

Permit Fact Sheet

General Information

Permit Number	WI-0066923-02-0
Permitted Facility Name and Address	Trillium Hill Farms N8273 County Road R Berlin
Permit Term	February 01, 2025 to January 31, 2030
Discharge Location	Main Dairy, N8257 County Road F, Berlin, WI, 54923, NE ¼ of SW ¼, Section 23 T17N R13E Ewald Calf Farm, W1099 County Road V, Berlin, WI, 54923, NW ¼ of NE ¼, Section 22 T17N R13E Werch Heifer Farm, N8570 County Road F, Berlin, WI, 54923, SW ¼ of SE ¼, Section 14 T17N R13E
Receiving Water	unnamed tributaries within the Puchyan River- Fox River Watershed, and groundwaters of the state
Stream Classification	303d Puchyan River
Discharge Type	Existing

Animal Units

Animal Type	Current AU		Proposed AU (Note: If all zeroes, expansions are not expected during permit term)		
	Mixed	Individual	Mixed	Individual	Date of Proposed Expansion
Dairy Calves (under 400 lbs.)	90	0	180	0	01/01/2026
Milking and Dry Cows	2870	2932	7280	7436	01/01/2026
Heifers (400 lbs. to 800 lbs.)	120	200	270	450	01/01/2026
Heifers (800 lbs. to 1200 lbs.)	105	95	83	75	01/01/2026
Total	3185	2932	7813	7436	

Facility Description

Trillium Hill Farm Inc. is an existing Concentrated Animal Feeding Operation (CAFO). Trillium Hill Farm Inc. is owned and operated by the Jones Family. The farm currently has 3,184.5 animal units. (2,050 milking & dry cows, 95 heifers up to 1200 lbs, 200 heifers up to 800 lbs and 450 dairy/beef calves). Trillium Hill Farm Inc. has a total of 5,477 acres available for land application of manure and process wastewater. Of this acreage, 1,265.2 acres are owned, and 4,374.6 acres are rented or controlled through manure agreements. Trillium Hill Farm Inc. has a planned expansion during the proposed permit term. Approximately 28,482,166 gallons of manure and process wastewater will be generated in the first

year of the permit term. The farm has a proposed 407 days of liquid manure storage and at least 59 days of solid manure storage. The planned expansion has purposed 7,812.5 animal units. (5,200 milking & dry cows, 75 heifers up to 1200 lbs, 450 heifers up to 800 lbs and 900 dairy/beef calves). The expansion will include the construction of a new parlor, freestall barn, expanded feed storage area with runoff controls, and an additional sand separation unit. Approximately 63,708,049 gallons of manure and process wastewater will be generated once fully populated. With the proposed expansion the farm will have a proposed 182 days of liquid storage. The expansion is set to be completed by winter of 2026.

Three facilities are currently covered under Trillium Hill Farm Inc. WPDES Permit. The main dairy site is located at N8257 County Road F, Berlin, WI 54923 and is composed of 3 dairy freestall barns, milking parlor, calf barn, heifer barn, 1 outdoor animal lot with runoff collection, feed storage area, 4 waste storage facilities, sand separation facility, and digester for biogas generation. The farm has an agreement with a third party for the operation for the biogas RNG facility, this agreement covers the responsibilities associated with the transfer and supply of manure, management, and other permit requirements. The Ewald farm is located at W1099 County Road V, Berlin, WI 54923 and is composed of one outdoor feedlot with barn and a pasture area. The third site, Werch Farm, is located at N8570 County Road F, Berlin, WI 54923 and is composed of one animal barn and one waste storage facility.

Trillium Hill Farm Inc. has submitted an application for reissuance of their Wisconsin Pollutant Discharge Elimination System (WPDES) permit. The application is complete, and the facility has been determined to be in substantial compliance. This application was received early and in leu of a permit modification for the proposed expansion. This will be the second permit reissuance for this facility. Trillium Hill Farm Inc. has an approved Nutrient Management Plan (NMP) that is written according to WPDES permit and Chapter NR 243 Wis. Adm. Code requirements. Trillium Hill Farm Inc. was also found to have at least 180 days of liquid manure storage.

Substantial Compliance Determination

Enforcement During Last Permit:

- One Notice of Noncompliance was issued for failure to submit an engineering evaluation for runoff controls, schedule section 2.8. The farm has submitted the evaluation for department review on November 25, 2024. Since the evaluation requirement a permanent pipeline and pump have been installed for the collection of runoff. This was done with plan approval. Final documentation for the lots ability to meet permit conditions is pending the evaluation review. Potential follow up actions have been included in the proposed permit.

After a desk top review of all compliance schedule items and permit application materials and a site visit on June 13, 2024, this facility has been found to be in substantial compliance with their current permit.

Compliance determination made by Eric J. Struck on December 6, 2024.

Sample Point Designation For Animal Waste	
Sample Point Number	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
001	WSF 1: Sample point 001 is for liquid waste storage facility 1 (WSF 1) located at the Main Dairy. WSF 1 is a concrete storage located on the western end of the eastern freestall barn. The facility has a capacity of 103,224 gallons and was constructed in 2001. This storage accepts manure and process wastewater from the above freestrall barn and milking parlor waste.
002	WSF 2: Sample point 002 is for liquid waste storage facility 2 (WSF 2) located at the Main Dairy. WSF 2 is a liquid-tight concrete storage located north of the freestall barns. The facility has a capacity of 9,890,500 gallons and was constructed in 2013. WSF 2 accepts manure and process wastewater from the digester facility that was constructed in 2023. WSF 2 was last evaluated in 2015 with the transfer system

Sample Point Designation For Animal Waste	
Sample Point Number	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
	from the western freestall barn and met permit requirements.
003	WSF 3: Sample point 003 is for liquid waste storage facility 3 (WSF 3) located at the Main Dairy. WSF 3 is a prefabricated liquid tight concrete Wieser storage located on the south side of the calf barn. The facility has a capacity of 10,182 gallons and was installed in 2020. This storage accepts manure and process wastewater from the calf barn. WSF 3 was constructed with plan approval and met permit requirements.
004	WSF 4: Sample point 004 is for liquid waste storage facility 4 (WSF 4) located at the Main Dairy. WSF 4 is a liquid-tight concrete storage located east of WSF 2. The facility has a capacity of 25.57 million gallons and was constructed in 2021. WSF 4 accepts manure and process wastewater from WSF 2, Feed Storage area runoff controls, and the main farm feedlots. WSF 4 was constructed with plan approval and appears to meet permit requirements.
005	Main Dairy Miscellaneous Solid Manure: Sample point 005 is for solid manure sources that are directly land applied and not stored in a waste storage facility. This includes solid sources such as calf barn manure, maternity pen bedpack, heifer bedpack, steer manure, waste sand, manure solids removed from waste storage facilities, sand separation facility, and digester tanks, etc. Representative samples shall be taken for each manure source type.
006	Feed Storage Area & Runoff Control System: Sample point 006 is for visual monitoring and inspection of the feed storage area and associated runoff control system located at Main Dairy. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. The feed storage area (FSA) was designed with clean water diversions. Permitter drain channels collect leachate and runoff that flows to a reception tank located north of the feed storage area (sample point 018). The FSA area has manholes that can be uncovered to divert clean runoff to the stormwater retention area north of the feed storage area. The runoff control system was constructed with plan approval and appears to meet permit requirements.
007	Feedlot/Outdoor Lot & Runoff Collection: Sample point 007 is for the collection of feed lot runoff that is directly land applied and not stored in a waste storage facility at Main Dairy north of the feed storage area. Feedlot runoff is collected from the concrete lot in a concrete box structure. The runoff capture system was modified with the construction of WSF 4 and expansion of the feed storage area. The runoff is now automatically pumped to WSF 4. The waste transfer and pump installation was designed to capture the 25-year 24-hour storm event. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. An engineering evaluation of the feedlot and runoff control system was submitted, and further action may be required, see Schedules section of the permit for details.
008	Main Farm Feedlot/Outdoor Lot & Runoff Control System: Sample point 008 is for visual monitoring and inspection of the concrete feedlot and associated runoff control system located at Main Dairy north of the feed storage area. Feedlot runoff is collected from the concrete lot in a concrete box structure. The runoff capture system was modified with the construction of WSF 4 and expansion of the feed storage area. The runoff is now automatically pumped to WSF 4. The waste transfer and pump installation was designed to capture the 25-year 24-hour storm event. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. An engineering evaluation of the feedlot and runoff control system was submitted, and further action may be required, see Schedules section of the permit for details.

Sample Point Designation For Animal Waste	
Sample Point Number	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
009	Ewald Farm Miscellaneous Solid Manure: Sample point 009 is for solid manure sources that are directly land applied and not stored in a waste storage facility. This includes solid sources such as calf hutch manure, maternity pen bedpack, heifer bedpack, steer manure, etc. Representative samples shall be taken for each manure source type.
010	Ewald Farms Feedlot/Outdoor Lot & Runoff Control System: Sample point 010 is for visual monitoring and inspection of the feedlot and pastures and associated runoff control system located at Ewald Farm. The feedlot at the Ewald Farm currently does not have runoff controls. The use of this lot will change with the completion of the heifer barn. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. An engineering evaluation of the feedlot and runoff control system shall be submitted according to the Schedules section of the permit.
011	WSF-Werch Liquid: Sample point 011 is for liquid waste storage facility Werch (WSF W) located at the Werch Farm. WSF W is a concrete storage located under roof at the east end of the barn. This storage accepts manure and process wastewater from Werch Farm barn. The consistency of waste varies throughout the year. Waste is either land applied in accordance with the farm's nutrient management plan or taken to another waste storage facility.
012	WSF-Werch Solid: Sample point 012 is for solid waste storage facility Werch (WSF W) located at the Werch Farm. WSF W is a concrete storage located under roof at the east end of the barn. This storage accepts manure and process wastewater from Werch Farm barn. The consistency of waste varies throughout the year. Waste is either land applied in accordance with the farm's nutrient management plan or taken to another waste storage facility.
013	Storm Water Runoff Control System: Sample point 013 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes roof gutter and downspout structures, drainage tile systems, grassed waterways and other diversion systems that transport uncontaminated storm water. Proper operation and maintenance is required to keep uncontaminated runoff diverted away from manure and process wastewater handling systems. Weekly inspections are required and shall be recorded according to monitoring program.
014	WSF 5- Pump Room: Sample point 014 is for liquid waste storage facility 5 (WSF 5) located at the Main Dairy. WSF 5 is a 2 wet cell and 1 dry cell liquid-tight concrete storage located just south of WSF 2 on the old stacking lane. The facility acts as a reception and transfer tank from existing transfer lines and WSF 1. The pump room was constructed in 2023 with plan approval. This storage accepts manure and process wastewater from the dairy freestall barns. Waste from the barns will equalize in the 2 wets cells and be pumped to the sand separation building. The wet cells have an overflow notch that will flow into WSF 2. Land application from the Pump Room is only anticipated during maintenance and emergency situations.
015	WSF 6- Sand Separation Facility: Sample point (015) is for liquid waste storage facility 6 (WSF 6) located at the Main Dairy. WSF 6 is a liquid-tight concrete storage located on the west side of WSF 2 and the digester facility. The facility has a capacity of 78,000 gallons and space to store recovered sand under roof for further drying. It was constructed in 2023 with plan approval. This storage accepts manure and process wastewater from the Pump Room. Waste from the Pump Room enters the facility into a 28,000-gallon tank and is then pumped through the sand separation equipment. Two other tanks exist in the sand separation building along with a dry well, Sand Separation East Tank for wash water and Sand Separation West Tank for discharge to the digester holding tank. The east and west tank are coupled together for

