land-use change with the City of Selbyville that apparently allowed for the construction of a covered live animal holding area (2011 Secretary's Order to 2020 land-use change)? Why was Mountaire Farms Inc allowed to continue discharging into Sandy Branch when the facility clearly was not reducing the pollutant load in their discharge as identified in the Secretary's Order in 2011 and the fine levied in 2015? Now six years after the fine was levied, DNREC proposes a permit that still has a stormwater discharge to Sandy Branch via the new Outfall 15 – why? How has the live animal area been improved since the 2015 Food and Water Watch Notice of Intent to sue?

4. Sandy Branch Tax Ditch. The engineering drawing provided in the proposed permit shows the location of Sandy Branch north of new infiltration basin and then flowing east under road and through the Mountaire Farms Inc. processing facility (page 3 of 21 of proposed permit).

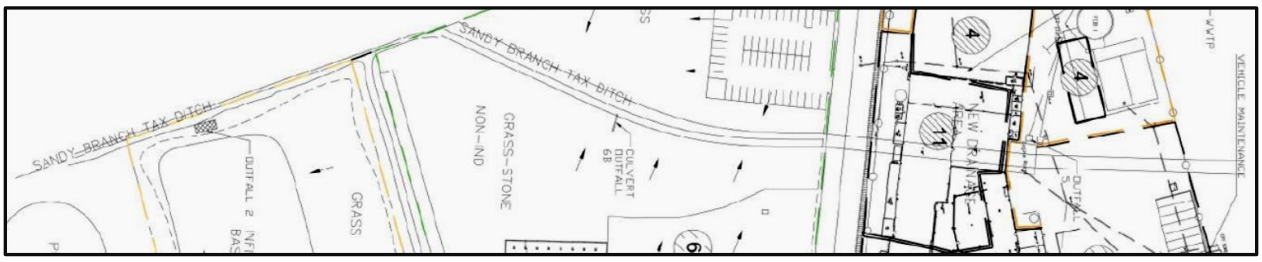


Figure 7 – Snapshot of Stormwater Drawing showing Sandy Branch.

[15] See: https://www.delawarepublic.org/science-health-tech/2015-08-06/environmental-watchdog-threatens-to-sue-mountaire-farms-over-clean-water-act-violations

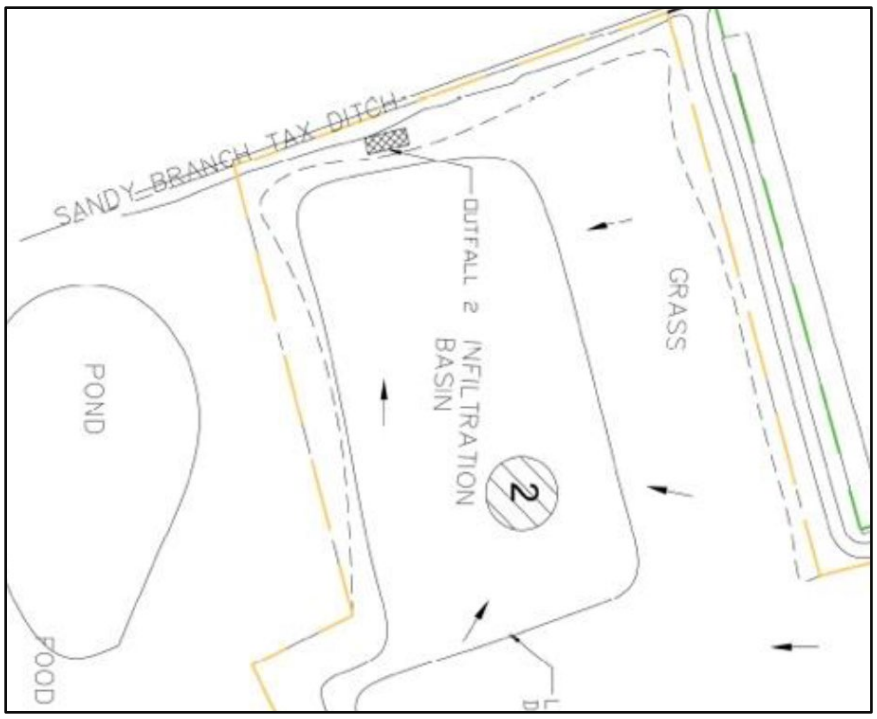
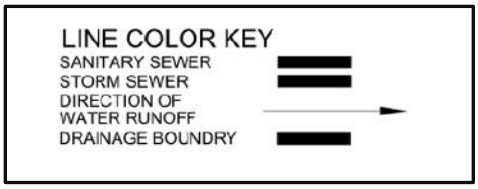
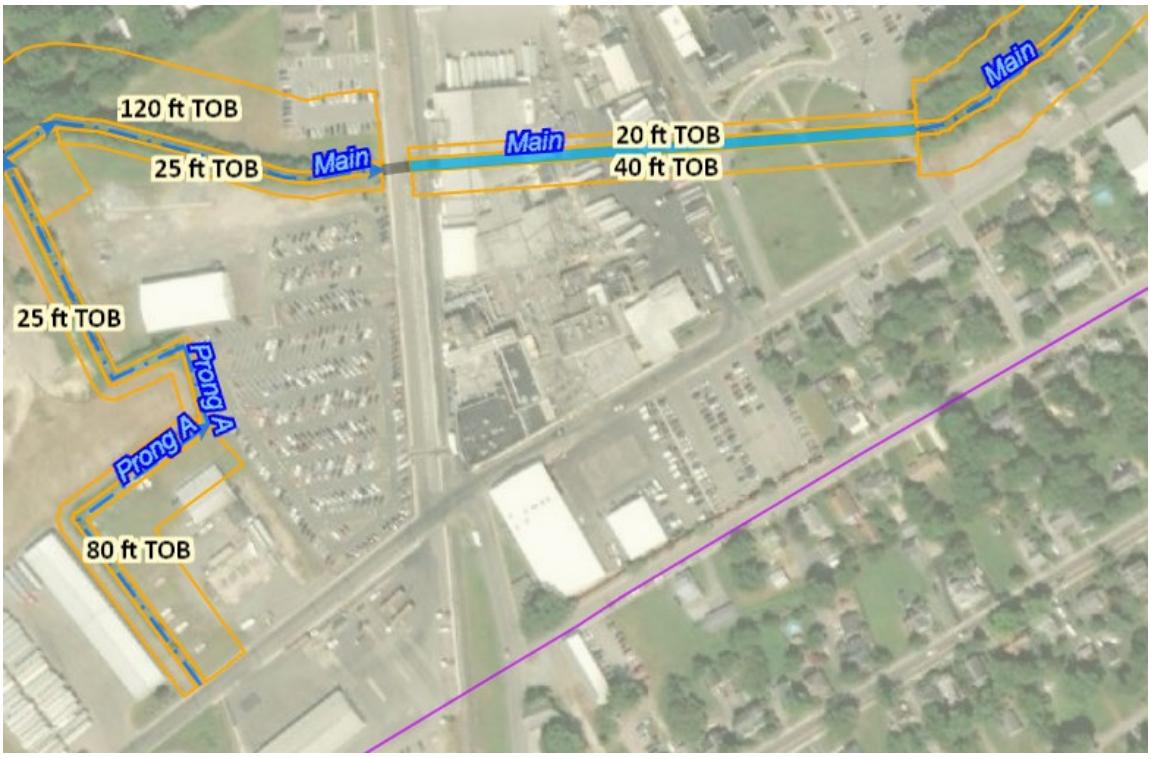


