TO: Lisa Vest, DNREC Office of the Secretary
FROM: Chris Bason, Center for the Inland Bays
DATE: March 2, 2020
SUBJECT: Comments on Agreement and Proposed Consent Decree Between Mountaire Farms of Delaware, Inc. and DNREC.

The Center for the Inland Bays is a non-profit organization whose mission it is to preserve, protect and restore Delaware's Inland Bays and their Watershed. The Center thanks both DNREC and Mountaire for their collaboration to address permit violations and subsequent pollution of waters at and near the Mountaire Facility. The Center recognizes Mountaire as an important and long-standing stakeholder in the Inland Bays Watershed. However, the Center finds the agreement and proposed decree inadequate and requests that the parties provide additional information and revise the document per the recommendations below.

The purpose of these comments is to ensure that damages to Swan Creek and Indian River including the loss and degradation of public use are accounted for and mitigated to the maximum extent. These waterways are designated under the State's Water Quality Standards as Waters of Exceptional Ecological and Recreational Significance (ERES) and are accorded a level of protection and monitoring in excess of that provided most other waters of the State. They are recognized as special natural assets of the State, and must be protected and enhanced for the benefit of present and future generations of Delawareans. ERES waters shall be restored, to the maximum extent practicable, to their natural condition. Discharges to ERES waters shall be avoided to the maximum extent practicable. In order to be permitted, a discharge must be the least environmentally damaging practicable alternative. Despite this designation and the Total Maximum Daily Load regulations designed to clean them up, the condition of these waterways has not improved.

Included as supporting information with these comments is the Center's November 2018 Report entitled "Findings & Recommendations of the Mountaire Pollution Committee."

1. The temporal scope of the Mitigation Measures only extends to the issuance of the current spray irrigation permit (7/31/17) despite a well-documented history of the facility's failure to meet permit requirements that contributed to the increasing pollution of groundwater under the facility. This is clearly documented by 1) a 2003 EPA Administrative Order, 2) a DNREC Notice of Violation for the year 2009 that found annual nitrogen application to the disposal fields exceeded the permitted limit by 78,465 pounds, 3) DNREC's 5 year wastewater compliance monitoring report for the period 2009-2013 that found numerous permit violations including increasing groundwater nitrate concentrations, and 4) DNREC's November 2, 2017 notice of violation that found the facility exceeded permit limits for nitrogen in wastewater effluent since 2015 and exceeded the permitted limit of nitrogen applied to its fields in 2015 and 2017. Supporting this are extensive wastewater effluent and groundwater quality monitoring data. Therefore, the scope of the agreement including the calculation of pounds of nitrogen applied to the spray fields in excess of all permit limitations and the pounds of nitrogen to be removed from groundwater as mitigation must be extended to at least 2009.

2. Accounting of nutrient loads to groundwater must also include estimates of loading from leaking anaerobic lagoons referenced in DNREC's lawsuit and the believed leaking of temporary sludge storage lagoons referenced in the Conciliatory Agreement. The method of estimation must be developed by DNREC and estimates included in the removal amounts of mitigation measures.
3. The scope of the mitigation measures in the proposed agreement only extends to violations of spray wastewater irrigation permits and should be expanded to include pollution resulting from violations of the Land Application Permits. Overapplication of sludge during all of 2017 was indicated in the DNREC's November 2017 notice of violation and DNREC's lawsuit. Groundwater monitoring data for the land application sites indicate nitrate concentrations in multiple wells regularly exceeded the safe drinking water standard over the past decade. A full accounting of over-application of nutrients on the land application sites must be undertaken and the overage included into the amount of nitrogen to be removed as a part of mitigation measures.
4. The mitigation measure to relocate process water production wells does not provide enough specificity to assess how much polluted groundwater will be intercepted for treatment and what the quality of that groundwater will be. At minimum, the existing language by itself could allow two production wells located where groundwater nitrate levels are at the 50th percentile of concentration across the site. The section should be rewritten to require "an array of production wells located vertically and horizontally across the site to strategically intercept the maximum amount of groundwater with the highest levels of nitrate while still satisfying Mountaire's process water needs." A preliminary plan including calculations for nutrient loads withdrawn and showing the horizontal and vertical location of the wells in relation to the nitrate concentrations of groundwater across the site should be included to demonstrate the efficacy of the mitigation measure. The plan should also indicate the amount of time required to mitigate the full accounting of loads applied in excess of all permit limits using this method. The installation of the production wells should begin as soon as possible to intercept and treat at the existing wastewater facility the most polluted groundwater prior to its discharge to surface waters and not delayed until the upgraded wastewater treatment facility is operational. The Center interprets the 2003 EPA open administrative order for the facility to already require this, at least in part.
5. Mitigation measures should also include requirements for the installation of wide forested buffers on the facility along Indian River and Swan Creek as soon as practicable to treat contaminated groundwater currently discharging in riparian zones.
6. Additional information on treatment levels of the proposed wastewater facility upgrade is needed to adequately assess the proposed agreement. Per ERES standards, the proposed upgraded facility should be the least least environmentally damaging practicable alternative. At a minimum, it should meet the highest level of treatment required by DNREC regulation for new large wastewater systems and clearly demonstrate how its resulting nutrient loads will achieve the required TMDL reductions to allow Swan Creek and Indian River to meet their designated uses.
7. The agreement should also include provisions for monitoring funded by Mountaire of Swan Creek upstream and downstream of the facility including operation of a continuous multi-sonde water quality monitoring probe to measure dissolved oxygen, chlorophyll, nitrogen and phosphorus. Mountaire should also fund the operation of such a monitoring probe in Indian River off Swan Creek. This monitoring is necessary to demonstrate mitigation success over time.