Sample Point Designation For Animal Waste	
Sample Point Number	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
	water transfer. From the discharge tank waste is pumped to the 50,000-gallon holding tank before being pumped to the digester for processing. During the proposed expansion this facility will be expanded with a second sand separation unit on the opposite end of the building, mirroring the current system. The second unit will except waste and process wastewater from the proposed freestall barn and new rotary milking parlor. Once sand has been removed from the waste it will be transferred to the digester for processing. Land application from the Sand Separation facility is only anticipated during maintenance and emergency situations. See Schedules section for due dates.
016	WSF 7- Digester Facility: Sample point 016 is for liquid waste storage facility 7 (WSF 7) located at the Main Dairy. WSF 7 is a liquid-tight concrete, with epoxy coated carbon steel sections and stainless-steel gas space storage located between the sand separation facility and WSF 2. The facility has a capacity of 2.5 million gallons and was constructed in 2023 with plan approval. This storage accepts manure and process wastewater from 50,000 gallon holding tank from the sand separation facility. Land application from the digester tank is only anticipated during maintenance and emergency situations. The digester and Renewable Natural Gas (RNG) facility is operated by a third party, Novilla RNG. Trillium Hill and Novilla RNG have entered into an agreement on the operation, maintenance, and responsibilities of the facilities and structures covered under Trillium Hill Farms’ WPDES Permit.
017	WSF 8- Rotary Parlor and Barn Flush Flume System: Sample point 017 is for the liquid waste storage facilities reception tanks, and transfer associated with the proposed rotary parlor and proposed free stall barn. The proposed facilities will be completed in 2025 and will require plan and specification approval. The current plan is for the installation of two reception tanks. The west reception tank between the parlor and freestall barn would receive parlor waste, and act as a holding tank for the flush flume system. A second reception tank is proposed at the east end of the proposed freestall barn to collect waste and facilitate the transfer to the sand separation facility (sample point 015). See Schedules section for due dates.
018	WSF FSA: Sample point 018 is for liquid waste storage facility for the feed storage area runoff collection (WSF FSA) located at the Main Dairy. WSF FSA is a liquid-tight concrete storage reception tank located north of the feed storage area (FSA). The facility has a capacity of 10,000 gallons, the capacity to pump a 25-year 24-hour storm event and was constructed in 2021. WSF FSA accepts leachate and process wastewater from the feed storage area that was further expanded in 2024 with plan approval. WSF FSA constructed with plan approval and appears to meet permit requirements.

1 Livestock Operations - Proposed Operation and Management

Production Area Discharge Limitations

Beginning on the effective date of the permit, the permittee may not discharge pollutants from the operation’s production area (e.g., manure storage areas, outdoor animal lots, composting and leachate containment systems, milking center wastewater treatment/containment systems, raw material storage areas) to navigable waters, except in the event a 25-year, 24-hour rainfall event (or greater) causes the discharge from a structure which is properly designed and maintained to contain a 25-year, 24-hour rainfall event for this location as determined under s. NR 243.04. If an allowable discharge occurs from the production area, state water quality standards may not be exceeded.

Runoff Control

The permit requires control of contaminated runoff from all elements of the production area to prevent a discharge of pollutants to navigable waters in accordance with the Production Area Discharge Limitations and to comply with surface water quality standards and groundwater standards. Beginning on the effective date of this permit, (if needed) interim measures shall be implemented to prevent discharges of pollutants to navigable waters. In addition, permanent runoff control system(s) shall be designed, operated and maintained in accordance with the requirements found in USDA Natural Resources Conservation Service standards and ch. NR 243, Wis. Adm. Code. If any upgrading or modifications to runoff controls are necessary, formal engineering plans and specifications must be submitted to the Department for approval.

Manure and Process Wastewater Storage

The permit requires the operation to have adequate storage for manure and process wastewater and that storage or containment facilities are designed, operated and maintained to prevent overflows and discharges to waters of the state. In order to prevent overflows, the permittee must maintain levels of materials in liquid storage or containment facilities at or below certain levels including a one foot margin of safety that can never be exceeded. If any upgrading or modifications to the storage facilities are necessary, formal engineering plans and specifications must be submitted to the Department for approval.

The permittee currently has approximately 407 days of storage for liquid manure, and a proposed 182 days of storage with the proposed expansion. The permittee must maintain 180 days of storage, unless temporary reductions in required storage are approved by the Department.

Solid Manure Stacking

The operation has proposed to stack solid manure. All stacking of solid manure shall be done in accordance with ch. NR 243, Wis. Adm. Code, which includes restrictions from NRCS Standard 313. Stacking of manure is considered to be part of the production area and is subject to the Production Area Discharge Limitations.

Ancillary Service and Storage Areas

The permittee shall take preventative maintenance actions and conduct visual inspections to minimize pollutant discharges from areas of the operation that are not part of the production area or land application areas. These areas are called ancillary service and storage areas and include access roads, shipping and receiving areas, maintenance areas, refuse piles and CAFO outdoor vegetated areas.

Nutrient Management

With 3,184.5 animal units. (2,050 milking & dry cows, 95 heifers up to 1200 lbs, 200 heifers up to 800 lbs and 450 dairy/beef calves), it is estimated that approximately 28,482,166 gallons of manure and process wastewater will be produced per year. The permittee owns *approximately* 1,265.2 acres of cropland and rents about 4,374.6 acres. Given the rotation commonly used by the permittee, 5,477 acres are available (or open) to receive manure and process wastewater on an annual basis. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

The permittee is required to implement a number of practices to address potential water quality impacts associated with the land application of manure and process wastewater. Among the permit conditions are restrictions on manure ponding, restrictions on runoff of manure and process wastewater from cropped fields, and setbacks from wells and direct conduits to groundwater (e.g., sinkholes, fractured bedrock at the surface). In addition, the permittee must implement a phosphorus based nutrient management plan that addresses phosphorus delivery to surface waters by basing manure and process

wastewater applications on soil test phosphorus levels or the Wisconsin Phosphorus index. Additional phosphorus application restrictions apply to fields that are high in soil test phosphorus (>100 ppm).

The permittee must also implement conservation practices when applying manure near navigable waters and their conduits, referred to as the Surface Water Quality Management Area (SWQMA). These practices include a 100-foot setback from navigable waters and their conduits, a 35-foot vegetated buffer adjacent to the navigable water or conduit, or a practice that provides equivalent pollutant reductions equivalent to or better than the 100-foot setback.

In addition, the permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure ($\geq 12\%$ solids) on frozen or snow-covered ground during February and March, non-emergency surface applications of liquid manure (<12%) on frozen or snow-covered ground are prohibited.

Monitoring and Sampling Requirements

The permittee must submit a monitoring and inspection program that outlines how the permittee will conduct self-inspections to determine compliance with permit conditions. These self-inspections include visual inspections of water lines, diversion devices, storage and containment structures and other parts of the production area. The permit requires periodic inspections and calibrations of landspreading equipment. The permittee must take corrective actions to problems identified inspections or otherwise notify the Department. Samples of manure, process wastewater and soils receiving land applied materials from the operation must also be collected and analyzed.

Sampling Points

The permit identifies the different sources of land applied materials (e.g., manure storage facilities, milking centers, egg-washing facilities) as “Sampling Points.” For these Sampling Points, the permittee is required to sample and analyze the different sources for nutrients and other parameters which serve as the basis for determining rates of application for these materials. Other areas are also identified as Sampling Points as a means of identifying them as areas requiring action by the permittee, such as an upgrade or evaluation of a certain system or structure (e.g., runoff control systems), even though sampling is not actually required.

1.1 Sample Point Number: 001- WSF 1; 002- WSF 2; 003- WSF 3; 004- WSF 4; 007- MainFarm Lot Runoff Collection; 011- WSF-Werch Liquid; 014- WSF 5- Pump Room; 015- WSF 6- Sand Separation Fac.; 016- WSF 7- Digester Facility; 017- WSF 8- Parlor Flume System, and 018- WSF FSA

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lb/1000gal	2/Month	Grab	
Nitrogen, Available		lb/1000gal	2/Month	Calculated	
Phosphorus, Total		lb/1000gal	2/Month	Grab	
Phosphorus, Available		lb/1000gal	2/Month	Calculated	
Solids, Total		Percent	2/Month	Grab	

1.1.1 Changes from Previous Permit

Descriptions were changes to reflect the proposed modification Sample Points 004, 006, 007, 008, and 015.

Sample points 017 and 018 were added. Sample point 017 was constructed with plan approval during the permit term. Sample point 018 is proposed for the planned expansion.

1.1.2 Explanation of Operation and Management Requirements

Waste shall be sample, stored, and land applied according to permit and nutrient management plan requirements per s. NR 243, Wis. Admin. Code

1.2 Sample Point Number: 005- Main Dairy MISC Solids; 009- Ewald MISC Solids; 012- WSF-Werch Solid

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lbs/ton	Quarterly	Grab	
Nitrogen, Available		lbs/ton	Quarterly	Calculated	
Phosphorus, Total		lbs/ton	Quarterly	Grab	
Phosphorus, Available		lbs/ton	Quarterly	Calculated	
Solids, Total		Percent	Quarterly	Grab	

1.2.1 Changes from Previous Permit

No changes were made.

