

# Permit Fact Sheet

## General Information

Permit Number	WI-0063983-04-0
Permittee Name and Address	Hilltop Dairy LLC N477 County Road Q, Markesan WI 53946
Permitted Facility Name and Address	Hilltop Dairy LLC N477 County Road Q Markesan
Permit Term	April 01, 2025 to March 31, 2030
Discharge Location	N477 County Road Q, Markesan, WI, 53946; Green Lake County WI, Town of Mackford, NE ¼ of NE ¼ Sec. 35 T14N R13E
Stream Classification	303d South Branch Rock River
Discharge Type	Existing

<b>Animal Units</b>					
<b>Animal Type</b>	<b>Current AU</b>		<b>Proposed AU</b> (Note: If all zeroes, expansions are not expected during permit term)		
	<b>Mixed</b>	<b>Individual</b>	<b>Mixed</b>	<b>Individual</b>	<b>Date of Proposed Expansion</b>
Dairy Calves (under 400 lbs.)	32	0	0	0	
Milking and Dry Cows	1715	1752	0	0	
Heifers (800 lbs. to 1200 lbs.)	83	75	0	0	
<b>Total</b>	<b>1830</b>	<b>1752</b>	<b>0</b>	<b>0</b>	

## Facility Description

Hilltop Dairy LLC is an existing Concentrated Animal Feeding Operation (CAFO). Hilltop Dairy LLC is owned and operated by the Greenfield family. The farm currently has 1,830 animal units. (1,225 milking & dry cows, 75 heifers up to 1200 lbs, and 160 dairy/beef calves). Hilltop Dairy LLC has a total of 3,318.8 acres available for land application of manure and process wastewater. Of this acreage, 611 acres are owned, and 2,638 acres are rented or controlled through manure agreements. Approximately 20,335,893 gallons of manure and process wastewater and 400 tons of solid manure in the first year of the permit term. The farm has a proposed 318 days of liquid manure storage and at least 59 days of solid manure storage. The farm had been considering a proposed expansion, those plans are currently on hold. If future expansion plans develop the farm may be required to submit a permit modification.

One facility is currently covered under Hilltop Dairy LLC WPDES Permit. The main dairy site is located at N477 County Road Q, Markesan, WI 54946 and is composed of 1 dairy freestall barns, milking parlor, calf barn, feed storage area, and

one, 3 stage waste storage facilities. The farm plans to construct runoff controls for the feed storage area with a waste storage facility.

Hilltop Dairy LLC 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 will be the first permit reissuance for this facility. Hilltop Dairy LLC has an approved Nutrient Management Plan (NMP) that is written according to WPDES permit and Chapter NR 243 Wis. Adm. Code

## Substantial Compliance Determination

### Enforcement During Last Permit:

- A Notice of Noncompliance (NON) was issued on February 28, 2024 for failure to meet permit schedule section 2.5 for the evaluation for runoff control system. Plans and specifications were submitted on December 8, 2024. The proposed schedule section has the completion of construction on October 1, 2025. The enforcement action will remain up until the completion of the installation and submittal of post construction documentation. The NON with inspection report is attached.

After a desk top review of all compliance schedule items and permit application materials, and a site visit on September 5, 2023, this facility has been found to be in substantial compliance with their current permit.

Compliance determination made by Eric Struck on February 13, 2025.

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- North Cell) located at the Hilltop Dairy LLC. WSF 1 is a liquid-tight concrete storage located west of the main freestall barn and north of the main cell (WSF 2). The facility has a capacity of 1.54 million gallons and was modified in 2015. This storage accepts manure and process wastewater from the main barn and acts as a settling basin. WSF 1 was last evaluated in 2008 and met permit requirements and was modified with plan approval.
002	Settled Solid Manure: Sample point 002 is for and manure solids removed from bottom of liquid waste storage facilities (WSF 1 [Sample Point 001], WSF 2 [Sample Point 003], and WSF 3 [Sample Point 004]). This includes manure-laden sand solids, manure fiber solids, etc. Representative samples shall be taken from each waste storage facility during land application.
003	WSF 2: Sample point 003 is for liquid waste storage facility 2 (WSF 2- Main Middle Cell) located at the Hilltop Dairy LLC. WSF 2 is a liquid-tight concrete storage located west of the main freestall barn and in the middle of north and south settling cells (WSF 1 and WSF 3). The facility has a capacity of 14.9 million gallons and was constructed in 2016. This storage accepts manure and process wastewater from the main barn, WSF 1 and WSF 3 settling basins, and the feed storage area. WSF 2 was last evaluated in 2016 and met permit requirements.
004	Miscellaneous Solid Manure: Sample point (004) 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.
006	WSF 3: Sample point 006 is for liquid waste storage facility 3 (WSF 3- South Cell) located at the Hilltop Dairy LLC. WSF 3 is a liquid-tight concrete storage located west of the main freestall barn and south of