Figure 8 – Closeup snapshot of Stormwater Drawing showing Sandy Branch Tax Ditch north of the new Infiltration Basin.





[16]

Public Concerns: The map provided in the proposed permit does not adequately explain which lines are for sanitary sewer, storm sewer, and drainage boundary.

[16] See: https://wmap.blogs.delaware.gov/2017/05/22/re-engineering-nature-in-delaware-tax-ditches/

5. Beneficial Use for Buntings Branch – Sandy Branch (tributary to Buntings Branch) is not listed in the Delaware Water Quality Standards. According to Delaware Administrative Code 7401 Surface Water Quality Standards, the Beneficial Use for Buntings Branch includes Primary Contact Recreation, Secondary Contact Recreation, Fish Aquatic Life & Wildlife, and Agricultural Water Supply as follows:[17]

Basins and waterbodies as illustrated in Figure 1		Public Water Supply Source	Industrial Water Supply	Primary Contact Recreation	Secondary Contact Recreation	Fish, Aquatic Life & Wildlife**	Cold Water Fish (Put-and-Take)	Agricultural Water Supply	ERES Waters*	Harvestable Shellfish Waters
#	Name									
43	Buntings Branch	-	-	x	x	x	-	x	-	-

Definitions from DAC 7401 (there is not a definition for Agricultural Water Supply):

> "Agriculture" means the use of land and water in the production of food, fiber and timber products.
> "Fish, Aquatic Life And Wildlife" means all animal and plant life found in Delaware, either indigenous or migratory, regardless of life stage or economic importance.
> "Primary Contact Recreation" means any water-based form of recreation, the practice of which has a high probability for total body immersion or ingestion of water (examples include but are not limited to swimming and water skiing).
> "Secondary Contact Recreation" means a water-based form of recreation, the practice of which has a low probability for total body immersion or ingestion of water (examples include but are not limited to wading, boating, and fishing).

The Delaware WQS includes the following criteria to protect beneficial use:

> "4.1 All surface waters of the State (except as detailed in Sections 7.0 and 8.0) shall meet the following minimum criteria:
> 4.1.1 Waters shall be free from substances that are attributable to wastes of industrial, municipal, agricultural or other human-induced origin. Examples include but are not limited to the following:
> 4.1.1.1 Floating debris, oil, grease, scum, foam, or other materials on the water surface that may create a nuisance condition, or that may in any way interfere with attainment and maintenance of designated uses of the water,

[17] See: https://regulations.delaware.gov/AdminCode/title7/7000/7400/7401.shtml

4.1.1.2 Settleable solids, sediments, sludge deposits, or suspended particles that may coat or cover submerged surfaces and create a nuisance condition, or that may in any way interfere with attainment and maintenance of designated uses of the water,
4.1.1.3 Any pollutants, including those of a thermal, toxic, corrosive, bacteriological, radiological, or other nature, that may interfere with attainment and maintenance of designated uses of the water, may impart undesirable odors, tastes, or colors to the water or to aquatic life found therein, may endanger public health, or may result in dominance of nuisance species."