1.2.2 Explanation of Operation and Management Requirements

Waste shall be sample, stored, and land applied according to permit and nutrient management plan requirements per s. NR 243, Wis. Admin. Code

1.3 Sample Point Number: 006- Feed Storage Runoff Controls; 008- Main Farm Lot Runoff Controls; 010- Ewald Farm Runoff Controls, and 013- Storm Water Systems

1.3.1 Changes from Previous Permit

Descriptions were changes to reflect the proposed modification Sample Points 004, 006, 007, 008, and 015.

1.3.2 Explanation of Operation and Management Requirements

Runoff controls should be visually monitored per the farms monitoring and inspection program and in accordance to s. NR 243, Wis. Admin. Code.

2 Schedules

2.1 Monitoring & Inspection Program

Use of the department’s monitoring and inspection program template is encouraged, but optional.

Required Action	Due Date
Proposed Monitoring and Inspection Program: Consistent with the monitoring and sampling requirements subsection, the permittee shall update and submit a proposed monitoring and inspection program within 30 days of the effective date of this permit.	03/01/2025

2.2 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: The permittee shall update and submit an emergency response plan within 30 days of the effective date of this permit.	03/01/2025

2.3 Nutrient Management Plan

Submit annual nutrient management plan (NMP) updates by March 31 of each year. Note, in addition to annual NMP updates, submit NMP amendments and substantial revisions to the department for written approval prior to implementation of any changes to the NMP.

Required Action	Due Date
Updates to NMP Submittal: Submit any necessary updates to the Nutrient Management Plan to meet the conditions outlined in this permit (see conditions in the Livestock Operational and Sampling Requirements section), to include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/01/2025
Management Plan Annual Update #1: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2025
Management Plan Annual Update #2: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2026
Management Plan Annual Update #3: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2027
Management Plan Annual Update #4: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2028
Management Plan Annual Update #5: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2029
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed, to include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	

2.4 Annual Reports

Submit annual reports by January 31 of each year in accordance with the annual reports subsection in standard requirements.

Required Action	Due Date
Submit Annual Report #1: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025	01/31/2026
Submit Annual Report #2: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025	01/31/2027
Submit Annual Report #3: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025	01/31/2028
Submit Annual Report #4: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025	01/31/2029
Submit Annual Report #5: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025	01/31/2030
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	

2.5 Parlor Flume Manure Storage Facility - Installation

Required Action	Due Date
Plans and Specifications: Submit plans and specifications for the rotary parlor holding tank, flush flume system, manure storage facility, and associated transfers for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code. See Standard Requirements for plan content information.	03/01/2025
Complete Installation: Complete construction of the manure storage facility. The facility shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.	03/01/2026

2.6 Sand Separation Facility- Installation

Required Action	Due Date
Plans and Specifications: Submit plans and specifications for the additional sand separation facility, manure storage facility, and associated transfers for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code. See Standard Requirements for plan content information.	03/01/2025
Complete Installation: Complete construction of the manure storage facility. The facility shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.	03/01/2026

2.7 Main Dairy Feed Lot Runoff Control System - Engineering Evaluation

Further actions maybe needed after department review of submitted engineering evaluation R-2024-0288

Required Action	Due Date
Plans and Specifications: If needed submit plans and specifications for Department review and approval to permanently correct any adverse runoff control conditions in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code.	03/01/2027
Corrections and Post Construction Documentation: If needed complete construction of runoff controls that permanently correct any adverse runoff control conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.	03/01/2028

2.8 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	07/01/2029

2.9 Explanation of Schedules

Schedules are included in the permit to ensure compliance with s. NR 243, Wis. Admin. Code, requirements.

Most of the Schedule items are typical for a large dairy facility like this one. The schedules contained in 2.1, 2.2, 2.3, 2.4, and 2.8 are standard permit schedules.

Schedule Section 2.5 was included for the construction of the proposed parlor reception tank and flush flume system for the new parlor and freestall barn.

Schedule Section 2.6 was included for the construction of the second sand separation unit to accommodate the new freestall barn and proposed expansion.

Schedule Section 2.7 was included for any follow up action regarding the evaluation that was submitted for review. The lot was modified to include a pump and permanent transfer line to WSF 4. This modification was done with plan approval, calculations were not included for the capture of the 25-year 24-hour storm event. These calculations were included in the evaluation. Actions are pending the department review.

Other Comments

None

Attachments

Inspection report with Map(s)- June 13, 2024

Nutrient Management Plan Approval Letter(s)- November 19, 2024

Days of Storage Review- November 15, 2024

Plan and Specification Approval: Feed Storage Area- July 11, 2024

Public Notice

Justification Of Any Waivers From Permit Application Requirements

NA

Prepared By: Eric Struck Agricultural Runoff Management Specialist

Date: December 9, 2024



July 26, 2024

Michael Jones
Trillium Hill Farms LLC
N8273 County Road F
Berlin WI 54923

WPDES Permit No. WI-0066923-01-1
Green Lake County

Subject: Notice of Noncompliance and Inspection Report Summary

Dear Mr. Jones:

The Department of Natural Resources (department) has reason to believe that Trillium Hill Farms LLC is in noncompliance with its Wisconsin Pollution Discharge Elimination System Permit No. WI-0066923-01-1 that became effective on November 1, 2021 and was modified on October 1, 2023. Trillium Hill Farms LLC Main Farm is located at N8257 County Road F, Berlin, WI 54923. Based on findings during permit requirements and inspection on June 13, 2024, the department believes the facility is not complying with the following permit conditions.

1. **Permit Section 2.8- Runoff Control System** - Engineering Evaluation- Main Lot: submit an engineering evaluation of the storage facility by June 1, 2022. Plans and specifications for potential upgrades to this facility is also due by December 1, 2023. Corrections and post construction due December 1, 2023

As of today, the department has not received the items listed above. Discussions about the lots ability to meet the permit discharge limitations were had during the discussion. With the improvements and previous expansion, a permanent pump and transfer line was installed to pump waste to WSF 4. The department still requires the evaluation of the lot including its ability to collect up to a 25-year 24-hour rain event. During the inspection Mr. Jones called the engineering firm and asked why they could do the survey and evaluation. On July 10 Mr. Jones and Mr. Struck spoke and Mr. Jones stated the survey work had been done and asked if anything had been submitted. **Please provide a date for a complete submittal to address permit schedule item 2.8 by August 16, 2024.** Please understand that you are in noncompliance and will remain in noncompliance until you take all necessary actions to address noncompliance issues listed above. Failure to respond in a timely manner may result in escalated enforcement actions.

Attached you will also find a copy of the inspection report from the department's reissuance inspection on June 13, 2024. Please review the attached site inspection report. The end of the report summarizes areas of concern, action items, and possible schedule items for the modified permit.

The department review staff will be in communication with the farm and consultants during the review process and a draft permit will be shared with farm prior to reissuance.

If you have any questions regarding this letter, inspection report, or permit requirements, please contact me at (608) 422-1512 or eric.struck@wisconsin.gov.

Sincerely,

A handwritten signature in black ink that reads "Eric J. Struck". The signature is written in a cursive style with a loop at the end of the last name.

Eric J. Struck
Agricultural Runoff Management Specialist – Bureau of Watershed Management
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road, Fitchburg, WI 53711
Cell: (608)-422-1512
eric.struck@wisconsin.gov

Attachments: Inspection report September 5, 2023

CC: Laura Bub, Falon French, James Salscheider(WDNR)
Andrew Skwor (MSA)
Brittany Newman (Country Visions COOP)
Todd Morris (Green Lake County)