<b>Sample Point Designation For Animal Waste</b>	
<b>Sample Point Number</b>	<b>Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)</b>
	the main cell (WSF 2). The facility has a capacity of 1.23 million gallons and was constructed in 2016. This storage accepts manure and process wastewater from the main barn and acts as a settling basin. WSF 3 was last evaluated in 2016 and met permit requirements.
008	Feed Storage Area & Runoff Control System: Sample point (008) is for visual monitoring and inspection of the feed storage area and associated runoff control system located at Hilltop Dairy LLC. This includes the feed pad runoff collection basing, transfer lines, spreader bar, and vegetated treatment area. Runoff is collected in WSF 4 at the southeast corner of the feed storage area. Two pumps will automatically pump collected runoff to WSF 2. The storage should remain empty to ensure the collection of the 25-year 24-hour storm event. Proper operation and maintenance is required to ensure discharges of process wastewater to waters of the state do not occur. Weekly inspections are required and shall be recorded according to monitoring program. Plans and specifications have been submitted to the department, see Schedules section of the permit for details.
009	Storm Water Runoff Control System: Sample point (009) 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.
010	Headland Stacking Solids: Sample point (010) is for solid manure stacked in approved headland stacking locations. Representative samples shall be taken of this manure prior to land application. Note: Headland stacking sites are subject to production site discharge limitations; weekly visual monitoring is required during use of stacking sites to ensure discharges meet permit requirements.
011	WSF 4: Sample point 011 is for liquid waste storage facility 4 (WSF 4- FSA Collection) located at the Hilltop Dairy LLC. WSF 4 will be a concrete lined storage located south of the southeast corner of the feed storage area. The facility will have a capacity of 364,793 gallons to capture the 25-year 24-hour storm event and will be constructed in 2025. This storage accepts manure and process wastewater from feed storage area and is pumped to WSF 2. Plans and specifications have been submitted to the department, see Schedules section of the permit for details.

# 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 318 days of storage for liquid manure. 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 1,830 animal units (1,225 milking & dry cows, 75 heifers up to 1200 lbs, and 160 dairy/beef calves) it is estimated that approximately 20,335,893 gallons of liquid manure and 400 tons of solid manure and process wastewater will be produced per year. The permittee owns *approximately* 611 acres of cropland and rents about 2,638 acres. Given the rotation commonly used by the permittee, 3,3138.8 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- North Cell; 003- WSF 2- Middle Cell; 006- WSF 3- South Cell, and 011- WSF 4- FSA Collection**

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**

Sample points 001, 003, and 006 had the descriptions updated to better describe the facilities and current operations.

Sample Point 011 was added for waste storage facility installation for the feed storage area runoff controls. The existing structure will be updated to contain the 25-year 24-hour storm event

**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: 002- Settled Solid Manure; 004- Miscellaneous Solid Manure, and 010- Headland Stacking Solids**

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**

Sample points 002, 004, and 010 had the descriptions updated to better describe the facilities and current operations.

**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: 008- Feed Storage Runoff Control and 009- Storm Water Runoff System**

**1.3.1 Changes from Previous Permit**

Sample point 008 had the description updated to better describe the facilities and current operations.

**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.	04/30/2025

## 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.	04/30/2025

## 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).	04/30/2025
Submit NMP 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.	03/31/2026
Submit NMP 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.	03/31/2027
Submit NMP 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.	03/31/2028
Submit NMP 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.	03/31/2029
Submit NMP 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.	03/31/2030
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 31st 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 3400-025E.	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 3400-025E.	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 3400-025E.	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 3400-025E.	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 3400-025E.	01/31/2030
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed, to include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	

## 2.5 Runoff Control System - WSF 4 Installation

Plans and Specifications were received by the department on December 8, 2024 (R-2024-294). Pending department review further information may be required prior to approval.

Required Action	Due Date
Plans and Specifications: If needed submit updated plans and specifications or requested information based on department review for the permanent feed storage area runoff control system 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.	
Complete Installation: Complete construction of runoff control system. System 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.	10/01/2025

## 2.6 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	10/01/2029

## 2.7 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 2.6 are standard permit schedules.

Schedule Section 2.5 is for the installation of improved runoff controls for the feed storage area. The current basin will be expanded, and the bypass will be closed. The waste storage facility will have the capacity to collect up to a 25-year 24-hour storm event. The completed construction will close the NON that was issued.

## Other Comments



None

## **Attachments**

Inspection Report with Site Map(s)- Notice of Noncompliance and Inspection Report, February 28, 2024

Nutrient Management Plan Approval Letter(s)- January 24, 2025

Days of Storage Review- January 14, 2025

Public Notice

## **Justification Of Any Waivers From Permit Application Requirements**

No waivers requested or granted as part of this permit reissuance.

**Prepared By: Eric Struck      Agricultural Runoff Management Specialist**

**Date: February 13, 2025**

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-0063983-04-0

Permittee: Hilltop Dairy LLC, N477 Cty Rd Q, Markesan, WI, 53946

Facility Where Discharge Occurs: Hilltop Dairy LLC, N477 County Road Q, Markesan, WI, 53946; Green Lake County WI, Town of Mackford, NE ¼ of NE ¼ Sec. 35 T14N R13E

Receiving Water And Location: Surface water and groundwater within the South Branch Rock River Watersheds

Brief Facility Description : Hilltop Dairy LLC is an existing Concentrated Animal Feeding Operation (CAFO). Hilltop Dairy LLC is owned and operated by the Greenfield family. The farm currently has 1,830 animal units. (1,225 milking & dry cows, 75 heifers up to 1200 lbs, and 160 dairy/beef calves). Hilltop Dairy LLC has a total of 3,318.8 acres available for land application of manure and process wastewater. Of this acreage, 611 acres are owned, and 2,638 acres are rented or controlled through manure agreements. Approximately 20,335,893 gallons of manure and process wastewater and 400 tons of solid manure in the first year of the permit term. The farm has a proposed 318 days of liquid manure storage and at least 59 days of solid manure storage. The farm had been considering a proposed expansion, those plans are currently on hold. If future expansion plans develop the farm may be required to submit a permit modification.