Water Quality Standards for Primary and Secondary Recreation (page 12 of 28 WQS):

4.5.7 Bacterial Water Quality Criteria
4.5.7.1 Primary and Secondary Contact Recreation Waters:
The following criteria shall apply:

Waterbody Type	Single-Sample Value (Enterococcus Colonies/100 ml)	Geometric Mean (Enterococcus Colonies/100 ml)	Statistical Threshold Value
Primary Contact Recreation Fresh Waters	185	100	
Primary Contact Recreation Marine Waters	104	35	
Secondary Contact Recreation Fresh Waters	925	500	
Secondary Contact Recreation Marine Waters	520	175	

Delaware Water Quality Standards for Aquatic Life and Wildlife (page 13 of 28 WQS):

"4.5.9.2 General Provisions:
4.5.9.2.1 Waters of the State shall not exhibit acute toxicity to fish, aquatic life, and wildlife, except in special cases applying to regulatory mixing zones as provided in Section 6.0.
4.5.9.2.2 Waters of the State shall not exhibit chronic toxicity to fish, aquatic life, and wildlife, except in regulatory mixing zones as provided in Section 6.0, at flows less than critical flows as provided in Section 7.0, or in low flow waters as provided in Section 8.0.
4.5.9.3 Specific Numerical Criteria:
4.5.9.3.1 Aquatic Life Criteria:
4.5.9.3.1.1 Aquatic Life Criteria for Aluminum, Iron, and Selenium in Table 1 are expressed on a total recoverable basis. Criteria for Cyanide in Table 1 are expressed as free cyanide at the lowest pH occurring in the receiving water, or

cyanide amenable to chlorination. Criteria for all other metals in Table 1 are expressed on a total dissolved basis. For toxic substances where the relationship of toxicity is defined as a function of pH or hardness, numerical criteria are presented as an equation based on this relationship. Appropriate pH or hardness values for such criteria shall be determined on a case-by-case basis by the Department.

4.5.9.3.1.2 Specific numerical acute criteria as presented in Table 1 are applied as one-hour average concentrations not to be exceeded more than once in any three-year period. Specific numerical chronic criteria as presented Table 1 are applied as four-day average concentrations not to be exceeded more than once in any three-year period.

4.5.9.3.1.3 For toxic substances for which specific numerical criteria are not listed in Table 1, concentrations shall not exceed those which are chronically toxic (as determined from appropriate chronic toxicity data or calculated as 0.1 of LC50 values) to representative, sensitive aquatic organisms, except as provided in Section 6.0, Regulatory Mixing Zones, Section 7.0, Critical Flows, or Section 8.0, Criteria for Low Flow Waters. Concentrations so determined shall be applied as four-day average concentrations not to be exceeded more than once in any three-year period."

The Mountaire Farms, Inc NPDES permit issued in 2011 included effluent limitations for Outfall 002 (live animal holding area) for Enterococcus that included daily average and daily maximum values reflective of Primary Contact Fresh Water (100 and 185 col/1000ml respectively).

Parameter	Effluent Limitations					Benchmark Monitoring Concentrations[2]	Concentration Units	Monitoring Requirements	
	Load			Concentration				Measurement Frequency	Sample Type
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum				
Flow[2]			mgd					Once per month	Estimated
pH	--	--	--	--		--	S.U.	Once per quarter	Grab
BOD_5	--	--	--	16	26	--	mg/L	Once per quarter	Grab
Oil & Grease	--	--	--	8	14	--	mg/L	Once per quarter	Grab
Total Suspended Solids (TSS)	--	--	--	20	30	--	mg/L	Once per quarter	Grab
Ammonia (as N)	--	--	--	4	8	--	mg/L	Once per quarter	Grab
Total Kjeldahl Nitrogen (as N)	--	--	--			1.5	mg/L	Once per quarter	Grab
Nitrogen, Total (as N)	--	--	--	103	147	--	mg/L	Once per quarter	Grab
Phosphorus	--	--	--			2	mg/L	Once per quarter	Grab
Enterococcus[3]	--	--	--	100	185	--	Col/100mL	Once per quarter	Grab
The discharge shall be free from floating solids, sludge deposits, debris, oil and scum.									

Figure 15 – Existing Permit Outfall 002 Monitoring Requirements.

Public Concerns: The proposed permit includes Outfall 15 (live animal holding area) that includes monitoring for Enterococcus but does not include effluent limitations. What is the benefit of monitoring for Enterococcus without an effluent limitation?

5. Changes in permitted Outfalls. DNREC's Fact Sheet identifies the proposed changes to the Outfalls listed in the NPDES permit as follows:

> "Updated outfall list, discharge information, and site map. Outfalls 001 and 002 in previous permit were both eliminated. Currently, nine (9) outfalls were identified and all discharge storm water."

The prior NPDES permit description of Outfalls 001 and 002 (page 2 of 18):

> **1. Permitted Discharges and Water Usage Flow Diagram**
>
> Outfall 001 – Non-contact cooling water from refrigerated facilities and storm water run-off from approximately 22,500 square feet of building roof and patio areas.
>
> Outfall 002 – Storm water run-off from the Live Holding Shed area.