CAFO Compliance Report July 26, 2024



Inspection Date: June 13, 2024

Inspection Type: Permit Modification

Operation Name: Trillium Hill Farms

WPDES Permit No. WI-0066923-01-1

Operation Address: Main Dairy, N8273 County Road F, Berlin, WI 54923

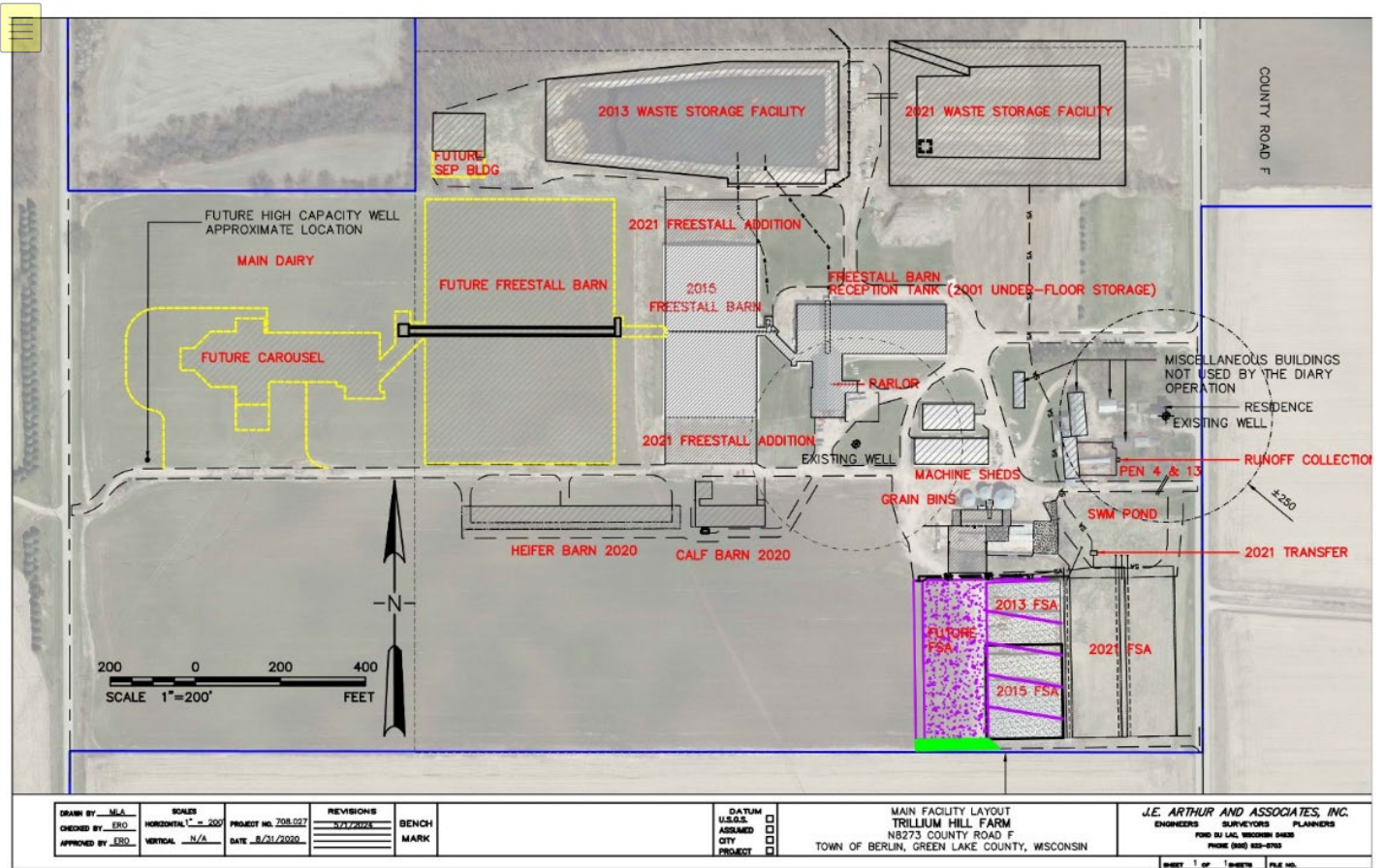
County: Green Lake

On-Site Representative(s): Michael Jones- Trillium Hill Farms LLC

DNR Staff / Report Writer: Hannah Davidson (Writer)
Sonya Ponzi (Intake Specialist)
Eric Struck (WDNR CAFO Specialist/writer)

On June 13, 2024 Eric Struck, Sonya Ponzi, and Hannah Davidson of the Wisconsin Department of Natural Resources (WDNR) met with Michael Jones of Trillium Hill Farms LLC (Trillium Hill Farms) for a Wisconsin Pollutant Discharge Elimination System (WPDES) Permit modification inspection. The inspection began at 11am and ended around 1pm. The weather the day of the inspection was cloudy with a temperature around 80F. Little to no rain had fallen in the area 2 weeks prior to the visit. Around 0.2 inches of rain had fallen the morning of the inspection. No water samples were taken during the visit.

Trillium Hill Farms Main Dairy Site consist of 2 dairy freestall barns, milking parlor, calf barn, heifer barn, 1 outdoor animal lot with runoff collection, feed storage area, and 4 waste storage facilities. Trillium Hill Farms has recently completed construction of a new calf barn with a waste storage facility, heifer barn, manure digester, and sand separation system with pump house. The feed storage area located at the Main Dairy Site is planned to be expanded during the permit term for the increased herd size. Additionally, a second sand separation system is to be installed to service the new free stall barn. Trillium Hill Farms has started earth moving for the expanded feed storage area at the time of the inspection. The fill being moved was from the previous constructed waste storage facility. The feed storage plans and specification were approved on July 11, 2024.



Map 1 Main Dairy site at Trillium Hill Farms, from application document set.

SITE OBSERVATIONS

Feedlot Runoff

Feedlot areas are managed to not have current or past indicators of discharges. Feedlot runoff control systems are well-maintained, in good repair and in compliance with permit requirements.

The Main Dairy Site has one outdoor lot located on the east side of the production area northeast of the current feed storage area. The outdoor lot appeared to be in good condition during the time of the inspection. The outdoor lot has a runoff control structure that contains all the runoff. The outdoor lot consists of a collection tank, retaining walls, and manual pump system. The waste in the collection tank is transferred to waste storage facility 2 (WSF 2) or is directly land applied. This lot required an evaluation during the permit term. Since the permit was issued a permanent transfer line was installed. Confirmation that the lot meets permit requirements is still required.



Photo #:	IMG 2182	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Eastern side of outdoor feedlot facing north.
Description:	Outdoor feedlot with runoff collection tank in background.		



Photo #:	IMG 2181	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Southern end of outdoor feed lot facing north
Description:	Cows in outdoor feed lot with curb and fencing installed.		



Photo #:	IMG_2183	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Outdoor feedlot runoff collection tank.
Description:	Outdoor feedlot runoff collection tank. Pumps directly to waste storage facility 4.		

Calf Hutch Areas

Calf hutch areas are managed to not have current or past indicators of discharges. Runoff control systems are well-maintained, in good repair and in compliance with permit requirements.

Calves are housed in the newly (2020) constructed calf barn. Liquid waste gravity flows into a precast holding tank (WSF 3) and is manually pumped for land application or transferred to WSF 2. Calves are moved from the calf barn to the recently constructed heifer barn to the west of the calf barn. The Ewald site has been abandoned and calves have been moved to the new heifer barn.



Photo #:	IMG 2201	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Calf hutch barn.
Description:	Calf hutch barn.		



Photo #:	IMG 2202	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Calf hutch barn.
Description:	Calf hutch barn.		



Photo #:	IMG_2205	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	East end of heifer barn.
Description:	Berm at doorway to contain waste within barn.		

Waste Storage Facilities

Solid and liquid waste storage facilities are managed to not have current or past indicators of discharges (includes headland stacking sites).

Solid and liquid waste storage structures are well-maintained, in good repair, and in compliance with permit requirements.

Liquid waste storage facilities have permanent markers installed.

Trillium Hill Farm has four main waste storage facilities and three other sample point waste storage facilities that act as transfers and sand separation and storage. Waste from the barns is augured to a central channel. Then, waste from the east freestall barn enters WSF 1 and then WSF 5 (Pump Room). Waste from the west freestall barn is also transferred to WSF 5. From WSF 5 the waste is transferred to the sand separation facility (WSF 6). The removed and cleaned sand is stored underroof before it is reused as bedding. The remaining waste is then transferred to the digester (WSF 7). The digester is operated by a third party for natural gas production. After passing through the digester the waste is transferred to WSF 2, and then to WSF 4. Solid manure is stacked on the apron of the WSF 2 prior to land application. The expansion will include another freestall barn to the west with a manure transfer channel to a second sand separation facility.

WSF 1 is a 103,224-gallon concrete under floor storage constructed in 2001. WSF 1 is located on the western end of the eastern freestall barn. This facility receives waste from the freestall barn above and milking parlor waste. WSF 1 currently acts as a reception pit. Manure and process wastewater is transferred from WSF 1 to WSF 2 via pipeline. WSF 1 was not physically observed during the inspection since it is located under barn.

WSF 2 is a concrete lined waste storage facility constructed in 2013 with a capacity of 9,890,500 gallons. WSF 2 is located north of the freestall barns. WSF 2 receives waste from WSF 1 and the western freestall barn via pipelines. Solids produced by the farm are stacked on the ramp of WSF 2 at the western end. Clean sand is currently being stored on the south side of WSF 2. This area was designed to drain in to WSF 2. WSF 2 appeared in good condition. No permanent markers were observed during the

inspection. Struck discussed potential options for permanent markers he has seen at other operations. Michael Jones said he uses a tape measure and chart to calculate volumes for monitoring. It was discussed including this process in the updated monitoring and inspection program.

WSF 3 is a concrete Wieser reception tank located on the south side of the newly constructed calf barn, south of the western freestall barn. The tank has a capacity of 10,182 gallons. Waste from the calf barn gravity flows through manholes to WSF 3. WSF 3 is manually pumped and either directly land applied according to the NMP or transferred to WSF 2.

WSF 4 is a concrete lined waste storage facility constructed in 2022 with a MOL capacity of 20.46 million gallons. WSF 4 is located east of WSF 2 on the north side of the production area. WSF 4 receives waste from the feed storage area runoff controls, the outdoor animal lot, and WSF 2. WSF 4 was built with plan approval and markers were observed on the ramp on the north side of the storage.



Photo #:	IMG_2204	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Waste storage facility 3 outside calf barn.
Description:	Waste storage facility 3 collection tank outside calf barn.		



Photo #:	IMG 2203	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Waste storage facility 3 outside calf barn.
Description:	Waste storage facility 3 outside calf barn.		



Photo #:	IMG 2207	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Freestall barn.
Description:	Freestall barn with under barn manure storage.		



Photo #:	IMG 2208	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Freestall barn.
Description:	Freestall barn with augered manure channel in barn.		



Photo #:	IMG 2209	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Southern end of waste storage facility 2 facing NE.
Description:	Pump house outside waste storage facility.		



Photo #:	IMG_2211	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Southern end of waste storage facility 2 facing north.
Description:	Waste storage facility 2. Temporary transfer line for milk house waste to sand separation.		



Photo #:	IMG_2214	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Southwest corner of waste storage facility facing north.
Description:	Clean outs associated with waste storage facility.		



Photo #:	IMG_2216	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Southwest corner of waste storage facility 2 facing north.
Description:	Solids stacked in waste storage facility 2.		



Photo #:	IMG_2217	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Southwest end of waste storage facility 2 facing north.
Description:	Solids stacked near waste storage facility 2.		



Photo #:	IMG_2218	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Outside sand separation building facing north.
Description:	Pumping mechanics outside sand separation building and digester.		



Photo #:	IMG_2220	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Sand separation building.
Description:	Sand separation system.		



Photo #:	IMG 2221	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Sand separation building.
Description:	Pumps for sand separation system.		



Photo #:	IMG 2222	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Sand separation building.
Description:	Electronics associated with sand separation system.		



Photo #:	IMG 2224	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Sand separation building.
Description:	Sand separation stacks with clean sand.		



Photo #:	IMG 2225	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Sand separation building.
Description:	Stacks of separated sand drying for future use.		



Photo #:	IMG_2226	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Sand separation building.
Description:	Runoff from sand separation stacks. Contained on concrete pad and under roof with floor drain collection		



Photo #:	IMG_2227	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Near waste storage facility 2.
Description:	Depth log and marker location for waste storage facilities.		



Photo #:	IMG 2228	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Southeast end of waste storage facility 2 facing northwest.
Description:	Waste storage facility 2 pump equipment.		



Photo #:	IMG 2229	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Southeast end of waste storage facility 2 facing northwest.
Description:	Waste storage facility 2.		



Photo #:	IMG 2230	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Southeast end of waste storage facility 2 facing northwest.
Description:	Waste storage facility 2 with pump house, digester, and sand separation system in background.		