One facility is currently covered under Hilltop Dairy LLC WPDES Permit. The main dairy site is located at N477 County Road Q, Markesan, WI 54946 and is composed of 1 dairy freestall barns, milking parlor, calf barn, feed storage area, and one, 3 stage waste storage facilities. The farm plans to construct runoff controls for the feed storage area with a waste storage facility.

Hilltop Dairy LLC 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 will be the first permit reissuance for this facility. Hilltop Dairy LLC has an approved Nutrient Management Plan (NMP) that is written according to WPDES permit and Chapter NR 243 Wis. Adm. Code.

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](mailto: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.

NAME OF PUBLISHING NEWSPAPER: **Enter Name of Publishing Newspaper**

ADDRESS OF PUBLISHING NEWSPAPER: **Enter Address of Publishing Newspaper**

Date Notice Issued: **Enter Date Notice Issued**



February 28, 2024

Loren Greenfield  
Hilltop Dairy LLC  
N477 County Road Q  
Markesan WI 53946

WPDES Permit No. WI-063983-03-0  
Green Lake County

**Subject: Notice of Noncompliance and Inspection Report Summary**

Dear Mr. Greenfield:

The Department of Natural Resources (department) has reason to believe that Hilltop Dairy LLC is in noncompliance with its Wisconsin Pollution Discharge Elimination System Permit No. WI-0063983-03-0 that became effective on January 1, 2020. Hilltop Dairy LLC Main Farm is located at N477 County Road Q, Markesan, WI 53946. Based on findings during permit requirements and inspection on September 5, 2023, the department believes the facility is not complying with the following permit conditions.

1. **Permit Section 2.5- Runoff Control System - Engineering Evaluation-** submit an engineering evaluation of the storage facility by July 1, 2020. Plans and specifications for potential upgrades to this facility is also due by February 1, 2021. Corrections and post construction due July 1, 2021

As of today, the department has not received the items listed above. Discussions about the feed storage area runoff controls have been had through out the permit term. Hilltop Dairy LLC was and has been in communication with the Department through their conversations with different digester companies. The different projects would have addressed the schedule item listed above. During the inspection the farm presented a planned expansion with the addition of a digester, sand separation, and waste storage facility. During this conversation plans for the feed storage area runoff controls were discussed. Subsequent conversations have since taken place. It was decided that **plans and specifications would be submitted with the permit application due June 30, 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 September 5, 2023. Please review the attached site inspection report. Based on the site visit and timeline discussions the only additional item that was identified to be part of the permit application is plans and specification to address permit schedule item 2.5. The end of the report summarizes areas of concern, action items, and possible schedule items for the next permit term. There are several items that will be required within the next permit term.

**The final permit application should be submitted by June 30, 2024.** Permit application materials must be submitted through the ePermitting System located at <http://dnr.wi.gov/permits/water/>. The following is required for a complete permit application:

Permit Application Materials Required for All Operations:

- 3400-025 form (Livestock/Poultry Operation WPDES Permit Application)
- 3400-025A form (Animal Units Calculation Worksheet)
- 3400-025B form (Nutrient Management Plan Checklist)
- 3400-025C form (Reviewable Facilities of Systems Checklist)
- Soil survey map(s) for each site managed by your operation
- Labeled aerial map(s) showing the features and structures located at each site managed by your operation (clearly delineate what is existing and proposed)
- Calculations documenting a minimum of 180 days liquid manure (and process wastewater) storage
- Supporting documentation for 180-day storage calculations
- A complete 5-year Nutrient Management Plan (NMP). If necessary, include a description of permanent spray irrigation systems and any other landspreading or treatment systems (proposed or active)
- **Plans and Specifications to address permit schedule item 2.5- Feed Storage Runoff Controls**
- \*Plans and specifications for reviewable facilities (if proposed)

*\*Note: Plans and specifications must be submitted through the ePermitting system as a separate submittal*

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](mailto:eric.struck@wisconsin.gov).

Sincerely,



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](mailto: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: February 28, 2024**

Inspection Date: September 5, 2023  
Inspection Type: Reissuance  
Operation Name: Hilltop Dairy LLC  
WPDES Permit No. WI-0063983-03  
Operation Address: N477 County Road Q Markesan WI, 53946  
County: Green Lake  
On-Site representatives: Loren Greenfield (owner/operator)  
Brittany Newman (Country Visions Coop/ Crop Consultant)  
Andy Skwor (MSA / Engineer)  
DNR Staff / Report Writers: Eric Struck (WDNR CAFO Specialist /writer)

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On September 05, 2023, Eric Struck met with representatives of Hilltop Dairy LLC to conduct a complete production area inspection for the reissuance of the WPDES permit held by Hilltop Dairy LLC. The operation's permit expires on December 31, 2024, with a reissuance application due on June 30, 2024. Loren Greenfield from Hilltop Dairy LLC, Andrew Skwor from MSA, and Brittany Newman from Country Visions Cooperative were present for the inspection on behalf of the farm. The inspection began around 9 am and concluded at around 11:30 am. The weather the day of the inspection was mostly sunny and dry with temps in the 80's. No rain had fallen in the week prior to the inspection and no water samples were taken.

