

NPDES PERMIT AND STATE PERMIT

Issued to

Fort Hill Farms, LLC
P.O. Box 447
Thompson, CT 06277

Location Address: 157 O'Leary Road and 260 Quaddick Road, Thompson, CT

Permit ID: CT0030800

Issuance Date: May 7, 2021

Receiving Stream: Brandy Brook

Effective Date: Upon issuance

Stream Segment Number: 3400-06-01.

Expiration Date: 5 years from effective date

SECTION 1: GENERAL PROVISIONS

- (A) This permit is issued in accordance with section 22a-430 of Chapter 446k, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and section 402(b) of the Clean Water Act, as amended, 33 USC 1251, et. seq., and pursuant to an approval dated September 26, 1973, by the Administrator of the United States Environmental Protection Agency for the State of Connecticut to administer an N.P.D.E.S. permit program.
- (B) Fort Hill Farms, LLC, ("Permittee"), shall comply with all conditions of this permit including the following sections of the RCSA which have been adopted pursuant to section 22a-430 of the CGS and are hereby incorporated into this permit. Your attention is especially drawn to the notification requirements of subsection (i)(2), (i)(3), (j)(1), (j)(6), (j)(8), (j)(9)(C), (j)(10)(C), (j)(11)(C), (D), (E), and (F), (k)(3) and (4) and (l)(2) of section 22a-430-3.

Section 22a-430-3 General Conditions

- (a) Definitions
- (b) General
- (c) Inspection and Entry
- (d) Effect of a Permit
- (e) Duty to Comply
- (f) Proper Operation and Maintenance
- (g) Sludge Disposal
- (h) Duty to Mitigate

- (i) Facility Modifications; Notification
- (j) Monitoring, Records and Reporting Requirements
- (k) Bypass
- (l) Conditions Applicable to POTWs
- (m) Effluent Limitation Violations
- (n) Enforcement
- (o) Resource Conservation
- (p) Spill Prevention and Control
- (q) Instrumentation, Alarms, Flow Recorders
- (r) Equalization

Section 22a-430-4 Procedures and Criteria

- (a) Duty to Apply
 - (b) Duty to Reapply
 - (c) Application Requirements
 - (d) Preliminary Review
 - (e) Tentative Determination
 - (f) Draft Permits, Fact Sheets
 - (g) Public Notice, Notice of Hearing
 - (h) Public Comments
 - (i) Final Determination
 - (j) Public Hearings
 - (k) Submission of Plans and Specifications. Approval.
 - (l) Establishing Effluent Limitations and Conditions
 - (m) Case by Case Determinations
 - (n) Permit issuance or renewal
 - (o) Permit Transfer
 - (p) Permit revocation, denial or modification
 - (q) Variances
 - (r) Secondary Treatment Requirements
 - (s) Treatment Requirements for Metals and Cyanide
 - (t) Discharges to POTWs - Prohibitions
- (C) Violations of any of the terms, conditions, or limitations contained in this permit may subject the Permittee to enforcement action including, but not limited to, seeking penalties, injunctions and/or forfeitures pursuant to applicable sections of the CGS and RCSA.
- (D) Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense under section 22a-438 or 22a-131a of the CGS or in accordance with section 22a-6, under section 53a-157b of the CGS.
- (E) The authorization to discharge under this permit may not be transferred without prior written approval of the Commissioner of Energy and Environmental Protection ("Commissioner"). To request such approval, the Permittee and proposed transferee shall register such proposed transfer with the Commissioner, at least thirty (30) days prior to the transferee becoming legally responsible for creating or maintaining any discharge which is the subject of the permit transfer. Failure, by the transferee, to obtain the Commissioner's approval prior to commencing such discharge(s) may subject the transferee to enforcement action for discharging without a permit pursuant to applicable sections of the CGS and RCSA.

- (F) No provision of this permit and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by the Permittee pursuant to this permit will result in compliance or prevent or abate pollution.
- (G) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- (H) An annual fee shall be paid for each year this permit is in effect as set forth in section 22a-430-7 of the Regulations of Connecticut State Agencies.
- (I) This permit becomes effective on the date of signature.

