

AUTHORIZATION TO CONSTRUCT  
UNDER THE LAWS OF THE  
STATE OF DELAWARE

**PERMITTEE:**           **Mountaire Farms of Delaware, Inc.**  
P.O. Box 1320, 29292 John J. Williams Highway  
Millsboro, Delaware 19966

**FACILITY:**           **Mountaire Farms of Delaware, Inc.**  
Wastewater Treatment Facility  
29106 John J. Williams Highway  
Millsboro, Delaware 19966

1. Pursuant to the provisions of 7 Del. C., 6003, Mountaire Farms of Delaware, Inc. is herein authorized to perform construction upgrades at the Mountaire Farms of Delaware, Inc. wastewater treatment facility Millsboro, DE.
2. The Delaware Department of Natural Resources and Environmental Control's (the Department's or DNREC's) purpose in issuing this Permit, and in imposing the requirements and conditions specified herein, is for the protection of public health and the environment as required by 7 Del. Admin. C. §7101 *Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems* (the Regulations). The construction requirements and other terms and conditions are set forth herein.

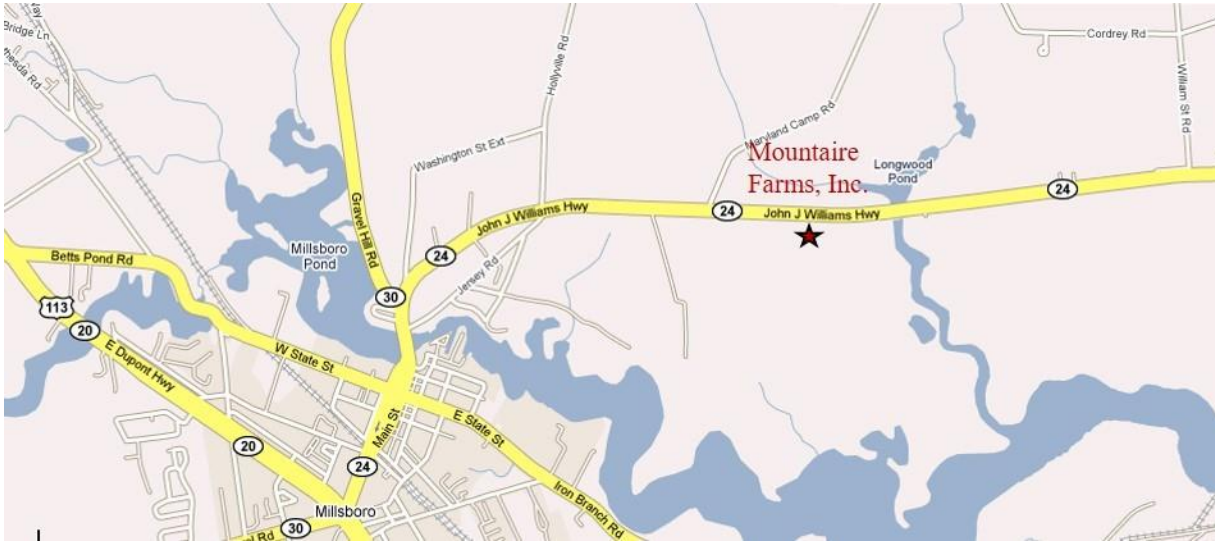
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John J. Rebar, Jr.  
Environmental Program Manager I  
Groundwater Discharges Section  
Delaware Department of Natural Resources  
and Environmental Control