The farm is considering a substantial expansion during the permit term. The expansion would include sand separation facility and a digester to produce natural gas. The herd is projected to expand to about 2,700 or 2,900 milking and dry cows. A second freestall barn and new parlor would also be included. The feed storage area (FSA) is not currently planned to be expanded but additional feed would be stored on the existing feed storage area.

One permit schedule item is currently outstanding. The permit schedule required an evaluation of the feed storage area and runoff controls. The current feed storage area utilizes a first flush collection and a vegetated treatment area (VTA). In March of 2020, Eric Struck visited the farm and discussed options regarding the runoff controls of the feed storage area. After the March 2020 visit the farm entered into talks about a proposed digester at Hilltop Dairy LLC. This plan would have taken the waste from the feed storage area. Subsequently the talks fell through, and no action was taken on the feed storage area. Hilltop Dairy LLC has been in contact with the department throughout this process. During the reissuance inspection further options were discussed for the feed storage area and inclusion with the current digester talks. Timelines were also discussed; it was decided that plans and specifications for the feed storage area would be included with the permit application at the latest.

Please see the final section of the inspection report for a list of action items, areas of concern, and any additional application materials required for the final WPDES permit application.

## Brief Facility Description

Hilltop Dairy LLC is an existing Concentrated Animal Feeding Operation (CAFO). Hilltop Dairy LLC is owned and operated by the Greenfield family. The farm currently has 1,761 animal units. (1,175 milking & dry cows, 80 heifers up to 1200 lbs, and 140 dairy/beef calves). Hilltop Dairy LLC has a total of 2,768 acres available for land application of manure and process wastewater. Of this acreage, 613 acres are owned, and 2,192 acres are rented or controlled through manure agreements. Hilltop Dairy LLC is considering an expansion during the proposed permit term. Approximately 21,700,344 gallons of manure and process wastewater and 1,713 tons of solid manure in the first year of the permit term. The farm has a proposed 309 days of liquid manure storage and at least 59 days of solid manure storage. The proposed expansion is predicted increase to 4,000 animal units. The expansion will include the construction of a separation facility, digester, possibly a new waste storage facility, freestall barn and parlor.

One facility are currently covered under Hilltop Dairy LLC WPDES Permit. The main dairy site is located at N477 County Road Q, Markesan, WI 54946 and is composed of 1 dairy freestall barns, milking parlor, calf barn, feed storage area, 3 waste storage facilities.



Map 1. Production area map of Hilltop Dairy LLC created by Brenny 2019 Inspection Report

## SITE OBSERVATIONS

### Feedlot Runoff

All animals at Hilltop Dairy LLC are housed underroof.

### Calf Hutch Areas

All calves at Hilltop Dairy LLC are housed in the calf barn before they are taken to a custom grower before returning to calve.



Photo #	1668
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing east southeast at calf barn. Well, freestall and parlor area in background.

### Waste Storage Facilities

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

Solid and liquid waste storage structures are well-maintained and in good repair.

Liquid waste storage facilities have permanent markers installed.

The waste storage facilities act as a two-stage system composed of 3 basins. Manure is manually scaped into the first stage basins (north and south of main large basin) directly from the main barn. Each first stage basin is approximately 1.5 million gallons and the MOL marker is the base of the overflow weir going into the center main basin. The original WSF was expanded from north to south. The first stage basin to the north is the only remaining structure from the original WSF and it was last evaluated in 2008. The expansion of the WSF was completed in 2016. Total MOL volume is 17 million gallons, which currently gives the farm about 309 days of storage. The permanent markers are located on the north side of the wall that separates the main basins from the south first stage basin. The manure from the calf barn and show cattle barn is manually transported to the WSF. No evaluations are being proposed for the waste storage facility at this time.

WSF (1): Sample point (001) is for liquid waste storage facility 1 (WSF 1) located at Hilltop Dairy LLC. WSF (1) is a liquid-tight concrete storage located on the west side of the Main Barn and is the settling cell north of the largest cell (WSF 2). The facility has a capacity of 1.54 million gallons and was modified in 2015. This storage accepts manure and process wastewater from the Main Barn. WSF 1 was last evaluated in 2008 and met permit requirements.

WSF (2): Sample point (003) is for liquid waste storage facility 2 (WSF 2) located at Hilltop Dairy LLC. WSF (2) is a liquid-tight concrete storage located on the west side of the Main Barn and in the middle of the two settling cells. The facility has a capacity of 14.9 million gallons and was constructed in 2016. This storage accepts manure and process wastewater from the Main Barn and feed storage area. WSF (2) was last evaluated in 2016 and met permit requirements.