Photo #:	IMG 2231	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Western end of waste storage facility 4 facing north.
Description:	Waste storage facility 4 with perimeter fencing installed.		



Photo #:	IMG_2232	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Western end of waste storage facility 4 facing east.
Description:	Waste storage facility. Transfer line with leachate from outdoor lot on southern edge.		



Photo #:	IMG_2236	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Northwestern end of waste storage facility facing NE.
Description:	Waste storage facility with depth markers installed.		



Photo #:	IMG_2237	Date/Time:	
Photo taken by:	E. Struck	Photo Location	Near waste storage facility 4 facing south.
Description:	Pump equipment in background for manure transfer.		

Process Wastewater (other than feed storage area leachate/runoff)

Process wastewater sources (milking center, wash water, etc.) are managed to not have current or past indicators of discharges.

Process wastewater from the parlor is directed to the reception tank of the eastern freestall barn, WSF 1. It is then transferred to WSF 2. Process water from the calf barn is collected in a reception tank, WSF 3, and is manually pumped for land application or transferred to WSF 2.

Currently process wastewater from the parlor is being used for the sand separation facility to help with the washing of separated sand. Currently the farm is using temporary tank and transfer hoses. The goal is to reuse the water from the parlor and have better efficiency within the sand separation facility. If the parlor wash water helps with efficiency, a permanent transfer line from the new parlor would be included with the plans and specifications of new parlor transfer lines.



Photo #:	IMG_2184	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Stormwater collection area facing east.
Description:	Stormwater collection area with drain outlets in background.		



Photo #:	IMG 2185	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Stormwater collection area facing northeast.
Description:	Stormwater collection area and clean water discharge. Feed storage area in background.		



Photo #:	IMG 2192	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Storm water collection area facing north.
Description:	Storm water collection pump.		

Feed Storage Area Runoff

Feed storage areas and associated process wastewater (leachate, runoff) are managed to not have current or past indicators of discharges.

Feed storage areas and runoff control systems are well-maintained, in good repair and in compliance with permit requirements.

Trillium Hill recently completed a new feed storage area that utilizes clean water discharges to avoid capturing rainwater off the covered feed piles and from the empty feed storage areas. The perimeter of the feed has channels that collect leachate and runoff from the feed storage area. The feed pad also has manhole drains that, when uncovered, allow clean water to be diverted from collection and discharge to the stormwater retention area, north of the feed storage area. The leachate and wastewater is collected in a reception tank and is pumped to WSF 4. The expanded feed storage area will mirror the current feed pad; the old feed pad will also have collection points and diversion installed. The expanded feed storage area will utilize the same transfers that are existing. When feed is stacked on the feed storage area the manholes are covered with solid sealing covers. The plastic covering is then stretched to the outer manholes so that the precipitation that falls on the covered feed is diverted as stormwater. The feed leachate is collected in the channels either under the plastic or when the feed is being fed out.



Photo #:	IMG 2187	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Northern end of feed storage area facing south.
Description:	Runoff collection drain around perimeter of feed storage area.		



Photo #:	IMG_2188	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Northern end of feed storage area facing south.
Description:	Runoff collection drain around perimeter of feed storage area.		



Photo #:	IMG_2180	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Feed storage expansion area facing south.
Description:	Feed storage expansion area.		



Photo #:	IMG 2190	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Northern end of feed storage area facing west.
Description:	Feed storage area with drain in foreground. Drains to clean water diversion area.		



Photo #:	IMG 2191	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Northern end of feed storage area facing south.
Description:	Feed storage area with runoff collection drains in background.		



Photo #:	IMG 2194	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Northern end of feed storage area facing south.
Description:	Feed storage area with perimeter drain in background.		



Photo #:	IMG 2195	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Northern end of feed storage area facing south.
Description:	Existing feed storage area that will be modified for clean water diversion.		



Photo #:	IMG 2196	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Northern end of feed storage expansion area facing west.
Description:	Feed storage expansion area.		



Photo #:	IMG 2197	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Northern end of feed storage expansion area facing south
Description:	Feed storage expansion area.		

Animal Mortality Disposal

Animal mortalities are managed to not have current or past indicators of discharges.
Animal Mortalities are picked up by a rendering company as needed.

Ancillary Service Areas

Preventative maintenance actions and visual inspections are occurring to minimize pollutant discharges from ancillary service and storage areas (i.e. storm water conveyance systems, driveways, etc.).
Management practices are implemented to sustain sufficient vegetative cover on CAFO outdoor vegetated areas.

Storm water diversions appeared to be in good condition and clear of debris and waste.

Feed outside for the feed lane at the Werch farm should be removed and stored in the appropriate location or land applied according to the farms approved management plan.



Photo #:	IMG_2239	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Wrech Farm.
Description:	Old feed at end of driveway that needs to be removed.		



Photo #:	IMG 2189	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Northern end of feed storage area.



Photo #:	IMG 2193	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Northern end of feed storage area facing northwest.
Description:	Dry commodities shed.		



Photo #:	IMG_2198	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Western end of dry commodities shed facing north.
Description:	Dumpsters containing feed storage plastic.		



Photo #:	IMG_2199	Date/Time:	06/13/2024
Photo taken by:	E. Struck	Photo Location	Driveway outside calf hutch barn facing west.
Description:	Culvert free of debris.		

RECORDS REVIEW

The permittee has current WPDES Permit and Nutrient Management Plan onsite.

The permittee provided complete production site inspection records that are required to be retained.

The permittee provided adequate documentation that the facility has a minimum of 180 days of liquid manure storage capacity.

The permittee provided land application records to demonstrate compliance with nutrient management plan requirements.

The permittee has copies of their emergency response and monitoring and inspection plans onsite.

The permittee is not up to date on required reporting and actions as specified in the Schedules section of permit.

SUMMARY

Areas of Concern

- Excess and waste feed outside of the feed lane at the Werch Farm site.

Permit Violations Alleged Noncompliance

- Failure to meet permit schedule section 2.8 Runoff Control System - Engineering Evaluation-Main Lot

Action Items

- Clean up waste feed at Werch Farm Site
- Submit an evaluation to meet permit schedule section 2.8
- Submit plans and specification for new waste transfers and sand separation building prior to 90 days of construction.

Items for Next Permit Term

- Schedule section for the construction of new sample points including transfer, reception tanks, and sand separation units.



November 19th, 2024

Green Lake County
Approval

Mike Jones
Trillium Hill Farms
N8273 County Road F
Berlin, WI 54923

SUBJECT: Conditional Approval of Trillium Hill Farms Nutrient Management Plan, WPDES Permit No. 0066923-02-0

Dear Mike Jones:

After completing a review of Trillium Hill Farms 2025-2029 Nutrient Management Plan (NMP) the Wisconsin Department of Natural Resources (Department) is providing conditional approval that it is consistent with Nutrient Management Requirements in s. NR 243, Wis. Adm. Code. This part of your WPDES permit application is now ready for the public notice and comment process as required by Ch. 283 Stats.

Before applying manure onto approved fields each season, the Department recommends Trillium Hill Farms review the NMP with those individuals involved with manure applications to ensure all remain familiar with the approved manure spreading protocol, spreading maps, field and map verification, record keeping requirements, and all the conditions of this approval. Specifically, some fields in Trillium Hill Farms may have:

- Soils that may have bedrock or groundwater within 24 inches of surface,
- Multiple setback areas due to streams, conduits to streams, grassed waterways, wetlands or wells, and
- Evidence of possible soil erosion/flow channels. Note: road ditches or other man-made channels may be considered flow channels or conduits to navigable water and may be subject to a SWQMA and setback.

Reviewing the NMP and checking fields for these features and soil conditions prior to manure applications will help Trillium Hill Farms maintain compliance with their WPDES permit and Ch. NR 243 requirements.

FINDINGS OF FACT

The Department confirms that:

1. A current dairy herd size of 3,184.5 animal units (2,050 milking & dry cows, 295 heifers, and 450 calves). A planned herd size of 7,812.5 animal units (5,200 milking & dry cows, 525 heifers, and 900 calves) by 2026.
2. Manure generation and spreading records indicate your herd will annually generate approximately 28,482,166 gallons of manure and process wastewater and 0 tons of solid manure in the first year of the permit term. By the year 2026, your herd is projected to annually generated approximately 63,708,049 gallons of manure and process wastewater.
3. The use of application restriction options 1 and 5 within surface water quality management areas.
4. The use of phosphorus delivery method P Index.

5. That Trillium Hill Farms currently has 5,639.8 acres (1,265.2 owned and 4,374.6 controlled through contracts, rental agreements or leases, or under manure agreements) of which 5,477 are spreadable acres.
6. That some fields included in the NMP are directly adjacent to or have high potential to deliver nutrients and sediment to Puchyan River (listed 303(d) impaired water by ‘unknown pollutant’), Unnamed (North Tributary to Silver Creek) (listed 303(d) impaired water by ‘total phosphorus’, ‘sediment/total suspended solids’).
7. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters.
8. That 2 fields are tiled.
 - 001-014 Lower Krebs
 - 001-030 Ripon S
9. That all fields will be checked for the following features prior to/during manure or process wastewater applications: soil areas with possible shallow groundwater (i.e., within 24 inches of surface) at the time of manure application; required setbacks associated with wells, navigable waters, conduits to navigable waters, grassed waterways, wetlands, possible soil erosion/flow channels.
10. That surface applications of manure will not be completed when precipitation capable of producing runoff is forecasted within 24 hours of the time of planned application.

CONDITIONAL NUTRIENT MANAGEMENT PLAN APPROVAL

The Department hereby approves the 2025-2029 Trillium Hill Farms Nutrient Management Plan subject to the following conditions and the applicable requirements of Ch. NR 243, Wis. Adm. Code:

FIELD AND MANURE MANAGEMENT

1. Fields not included in the NMP and new fields shall not receive manure or process wastewater applications until they have been properly soil sampled, entered into Snap Plus, evaluated for their nutrient needs, and approved by the Department.
2. The following fields have also been approved to receive industrial, municipal, or septage waste:

Field Name	Other Permittee Name	Other Permittee Field Name	DNR #
003-001 Mike	Hyler Septic Service, LLC, DBA March’s Pumpin	Eagen 1	103086
003-001 Mike E	Hyler Septic Service LLC, DBA March’s Pumpin	Eagen 2	103087

Prior to any manure applications on these fields Trillium Hill Farms shall contact the entities listed above to obtain recent spreading records and make the necessary adjustments to the planned manure application rates. At the end of each year Trillium Hill Farms shall contact each entity listed above to obtain spreading records from the previous year so that they can be properly tracked in the NMP. Please Note: Trillium Hill Farms is responsible for obtaining nutrient content values for all other wastes spread on any field in their NMP.