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Date Signed

### LOCATION MAP



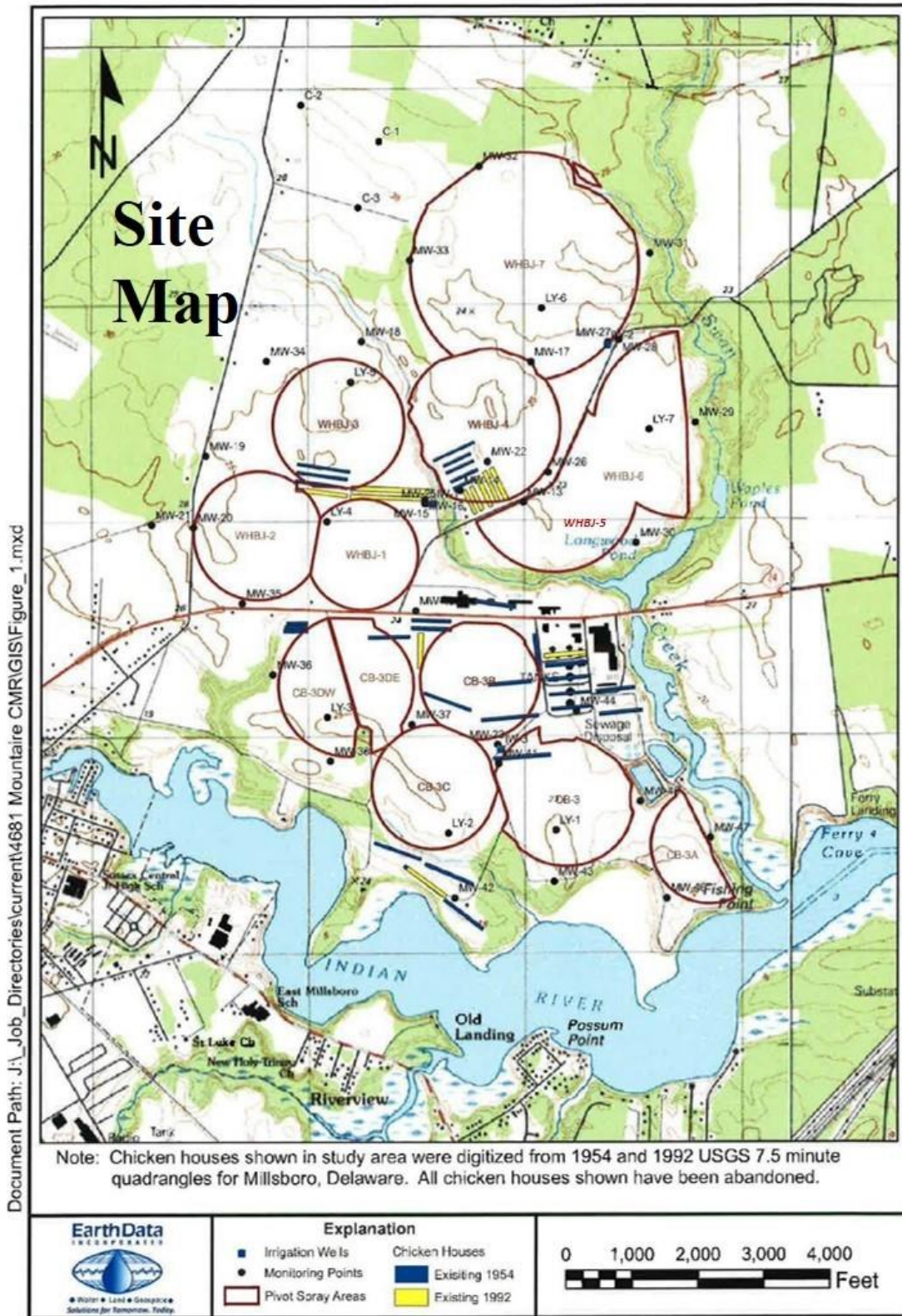
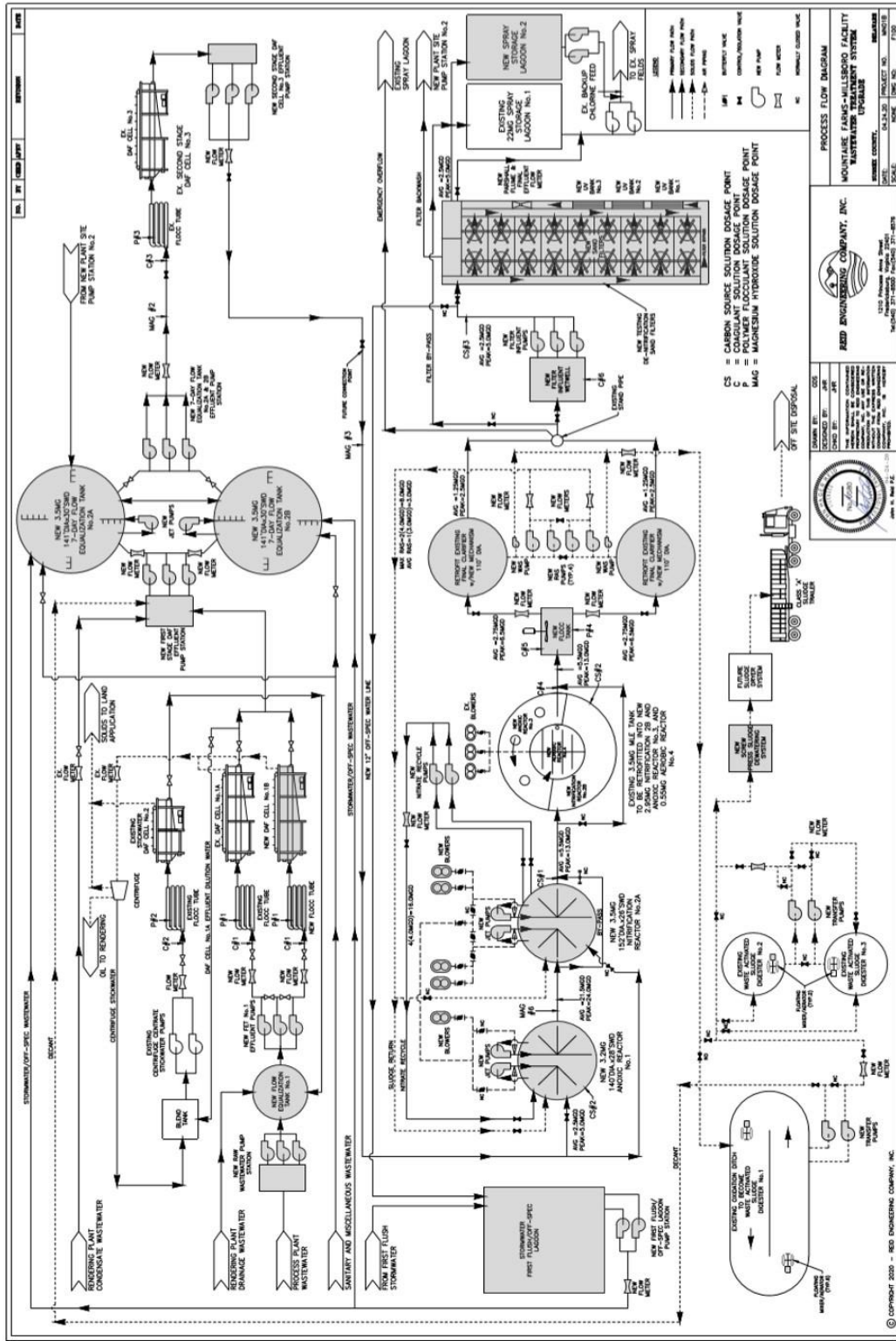