WSF (3): Sample point (006) is for liquid waste storage facility (3) (WSF 3) located at Hilltop Dairy LLC. WSF (3) is a liquid-tight concrete storage located on the west side of the Main Barn and is the southernmost cell. The facility has a capacity of 1.23 million gallons and was constructed in 2016. This storage accepts manure and process wastewater from the Main Barn. WSF (3) was last evaluated in 2016 and met permit requirements.

Solid manure is stored on the access ramps of the waste storage facilities. The farm does not anticipate using any headland stacking sites.



Photo #	1659
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck
Description: Facing east a the northeast corner of WSF 1, location of transfer lines from milking parlor.	





Photo #	1658
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing east along the north side of WSF 1.



Photo #	1660
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing south from the north side of WSF 1 at wall between WSF 2 and WSF 3. Markers are located on the dividing wall.



Photo #	1664
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Staging area for straw and bedding out side of maternity barn.

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.

The wastewater is transferred from the milk house to the north first stage pool of the WSF via a subsurface transfer line.

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.

The feed storage area gradually slopes to the runoff storage structure, located in the southeast corner of the feed storage area. The collected runoff is then pumped to either the WSF or to the VTA via subsurface transfer lines. The current system was approved in 2015, it was designed to collect the first flush of runoff from the feed storage area. The system captures the first 0.10" of rainfall from the feed storage area. 25% of a 25-year 24-hour storm event is then pumped to the VTA. The remaining runoff is then allowed to bypass the collection facility and is discharged to a stormwater diversion that flows to an unnamed tributary to the South Branch of the Rock River. Permit conditions only allow a discharge after the collection of a 25-year 24-hour storm event. The system was required to be evaluated during the permit term. During the permit term the farm communicated with the department on potential plans for a digester that would have included the waste from the feed storage area. Those plans were never finalized, and no action was taken on the runoff controls evaluation. The VTA was repaired during the permit term and was in good condition at the time of the

inspection. Some areas of erosion in the asphalt along the southern side of the feed storage area was observed and should be repaired to ensure further erosion does not occur.

Several options for the feed storage area were discussed during the inspection. This included clean water diversions, increasing the pumps to pump to the WSFs, and adding an additional waste storage area to collect the 25-year 24-hour storm event. The farm asked if the VTA could still be used. The VTA could still be used during appropriate weather conditions during the growing season, sunny day release. The collected process wastewater could also be spray irrigated according to the farms approved nutrient management plan.

Plans and specifications for the feed storage area runoff controls and collection should be submitted no later than **June 30, 2024**, with the permit application. By that time Hilltop Dairy LLC will have a better understanding of the scope of the expansion and digester project projected to break ground in 2025.

A sample point will be added to the next permit to account for the collection at the feed storage area.



Photo #	1688
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck
Description: Facing east along the north end of the feed storage area. All feed is stored on the feed storage area within collection area.	



Photo #	1685
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing east toward commodity shed on the west end of the feed storage area.



Photo #	1707
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing east along southern end of feed storage area.



Photo #	1709
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing west from the southern side of feed storage area near east end.



Photo #	1710
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing east from southeast corner of feed storage area. Some erosion of feed storage area floor.



Photo #	1713
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing west from southeast corner of feed storage area. Some erosion present in flow path of leachate.



Photo #	1679
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Feed Storage area facing north. Sweet corn silage being stored on feed storage are with leachate flowing to collection.



Photo #	1683
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing south along southern end of feed storage area, flow is contained to the feed storage area.



Photo #	1676
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Leachate and runoff entering collection.



Photo #	1675
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Pump system on southeast corner of feed storage area. One pump for the first collection to be pumped to WSF 2 and the other to pump process wastewater to VTA.



Photo #	1673
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing north at pumps and collection for feed storage area. Collection has a concert floor.





Photo #	1672
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing northwest at the feed storage area collection. To left is a possible area of expansion for another basin to collect the 25-year 24-hour storm event.



Photo #	1670
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Overflow bypass of the feed storage area. Facing west at southern end of storage.



Photo #	1669
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing east at feed storage area runoff collection overflow. Flows to stormwater conveyance system that flows to a concentrated flow path across County Hwy Q.



Photo #	1700
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Transfer pipe at the south end of the VTA spreader bar.



Photo #	1696
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Slots in spreader bar, clear of debris.



Photo #	1694
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: VTA spreader bar facing south.



Photo #	1699
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing west along northern edge of VTA. No channelization or burn out. Repairs and reseeding made from last reissuance inspection.



Photo #	1701
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Facing west along southern edge of VTA.

Animal Mortality Disposal

Animal mortalities are/are not managed to not have current or past indicators of discharges. Red Granite Livestock removal picks up mortalities as needed.

Ancillary Service Areas

Preventative maintenance actions and visual inspections are/are not occurring to minimize pollutant discharges from ancillary service and storage areas (i.e. storm water conveyance systems, driveways, etc.).

Management practices are/are not implemented to sustain sufficient vegetative cover on CAFO outdoor vegetated areas.

Ancillary Service areas such as driveways and stormwater conveyance systems were in good condition and clear of any waste or debris. A discussion was had about the potential of adding an additional well. That well would require to obtain a high capacity well permit from the department. The farm currently has two wells located west and north of the freestall barn.