3. The following fields are prohibited from receiving applications of manure or process wastewater:
 - 009-Dicks (default)
 - 012-Home 2 3 (default)
 - 012-Home 4 5 (default)
 - 012-Home 9 (default)
 - 012-Porter 11 (default)
 - 012-Porter 4-9 (default)
 - 012-Home 10 12 (default)
 - 012-Derleth 2 (default)
 - T012-Home 6 (default)
 - 012-Home SBG (default)
 - 012-Porter 12 13 (default)
 - 012-Resop 1 2 (default)
 - 012-Home 13-16 (default)
 - 012-Home 1 (default)
 - 012-Home 7 (default)
 - 012-Johnson 1 (default)
 - 012-Porter 2 3 (default)
 - 012-Resop 3 (default)

- 012- Smits A (default)
- 012-Wundrow A (default)
- 002-002 (expired)
- 007-Meyer C (expired)
- 012-Home 10 (insufficient sample density)
- 012-Walker D 1 (default)
- 014-Rush Lake N (default)
- 003-L Werch N (expired)
- 007-Meyer D (expired)
- 012-Werch 1(default)
- 014 Rush Lake S (default)
- 007-Meyer AB (default)
- 007-Meyer E (expired)

If Trillium Hill Farms wishes to use these fields for applications of manure or process wastewater all necessary information shall be submitted to the Department prior to application to demonstrate compliance with NR 243 and other applicable codes. Written Department approval amending this condition approval must be received prior to application.

4. If existing fields yield a soil test results equal to or greater than 200 ppm P, those fields would be prohibited from receiving manure or process wastewater applications, unless you obtain Department approval in accordance with NR 243.14(5)(b)2., Wis. Adm. Code.
5. All liquid manure samples collected may be analyzed, at a minimum, for percent dry matter, total nitrogen, percent NH₄-N, percent NO₃-N, phosphorus, potassium, and sulfur.
6. If manure sample results have a dry matter (DM) content less than 2.0% and the percent ammonium (NH₄⁺) is greater than 75% of the total N, Trillium Hill Farms may use the following equation to adjust the first year available nitrogen when applications are injected or incorporated within 1 hour:

$$\text{First-Year Available N} = \text{NH}_4\text{-N} + [0.25 \times (\text{Total N} - \text{NH}_4\text{-N})]$$

7. Trillium Hill Farms shall record daily manure applications by using form 'Trillium Hill Dairy Haul Log' or DNR 3200-123A. These forms shall be retained at the farm and provided to the department upon request.
8. Trillium Hill Farms shall annually submit a spreading report that summarizes the land application activities listed under NR 243.19(3)(c)5., Wis. Adm. Code by using form 'CAFO Annual Spreading Report' as generated by Snap Plus.

WINTER SPREADING

9. Liquid manure applications during winter conditions, as defined by NR 243.14(7), Wis. Adm. Code, are prohibited with the exception of emergency applications.
10. The following field(s) are approved for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:
 - 001-001 Schoolhouse
 - 001-007 North Freestall
 - 001-013 Upper Krebs
 - 001-018 Ewalds
 - 001-023 Lower Sobieski
 - 001-030 Ripon N
 - 001-032 Retzlaff
 - 001-036 Lutes
 - 001-039 Krause
 - 001-042 South 49
 - 001-003 Schoolhouse
 - 001-008 South Freestall
 - 001-016 Malsons
 - 001-019 Upper Sobieski
 - 001-024 Pond Woods
 - 001-030 Ripon S
 - 001-033 Hallman
 - 001-037 Townsend
 - 001-040 Retzlaff NE
 - 001-004 Stevensons
 - 001-009 Werches
 - 001-017 VV
 - 001-022 AA
 - 001-025 Upper Main House
 - 001-031 Retzlaff
 - 001-035 South Krebbs
 - 001-038 Wesner
 - 001-041 Reindle

11. Winter spreading of solid and liquid manure may not occur during the “high risk runoff period” pursuant to s. NR 243.14(6)(c) and NR 243.14(7)(c), respectively.
12. Winter applications of liquid manure shall only occur under emergency situations, after notifying the Department and receiving verbal approval.
13. Liquid applications shall be limited to 3,500 gallons per acre or 30 lbs. P per acre, whichever is less, on slopes 2-6% and 7,000 gallons per acre or 60 lbs. P per acre, whichever is less, on slopes 0-2%. Winter applications of solid manure shall be limited to 60 lbs. P per acre.

HEADLAND STACKING

14. No headland stacking sites are approved. In the future if headland stacking is a practice the farm wishes to utilize, all sites must be submitted to the department for approval prior to use.

MANURE & PROCESS WASTEWATER IRRIGATION

15. Irrigation of manure or process wastewater is prohibited.

SUBMITAL AND RECORDKEEPING REQUIREMENTS

16. A copy of this conditional approval shall be included in all future annual Nutrient Management Plan Updates in addition to the NR 243 and NRCS 590 checklists.
17. A revised custom hauling log is necessary to be updated to reflect all reporting fields required. An updated hauling log template is due by **November 26th, 2024**.

This conditional approval does not limit the Department’s regulatory authority to require NMP revisions (based upon new information or manure irrigation research findings) or request additional information in order to confirm or ensure your farm operation remains in compliance with NR 243 and your WPDES permit conditions. If additional information, project changes or other circumstances indicate a possible need to modify this approval, the Department may ask you to provide further information relating to this activity.

Please keep in mind that approval by the Department of Natural Resources – Runoff Management Program does not relieve you of obligations to meet all other applicable federal, state or local permits, zoning and regulatory requirements.

If you have any questions regarding this approval, I can be reached at 608-212-8460 or Ashley.Scheel@Wisconsin.gov.

Sincerely,



Ashley Scheel, CCA
WDNR Nutrient Management Plan Reviewer
Wisconsin Department of Natural Resources

cc:

Eric Struck, WDNR Agricultural Runoff Management Specialist (Eric.Struck@Wisconsin.gov)

Laura Bub, WDNR Watershed Field Supervisor (Laura.Bub@Wisconsin.gov)

Christopher Clayton, WDNR Runoff Management Section Chief (Christopherr.Clayton@Wisconsin.gov)

Aaron O'Rourke, WDNR Nutrient Management Program Coordinator (Aaron.Orourke@Wisconsin.gov)

Falon French, WDNR Intake Specialist (Falon.French@Wisconsin.gov)

Rob Davis, WDNR CAFO Engineer (Robert.Davis@Wisconsin.gov)

Todd Morris, Green Lake County (Tmorris@Greenlakecountywi.gov)

Eric Redeker, Fond Du Lac County (Eric.Redeker@Fdlco.wi.gov)

Sheila Smith, Winnebago County (Ssmith@Winnebagoountywi.gov)

Todd Schaumberg, Tilth Agronomy (Todd@Tilthag.com)

File



November 15, 2024

FILE REF: R-2024-0115
 WPDES Permit #: WI-0063274

Mike Jones
 Trillium Hill Farms
 N8273 County Road F
 Berlin, WI 54923

Subject: Days of Storage Review for Trillium Hill Farms in T17N, R13E, Section 23, Berlin Township, Green Lake County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Jones:

This letter is to inform you that the Wisconsin Department of Natural Resources (Department) has completed its review of the calculation of days of storage submitted under certification by Eric Otte, P.E., J.E. Arthur and Associates, Inc. on April 18, 2024 with revisions received on November 8, 2024 and November 12, 2024 on behalf of Trillium Hill Farms.

The Department reviewed the submitted calculations in accordance with ss. NR 243.14(9) and NR 243.15(3)(i) to (k), Wis. Adm. Code. Under s. NR 243.17(3)(c), Wis. Adm. Code, the permittee shall demonstrate compliance with the 180-day design storage capacity requirement at specified times. For the following liquid manure storage calculations, the Department has determined **no additional actions** on your part are required.

Days of Available Liquid Waste Storage: The submitted information states that Trillium Hill Farms currently has 407 days of liquid waste storage based on the volumes listed in the table below with respect to s. NR 243.15(3)(i) to (k), Wis. Adm. Code. The current number of animal units provided for the calculation is 3,184. The farm is planning to expand to 7,813 animal units which will bring the liquid waste storage to 182 days. Both current and proposed volumes are provided below. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values. The liquid waste volumes are based upon a collection period of 365 days. There is full collection of leachate and contaminated runoff from the 25-yr, 24-hr storm event for feed storage areas. The runoff collection system has a clean water diversion. The collection will be limited to the section of the feed pad that will have an exposed face, which should be the only contaminated runoff that is produced from the FSA. All other water will be considered clean and will not be transferred to the East WSF. Full collection of runoff from the 25-yr, 24-hr storm is also collected from the stacking pad adjacent to the West WSF.

Existing Conditions (3,184 AU) – 407 Days of Storage

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding:	18,317,782
Parlor Wastewater:	5,373,165
Total Feed Storage Leachate:	342,823
Total Feed Storage Runoff Collected:	485,351
Net Precipitation on Storage Surfaces:	3,812,082
Stacking Pad Runoff Collected:	150,963
Total Liquid Waste Stored Below the MOL:	28,482,166

Total Liquid Waste Storage Capacity (Gallons)						
Waste Storage	Total Volume from Top to Bottom	-Remaining Solids	-25-yr, 24-hr Precipitation on Storage	-25-yr, 24-hr Collected Runoff	-Freeboard Volume	Max. Operating Level (MOL) Volume
West	9,890,500	165,237	323,457	22,989	826,671	8,552,146
East	25,571,973	347,427	542,242	72,522	1,394,778	23,215,004
Total MOL Volume:						31,767,150

Proposed Conditions (7,813 AU) – 182 Days of Storage

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding:	45,265,829
Parlor Wastewater:	13,651,000
Total Feed Storage Leachate:	342,823
Total Feed Storage Runoff Collected:	485,351
Net Precipitation on Storage Surfaces:	3,812,082
Stacking Pad Runoff Collected:	150,963
Total Liquid Waste Stored Below the MOL:	63,708,048

Total Liquid Waste Storage Capacity (Gallons)						
Waste Storage	Total Volume from Top to Bottom	-Remaining Solids	-25-yr, 24-hr Precipitation on Storage	-25-yr, 24-hr Collected Runoff	-Freeboard Volume	Max. Operating Level (MOL) Volume
West	9,890,500	165,237	323,457	22,989	826,671	8,552,146
East	25,571,973	347,427	542,242	72,522	1,394,778	23,215,004
Total MOL Volume:						31,767,150

Should you have any questions, please contact Rob Davis, DNR Madison office or your regional CAFO Specialist.