Figure 1: USGS 7.5 minute quadrangle map for Millsboro, Delaware showing the location and topography of the site and surrounding area (created 1954, Photorevised 1992)

### TREATMENT PROCESS FLOW DIAGRAM



## **PART I**

### **A. GENERAL DESCRIPTION**

The wastewater treatment facility is currently designed to treat poultry processing wastewater, stormwater, and sanitary waste. The treatment process currently includes: primary and secondary screening, dissolved air flotation (DAF), anaerobic lagoon biological treatment/equalization (two lagoons), activated sludge biological treatment with biological nutrient reduction capability – Modified Ludzack-Ettinger (MLE), secondary clarification (2 units), sludge digestion and thickening, disinfection (chlorination) and a post-treatment spray irrigation storage lagoon.

The treated wastewater (effluent) is discharged onto approximately 893 acres of agricultural fields via spray irrigation. Seven center pivot spray irrigation systems are located north of State Route #24 and are designated as WHBJ Systems Nos. 1, 2, 3, 4, 5, 6, and 7. In addition, six center pivot spray irrigation systems are located south of Route #24 and are designated as Center Block Systems Nos. 3, 3A, 3B, 3C, 3DE, and 3DW. The fields are maintained in corn, small grains (barley and wheat), and soybeans.

Mountaire Farms proposes upgrade the existing wastewater treatment facility at the Millsboro, Delaware poultry processing complex in order to provide enhanced wastewater effluent treatment capabilities. The proposed upgrades will allow the wastewater treatment system to treat wastewater to a total nitrogen concentration of 10 mg/L or less. The proposed wastewater treatment system upgrade project includes the installation of improvements to the activated sludge biological nitrogen removal (BNR) treatment system components. The project also includes the installation of a new tertiary sand filtration system for final effluent polishing and a new stormwater first flush/off-spec lagoon. A new screw press sludge dewatering system will be installed to increase waste activated sludge handling capacity. A new spray storage lagoon will also be installed to expand the final effluent storage volume.

This Permit authorizes construction to perform the following upgrades.

- 1) One new 1.50 MG volume Flow Equalization Tank #1 (FET) will provide hydraulic flow equalization of screened raw wastewater upstream of the Primary DAF pretreatment system. DAF sludge is currently processed by a centrifuge system for oil recovery. The DAF sludge centrifuge operation produces “stickwater” or centrate that has high pollutant concentrations. The DAF sludge centrifuge stickwater is currently pretreated by an existing DAF system using DAF Cell #2. Partially pretreated DAF sludge centrifuge stickwater discharged from existing DAF Cell #2 will be pumped with rendering plant floor drainage wastewater into the new FET #1 to be blended with chicken processing plant wastewater normally 5 days/week on processing days prior to first stage DAF pretreatment.
- 2) One new World Water Works (WWW) DAF Cell rated at a capacity of approximately 3,000 gpm will be installed to operate as DAF Cell #1B in parallel with the existing 1,800 gpm capacity WWW DAF Cell #1A to provide first stage DAF pretreatment of blended and screened raw wastewater 24 hours/day, 5 to 6 days/week.
- 3) The first stage DAF Cell effluent will be transferred by the DAF Cell #1A and #1B Effluent Pump Station 5 to 6 days/week into two new 3.50 MG volume aerated 7 Day Flow Equalization Tanks. Partially pretreated, aerated and equalized wastewater will be pumped out of the 7 Day FETs, normally 24 hours, 7 days/week into the existing P Tec DAF Cell #3, rated at 2,800 gpm capacity, for second stage DAF pretreatment.