Photo #	1662
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck
Description: Well located west of the freestall barn and south of the parlor.	



Photo #	1666
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Well located north of parlor and freestall barn.

Summarize records review below

## 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 up to date on required reporting and actions as specified in the Schedules section of permit.

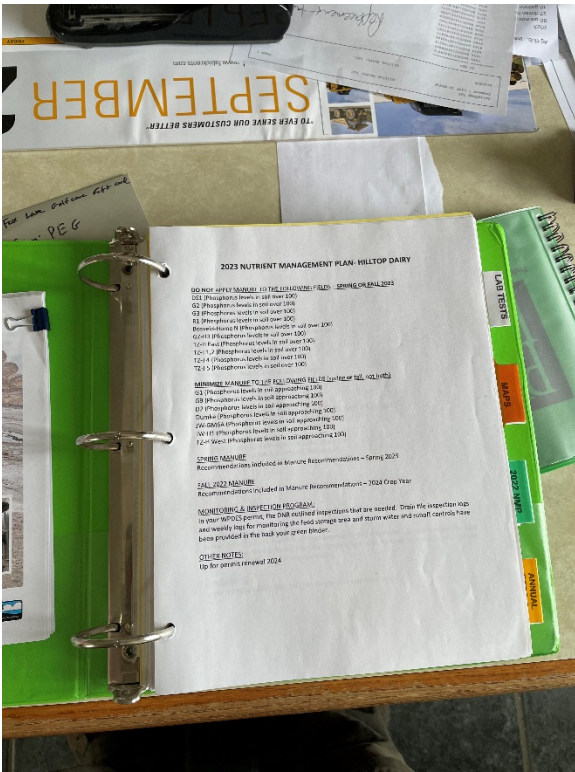


Photo #	1643
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Hilltop Dairy LLC's hard copy of the nutrient management plan (NMP)



Photo #	1644
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Paper copy of the CAFO calendar used to record inspection data.

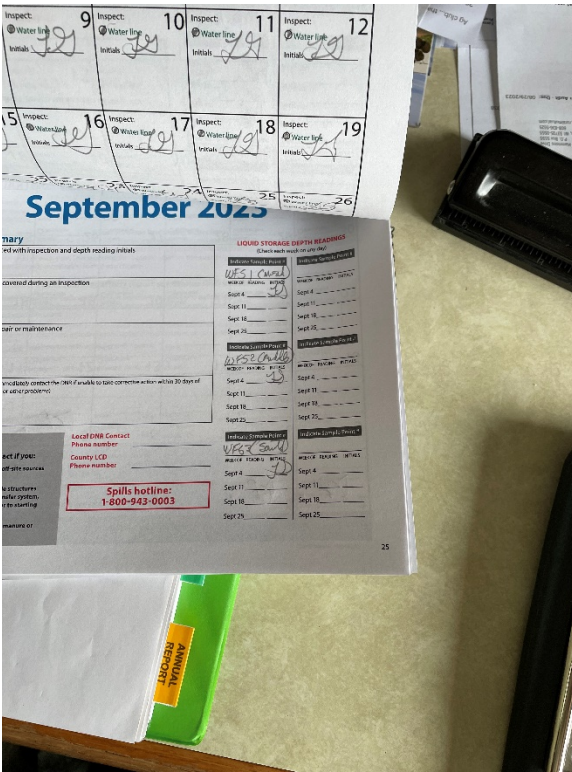


Photo #	1650
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: September CAFO Calendar page up to date.

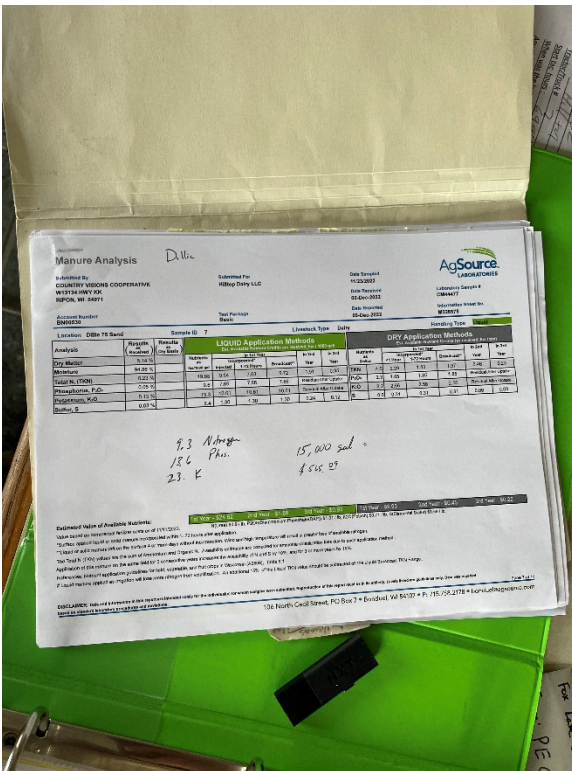


Photo #	1655
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Recent manure analysis for Hilltop Dairy LLC.