SECTION 2: DEFINITIONS

- (A) The definitions of the terms used in this permit shall be the same as the definitions contained in section 22a-423 of the CGS and section 22a-430-3(a) and 22a-430-6 of the RCSA
- (B) In addition to the above, the following definitions shall apply to this permit:

“25-year, 24-hour Rainfall Event” means the maximum 24-hour precipitation event with a probable recurrence interval of once in 25 years, as defined by the National Weather Service in Technical Paper Number 40, “Rainfall Frequency Atlas of the United States,” May 1961, and subsequent amendments, or equivalent regional or state rainfall probability information developed therefrom.

“Adequate Storage” means the storage volume of manure, litter, and agricultural wastewater as required by the nutrient management plan and Connecticut NRCS Practice Standard Code 313, Waste Storage Facility. Large CAFOs with earthen waste storage facilities shall have an impermeable liner.

“Agricultural Wastes” means manure, bedding materials, poultry litter, and spilled feed or feed waste.

“Agricultural Wastewater” means water directly or indirectly used in the operation of the AFO for any or all of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other AFO facilities; direct contact swimming, washing, or spray cooling of animals; or dust control. Agricultural wastewater also includes any water which comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, eggs or bedding.

“Animal Feeding Operation” or “AFO” means a feedlot or building or a group of feedlots or buildings (other than an aquatic animal production facility) where the following conditions are met: (i) animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and (ii) crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

“Anaerobic Digester Facility” means process areas which include, but are not limited to, the digester tank, food waste tanker unloading area, 4-chambered manure and food waste collection tank and all associated piping, and the access road.

“Best Management Practices” or “BMPs” means recommended practices or procedures designed to prevent, minimize or control environmental impacts. BMPs may include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, waste storage, or drainage from raw material storage.

“Catastrophic Rainfall Event” is equivalent to a 25-year, 24-hour storm event. Catastrophic events include tornadoes, hurricanes, or other conditions that would cause an overflow from the waste retention structure that is designed, constructed, operated, and maintained to meet all the requirements of this permit.

“CFR” means the Code of Federal Regulations.

“Chronic Rainfall” means a series of wet weather events that prevent the dewatering of properly maintained waste storage structures.

“Comprehensive Nutrient Management Plan” means a site-specific plan to properly manage agricultural wastes and agricultural wastewaters, including runoff and seepage from land application areas, in order to minimize the impacts of animal feeding operations on water quality.

“Concentrated Animal Feeding Operation” or “CAFO” means an AFO that is defined as a Large CAFO, or as a Medium CAFO, or as a proposed new operation, or that is designated as a CAFO. Two or more AFOs under common ownership are considered to be a single AFO for the purposes of determining whether such AFO is a CAFO based on the number of animals at an operation, if they adjoin each other or if they use a common area or system for the disposal of wastes.

“Department” means the department of energy and environmental protection.

“Discharge Associated with a CAFO” means a discharge under catastrophic or chronic rainfall conditions from a facility designed, constructed and operated to hold all agricultural wastes, agricultural wastewater, and the runoff from at least a 25-year, 24-hour rainfall event; and all other discharges in accordance with the CNMP.

“Digestate” means the solid and liquid material remaining after anaerobic digestion.

“Fats, oils and grease” or “FOG” means any fats, oils and grease generated from the food preparation process.

“Food Waste” means for the purpose of this permit, Source Separated Organic Material.

“Land Application” means the application of agricultural wastes and or agricultural wastewater onto, or incorporation into, the soil.

“Land Application Area” means any land owned, rented, leased or otherwise controlled by the CAFO owner/operator to which agricultural wastes, agricultural wastewater and or digestate are or may be applied.

“Manure” means urine and feces excreted from livestock and other materials comingled with urine and feces including bedding and compost.

“NRCS” means the Natural Resources Conservation Service of the United States Department of Agriculture.

“Nutrient Management Plan” or “NMP” means a plan developed to manage the amount, source, placement, form, timing of the application of agricultural wastes, agricultural wastewater, digestate, and soil amendments to ensure adequate soil fertility for plant production and to minimize the potential impacts on water quality.

“Overflow” means the discharge of manure or agricultural wastewater resulting from the filling of wastewater or manure storage structures beyond the point at which no more manure, agricultural wastewater, or stormwater can be contained by the structure.

“Production Area” means that part of an AFO that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal confinement area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, freestall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes, but is not limited to, lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes but is not limited to feed silos, silage bunkers, and bedding materials. The waste containment area includes but is not limited to settling basins, and areas within berms and diversions which separate uncontaminated stormwater. Also included in the definition of production area is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities.