- 4) Pretreated and flow equalized wastewater discharged from the second stage P Tec DAF Cell will be transferred by the DAF Cell #3 Effluent Pump Station into the downstream activated sludge biological nitrogen removal (BNR) system.
- 5) The existing two stage activated sludge biological nitrogen removal (BNR) treatment system is upgraded into a state of the art four stage biological nitrogen removal (BNR) system to achieve high efficiency total nitrogen removal by biological nitrification and denitrification.
- 6) One new four stage activated sludge biological nitrogen removal (BNR) final treatment system is provided including new first stage Anoxic Reactor #1; new second stage Nitrification Reactor #2A; retrofitted Nitrification Reactor #2B in the first half of the outer ring of the existing Crom tank; retrofitted Anoxic Reactor #3 in the second half of the outer ring of the existing Crom tank; and, retrofitted Aerobic Reactor #4 in the center section of the Crom tank; and, two existing gravity Final Clarifiers retrofitted with new rapid suction sludge removal mechanisms.
  - a) One new Anoxic Reactor #1 is provided with jet mixing equipment to operate as first stage anoxic activated sludge reactor in the four stage BNR process to provide BOD removal and removal of nitrate nitrogen by biological denitrification.
  - b) One new Nitrification Reactor #2A is provided with subsurface jet aeration and mixing equipment to operate as a second stage aerobic activated sludge reactor downstream of new Anoxic Reactor #1 in the four stage BNR process to provide removal of TKN and ammonia nitrogen by biological nitrification.
  - c) The first half of the outer ring of the existing Crom tank will be retrofitted into new Nitrification Reactor #2B to operate downstream of and in series with new Nitrification Reactor tank #2A. Nitrification Reactor #2B is provided with mixing and subsurface aeration equipment and air supply blowers to provide removal of TKN ammonia nitrogen by biological nitrification.
  - d) The second half of the outer ring of the existing Crom tank will be retrofitted into new Anoxic Reactor #3. Anoxic Reactor #3 is provided with mixing equipment to function as a third stage anoxic activated sludge reactor in the four stage BNR process to provide final nitrate nitrogen removal by biological denitrification with supplemental carbon source solution dosage if necessary.
  - e) The center tank section of the existing Crom tank will be retrofitted into new Aerobic Reactor #4. Aerobic Reactor Zone #4 is provided with mixing and diffused aeration equipment and air supply blowers to operate downstream of Anoxic Reactor Zone #3 as a fourth stage aerobic activated sludge reactor in the four stage BNR process to provide final BOD and ammonia nitrogen removal.
- 7) The Two existing 110 ft. dia. X 12 ft. SWD Final Clarifiers (FC) will continue to operate in parallel; and, new Return Activated Sludge (RAS) Pumps and associated piping, controls and RAS flow meters are installed to provide accurate RAS flow rate and flow rate control from each clarifier back into Anoxic Reactor #1 or Nitrification Reactor #2A. One new rapid suction sludge removal mechanism will be installed in each existing Final Clarifier to improve clarifier TSS removal efficiency and settled biosolids removal capacity.
- 8) One new Tertiary Filter System (TFS) with deep bed, up-flow continuous backwash sand filters is provided for tertiary filtration polishing of clarifier effluent in order to reduce final effluent TSS, BOD, TN and TP concentrations. The TFS is designed with an automatic filter backwash control system and supplemental carbon source (CS) chemical solution dosing system to provide capability to optionally

operate the TFS as Denitrification (Denite) Filters to achieve final nitrate nitrogen removal by biological denitrification.

- 9) New Chemical Storage/Feed Equipment is provided for nitrate nitrogen removal including two new non-flammable carbon source (CS) solution bulk storage tanks and CS solution feed pumps for the new Anoxic Reactor #3 and the new Tertiary Filter System.
- 10) The existing Oxidation Ditch (OD) basin is retrofitted to function as a first stage aerobic digestion basin for waste activated sludge. The OD aerobic digestion basin will be operated upstream and in series with the two existing waste activated sludge (WAS) storage basins which will be used as second and third stage WAS aerobic digestion basins.
- 11) A new Screw Press Waste Activated Sludge Dewatering System is provided for mechanical dewatering of aerobically digested and gravity thickened WAS. A minimum of three new BDP Screw Presses or equal will be installed to operate in parallel to provide mechanical dewatering of WAS pumped out of WAS storage-digestion basins.
- 12) One new DAF Equipment Building #1 is provided for enclosure of the existing WWW DAF Cell #1A, the new WWW DAF Cell #1B and the existing P Tech DAF Cell #3 and associated components for the DAF Cells, FET #1 Air Supply Blowers, FET #1 Effluent/DAF Cell #1A and #1B Influent Pumps, DAF Cell #1A and #1B Effluent/FET #2A and #2B Influent Pumps, DAF Cell #3 Effluent Pumps, Chemical Storage and Feed Equipment for DAF Cells and Electrical Motor Controls.
- 13) New 7 Day FET Equipment Building #2 is provided for enclosure of Jet Pumps, Air Supply Blowers, FET #2A and #2B Effluent/DAF Cell #3 Influent Pumps and Electrical Motor Controls.
- 14) One new Reactor Equipment Building #3 is provided for enclosure of Jet Pumps, Air Supply Blowers, Nitrate Recycle Pumps, and Electrical Motor Controls for the new Anoxic Reactor #1 and Nitrification Reactor #2.
- 15) One New RAS/Filter Equipment Building #4 is provided for enclosure of the new RAS pumps, WAS pumps, Filter Influent Pumps, chemical storage and mix tanks, chemical solution pumps, Tertiary Filters, UV contact channel and Electrical Motor Controls.
- 16) One new Chemical Equipment Building #5 is provided for enclosure of existing magnesium hydroxide solution bulk storage tanks and solution feed pumps; and, new nonflammable carbon source solution bulk storage tanks and solution feed pumps.
- 17) One new Sludge Equipment Building #6 is provided for the enclosure of the sludge press dewatering system and Electrical Motor Controls.
- 18) The existing Oxidation Ditch effluent pump station is retrofitted into a Plant Site Pump Station #2 for collection of drainage flows from the new and existing wastewater Equipment Building(s).
- 19) One new submersible Plant Site Pump Station #1 is provided for collection of drainage flows from the new Wastewater Equipment Building #2, new Wastewater Equipment Building #3 and new Wastewater Equipment Building #4.