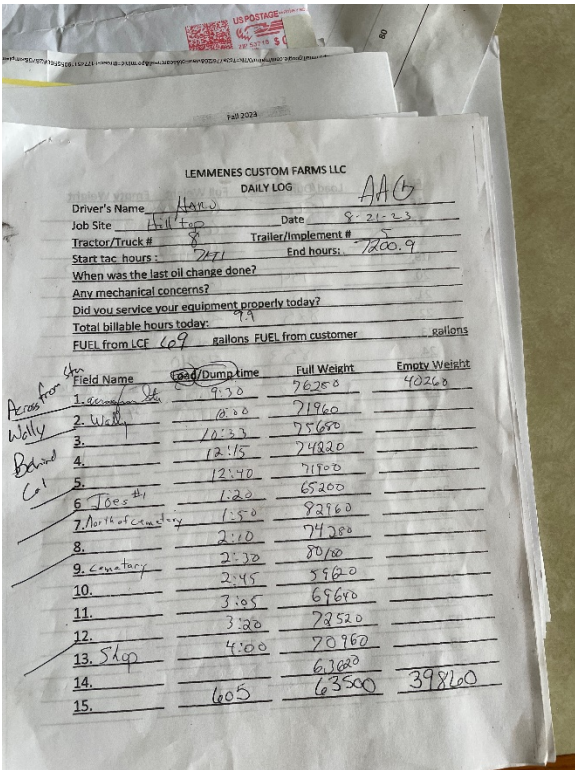


Photo #	1657
Date/Time:	September 5, 2023
Location	Hilltop Dairy LLC
Photo taken by:	Struck

Description: Hauling log from August 21, 2023 for Hilltop Dairy LLC.

**SUMMARY**

Substantial Compliance

The permittee is currently not in substantial compliance with the permit.

Areas of Concern

- Evaluation of the Feed Storage area
- Areas of erosion in blacktop of feed storage area.

Permit Violations Alleged Noncompliance

- Schedule Section 2.5 Runoff Control System – Engineering Evaluation

Action Items

- Develop plans and specifications for the Feed Storage Runoff Controls

Items for Next Permit Term

- Construction of updated runoff controls for the Feed Storage Area
- Plans and Specifications for reviewable structures planned for expansion.
  - o Digester, Sand Separation, Waste Transfers and Storages, etc.



January 24<sup>th</sup>, 2025

Green Lake County  
Approval

Loren Greenfield  
Hilltop Dairy, LLC  
N477 Cty Road Q  
Markesan, WI 53946

SUBJECT: Conditional Approval of Hilltop Dairy, LLC Nutrient Management Plan, WPDES Permit No. 0063983-04

Dear Loren Greenfield:

After completing a review of Hilltop Dairy, LLC 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 Hilltop Dairy, LLC 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.

### FINDINGS OF FACT

The Department confirms that:

1. A current dairy herd size of 1,830 animal units (1,225 milking & dry cows, 75 heifers, and 160 calves). A planned herd size of 2,847 animal units (1,775 milking & dry cows, 300 heifers, and 160 calves) by 2029.
2. Manure generation and spreading records indicate your herd will annually generate approximately 20,335,893 gallons of manure and process wastewater and 400 tons of solid manure in the first year of the permit term. By year 2027, the farm will generate approximately 32,360,436 gallons of manure and process wastewater and 400 tons of solid manure.
3. The use of application restriction options 1 & 5 within surface water quality management areas.
4. The use of phosphorus delivery method P Index.
5. That Hilltop Dairy, LLC currently has 3,354.7 acres (611 owned and 2,638 controlled through contracts, rental agreements or leases, or under manure agreements) of which 3,318.8 are spreadable acres.
6. 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



9. The following field(s) are approved for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:

- |                   |                 |                   |
|-------------------|-----------------|-------------------|
| - Bosveld-Arpke   | - Bosveld-Grams | - Bosveld-Olson N |
| - Bosveld-Olson S | - D1            | - D2              |
| - D3              | - D4            | - DM              |
| - Dumke 1         | - F1            | - G1              |
| - G2              | - G3            | - JW-GM6A         |
| - JW-GM6C         | - JW-H1         | - JW-H2           |
| - MZ 1E           | - MZ 1W         | - MZ 2N           |
| - MZ 2S           | - R1            |                   |

10. 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.

11. Winter applications of liquid manure shall only occur under emergency situations, after notifying the Department and receiving verbal approval.

12. 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

13. No headland stacking sites are approved.

#### MANURE & PROCESS WASTEWATER IRRIGATION

14. Irrigation of manure or process wastewater is prohibited.

#### SUBMITAL AND RECORDKEEPING REQUIREMENTS

15. 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.

16. Manure sampling is required to be completed at the following intervals to meet permit requirements:

- One quarterly sample per solid manure source when hauling takes place.
- Two liquid samples per month for each source when hauling takes place.

17. Please revise sampling section and SWQMA Strategy of narrative and resubmit back by **January 31<sup>st</sup>, 2025**.

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](mailto:Ashley.Scheel@Wisconsin.gov).

Sincerely,

Handwritten signature of Ashley Scheel in black ink.