Figure 16 – Snapshot of Mountaire NPDES permit

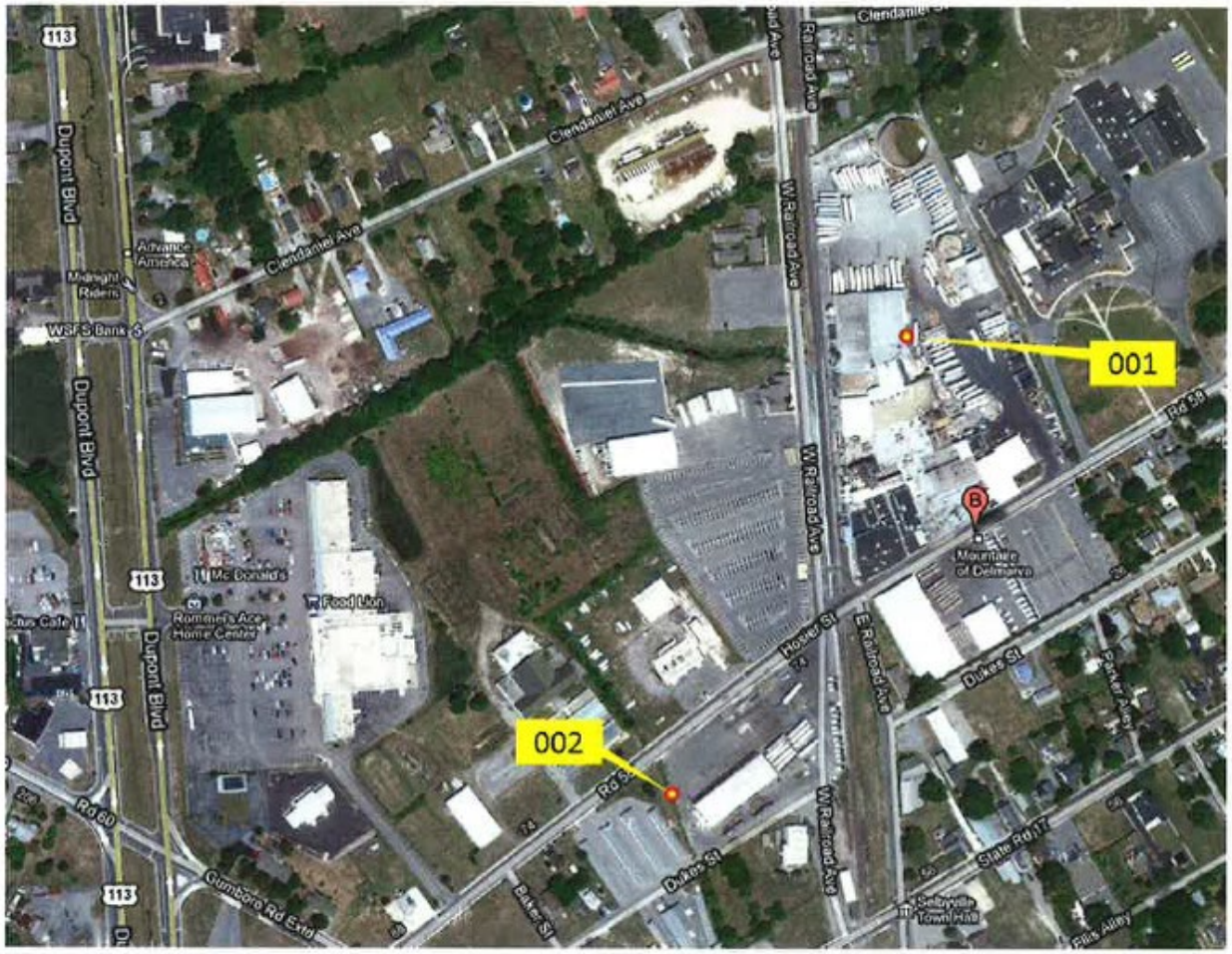


Figure 17 – Aerial depiction of Mountaire Outfalls 001 and 002 in existing NPDES permit.

Description of new Outfalls from the proposed NPDES permit (page 2 of 21):

Outfall 1B – Storm water discharge from roofs of southwest corner of the plant. Outfall Coordinates: 38o 27’ 33” W; 75o 13’ 40” N
Outfall 2B – Storm water discharge from the infiltration pond. Only discharge when pond overflows. Outfall Coordinates: 38o 27’ 37” W; 75o 13’ 52” N
Outfall 005 – Storm water discharge from back portion of the plant. Outfall Coordinates: 38o 27’ 39” W; 75o 13’ 38” N
Outfall 6A – Storm water discharge from employee parking lot. Outfall Coordinates: 38o 27’ 33” W; 75o 13’ 45” N
Outfall 6B – Storm water discharge from employee parking lot. Outfall Coordinates: 38o 27’ 38” W; 75o 13’ 44” N
Outfall 15 – Storm water discharge from the roof area of the live animal holding shed and the impervious surface to the south. Outfall Coordinates: 38o 27’ 27” W; 75o 13’ 44” N
Outfall 16, 17 – Storm water discharge from the new trailer and employee parking lot. The parking lot project is still on going. These two outfall coordinates will be updated when the parking lot project is done
Outfall 18 – Storm water discharge from roofs of the plant to the Sandy Branch inlet grate. Outfall Coordinates: 38o 27’ 34” W; 75o 13’ 47” N