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to WIS. STAT. §§ 227.52 and 227.53, you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to WIS. STAT. § 227.42, you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with WIS. ADMIN. CODE § NR 2.05(5), and served on the Secretary in accordance with WIS. ADMIN. CODE § NR 2.03. The filing of a request for a contested case hearing does not extend the 30-day period for filing a petition for judicial review.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES



Bernie Michaud, P.E.
CAFO Engineer Supervisor
Watershed Management Program

Email: Mike Jones; Trillium Hill Farms
(920) 896-3528; trilliumhillfarm01@gmail.com

Eric Otte, P.E.; J.E. Arthur and Associates, Inc.
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Matt Woodrow, P.E.; DATCP
(920) 427-8505; matthew.woodrow@wisconsin.gov

Todd Morris; Green Lake County
(920) 294-4052; tmorris@greenlakecountywi.gov



Rob Davis, P.E.
CAFO Review Engineer
Watershed Management Program

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Laura Bub; DNR, South Central Region
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Rob Davis, P.E.; DNR, Central Office
(608) 225-2720; Robert.Davis@wisconsin.gov

Ashley Scheel; DNR, Central Office
(608) 261-6419; ashley.scheel@wisconsin.gov



July 11, 2024

FILE REF: R-2024-0102
WPDES Permit #: WI-0063274

Mike Jones
Trillium Hill Farms
N8257 County Road F
Berlin, WI 54923

Subject: Conditional Approval of Plans & Specifications for a Proposed Feed Pad Expansion, Waste Transfer System, Runoff Controls, and Clean Water Diversion at Trillium Hill Farms in T17N, R13E, Section 23, Berlin Township, Green Lake County

Dear Mr. Jones:

This letter is to inform you that the Wisconsin Department of Natural Resources (Department) has reviewed and conditionally approves the above referenced plans and specifications, submitted under certification by Eric Otte, P.E., J.E. Arthur and Associates, Inc. and received on April 18, 2024 with a complete submittal date of May 13, 2024. Revisions were received on July 3, 2024 and July 9, 2024. The review was conducted in accordance with s. 281.41, Wis. Stats., chs. NR 151 and NR 243, Wis. Adm. Code, and applicable NRCS Standards. The attached engineering report describes the project, lists standards that apply and provides compliance analysis. Questions may be directed to the assigned regional staff or the review engineer Rob Davis (contact information is at the end of this letter).

Proposed Project: The proposed project includes the following facilities that are reviewable under s. NR 243.15, Wis. Adm. Code: Proposed Feed Pad Expansion, Waste Transfer System, Runoff Controls, and Clean Water Diversion.

Conditions of Approval: The plans and specifications for project number R-2024-0102 are hereby approved and subject to chs. NR 151 and NR 243, Wis. Adm. Code, and the conditions listed below:

- Revisions:** If revisions are made to the approved plans and specifications, revised plans and specifications shall be submitted for approval modification, in accordance with ss. NR 108.03 and NR 108.04, Wis. Adm. Code, and s. 281.41(1)(c), Wis. Stats. Submit revised plans and specifications via the Department's e-Permitting System. Note: This includes revisions for local permitting. If a formal approval modification may not be warranted, contact the review engineer to confirm.
- Approval Period:** In accordance with ss. NR 243.15(1)(a)1., and NR 108.04(2)d., Wis. Adm. Code, if construction is not commenced within 2 years from the approval date, the approval is void, and a new approval must be obtained prior to commencing construction.
- Notification:** Prior to construction and when construction is complete, notify the Department's regional contact and county contact provided a copy of the approval (contact information is at the end of this letter).
- Inspection:** During the construction of critical components, inspection shall be performed by a Wisconsin registered professional engineer or other qualified third party (excludes the owner and construction contractor and their employees).
- Post-Construction Documentation:** In accordance with the permit, a post-construction report must be submitted to the DNR's e-Permitting website (<http://dnr.wi.gov/permits/water>) within 60 days of completing construction. The report must include documentation specified by s. NR 243.15(10), Wis. Adm. Code.

Limitation of Approval: The Department reserves the right to order changes or additions should conditions arise making this necessary. This approval is not to be construed as a determination on the issuance of a Wisconsin Pollutant Discharge Elimination System Permit or opinion as to the ability of the proposed system to comply with effluent limitations in such a permit, approval of an Environmental

Impact Statement that may be prepared, or approval for any activities requiring a permit under chs. 30 or 31, Wis. Stats. Where necessary, plans and specifications should be submitted to the Department of Safety and Professional Services or other state or local agencies to ensure conformance with applicable codes or regulations of such agencies.

Tax Treatment: Tangible personal property, that becomes part of a waste treatment of pollution abatement plant or equipment, may be exempt from sales tax under s. 77.45(26), Wis. Stats. Similarly, property purchased or constructed as a waste treatment facility and used for industrial waste treatment may be exempt from general property taxes under s. 70.11(21), Wis. Stats. A prerequisite to exemption is filing a statement on prescribed forms. To obtain the forms, and information about this sales tax exemption, please contact the Department of Revenue, P.O. Box 8933, Madison, WI 53708, or check their website <http://www.revenue.wi.gov/>.

NOTICE OF APPEAL RIGHTS

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To request a contested case hearing pursuant to WIS. STAT. § 227.42, you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with WIS. ADMIN. CODE § NR 2.05(5), and served on the Secretary in accordance with WIS. ADMIN. CODE § NR 2.03. The filing of a request for a contested case hearing does not extend the 30-day period for filing a petition for judicial review.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Bernie Michaud, P.E.
CAFO Engineer Supervisor
Watershed Management Program

Enclosures: Wisconsin DNR Engineering Report

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Matt Woodrow, P.E.; DATCP
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Paul Gunderson; Green Lake County LCD
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Laura Bub; DNR, South Central Region
(608) 712-5249; Laura.Bub@wisconsin.gov

WISCONSIN DEPARTMENT OF NATURAL RESOURCES ENGINEERING REPORT

GENERAL INFORMATION

Farm Name: Trillium Hill Farms

WPDES Permit#: WI-0063274

Location Address: N8257 County Road F, Berlin

DNR Project #: R-2024-0102

Engineering Plans Certified by:

Initial Submittal:

Revised Submittal(s):

Eric Otte, P.E.

April 18, 2024 submittal

July 3, 2024

May 13, 2024 complete

July 9, 2024

Site Assessment: Geographical features of the site include soils that are Plano silt loam. The nearest stream is approximately 2,250 ft to the north and is intermittent in nature. The nearest wetland is approximately 2,700 ft to the east of the proposed construction area. Clean runoff will be diverted around waste handling areas to existing waterways. No karst features are known to exist within 1,000 ft of the proposed facilities or systems. No ground water supply wells are located within 250 feet of the proposed facilities or systems.

Soil investigations were performed in April of 2015 and June of 2015 consisting of 19 soil borings near the proposed project area. Specifically, 5 of the soil borings are relevant for this proposed project, which found the primary subsoils consist of silty clay (CL), sandy clay (CL), and gravelly loamy sand (SP). Bedrock was not found. Saturation was not found.

PROJECT SUMMARY: The proposed project will have an expansion to the west side of the existing feed pad which will have a clean water diversion to reduce the volume of contaminated runoff that is sent to long term storage. The system will divert clean water to an existing stormwater facility. The existing feed storage area will also be retrofit with the same clean water diversion system as the proposed new feed pad. The existing feed pad clean water diversion was previously approved by DNR Project R-2021-0167 but has not yet been constructed. The same plan that was previously approved is included in this submittal for construction with the proposed feed pad expansion. All clean and contaminated runoff will be directed to existing infrastructure (existing reception tank for contaminated runoff and existing

Proposed Facilities:

Waste Transfer System: The proposed design was submitted to meet with NRCS Standard 634 (11/22). The design is compliant with s. NR 243.15(4), Wis. Adm. Code.

- The leachate trench drain along the westerly edge of the proposed feed pad expansion will be 12 inch wide x 21.5 inch high with 8 inch thick reinforced concrete walls and 8 inch thick reinforced concrete floor. The trench drain will gravity flow to the proposed waste transfer pipe.
- The trench drain will gravity drain north and collect in a manhole and gravity flow via approximately 253 ft of 12" HDPE gravity drain to connect to existing waste transfer pipe to the existing Wieser Tank. From the existing reception tank, the contaminated runoff is pumped to long term storage. Pipe and tank sizing calculations were provided.

Feed Storage: The proposed design was submitted to meet with NRCS Standard 561, Table 4 (11/22). The design is compliant with s. NR 243.15(9), Wis. Adm. Code. The proposed feed pad expansion will be located immediately west of the existing feed storage area. Below is a summary of what is proposed.

- The proposed rectangular feed storage pad expansion will be 370 ft x 150 ft with a 6 inch thick working surface. The feed pad was designed for heavy vehicle loading.
- The feed pad's working surface will be constructed with steel reinforced concrete.
- The proposed feed pad will connect to the existing feed pad along the western edge of the existing pad.
- The proposed feed pad expansion will be tied to the existing concrete feed pad by drilling and epoxying rebar into the existing slab and applying hydrophilic sealant following the NRCS standard detail.