“Runoff” means collected or uncollected gravity-induced overland flow of water from rain, melted snow, agricultural or landscape irrigation.

“Setback” means a specified distance from surface waters or potential conduits to surface waters where manure, digestate, litter, and agricultural wastewater may not be land applied. Examples of conduits to surface waters include but are not limited to: Open tile line intake structures, clean water diversions, and agricultural well heads.

“Source Separated Organic Material” or “SSOM” means for the purpose of this permit, the following materials which have been separated at the point or source of generation from nonorganic material: food scraps; food processing residue; fats, oils and grease; and soiled or unrecyclable paper.

“Stormwater” means waters consisting of precipitation (rain or snow) runoff.

“USDA” means United States Department of Agriculture.

SECTION 3: COMMISSIONER'S DECISION

- (A) The Commissioner has issued a final determination and found that the proposed system to treat such discharge will protect the waters of the state from pollution. The Commissioner’s decision is based on Application No. 202005438 for permit, issuance, received on April 15, 2020 and the administrative record established in the processing of that application.
- (B) The Commissioner reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which

may be authorized under the Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or CGS or regulations adopted thereunder which are then applicable.

SECTION 4: GENERAL EFFLUENT LIMITATIONS

- (A) There shall be no discharge of agricultural waste, digestate or agricultural wastewater into the waters of the state from the production areas except as provided in the Permittee's Comprehensive Nutrient Management Plan received June 11, 2019 and the Plan Modification dated August 2020 received September 24, 2020, which are hereby approved (collectively "CNMP").
- (B) There shall be no discharge from the lined storage lagoon unless it is a discharge associated with a CAFO under catastrophic or chronic rainfall conditions and operated to retain all digestate, agricultural waste and agricultural wastewater.

SECTION 5: SPECIFIC EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

- (A) The Permittee shall implement its CNMP, which incorporates the following best management practices:
 - 1. Adequate storage-
Ensure adequate storage of manure, agricultural wastewater, and digestate, including procedures to ensure proper operation and maintenance of all storage components.
 - 2. Mortalities management-
Installation of an animal mortality composting structure in accordance with Connecticut NRCS Conservation Practice Standard 316.
 - 3. Clean water diversion-
Diversion of clean water from the production area.
 - 4. Direct water contact-
Prevent direct contact of confined animals with waters of the State.
 - 5. Chemical handling-
Ensure that chemicals and other contaminants handled on-site are not disposed of in any manure, agricultural wastewater, or stormwater storage or treatment system unless specifically designed to treat such chemicals and other contaminants.
 - 6. Records-
Establish and maintain records of CNMP implementation including as-builts of structural practices, operation and maintenance records, and records associated with land application procedures.
 - 7. Depth marker-
Installation of a depth marker in the re-purposed manure lagoon used for stormwater retention.

- (B) Land application of manure, agricultural wastewaters, and digestate shall be performed in accordance with the following best management practices developed and incorporated in the CNMP:
1. Nutrient Management Plan-
Implement the nutrient management plan based on a field-specific assessment of the potential for nitrogen and phosphorus transport from each field and the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface and groundwaters.
 2. Determination of application rates-
Application rates for manure, agricultural wastewaters, and digestate applied to land under control of Fort Hill Farms, LLC shall minimize nitrogen and phosphorus transport from the field to surface and groundwaters in accordance with Connecticut NRCS Conservation Practice Standards 590 (Nutrient Management) and 633 (Waste Recycling).
 3. Digestate, manure, and soil sampling-
Composite samples of digestate and manure shall be collected according to the CNMP specifications for sampling of liquid manure during spring and fall land application and analyzed for the following parameters: total nitrogen, organic nitrogen, ammonia nitrogen, total phosphorus or P205, and pH. Soil shall be analyzed a minimum of once every 3 years for phosphorus.
 4. Inspect land application equipment for leaks-
The Permittee shall inspect all equipment used to land apply digestate, manure, and agricultural wastewaters quarterly.
 5. Setback requirements-
The Permittee shall implement setbacks as delineated in the CNMP when land applying digestate, manure, and agricultural wastewaters.
- (C) The Permittee shall not land apply undigested source separated organic material.
- (D) The Permittee shall not receive more than 17 tons per day (i.e., approximately 4,000 gallons per day) of the following source separated organic material until such time as additional documentation is received, reviewed, and approved in writing by the Commissioner demonstrating a phosphorus balance as part of the Comprehensive Nutrient Management Plan for the farm that incorporates additional volume of such materials: food scraps; food processing residue; and soiled or unrecyclable paper.
- (E) The Permittee shall maintain records of land application activities in accordance with the CNMP.
- (F) The Permittee shall monitor and inspect each structural management practice in accordance with the operation and maintenance plan in the CNMP.
- (G) The Permittee shall implement the following best management practices to minimize the discharge of pollutants in stormwater from areas associated with the operation and maintenance of the anaerobic digester, including but not limited to, the digester tank, the food waste tanker unloading area, the 4-chambered manure and food waste collection tank and all associated piping, and the access road. Such discharge shall not cause in the receiving stream, a visible oil sheen or floating