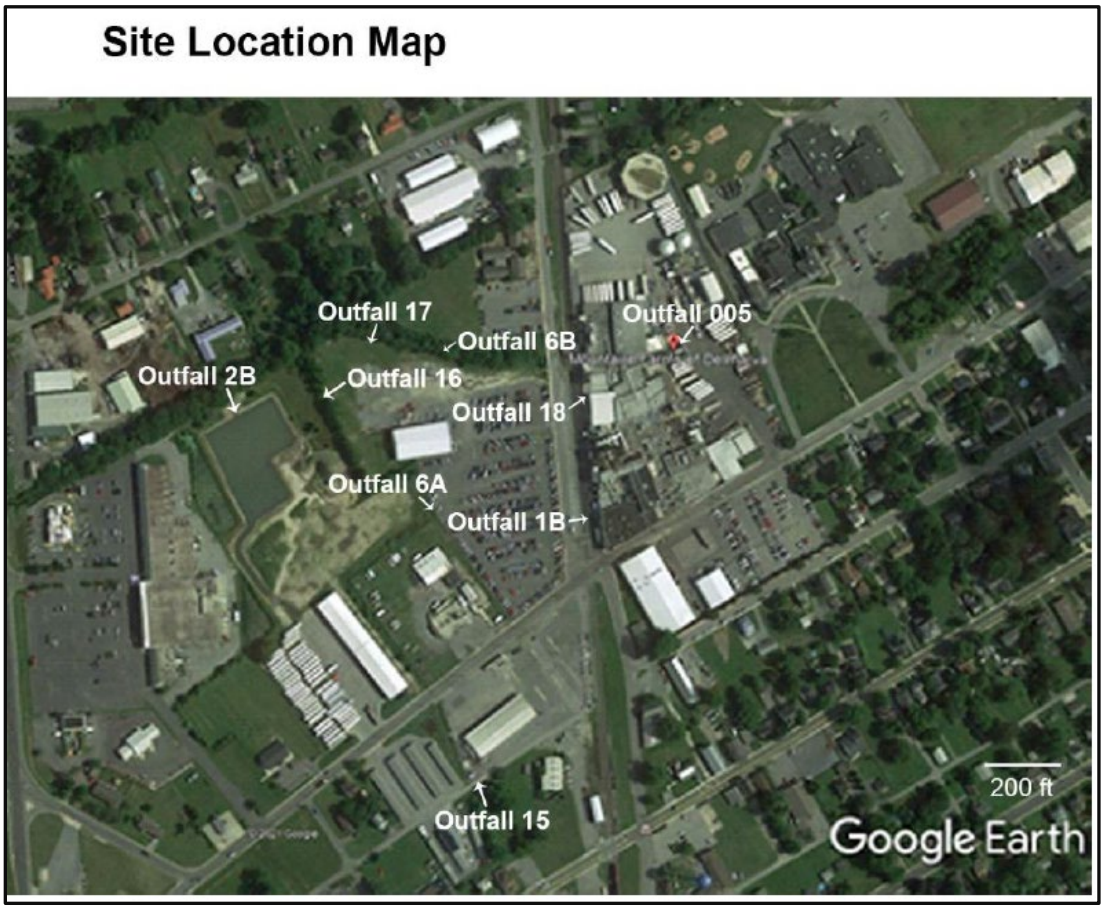


Figure 18 – Aerial depiction of new Outfalls in the proposed NPDES permit.

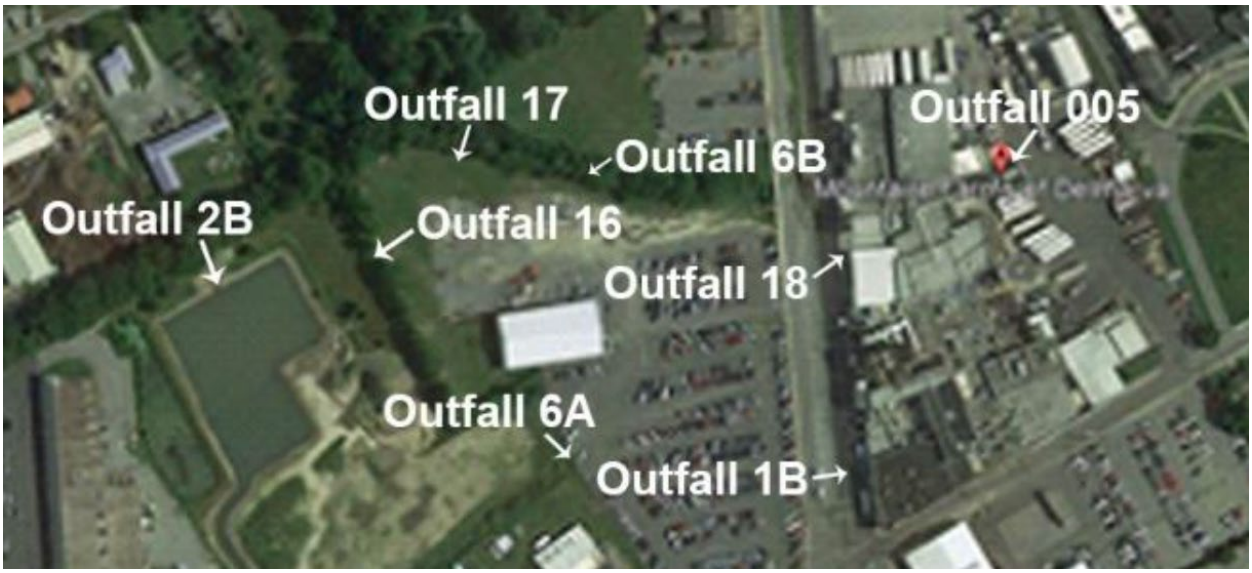


Figure 19 – Closeup of location of new Outfalls (see next figure for Outfall 15).