- 20) One new submersible Plant Site Pump Station #3 is provided for collection of drainage flows from the New DAF Equipment Building.
- 21) New SCADA Instrumentation and Controls will be provided for the proposed wastewater treatment system improvements.
- 22) The existing East Anaerobic Lagoon is retrofitted into a Stormwater First Flush/Off-Spec Lagoon. Stormwater wastewater is pumped from four Stormwater Pump Stations located on the processing complex site into the lagoon at variable flow rates and volumes. Off-spec wastewater can be pumped by the new Tertiary Filter Influent Pump Station into the lagoon. Stormwater and Off Spec wastewater stored in the lagoon is pumped at a relatively constant flow rate and volume from the lagoon into the new 7 Day Flow Equalization Tanks #2A and #2B.

## **B. DOCUMENTATION**

Construction shall be in accordance with the following documents.

1. The State of Delaware, Department of Natural Resources and Environmental Control, *Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems* (the Regulations)
2. February 5, 2020 Construction Permit Application prepared by Reid Engineering Company, Inc. on behalf of Mountaire Farms of Delaware, Inc. consisting of a Final Design Summary, Technical Specifications, and Drawings
3. April 24, 2020 Revised Construction Permit Application prepared by Reid Engineering Company, Inc. on behalf of Mountaire Farms of Delaware, Inc. consisting of a Final Design Summary, Process Flow Diagrams, and Drawing Index for Revisions
4. April 27, 2020 Wastewater Treatment Facility Primary Treatment Upgrades Email from Reid Engineering Company Inc.

## **C. SCHEDULE OF COMPLIANCE**

1. The Permittee shall submit the following information.

Within 180 days following the effective date of this Permit, the Permittee shall submit to the Groundwater Discharges Section revisions of the February 10, 2020 Drawings and Technical Specifications to include all outstanding design drawings and modifications proposed in supporting the April 24, 2020 amended Final Design Summary Report.

No work shall begin on any facility upgrade or modification until the associated design drawings have been submitted to the Department for review and authorization to proceed.

2. Within two years following the effective date of this Permit, the Permittee shall complete construction of the following components.
  - a. Anoxic Reactor #1
  - b. Nitrification Reactor #2
  - c. Reactor Building and Jet Mixing and Aeration Equipment



- d. Nitrate Recycle Pump Station
  - e. Convert Existing Crom Tank into Anoxic #3 and Aeration #4
  - f. Clarifier Flocc Tank
  - g. RAS Pump Station
  - h. WAS Pump Station
  - i. Filter Influent Pump Station
  - j. Tertiary Filters
3. Within three years following the effective date of this Permit, the Permittee shall complete construction of the equalization tanks, two synthetically lined Storage lagoons, the solids handling equipment, and all other remaining components.

## **Part II**

### **A. CONSTRUCTION REQUIREMENTS**

1. The Permittee shall notify the Groundwater Discharges Section in writing of the intent to initiate construction activities at least fifteen days prior to the commencement of construction. The written notification shall include a draft construction schedule.
  - a. The permittee shall provide updated construction schedules if the schedule changes as construction progresses.
2. The Permittee shall notify the Groundwater Discharges Section of scheduled construction progress report meetings. The Groundwater Discharges Section staff may attend these meetings.
3. Prior to initiating construction of a large on-site wastewater treatment and disposal system, a pre-construction meeting shall be held on-site and attended by the following individuals: DNREC Soil Scientist, DNREC Environmental Engineer, DNREC Hydrologist, Class D.3 Soil Scientist, Professional Geologist, Project Design Engineer, General Site Contractor, Class E.4 System Contractor and other necessary parties.
4. All systems shall be installed by a DNREC licensed Class E.4 system contractor. Proper construction of the treatment plant and/or spray system shall be certified in writing by the design engineer and the manufacturer's representative prior to startup of the wastewater treatment facility.
5. The Class E.4 system contractor shall notify the Groundwater Discharges Section 72 hours prior to construction startup.
6. The Class E.4 system contractor shall obtain an authorization number from the Groundwater Discharges Section prior to initiating construction.
7. Upon receipt of the authorization number, the Class E.4 system contractor shall provide an installation timeline to the Groundwater Discharges Section. Upon receipt of the timeline, the Groundwater Discharges Section may request weekly status reports (verbal) or monthly progress reports (written) be submitted.
8. The Class E.4 system contractor shall have a copy of all valid, required and approved permits on site during construction.
9. The design engineer or his/her designee shall periodically review the construction of the disposal system to ensure compliance with design specifications.
10. All system components shall be surveyed to a common datum point.
11. Soil disturbance to the disposal areas shall be limited to the minimum required for installation. A protective barrier shall be placed around the disposal areas, including spare area, prior to the initiation of any construction activities. The soils may be rendered unsuitable should unnecessary soil disturbance occur near or within the disposal area. Specifically, care shall be taken when clearing wooded lots so as not to remove the surface soil material (see Lot Clearing Guidelines).

12. If well pointing is required during construction, the wells shall be installed by a licensed well driller, and a permit to construct such wells shall first be obtained from the Department.
13. All construction activities shall be approved by the Department and shall comply with all other applicable local utility construction specifications and standards; and shall be in accordance with Ten States Standards.
14. Connections and/or additions to the wastewater treatment and disposal system, other than those indicated on the approved plans and specifications, will not be allowed without prior written approval from the Groundwater Discharges Section.
15. Any anticipated facility expansions, production increases, or process modifications that will result in new, different, or increased discharges of pollutants shall be reported in writing to the Groundwater Discharges Section for approval. A new permit may be required.
16. Facility and Construction Changes

The Permittee shall submit a written report to the Groundwater Discharges Section for review and approval of any changes to the facility or construction of the system within the following time periods:

- a. Thirty days before any planned activity, physical alteration to the permitted facility or addition to the permitted facility if that activity, alteration or addition would result in a change in information that was previously submitted to the Groundwater Discharges Section; or
  - b. Thirty days before any anticipated change which would result in noncompliance with any permit condition or the regulations; or
  - c. Immediately after the permittee becomes aware of relevant facts omitted from, or incorrect information submitted in, a permit application or report to the Groundwater Discharges Section.
17. The Permittee shall supply the Groundwater Discharges Section with testing procedures and results conducted on the force main/collection/distribution system (including any lift stations).
  18. A construction permit issued by the Department does not relieve the permittee from complying with any local, municipal, county, or state requirement.
  19. The Class E.4 system contractor shall contact the design Engineer, licensed operator and the Groundwater Discharges Section to schedule an inspection prior to completion of construction. See Part I.C and Part I.D.
  20. Upon completion of construction, the Permittee shall provide the Groundwater Discharges Section with an approved engineer inspection report(s) demonstrating that system has been constructed in accordance with the approved Design Engineer Report, Plans and Technical Specifications. See Part I.C and Part I.D.
  21. The Permittee is responsible for supplying the Groundwater Discharges Section with a certificate or letter of completion/approval from the wastewater treatment plant manufacturer upon construction completion of the wastewater treatment plant, if applicable.

22. Construction activities within spray fields shall be minimized. Excessive compaction of surface soils by construction equipment shall be avoided. Re-grading of pipeline trenches shall match original contours. Settlement of trench backfill shall be repaired.
23. In forested systems, it is necessary to only grub the pipe centerline. Excessive clearing and grubbing shall be avoided. Clearing for above-ground piping systems shall involve only vegetation that will interfere with operation of the system.
24. All areas disturbed by construction shall be re-vegetated prior to initiation of irrigation activities.
25. Sloped areas require protection from erosion.
26. Pressure testing of the irrigation force mains and laterals shall be conducted during installation to avoid damage to spray fields from re-excavation and repair. Flushing is necessary to clear distribution system pipes of construction debris which will clog sprinkler nozzles. Care should be exercised to prevent erosion or flooding of the spray fields during pipeline flushing. Every effort should be made to keep trash and debris out of the distribution systems. Sprinklers and drain valves shall be checked for proper operation prior to installation.
27. Wastewater irrigation on bare soil is not allowed beyond what is necessary for germination to establish a vegetative cover. Wastewater application, at the design rate, may begin only after a uniform vegetative cover has been established.
28. Spray fields should be constructed early in the project so a vegetative cover can be re-established on disturbed areas before wastewater irrigation begins.
29. Potable, ground or surface water shall be used for distribution system testing unless authorized in writing by the Groundwater Discharges Section.
30. One growing season may be necessary before new spray fields will accept the design wastewater loading. This start-up period shall be considered in the design and operation of these systems.
31. The Permittee shall take all reasonable steps to minimize any adverse impact to waters of the state resulting from construction under this Permit. Such steps shall include, but not be limited to, accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or reasonable mitigation of such impacts.
32. Information for each monitoring well and piezometer shall be reported using the State of Delaware Well Identification Tag Number that is required on all wells in accordance with the *Delaware Regulations Governing the Construction and Use of Wells*, Section 11.

## **B. MONITORING REQUIREMENTS**

1. Within 180 days following the effective date of this Permit, the Permittee shall submit an influent sampling port location to the Groundwater Discharge Section for review and approval. The sampling port shall be positioned to ensure that a representative sample of the influent waste stream is obtained. The sampling port shall be installed within two years of the effective date of this Permit and shall be the influent monitoring point of compliance at that point forward.
  - a. During the construction requests for influent monitoring location modifications shall be submitted to the Department's Groundwater Discharges Section in writing. Such requests shall clearly state the reason for and nature of the proposed modification and, where applicable, shall contain supporting scientific information, analysis, and justification. Requests will be addressed by the Department on a case by case basis.
  
2. Within 180 days following the effective date of this Permit, the Permittee shall submit an effluent sampling port location to the Groundwater Discharge Section for review and approval. The sampling port shall be positioned to ensure that a representative sample of the treated wastewater is obtained prior to the storage lagoons. The sampling port shall be installed within two years of the effective date of this Permit and shall be the effluent monitoring point of compliance (in part) at that point forward.
  - a. During the construction requests for effluent monitoring location modifications shall be submitted to the Department's Groundwater Discharges Section in writing. Such requests shall clearly state the reason for and nature of the proposed modification and, where applicable, shall contain supporting scientific information, analysis, and justification. Requests will be addressed by the Department on a case by case basis.
  
3. Within 30 days following the effective date of this Permit, the Permittee shall submit a written work plan proposing an appropriately configured network of shallow observation wells for the purpose of better defining shallow groundwater flow in the upper portion of the unconfined aquifer in the area just upgradient of residents along Jersey Road (i.e., the area of spray pivot WHBJ2. The work plan shall include, at a minimum, the following information.
  - a. A map showing the proposed location of observation wells.
  - b. Proposed screen intervals: the observation wells are required to be constructed with relatively short screen intervals designed to adequately measure fluctuating water table elevations.

All observation well locations shall be approved by the Department prior to installation.

All observation wells shall be installed within 60 days of work plan approval.