- The proposed feed pad will be divided into 5 individual ‘watersheds’ by constructing high points and low points in the concrete. The high points in the concrete will keep the leachate and runoff in each area to minimize clean water directed to the WSF.
- A trench drain will be added to the west side of the proposed feed pad to collect leachate and contaminated runoff.
- The design allows for the separation and management of clean stormwater and contaminated runoff by use of solid or grated manhole covers depending on which feed bays contain feed.
- The manholes covers are Neenah R-1916-D, which are liquid tight.
- Each newly created feed bay is treated as its own small watershed that conveys runoff to a designated set of manholes (1 manhole system is for clean water; the trench drain system is for contaminated runoff). 5 isolated areas are proposed.
- Contaminated runoff is conveyed to the East Pit and clean water is conveyed to the stormwater management pond which is immediately adjacent to the existing feed storage pad to the northeast.
- When a feed bay contains feed and in use, the solid manhole cover will close entry to the clean water conveyance system. The trench drain collects runoff to enter the contaminated runoff conveyance system.
- When a feed bay is empty, it is first thoroughly cleaned, then the manhole covers are switched to a grated manhole cover and clean water is diverted to the stormwater management pond.
- The concrete slopes upward very slightly from the FSA to the trench drain. This is to minimize clean water entering the trench drain and keep it out of the WSF. The concrete slope creates leachate pooling. The leachate enters the trench drain when it gets deep enough to get over the slope. The owner recognizes that pooling leachate may impact the bottom layer of feed. The pooling leachate does not create a concern to the consultant for leakage into the liquid tight manhole. They recognize that the leachate may impact the life of the seal for the manhole lid and inspecting the seal is addressed in the O&M plan.
- O&M plan is provided for the proposed system.

Clean Water Diversion for Existing Feed Storage Area and Feed Storage Modification: The proposed design was submitted to meet with NRCS Standard 561 (11/22). The design is in compliance with s. NR 243.15(9), Wis. Adm. Code. Below is a summary of what is proposed.

- The existing FSA will be modified with the addition of drive over concrete curbs added to allow for separation of clean stormwater and contaminated runoff. The curbs will be added by sawcutting, drilling and epoxying rebar into the existing slab, and applying hydrophilic sealant following the NRCS standard detail. The curbs on the existing feed pad will connect to the high point on the proposed pad and become part of those individual ‘watersheds’.

DAYS OF AVAILABLE LIQUID WASTE STORAGE: The submitted information states that Trillium Hill Farms will have 182 days of liquid waste storage based on the volumes listed in the table below with respect to s. NR 243.15(3)(i) to (k), Wis. Adm. Code. The farm is currently working through an expansion. With the expansion, the number of animal units provided for the calculation is 7,813. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values and based upon a collection period of 365 days. With the proposed clean water diversion on the existing FSA and on the proposed FSA, the 25-yr, 24-hr contaminated runoff from the FSA will be collected. The collection will be limited to the section of the feed pad that will have an exposed face, which should be the only contaminated runoff that is produced from the FSA. All other water will be considered clean and will not be transferred to the East WSF. Full collection of runoff from the 25-yr, 24-hr storm is also collected from the stacking pad adjacent to the West WSF.

Waste Storage	Total Volume	Solids Storage	25-yr, 24-hr Precipitation on Storage	25-yr, 24-hr Collected Runoff	Freeboard Volume	Max. Operating Level (MOL) Volume
West	9,890,500	165,237	323,457	22,989	826,671	8,552,146

East	25,571,973	347,427	542,242	72,522	1,394,778	23,215,004
Total MOL Volume:						31,767,150
Days of Storage:						182

Manure and Bedding:	45,265,829 gallons
Parlor Wastewater:	13,651,000 gallons
Total Feed Storage Leachate:	342,823 gallons
Total Feed Storage Runoff Collected:	485,351 gallons
Net Precipitation on Storage Surfaces:	3,812,082 gallons
Stacking Pad Runoff Collected:	153,848 gallons
Total Liquid Waste Stored Below the MOL:	63,710,933 gallons

PURPOSE OF THIS REPORT: This report documents review of plans and specifications for each structure or practice indicated below, including findings regarding the structure or practice’s compliance with applicable standards. The reviewer considered if management and site assessment were conducted, documented, and reflected in the final design, and if proper construction and related plans (operation and maintenance, inspection, erosion control if applicable) were provided, and demonstrated compliance with applicable rules standards.

REVIEW COMMENTS:

- It is proposed in the project’s approved operation and maintenance (O&M) plan that after a section of the feed pad is empty of feed, the area will be well cleaned as described in the O&M before the clean water diversion is implemented. It can be reasonably expected that the runoff from the feed pad will not discharge pollutants to navigable water under such conditions. The O&M plan has additional measures and in total, the practices in the O&M plan and the proposed runoff collection system construction can be reasonably expected to prevent contaminated runoff from the feed pad from reaching navigable water.
- Without following the O&M plan in full, there may be conditions under which contaminated runoff from the feed bunker could reach navigable waters. If such conditions occur, full collection of runoff from the feed pad may be necessary to prevent discharges of pollutants to navigable water as required by the WPDES permit.

DECISION RECOMMENDATION: Based on my review completed on July 5, 2024, the proposed plans and specifications meet ch. NR 243, Wis. Adm. Code, and applicable NRCS Standards. Therefore, I recommend the plans and specifications be approved.



Rob Davis, P.E.
Water Resources Engineer

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

PUBLIC NOTICE OF AVAILABILITY OF A NUTRIENT MANAGEMENT PLAN AND INTENT TO REISSUE A WISCONSIN POLLUTANT DISCHARGE ELIMINATION SYSTEM (WPDES) PERMIT No. WI-0066923-02-0

Permittee: Trillium Hill Farms, N8273 County Rd F, Berlin, WI, 54923

Facility Where Discharge Occurs: Main Dairy, N8257 County Road F, Berlin, WI, 54923, NE ¼ of SW ¼, Section 23 T17N R13E; Ewald Calf Farm, W1099 County Road V, Berlin, WI, 54923, NW ¼ of NE ¼, Section 22 T17N R13E; Werch Heifer Farm, N8570 County Road F, Berlin, WI, 54923, SW ¼ of SE ¼, Section 14 T17N R13E

Receiving Water And Location: Surface water and groundwater within the **Puchyan River- Fox River Watershed**

Brief Facility DTrillium Hill Farm Inc. is an existing Concentrated Animal Feeding Operation (CAFO). Trillium Hill Farm Inc. is owned and operated by the Jones Family. The farm currently has 3,184.5 animal units. (2,050 milking & dry cows, 95 heifers up to 1200 lbs, 200 heifers up to 800 lbs and 450 dairy/beef calves). Trillium Hill Farm Inc. has a total of 5,477 acres available for land application of manure and process wastewater. Of this acreage, 1,265.2 acres are owned, and 4,374.6 acres are rented or controlled through manure agreements. Trillium Hill Farm Inc. has a planned expansion during the proposed permit term. Approximately 28,482,166 gallons of manure and process wastewater will be generated in the first year of the permit term. The farm has a proposed 407 days of liquid manure storage and at least 59 days of solid manure storage. The planned expansion has purposed 7,812.5 animal units. (5,200 milking & dry cows, 75 heifers up to 1200 lbs, 450 heifers up to 800 lbs and 900 dairy/beef calves). The expansion will include the construction of a new parlor, freestall barn, expanded feed storage area with runoff controls, and an additional sand separation unit. Approximately 63,708,049 gallons of manure and process wastewater will be generated once fully populated. With the proposed expansion the farm will have a proposed 182 days of liquid storage. The expansion is set to be completed by winter of 2026.

Three facilities are currently covered under Trillium Hill Farm Inc. WPDES Permit. The main dairy site is located at N8257 County Road F, Berlin, WI 54923 and is composed of 3 dairy freestall barns, milking parlor, calf barn, heifer barn, 1 outdoor animal lot with runoff collection, feed storage area, 4 waste storage facilities, sand separation facility, and digester for biogas generation. The farm has an agreement with a third party for the operation for the biogas RNG facility, this agreement covers the responsibilities associated with the transfer and supply of manure, management, and other permit requirements. The Ewald farm is located at W1099 County Road V, Berlin, WI 54923 and is composed of one outdoor feedlot with barn and a pasture area. The third site, Werch Farm, is located at N8570 County Road F, Berlin, WI 54923 and is composed of one animal barn and one waste storage facility. Trillium Hill Farm Inc. has submitted an application for reissuance of their Wisconsin Pollutant Discharge Elimination System (WPDES) permit. The application is complete, and the facility has been determined to be in substantial compliance. This application was received early and in leu of a permit modification for the proposed expansion. This will be the second permit reissuance for this facility. Trillium Hill Farm Inc. has an approved Nutrient Management Plan (NMP) that is written according to WPDES permit and Chapter NR 243 Wis. Adm. Code requirements. Trillium Hill Farm Inc. was also found to have at least 180 days of liquid manure storage.

The Department has tentatively decided that the above specified WPDES permit should be reissued.

Permit Drafter's Name, Address, Phone and Email: Eric Struck, WDNR, 141 NW Barstow Street, Suite 180, Waukesha, WI, 53188-3789, (608) 422-1512, Eric.Struck@wisconsin.gov

Persons wishing to comment on or object to the proposed permit action, the terms of the nutrient management plan, or the application, or to request a public informational hearing may write to the Department of Natural Resources at the permit drafter's address. All comments or suggestions received no later than 30 days after the publication date of this public notice will be considered along with other information on file in making a final decision regarding the permit. Anyone providing comments in response to this public notice will receive a notification of the Department's final decision when the permit is re-issued. Where designated as a reviewable surface water discharge permit, the U.S. Environmental Protection Agency is allowed up to 90 days to submit comments or objections regarding this permit determination. If no comments are received on the proposed permit from anyone, including U.S. EPA, the permit will be re-issued as proposed.

The Department may schedule a public informational hearing if within 30 days of the public date of this notice, a request for a hearing is filed by any person. The Department shall schedule a public informational hearing if a petition requesting a hearing is received from USEPA or from 5 or more persons or if the Department determines there is significant public interest. Requests for a public informational hearing shall state the following: the name and address of the person(s) requesting the hearing; the interest in the proposed permit of the person(s) requesting the hearing; the reasons for the request; and the issues proposed to be considered at the hearing.

Information on file for this permit action, including the draft permit and fact sheet (if required), the operation's nutrient management plan and application may be inspected and copied at the permit drafter's office, Monday through Friday (except holidays), between 9:00 a.m. and 3:30 p.m. Please call the permit drafter for directions to

their office location, if necessary. Information on this permit action may also be obtained by calling the permit drafter at (608) 422-1512 or by writing to the Department. Reasonable costs (15 cents per page for copies and 7 cents per page for scanning) will be charged for information in the file other than the public notice and fact sheet. Permit information is also available on the internet at: <http://dnr.wi.gov/topic/wastewater/PublicNotices.html>. Pursuant to the Americans with Disabilities Act, reasonable accommodation, including the provision of informational material in an alternative format, will be made to qualified individuals upon request.

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