solids, or cause visible discoloration or foaming in the receiving stream, or cause acute or chronic toxicity.

1. Maintain a clean, orderly facility (e.g. sweeping at regular intervals, appropriate storage practices, proper garbage and waste management, dust control measures, etc.) in all areas that are exposed to rainfall and are potential sources of pollutants.
2. Minimize the potential for leaks and spills, identify procedures for containing and cleaning up leaks and spills, and maintain spill response equipment necessary to prevent pollutants from entering the stormwater drainage system.
3. At least monthly, visually inspect material handling areas and other potential sources of stormwater pollution for evidence of, or the potential for, pollutants entering the stormwater drainage system. Inspections shall be made during rainfall events if possible. Records of monthly inspections identifying the date(s) of the inspection, personnel making the inspection, major observations and actions taken in response, shall be made and retained on site for at least five years.
4. At least semi-annually, visually inspect the stormwater inlet structures and outlet structures, drainage swales, and the detention basin for evidence of accumulated sediments and other pollutants. Areas of erosion within the drainage swales and detention basin shall be identified and repaired. Accumulated sediments and other pollutants shall be removed where found to be in excess of 50% of design capacity. Inspections shall be made during rainfall events if possible.
5. Records of monthly and semi-annual inspections identifying the date(s) of the inspection, personnel making the inspection, major observations and actions taken in response to the inspection, shall be made and retained on site for at least five years. Inspection reports shall be signed by the Permittee.
6. Ensure that all employees whose activities may affect stormwater discharge quality receive training within ninety (90) days of employment and at least once a year thereafter. Training shall address good housekeeping and materials management practices, inspections requirements, emergency equipment location, and spill response management practices. Written records of employee training shall be maintained on site.

SECTION 6: SPECIAL CONDITIONS

- (A) On or before December 31, 2021, the Permittee shall submit written verification to the Commissioner that it has completed construction of the stormwater collection and treatment system modifications for the existing production area and re-purposed manure lagoon as required by the CNMP.
- (B) On or before December 31, 2030, the Permittee shall submit written verification to the Commissioner that it has fully implemented all best management practices associated with the new production area as required under the CNMP.

SECTION 7: SAMPLE COLLECTION, HANDLING AND ANALYTICAL TECHNIQUES

- (A) Digestate, Manure and Soil Analyses:

1. Consistent with Connecticut NRCS Conservation Practice Standards 590 digestate and manure shall be collected, prepared, stored and shipped following land-grant university guidance. Samples are to be analyzed at laboratories and using testing requirements recognized by the University of Connecticut Soil Nutrient Analysis Laboratory.
2. All soil samples shall be collected and prepared in a manner recognized by the University of Connecticut Soil Nutrient Analysis Laboratory. Laboratories performing soil test analyses shall meet the performance standards and requirements of the North American Proficiency Testing Program-Performance Assessment Program under the auspices of the Soil Science Society of America and the USDA Natural Resources Conservation Service.

SECTION 8: REPORTING AND RECORD KEEPING REQUIREMENTS

(A) The Permittee shall report to the Bureau of Materials Management and Compliance Assurance (Attn: CAFO Coordinator) on an annual basis on or before JANUARY 31st, an annual report including:

1. The number and type of animals, whether in open confinement or housed under roof;
2. Estimated amount of total manure, digestate and agricultural wastewater generated or received by the CAFO in the previous 12 months (tons/gallons);
3. Estimated amount of total manure, digestate and agricultural wastewater transferred to other person by the CAFO in the previous 12 months (tons/gallons);
4. Total number of acres for land application covered by the nutrient management plan;
5. Total number of acres under control of the CAFO that were used for land application of manure, digestate and agricultural wastewater in the previous 12 months;
6. Summary of all manure, digestate and agricultural wastewater discharges from the production area that have occurred in the previous 12 months, including date, time, and approximate volume;
7. A statement indicating whether the current version of the Comprehensive Nutrient Management Plan was developed or approved by a certified nutrient management planner; and
8. The actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, digestate, and agricultural wastewater, the amount of manure, digestate, and agricultural wastewater to be applied, and the amount of manure, digestate, and agricultural wastewater applied to each field during the previous 12 months; and the results of any soil testing for nitrogen and phosphorus taken during the preceding 12 months, verification that CT NRCS Conservation Practice Standard 590 Nutrient Management was used in calculating the amount of nitrogen and phosphorus from all sources to be land applied, and the amount of any supplemental fertilizer applied during the previous 12 months; and
9. The submission of the report shall be in writing to the following address and electronically to NetDMR in accordance with Paragraph (E) below:

Bureau of Materials Management and Compliance Assurance
Water Permitting and Enforcement Division (Attn: CAFO Coordinator)

Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

- (B) All records required by this permit and the CNMP shall be maintained on-site for a period of at least five (5) years and shall be made available upon request to the Commissioner or during any on-site inspection.
- (C) A copy of the CNMP shall be maintained on site and made available to the Commissioner upon request.
- (D) The Permittee shall perform the following requirements for land application activities not under the control of the Permittee:
 - 1. Maintain records showing the amount of digestate or manure that leaves the Permittee's operation;
 - 2. Record the approximate amount of digestate or manure, the transfer date and the name and address of the recipient;
 - 3. Provide the recipient with the current nutrient analysis of the digestate, manure or manure products;
 - 4. Inform the recipient of his/her responsibility to properly manage the land application of the digestate and manure to prevent discharge of pollutants to waters of the state.
- (E) NetDMR Reporting Requirements
 - 1. Prior to one-hundred and eighty (180) days after the issuance of this permit, the Permittee may either submit monitoring data and other reports to the Department in hard copy form or electronically using NetDMR, a web-based tool that allows Permittees to electronically submit discharge monitoring reports (DMRs) and other required reports through a secure internet connection. Unless otherwise approved in writing by the Commissioner, no later than one-hundred and eighty (180) days after the issuance of this permit the Permittee shall begin reporting electronically using NetDMR. Specific requirements regarding subscription to NetDMR and submittal of data and reports in hard copy form and for submittal using NetDMR are described below:
 - (a) *Submittal of NetDMR Subscriber Agreement*

On or before fifteen (15) days after the issuance of this permit, the Permittee and/or the person authorized to sign the Permittee's discharge monitoring reports ("Signatory Authority") as described in RCSA Section 22a-430-3(b)(2) shall contact the Department at deep.netdmr@ct.gov and initiate the NetDMR subscription process for electronic submission of Discharge Monitoring Report (DMR) information. Information on NetDMR is available on the Department's website at www.ct.gov/deep/netdmr. On or before ninety (90) days after issuance of this permit the Permittee shall submit a signed copy of the **Connecticut DEEP NetDMR Subscriber Agreement** to the Department.
 - (b) *Submittal of Reports Using NetDMR*

Unless otherwise approved by the Commissioner, on or before one-hundred and eighty (180) days after issuance of this permit, the Permittee and/or the Signatory Authority shall electronically submit DMRs and reports required under this permit to the Department using NetDMR in satisfaction of the DMR submission requirement in paragraph (A) of this Section of this permit.

DMRs shall be submitted electronically to the Department no later than the 30th day of the month following the completed reporting period. All reports required under the permit, including any monitoring conducted more frequently than monthly or any additional monitoring conducted in accordance with 40 CFR 136, shall be submitted to the Department as an electronic attachment to the DMR in NetDMR. Once a Permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs or other reports to the Department. Permittee shall also electronically file any written report of non-compliance described in paragraph (A) of this Section and in the following Section of this Permit as an attachment in NetDMR. NetDMR is accessed from: <http://www.epa.gov/netdmr>.