4. Within 30 days following the effective date of this Permit, the Permittee shall submit a written work plan for two nested monitoring systems:
  - a. one system in the northern spray field area north of Rt. 24, aka, the WHBJ spray area; and
  - b. one system in the southern spray area south of Rt. 24 in the Center Block System spray area.

The nested systems shall be constructed at or very close to the center of a large spray irrigation field and shall consist of a lysimeter, a shallow monitoring well that is constructed to sample the top of the water-table over a very discrete screen interval, and a deeper monitoring well with a well

screened from 15 to 35 feet below the ground surface.

All nested monitoring system locations shall be approved by the Department prior to installation.

All nested monitoring systems shall be installed within 60 days of work plan approval.

5. The Permittee shall contact the Groundwater Discharges Section at least 24 hours prior to the installation of the monitoring wells. All monitoring wells shall be installed by a licensed well driller, and a permit to construct the wells shall first be obtained from the Department.
6. All facility monitoring wells and lysimeters (including newly installed wells) shall be surveyed by a Delaware-licensed Professional Land Surveyor to establish horizontal locations in Delaware State Plane coordinates relative to the 1983 North American Datum (NAD 83) as well as Latitude and Longitude relative to the World Geodetic System of 1984 (WGS 84). Additionally, the elevations of permanent markings on the top of casing for each well/lysimeter and the ground surface immediately adjacent to the wells/lysimeters shall be surveyed to the nearest 0.01-foot relative to the 1988 North American Vertical Datum (NAVD 88). This information shall be provided to the Department in both map form and as a digital spreadsheet.
7. All water level measurements shall be made from the established benchmarks (See: Part II B6) prior to any well purging or sampling.
8. Monitoring well sampling parameters and frequencies will be outlined in the operation permit.
9. Within 60 days of completion of above well installation requirements, a comprehensive report detailing all monitoring well and lysimeter installations, including results of the comprehensive survey per Part II B.6, shall be submitted to the Groundwater Discharges Section.

#### **C. REQUIREMENTS PRIOR TO PLACING ANY SYSTEM UPGRADE COMPONENT INTO OPERATION**

1. The Permittee shall notify the Groundwater Discharges Section in writing prior to the completion of any major system upgrade component intended to be placed into operation. The notification shall request an inspection to be performed by the Groundwater Discharges Section staff. The Design Engineer, Class E.4 system contractor, Class IV licensed operator and the Permittee shall be present during the inspection. During the inspection, all mechanical parts of the component intended to be placed into operation are to be tested.
2. Prior to placing any major system upgrade component into operation, the Permittee shall submit to the Groundwater Discharges Section the following items.
  - a. Design Engineer Inspection Report(s) certifying the component has been constructed in accordance with approved design engineer report, plans and specifications; and
  - b. Contractor's Certificate of Completion.

#### **D. REQUIREMENTS UPON COMPLETION OF CONSTRUCTION**

1. The Permittee shall notify the Groundwater Discharges Section in writing prior to the completion of construction and request a Construction Completion Inspection to be performed by the Groundwater Discharges Section staff. The Design Engineer, Class E.4 system contractor, Class IV licensed operator and the Permittee shall be present during the inspection. During the inspection, all mechanical parts are to be tested.
2. Upon completion of construction, the Permittee shall submit to the Groundwater Discharges Section the following applicable items. The items shall be combined in one package and shall include an electronic copy of all items where possible.

Failure to submit all required information constitutes a violation of this Permit.

- a. Design Engineer Inspection Report(s) certifying the facility has been constructed in accordance with approved plans and specifications.
- b. Copies of any other applicable State/County inspection reports.
- c. Contractor's Certificate of Completion.
- d. A certificate or letter of completion/approval from the treatment system manufacturer.
- e. A set of as-built drawings of the facility bearing the seal and signature of a licensed Professional Engineer registered in the State of Delaware.
- f. The as-built drawings shall include:
  - i. Site map showing the location of all structures, piping and appurtenances, disposal areas and buffers.
  - ii. A full equipment list and technical specifications for all equipment used, if different than submitted in the permit application.
  - iii. The new topography elevations of the system.
  - iv. Monitoring/Observation well locations, elevations at the top of the casing (TOC) and at the ground surface, GPS coordinates (State Plane), and local topography tied to a common benchmark.
  - v. The screen depth, length of stick up, and well ID's shall be provided for each monitor well.
  - vi. Surface water monitoring points.
- g. An Operation and Maintenance (O&M) Plan in accordance with Section 6.7 of the Regulations.
- h. Spreadsheet summary of groundwater monitoring well information.
  - i. GPS information detailing the northings and eastings; the local well ID number; and the DNREC Well ID/Well Permit Number. The GPS information must be in either Delaware State Plane, North American Datum 1983 meters; or Latitude and Longitude decimal degrees.
  - ii. Comprehensive monitoring well and lysimeter survey results in accordance with Part II B.6.
- i. Surface water GPS locations.
- j. Biosolids Management Plan. A copy of a biosolids management contract if a third party will be utilized to manage the biosolids. If the Permittee is not contracting out sludge

management, the Permittee shall obtain any necessary permits for land application of biosolids from the Department and provide a copy to the Groundwater Discharges Section.

- k. Legal documents (see Section 6.4 of the Regulations)
- l. Material Safety Data Sheets for all chemicals to be used by the facility staff/operator.