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

cc: Eric Struck, WDNR Agricultural Runoff Specialist ([Eric.Struck@Wisconsin.gov](mailto:Eric.Struck@Wisconsin.gov))  
Laura Bub, WDNR Watershed Field Supervisor ([Laura.Bub@Wisconsin.gov](mailto:Laura.Bub@Wisconsin.gov))  
Christopher Clayton, WDNR Runoff Management Section Chief ([Christopherr.Clayton@Wisconsin.gov](mailto:Christopherr.Clayton@Wisconsin.gov))  
Aaron O'Rourke, WDNR Nutrient Management Program Coordinator ([Aaron.Orourke@Wisconsin.gov](mailto:Aaron.Orourke@Wisconsin.gov))  
Falon French, WDNR Intake Specialist ([Falon.French@Wisconsin.gov](mailto:Falon.French@Wisconsin.gov))  
Tabby Davis, WDNR CAFO Engineer ([Tabatha.Davis@Wisconsin.gov](mailto:Tabatha.Davis@Wisconsin.gov))  
Todd Morris, Green Lake County ([Tmorris@Greenlakecountywi.gov](mailto:Tmorris@Greenlakecountywi.gov))  
Brittany Newman, Country Visions Cooperative ([Bnewman@cvccop.com](mailto:Bnewman@cvccop.com))  
File



January 14, 2025

FILE REF: R-2024-0254  
 WPDES Permit #: WI-0063983

Loren Greenfield  
 Hilltop Dairy LLC  
 N477 Cty Rd Q  
 Markesan, WI 53946

Subject: Days of Storage Review for Hilltop Dairy LLC, NE¼ of T14N, R13E, Section 35 in Mackford Township, Green Lake County – NO ADDITIONAL ACTION REQUIRED

Dear Loren Greenfield:

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 Andrew Skwor P.E., MSA on September 20, 2024 on behalf of Hilltop Dairy LLC.

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 Hilltop Dairy LLC has 318 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 1,830. Under existing conditions, the farm collects only leachate and first flush runoff from the feed storage area. The remaining runoff is routed to a Vegetated Treatment Area on the farm. The farm is planning a two phase expansion. Phase one of the expansion plans to add runoff controls to collect all feed storage area runoff, up to the 25-year, 24-hour storm. Phase two of the expansion plans to expand herd size to 2,847 animal units. Following construction of runoff controls and the expansion, the farm will have 194 days of storage. The farm collects approximately 420,000 gallons of liquid waste from Saputo annually. Industrial waste is stored in permanent waste storages. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values for a collection period of 365 days.

**Current:**

Total Liquid Waste Storage Capacity (gallons)						
Waste Storage	Total Vol. from Settled Top to Bottom	-Solids Storage	-25-yr, 24-hr Precip. on Storage	25-yr, 24-hr Collected Runoff	Freeboard Vol.	Max. Operating Level (MOL) Vol.
#1	17,921,617		680,629		2,318,157	14,922,831
#2	1,969,829		100,356		328,958	1,540,515
#3	1,615,249		106,233		279,417	1,229,599
Total MOL Vol:						17,692,945
Days of Storage:						<b>318</b>

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding	11,913,007
Parlor Wastewater	3,194,950
Feed Storage Leachate	15,109
Feed Storage Runoff Collected	698,055
Net Precipitation on Storage Surface(s)	4,094,772
Offsite Waste	420,000
<b>TOTAL:</b>	<b>20,335,893</b>

**Phase 1 Expansion: After Feed Storage Area Runoff Controls**

Total Liquid Waste Storage Capacity (gallons)						
Waste Storage	Total Vol. from Settled Top to Bottom	-Solids Storage	-25-yr, 24-hr Precip. on Storage	25-yr, 24-hr Collected Runoff	Freeboard Vol.	Max. Operating Level (MOL) Vol.
#1	17,921,617		680,629	482,640	2,318,157	14,440,191
#2	1,969,829		100,356		328,958	1,540,515
#3	1,615,249		106,233		279,417	1,229,599
#4	364,793		41,552	231,378	88,927	2,936
Total MOL Vol:						17,213,241
Days of Storage:						<b>252</b>

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding	11,913,007
Parlor Wastewater	3,194,950
Feed Storage Leachate	15,109
Feed Storage Runoff Collected	5,111,820
Net Precipitation on Storage Surface(s)	4,285,989
Offsite Waste	420,000
<b>TOTAL:</b>	<b>24,940,875</b>

**Phase 2 Expansion: After Herd Expansion**

Total Liquid Waste Storage Capacity (gallons)						
Waste Storage	Total Vol. from Settled Top to Bottom	-Solids Storage	-25-yr, 24-hr Precip. on Storage	25-yr, 24-hr Collected Runoff	Freeboard Vol.	Max. Operating Level (MOL) Vol.
#1	17,921,617		680,629	482,640	2,318,157	14,440,191
#2	1,969,829		100,356		328,958	1,540,515
#3	1,615,249		106,233		279,417	1,229,599
Proposed FSA Runoff	364,793		41,552	231,378	88,927	2,936
Total MOL Vol:						17,213,241
Days of Storage:						<b>194</b>

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding	17,839,350
Parlor Wastewater	4,647,200
Feed Storage Leachate	56,078
Feed Storage Runoff Collected	5,111,820
Net Precipitation on Storage Surface(s)	4,285,989
Offsite Waste	420,000
<b>TOTAL:</b>	<b>32,360,437</b>

Should you have any questions, please contact Tabby 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



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