(c) Submittal of NetDMR Opt-Out Requests

If the Permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for electronically submitting DMRs and reports, the Commissioner may approve the submission of DMRs and other required reports in hard copy form (“opt-out request”). Opt-out requests must be submitted in writing to the Department for written approval on or before fifteen (15) days prior to the date a Permittee would be required under this permit to begin filing DMRs and other reports using NetDMR. This demonstration shall be valid for twelve (12) months from the date of the Department’s approval and shall thereupon expire. At such time, DMRs and reports shall be submitted electronically to the Department using NetDMR unless the Permittee submits a renewed opt-out request and such request is approved by the Department.

All opt-out requests and requests for the NetDMR subscriber form should be sent to the following address or by email at deep.netdmr@ct.gov:

Attn: NetDMR Coordinator
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

SECTION 9: RECORDING AND REPORTING OF VIOLATIONS,

- (A) The Permittee shall, within two (2) hours of becoming aware of the circumstances, and at the start of the next business day if he or she becomes aware of the circumstances outside normal business hours, notify the Commissioner of any actual or anticipated noncompliance with the terms and conditions of this permit and shall submit a written report to the Commissioner within five days thereafter. Such report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. Actual or anticipated noncompliance may include, but not be limited to, a leak, breach, overflow or other structural failure of a storage facility not caused

by a catastrophic event but due to improper operation, maintenance or design; or a discharge due to manure releases related to the improper handling of liquid or solid manure.

- (B) In the event that the Permittee becomes aware that it did not or may not comply, with any requirement of the CNMP, the Permittee shall notify the Commissioner and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, minimized to the greatest extent possible. In so notifying the Commissioner, the Permittee shall state in writing the reasons for the noncompliance or delay, and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved, and the Permittee shall comply with any dates which may be approved in writing by the Commissioner. Notification by the Permittee shall not excuse noncompliance or delay, and the Commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically stated by the Commissioner in writing.

This permit is hereby issued on May 7, 2021.

**Betsey
Wingfield** Digitally signed by
Betsey Wingfield
Date: 2021.05.07
08:51:05 -04'00'

Betsey Wingfield
Deputy Commissioner
Department of Energy and Environmental Protection

BW/JW

WASTEWATER DISCHARGE PERMIT: DATA TRACKING AND TECHNICAL FACT SHEET

PERMITTEE: Fort Hill Farms, LLC

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: CT0030800 APPLICATION #: 202005438

<u>Mailing Address:</u>					<u>Location Address:</u>				
Street:	P.O. Box 447				Street:	157 O'Leary Road and 260 Quaddick Road			
City:	Thompson	ST:	CT	Zip: 06277	City:	Thompson	ST:	CT	Zip: 06277
Contact Name:	Kies Orr				DMR Contact	Kies Orr			
Phone No.:	(860) 942-3108				Phone No.:	(860) 942-3108			

PERMIT INFORMATION

DURATION 5 YEAR X 10 YEAR ___ 30 YEAR ___

TYPE New X Reissuance ___ Modification ___

CATEGORIZATION POINT () NON-POINT () GIS #: GIS Number

NPDES (X) PRETREAT () GROUND WATER(UIC) () GROUND WATER (OTHER)(X)

NPDES MAJOR(MA) ___
 NPDES SIGNIFICANT MINOR or PRETREAT SIU (SI) ___
 NPDES or PRETREATMENT MINOR (MI) X ___
 PRETREAT SIGNIFICANT INDUS USER(SIU) ___
 PRETREAT CATEGORICAL (CIU) ___
 SIC Code __0241_____