## Part III

### A. MANAGEMENT REQUIREMENTS AND RESPONSIBILITIES

#### 1. Right of Entry

The permittee shall allow the Department entry and access, consistent with 7 Del.C. Ch. 60, to:

- a. Enter the permitted facility.
- b. Inspect any records that must be kept under the conditions of the permit.
- c. Inspect any facility, equipment, practice, or operation permitted or required by the Permit.
- d. Sample or monitor for the purpose of assuring permit compliance of any substance or any parameter at the facility.

#### 2. Permit Transferability

Permits may be transferred to a new owner or operator. The permittee shall notify the Groundwater Discharges Section by requesting a change of ownership of the Permit before the date of transfer. The transfer shall be consistent with any notarized legal documents and/or CPCN required by the Regulations. The legal documentation shall be provided with the application. The application shall be received 30 days before the transfer.

- a. No person shall transfer a permit from one person to another unless 30 days written notice is given to the Groundwater Discharges Section, indicating the transfer is agreeable to both persons, and approval of such transfer is obtained in writing from the Groundwater Discharges Section, and any conditions of the approval of such transfer is obtained in writing from the Groundwater Discharges Section, and any conditions of the transfer approved by the Groundwater Discharges Section are complied with by the transferor and the transferee.
- b. The notice to the Groundwater Discharges Section shall contain a written agreement between the transferor and the transferee, indicating the specific date of proposed transfer of permit coverage and acknowledging responsibilities of current and new permittees for compliance with and liability for the terms and conditions of this Permit. The notice shall be signed by both the transferor and the transferee.

#### 3. Availability of Reports

All reports prepared in accordance with the terms of this Permit shall be available for public inspection at the offices of the Department of Natural Resources and Environmental Control. Monitoring data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in 7 Del. C., §6013.

#### 4. Non-compliance Notification

The Permittee shall report to the Department's Enforcement Section at (800) 662-8802 any unpermitted release or discharge of any contaminant into the air, or a pollutant, including petroleum substances, into surface waters, groundwater, or onto land as soon as the Permittee has knowledge

of, or should have had knowledge of, the release or discharge.

The Permittee shall report to the Groundwater Discharges Section orally within 24 hours from the time the Permittee became aware of any noncompliance that may endanger the public health or the environment by contacting the Department at the telephone number cited below.

If for any reason the Permittee does not comply with, or will be unable to comply with any conditions specified in this Permit, the Permittee shall provide the Groundwater Discharges Section with the following information in writing within five days of becoming aware of any actual or potential non-compliance:

- a. A description and cause of the non-compliance with any condition;
- b. The period of non-compliance including exact dates and times; or, if not yet corrected, the anticipated time the non-compliance is expected to continue; and
- c. The steps being taken or planned to reduce eliminate and/or prevent recurrence of the non-compliant condition.

The notification shall be submitted to the Department at the following address:

Groundwater Discharges Section  
Department of Natural Resources and Environmental Control  
89 Kings Hwy  
Dover, DE 19901  
Telephone: (302) 739-9948

#### 5. Construction Permit Expiration

- a. If construction has not been initiated prior to the expiration of the construction permit, and there are proposed changes to the approved design, the applicant shall submit a new or updated Design Engineer Report and construction plans as outlined in Sections 6.2.3, 6.5.1.4 and 6.5.1.5 for project re-evaluation. This will require public notification.
- b. If construction has been initiated prior to the expiration of the construction permit, and construction has not been completed prior to the expiration of the Permit, the Permittee may apply for a one-year extension of the construction permit.
- c. If construction has not been initiated or construction has not been completed prior to the expiration of the one-year extension, provided, the SIR is valid, and there are no changes to the approved design prior to the expiration of the construction permit, the applicant shall submit a construction permit application along with applicable fees, and a construction schedule.

#### 6. Construction Permit Extension

The application for extension shall include the following information:

- a. A Department extension form
- b. Applicable Departmental fees
- c. Construction schedule

## **Part IV**

### **A. PROVISIONS**

#### 1. Permit Revocation

The Department may revoke a permit if, among other things, the Permittee violates any permit condition, these regulations, fails to pay applicable Departmental fees, obtains the permit by misrepresentation or fails to fully disclose all relevant facts.

Except in cases of emergency, the Department shall issue a written notice of intent to revoke to the permittee prior to final revocation. Revocation shall become final within 20 days of receipt of the notice by the Permittee, unless within that time the Permittee requests an administrative hearing in writing.

The Department shall notify the Permittee in writing of any revocation hearing at least 20 days prior to the date set for such hearing.

If the Department finds the public health, safety or welfare requires emergency action, the Department shall incorporate findings in support of such action in a written notice of emergency revocation issued to the Permittee. Emergency revocation shall be effective upon receipt by the Permittee. Thereafter, if requested by the Permittee in writing, the Department shall provide the Permittee a revocation hearing.

#### 2. Permit Modifications/Amendments

In consultation with the Permittee, the Department may modify or amend an existing permit provided that the modifications would not result in an increased impact or risk to the environment or to public health.

#### 3. State Laws

This Permit shall not be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation.

#### 4. Property Rights

The issuance of this Permit does not convey any property rights of either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

#### 5. Severability

The provisions of this Permit are severable. If any provision of this Permit, or the application of any provision of this Permit, to any circumstances is held invalid; the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

6. This permit does not relieve the Permittee of complying with any other applicable Federal, State or local regulations.
  
7. If the *Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems* or applicable federal regulations are revised, this Permit may be opened and modified accordingly.