Figure 20 – Closeup of aerial depiction of Outfalls, including Outfall 15 at the live holding area.

Public Concerns: DNREC does not explain how the facility can change from one Outfall for the entire property (minus the live holding area) to 8 outfalls located all over the facility. The Fact Sheet explains what each outfall collects and discharges, but the Fact Sheet does not explain how the facility was 'replumbed' or 'resurfaced' to facilitate stormwater runoff flow to all these new discharge locations rather than just the one.

6. Live Holding Area. The DNREC Fact Sheet for the proposed permit includes this explanation about changes to the Live Holding Area:

> "The permit was last re-issued on 04/01/2011. Previous discharge at Outfall 002 was subjected to 40 CFR §432, Federal "Effluent Limitations Guidelines" (ELGs) for the "Meat and Poultry Products Point Source Category, Subpart K – Poultry First Processing". After the 2011 permit, the permittee completed improvements to contain runoff from the animal live holding area. Due to these improvements, the "ELG Subpart K — Poultry First Processing" no longer applies since there is no discharge from the live animal holding area. All runoff from the live shed area has been contained and routed through the facility's wastewater treatment plant."

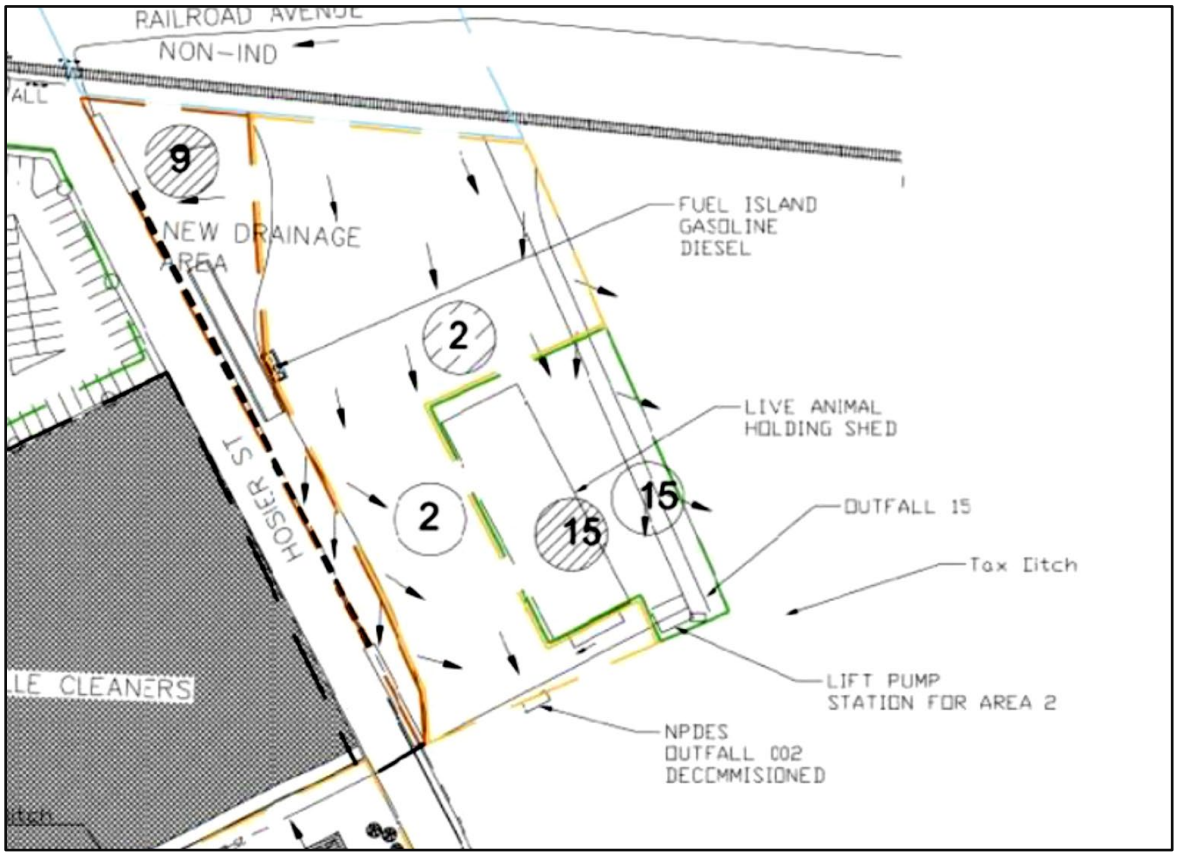


Figure 21 – Snapshot of Stormwater Drawing showing location of new Outfall 15 (rooftop of live holding shed) at Live Holding Area and the Lift Pump Station to Selbyville sewer (stormwater runoff from 'new drainage area'. Note: North is to the left.

Subpart K – First Poultry Processing applicability requirements:[18]

> **"Subpart K - Poultry First Processing § 432.110 Applicability.**
> This part applies to discharges of process wastewater resulting from the slaughtering of poultry, further processing of poultry and rendering of material derived from slaughtered poultry. Process wastewater includes water from animal holding areas at these facilities."