POLLUTION PREVENTION MANDATE ___ ENVIRONMENTAL EQUITY ISSUE ___

COMPLIANCE SCHEDULE YES ___ NO X ___

POLLUTION PREVENTION ___ TREATMENT REQUIREMENT___ WATER CONSERVATION___

WATER QUALITY REQUIREMENT ___ REMEDIATION ___ OTHER ___

RECENT ENFORCEMENT HISTORY

Is the Permittee subject to a pending enforcement action? Yes ___ No X

OWNERSHIP CODE

Private X Federal ___ State ___ Municipal (town only) ___ Other public ___

DEP STAFF ENGINEER Joseph Wettemann

PERMIT FEES

Discharge Code	DSN Number	Annual Fee
3070000	101	\$656

FOR NPDES DISCHARGES

Receiving Stream: Brandy Brook

Stream Segment Number: 3400-06-01

Drainage Basin Code: Fivemile River 3400

Present/Future Water Quality Standard: Class A

NATURE OF BUSINESS GENERATING DISCHARGE

The business is an existing dairy farm operation with more than 200 milking cows which is proposing to modernize and expand the operation. New barns and manure handling systems are being planned for a milking herd of 276 cows and 245 young stock. Manure will be collected, stored and transported, along with any food waste that may be authorized by the Department, to a new anaerobic digester to be constructed at the facility. Fort Hill has separately applied to the Department’s Waste Engineering and Enforcement Division for a Volume Reduction permit to enable the farm to receive and process food waste at the anaerobic digester from off-site sources. Methane from the digester will be used by a generator to produce electricity. After digestion, the material will pass through a solids separator. Separated solids will be used as bedding for the cows. The liquid digestate will be stored in a lined and covered lagoon, and will be land applied on the farm and at other locations in accordance with the nutrient management plan approved for the respective land application area.

A new 5.5 million gallon lagoon will be constructed concurrently with the new anaerobic digester. Stormwater runoff from operations associated with the anaerobic digester will be conveyed to the existing stormwater retention basin previously constructed under the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. New barns are planned to be constructed during the next five years. In the interim, the existing facilities will be retrofitted with a reception pit for manure, milk parlor wastewaters and silage leachate that will be pumped and hauled to a manure tank at the digester facility. The manure and stormwater collection and treatment system for the existing production area will be upgraded as described below.

PROCESS AND TREATMENT DESCRIPTION (by DSN)

DSN 101

All manure from the existing production area will be scraped into the newly constructed reception pit, typically twice a day and prior to anticipated storm events. The reception pit will collect manure, milkhouse wastewaters, and silage leachate to be pumped and hauled daily to the digester mixing tanks. The reception pit is sized for four (4) days of storage. If the digester system is unavailable, manure and wastewaters can be emptied directly into the new covered manure storage lagoon.

The existing manure pit will be repurposed to retain 2-yr, 24-hr storm events, which will capture 3.4 inches of runoff including the 1-inch, first flush stormwater volume from all existing barnyards and silage bunkers. Stormwater collected in this retention basin will be land applied at an agronomic rate prescribed in the nutrient management plan. For storm events greater than a 2-yr/24-hr storm event, a stormwater control structure will divert 50% of the stormwater flows to the existing settling basin and vegetated treatment area.

RESOURCES USED TO DRAFT PERMIT

- Federal Effluent Limitation Guideline 40CFR Part 412 Concentrated Animal Feeding Operations (CAFO) Point source Category
- Performance Standards
- Federal Development Document Name of Category
- Treatability Manual
- Department File Information
- Connecticut Water Quality Standards
- Anti-degradation Policy
- Other – Explain

BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS

- Best Professional Judgement (See General Comments)
- Case by Case Determination (See General Comments)

GENERAL COMMENTS

Animal numbers and discharge would classify Fort Hill’s farm operations as a medium size Concentrated Animal Feeding Operation (Medium CAFO). The Medium CAFO category for mature dairy cows is between 200-699 mature dairy cows. A Medium CAFO is required to implement and maintain treatment controls and stormwater management measures based on the Department’s Best Professional Judgement.

These required treatment controls and BMPs include employing lined/covered manure storage facilities, proper stormwater handling in production areas and others area where agricultural wastes and agricultural wastewaters are generated and managed, and a nutrient management program for appropriate land application of nutrients. Agricultural stormwater discharges are not subject to regulation. Agricultural stormwater discharges are precipitation-related discharges from a land application area where agricultural waste or agricultural wastewater has been applied in accordance with a nutrient management plan as required by the permit, and as specified in 40 CFR 122.23(e) and 40 CFR 122.42(e)(1)(vi)-(ix).

Technology based effluent limitations in the form of BMP's for this permit were developed on a case-by-case basis using best professional judgement as outlined in the EPA NPDES Permit Writers' Manual for Concentrated Animal Feeding Operations. Many of the Best Management Practices included in this permit as effluent limits meet, and a few exceed, the requirements for Large Dairy CAFOs with 700 or more mature dairy cows.

OTHER COMMENTS

It has been confirmed that the receiving stream segment (Stream Segment Number: 3400-06-01) of the Fivemile River (Drainage Basin Code 3400) is not listed as an impaired water.

It has also been confirmed that there is no TMDL for the Fivemile River Watershed (Drainage Basin Code 3400).

On December 26, 2020, the Department's Waste Engineering and Enforcement Division [WEED] published its tentative decision to approve a solid waste permit for Fort Hill Ag Grid, LLC to construct and operate the proposed anaerobic digester for processing agricultural waste and agricultural wastewaters generated from Fort Hill Farm and source-separated organic material [SSOM]. Following such public notice, additional coordination among WPED staff regarding implementation of the approved CNMP, and between WPED and WEED staff on the definition of "Source Separated Organic Material," yielded the following updated information on February 23, 2021 concerning the proposed solid waste permit, which led to minor changes to the draft wastewater discharge permit for Fort Hill Farms, LLC to improve clarity and ensure consistency among the two proposed permits.

[WEED SUMMARY—2/23/2021] The definition of Source Separated Organic Material (SSOM) in the proposed WEED permit is revised from the statutory definition in CGS Section 22a-207(30) to further limit the types of materials to be accepted by this facility, which reads as follows: "Source-Separated Organic Material' or 'SSOM' for the purpose of this permit means the following materials which have been separated at the point or source of generation from nonorganic material: food scraps; food processing residue; fats, oils and grease; and soiled or unrecyclable paper." WEED is making this revision to exclude other organic materials, including but not limited to sewage sludges, septage or other biosolids. The revised definition also reflects WEED's understanding that WPED is concerned with nutrient loading at the Site, especially phosphorous, and that the WPED discharge permit will limit the quantity of phosphorus rich food items, other than fats, oils and grease, (note: FOG contributes lower levels of phosphorus loading than other SSOM) pending documentation demonstrating an acceptable phosphorus balance.

Summary of Recommended Minor Changes to the Draft Wastewater Discharge Permit Following the Notice of Tentative Decision:

1. To ensure consistency with the proposed solid waste permit, the definition of "Source Separated Organic Material" has been revised to read:

“Source Separated Organic Material” or “SSOM” means for the purpose of this permit, the following materials which have been separated at the point or source of generation from nonorganic material: food scraps; food processing residue; fats, oils and grease; and soiled or unrecyclable paper.

2. The definition of the term “Food Waste,” which is typically used in reference to either a food waste tanker or a food waste collection tank, is analogous to the term “Source Separated Organic Material” and has been revised to read:

“Food Waste” means for the purpose of this permit, Source Separated Organic Material.

3. The reference to “fats, oils and grease” in Section 5(C) of the permit has been deleted, as the definition of Source Separated Organic Material is inclusive of this term. Section 5(C) of the permit now reads as follows:

“(C) The permittee shall not land apply undigested source separated organic material.”

4. Section 5(D) of the permit, which limits the daily receipt of phosphorus rich Source Separated Organic Materials (i.e., SSOM other than fats, oils and grease) based on the farm’s approved comprehensive nutrient management plan, has been revised as follows for consistency and to include an equivalent tons per day limitation:

“(D) The permittee shall not receive more than 17 tons per day (i.e., approximately 4,000 gallons per day) of the following source separated organic material until such time as additional documentation is received, reviewed, and approved in writing by the Commissioner demonstrating a phosphorus balance as part of the comprehensive nutrient management plan for the farm that incorporates additional volume of such materials: food scraps; food processing residue; and ~~or~~ soiled or unrecyclable paper.”

5. Lastly, Department staff recommends including a new “Special Conditions” section in the draft wastewater discharge permit (i.e., insert New Section 6, Paragraphs A & B, and renumber the remaining sections of the permit as Sections 7-9). Special Condition (A) will require verification of construction of interim modifications to existing facilities that will be used until new production facilities required under the approved CNMP can be financed and constructed. Special Condition (B) will require verification that BMPs associated with the new production facilities required under the approved CNMP are fully implemented. The interim facilities will be abandoned in accordance with the approved CNMP when the new production facility barn and bunker silo are built.

- NEW Section 6: Special Conditions, Paragraph (A):
“On or before December 31, 2021, the Permittee shall submit written verification to the Commissioner that it has completed construction of the stormwater collection and treatment system modifications for the existing production area and re-purposed manure lagoon as required by the CNMP.”
- NEW Section 6: Special Conditions, Paragraph (B):
“On or before December 31, 2030, the Permittee shall submit written verification to the Commissioner that it has fully implemented all best management practices associated with the

new production area as required under the CNMP.”

PROJECT HISTORY

Application received on April 15, 2020

Notice of Sufficiency issued on May 14, 2020

Notice of Tentative Determination December 10, 2020

Public Notice period has ended and no public comments were received.