One of the biggest changes to the facility was the closing of Outfall 002 and the creation of a lift station connection to Selbyville sewer and thus the city's wastewater treatment plant. However, this same area has a new Outfall 15 purportedly discharging 'just stormwater' because it is designed to collect runoff from the live holding shed roof.

> **Outfall 15** – Storm water discharge from the roof area of the live animal holding shed and the impervious surface to the south.
> **Outfall 2B** – Storm water discharge from the infiltration pond. Only discharge when pond overflows.

Figure 22 – Google Earth image of Infiltration Basin west of Employee Parking Lot.

[18] See: https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N/part-432/subpart-K

Figure 23 – Google Earth image of Outfall 2B at north side of Infiltration Basin with nearby Sandy Branch as receiving stream.

The DNREC Fact Sheet offers this explanation of discharge from the live holding area as it relates to Outfall 2B:

> "The live animal holding area has been contained and all water under the shed roof is drained for pretreatment. The current Outfall 2B discharges storm water runoff from the area around the live holding area excluding the holding shed. As of December 2017, the runoff from this area is captured and sent to an infiltration pond. So, Outfall 2B only discharges when there is overflow from the infiltration pond."

Public Concern: Is there a typo in the Fact Sheet - there is no mention of Outfall 15. How does the runoff from the live animal holding area reach the infiltration pond across the street? Why did DNREC not require the stormwater runoff from the shed to also go to the Selbyville sewer? Why did DNREC allow any discharge into Sandy Branch Tax Ditch (tributary to Buntings Branch)?

8. Special Condition - Updated Stormwater Management Plan. The proposed permit includes a requirement to update the facility Stormwater Management Plan as follows [**emphasis added**]:

> "3. Storm Water Plan
> The permittee shall continue to implement and maintain a Storm Water Plan (SWP) that is designed to limit the exposure of industrial materials and activities to precipitation and to minimize the discharge of contaminated storm water from the permittee's facility. The SWP shall be implemented and maintained in accordance with the requirements in the Department's *Regulations Governing the Control of Water Pollution,* §9.1.5, "Storm Water Plan (SWP)". In particular, the SWP shall address practices including good housekeeping, inspections under wet and dry weather conditions, sediment and erosion control, facility security and managing runoff. The permittee shall also comply with the requirements for storm water monitoring referenced in §9.1.5.7.5, in accordance with §9.1.4. **An updated SWP must be submitted for Department approval within 120 days following the effective date of this permit.**

Public Concern: By allowing the updated SWP to be submitted after the effective date of the permit, DNREC denies the public access to the document during the public comment period and thus denies meaningful participation in the public participation process. This is especially troubling due to the purportedly significant changes to stormwater flow pathways and the creation of 9 new Outfalls.

9. Changes in Effluent Limitations – removal of numerical limitations. The current NPDES stormwater permit for Mountaire Farms, Inc. includes numerical effluent limitations for Outfall 001 and 002. The proposed stormwater permit for Outfalls 1B, 2B, 005, 6A, 6B, 15, 16, 17, 18, and 19 do not have numerical limitations.

These three outfalls are grouped together in permit paragraph B1 on page 4 of 21 of the proposed NPDES permit:

Outfall 1B – Storm water discharge from roofs of southwest corner of the plant.
Outfall 2B – Storm water discharge from the infiltration pond.
Outfall 005 – Storm water discharge from back portion of the plant.

The remaining outfalls are grouped together in permit paragraph B2.

Outfall 6A – Storm water discharge from employee parking lot.
Outfall 6B – Storm water discharge from employee parking lot.
Outfall 15 – Storm water discharge from the roof area of the live animal holding shed and the impervious surface to the south.
Outfall 16, 17 – Storm water discharge from the new trailer and employee parking lot.
Outfall 18 – Storm water discharge from roofs of the plant to the Sandy Branch inlet grate.

Proposed Effluent Guidelines without numerical limitations:

1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date and lasting through expiration date, the permittee is authorized to discharge storm water, from Outfall 1B, 2B, 005[1] the quantity and quality of effluent specified below:

Parameter	Effluent Limitations						Monitoring Requirements[3]	
	Load			Concentration			Measurement Frequency	Sample Type
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum	Units		
pH						S.U.	Once per Quarter	Grab
Total Suspended Solids (TSS)			lbs/day			mg/L	Once per Quarter	Composite
Chemical Oxygen Demand (COD)			lbs/day			mg/L	Once per Quarter	Composite
5-day Carbonaceous Biochemical Oxygen Demand ($CBOD_5$)[2]			lbs/day			mg/L	Once per Quarter	Composite
Total Nitrogen (TN)[2]			lbs/day			mg/L	Once per Quarter	Composite
Total Phosphorus (TP)[2]			lbs/day			mg/L	Once per Quarter	Composite
Enterococcus[2]	--	--	--			col/100mL	Once per Quarter	Grab
Only storm water may be discharged from these outfalls. The discharge shall be free from floating solids, sludge deposits, debris, oil and scum.								

Note: In the table above, a blank box indicates that a value must be reported, but there is no effluent limitation.

Figure 24– Proposed Effluent Limitations for Outfalls 1B, 2B, and 005.

2. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date and lasting through expiration date, the permittee is authorized to discharge storm water, from Outfall 6A, 6B, 15, 16, 17, 18[1] the quantity and quality of effluent specified below:

Parameter	Effluent Limitations						Monitoring Requirements	
	Load			Concentration			Measurement Frequency	Sample Type
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum	Units		
Only storm water may be discharged from these outfalls. The discharge shall be free from floating solids, sludge deposits, debris, oil and scum.								

Note: In the table above, a blank box indicates that a value must be reported, but there is no effluent limitation.

Figure 25 – Proposed Effluent Limitations for Outfalls 6A, 6B, and 15 through 18.

Compared to numerical limitations in current NPDES permit:

1. Outfall 001 – EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning effective date and lasting through expiration date, the permittee is authorized to discharge from point source 001[1] the quantity and quality of effluent specified below:

Parameter	Effluent Limitations						Monitoring Requirements	
	Load			Concentration			Measurement Frequency	Sample Type
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum	Units		
Flow[2]	0.018		mgd				Once per month	Totalize
BOD_5	0.45	0.75	lbs/day	3.0	5.0	mg/L	Once per month	Composite
Total Suspended Solids (TSS)	0.75	1.5	lbs/day	5.0	10.0	mg/L	Once per month	Composite
Temperature					86	°F	Once per week	I/S
pH	The pH shall be between 5.2 S.U. and 9.0 S.U. at all times.					S.U.	Once per week	Grab
The discharge shall be free from floating solids, sludge deposits, debris, oil and scum.								

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: at the outfall pipe prior to discharge to the Sandy Branch.

Figure 26 – Numerical effluent limitations for Outfall 001.

2. Outfall 002 – EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning effective date and lasting through expiration date, the permittee is authorized to discharge from point source 002[1] the quantity and quality of effluent specified below:

Parameter	Effluent Limitations					Benchmark Monitoring Concentrations[2]	Concentration Units	Monitoring Requirements	
	Load			Concentration				Measurement Frequency	Sample Type
	Daily Average	Daily Maximum	Units	Daily Average	Daily Maximum				
Flow[2]			mgd					Once per month	Estimated
pH	--	--	--	--		--	S.U.	Once per quarter	Grab
BOD_5	--	--	--	16	26	--	mg/L	Once per quarter	Grab
Oil & Grease	--	--	--	8	14	--	mg/L	Once per quarter	Grab
Total Suspended Solids (TSS)	--	--	--	20	30	--	mg/L	Once per quarter	Grab
Ammonia (as N)	--	--	--	4	8	--	mg/L	Once per quarter	Grab
Total Kjeldahl Nitrogen (as N)	--	--	--			1.5	mg/L	Once per quarter	Grab
Nitrogen, Total (as N)	--	--	--	103	147	--	mg/L	Once per quarter	Grab
Phosphorus	--	--	--			2	mg/L	Once per quarter	Grab
Enterococcus[3]	--	--	--	100	185	--	Col/100mL	Once per quarter	Grab
The discharge shall be free from floating solids, sludge deposits, debris, oil and scum.									

Figure 27 – Numerical effluent limitations for Outfall 002.

Anti-backsliding provisions in the Clean Water Act are explained as follows:[19]

> **7.2 Applying Anti-backsliding Requirements** As noted in Section 7.1, after selecting the calculated effluent limitations for a pollutant that ensure that all CWA standards are met, the permit writer applies anti-backsliding requirements, as necessary, to determine the final effluent limitations. In general, the term anti-backsliding refers to statutory and regulatory provisions that prohibit the renewal, reissuance, or modification of an existing NPDES permit that contains effluent limitations, permit conditions, or standards less stringent than those established in the previous permit. There are, however, exceptions to the prohibition, and determining the applicability and circumstances of the exceptions requires familiarity with both the statutory and regulatory provisions that address anti-backsliding.
>
> ***7.2.1 Anti-backsliding Statutory Provisions*** Clean Water Act (CWA) section 402(o) expressly prohibits backsliding from certain existing effluent limitations. CWA section 402(o) consists of three main parts: (1) a prohibition on specific forms of backsliding, (2) exceptions to the prohibition, and (3) a *safety clause* that provides an absolute limitation on backsliding.
>
> 7.2.1.1 Statutory Prohibition Against Backsliding First, CWA section 402(o)(1) prohibits the relaxation of effluent limitations for two situations:
>
> - To revise an existing TBEL that was developed on a case-by-case basis using best professional judgment (BPJ) to reflect subsequently promulgated effluent limitations guidelines and standards (effluent guidelines) that would result in a less stringent effluent limitation.
> - Relaxation of an effluent limitation that is based on state standards, such as water quality standards or treatment standards, unless the change is consistent with CWA section 303(d)(4). Section 303(d)(4) may be applied independently of section 402(o). The prohibition against relaxation of effluent limitations is subject to the exceptions in CWA section 402(o)(2) and, for limitations based on state standards, the provisions of CWA section 303(d)(4). Those exceptions are outlined further in the following sections.

Public Concern: Why would DNREC remove numerical limitations at a facility that has a history of discharging pollutants to surface waters such that it caused violations of water quality standards for years? How will DNREC assure Maryland that Buntings Branch TMDL will be satisfied if there are no numerical limitations on the discharge from Mountaire Farms, Inc? How does DNREC defend the removal of numerical limitations from an NPDES permit under anti-backsliding in permit actions?

[19] See: https://www3.epa.gov/npdes/pubs/pwm_chapt_07.pdf