Permit Fact Sheet

General Information

Permit Number	WI-0066761-02-0
Permittee Name and Address	Greenleaf Ledge Dairy, LLC 1966 Day Street, Greenleaf, WI 54126
Permitted Facility Name and Address	Greenleaf Ledge Dairy, LLC 1966 Day Street Greenleaf
Permit Term	January 01, 2027 to December 31, 2031
Discharge Location	Unnamed tributaries to the East River Watershed and groundwaters of the state
Discharge Type	Existing Source CAFO per NR 234.03(41)

Animal Units					
	Current AU		**Proposed AU** **(Note: If all zeroes, expansions are not expected during permit term)**		
Animal Type	**Mixed**	**Individual**	**Mixed**	**Individual**	**Date of Proposed Expansion**
Dairy Calves (under 400 lbs.)	13	0	18	0	06/03/2028
Milking and Dry Cows	826	844	910	930	06/03/2028
Heifers (800 lbs. to 1200 lbs.)	44	40	99	90	06/03/2028
Steers or Cows (400 lbs. to market)	40	40	40	40	06/03/2028
Total	923	844	1067	930	

Facility Description

Greenleaf Ledge Dairy is a Concentrated Animal Feeding Operation (CAFO) owned and operated by Jim Leick in the village of Greenleaf, WI. Greenleaf Ledge Dairy consists of a single production site located at 1966 Day Street, Greenleaf, WI 54126. The farm currently has 923 animal units with plans to expand to 1,067 animal units by the end of the permit term. Greenleaf Ledge Dairy plans on producing approximately 9 million gallons of manure and process wastewater and 154 tons of solid manure in the first year of the permit and approximately 10 million gallons of manure and process wastewater and 214 tons of solid manure by the end of the permit term. Based on current herd size, Greenleaf Ledge Dairy has approximately 340 days of storage and currently has 1,588 acres approved in their nutrient management plan, of which 1,532 are able to receive manure.

Substantial Compliance Determination

Enforcement During Last Permit: None

After a desk top review of all land application reports, compliance schedule items, and a site visit on 11/25/2025, this facility has been found to be in substantial compliance with their current permit.

Sample Point Descriptions

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 site. WSF 1 is an in-place earthen storage located west of the parlor. The facility has a maximum operating level of approximately 1.1 million gallons and was constructed in 1979. This storage accepts manure and process wastewater from the parlor and adjacent barns. WSF 1 was last evaluated in 2021 and meets permit requirements.	
002	WSF 2: Sample point 002 is for liquid waste storage facility 2 (WSF 2) located on the main site. WSF 2 is an in-place earthen storage with some areas of concrete armoring and is located south of WSF 1. The facility has a maximum operating level of approximately 7.4 million gallons and was constructed in 2011. This storage accepts manure and process wastewater from WSF 1. WSF 2 was last evaluated in 2021 and meets permit requirements.	
003	Leachate Pit: Sample point 003 is for liquid waste storage facility 3 (WSF 3) located on the main site. WSF 3 is liquid-tight concreted lined facility. The facility has a maximum operating level of approximately 90,000 gallons and was constructed in 2022. This storage accepts leachate and runoff from the feed storage area.	
004	WSF Solids: Sample point 004 is for any manure solids removed from bottom of liquid waste storage facilities. This includes manure-laden sand solids, manure fiber solids, etc. Representative samples shall be taken from each waste storage facility.	
005	Misc. Solid Manure: Sample point 005 is for any miscellaneous solid manure directly land applied and not stored in a waste storage facility. This includes calf hutch manure, maternity pen bedpack, heifer bedpack, etc. Representative samples shall be taken for each manure source type.	
006	Headland Stacking: Sample point 006 is for solid manure land applied from approved headland stacking sites. Representative samples must be taken prior to land application. Stacks are defined as part of the production area and therefore subject to the production area discharge limitations of this permit. Weekly inspections of stack runoff controls are required and shall be recorded according to monitoring program.	
007	Feed Storage Area: Sample point 007 is for visual monitoring and inspection of the feed storage area and associated runoff control system located on the west side of the production site. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program.	
008	Outdoor Lots: Sample point 008 is for visual monitoring and inspection of the outdoor animal lots. The northern steer lot has concrete curbing, a runoff collection system, and clean water diversions. The southern barnyards have short concrete curbing, and require manual manure scraping and removal. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program.	
009	Stormwater Runoff Control System: Sample point 009 is for visual monitoring and inspection of all production site storm water conveyance systems, including roof gutter and downspout structures and drainageways near animal lots. Proper operation and maintenance is required to keep uncontaminated	

Sample Point Designation For Animal Waste		
Sample Point Number	**Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**	
	runoff diverted away from manure and process wastewater handling systems. Weekly inspections are required and shall be recorded according to monitoring program.	

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 340 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 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 923 animal units (590 milking & dry cows, 40 heifers, 40 Steers, and 65 calves), it is estimated that approximately 9.3 million gallons of manure and process wastewater will be produced per year. The permittee owns *approximately* 148 acres of cropland and rents about 1,440. Given the rotation commonly used by the permittee, 1,532 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 or 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

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 point language was updated to more accurately describe the facilities.

1.1.2 Explanation of Operation and Management Requirements

Liquid manure and process wastewater sources must be properly stored and land applied according to the permit and nutrient management plan. Liquid manure requires two liquid samples per source on a monthly basis when hauling.

1.2 Sample Point Number: 004- WSF Solids; 005- Miscellaneous Solid Manure; 006- Headland Stacking

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 point language was updated to more accurately describe the facilities.

1.2.2 Explanation of Operation and Management Requirements

Solid manure sources must be properly stored and land applied according to the permit and nutrient management plan. Solid manure requires one solid sampler per source on a quarterly basis when hauling occurs.

1.3 Sample Point Number: 007- Feed Storage Area; 008- Outdoor Lots, and 009- Stormwater Runoff

1.3.1 Changes from Previous Permit

No changes from the previous permit.

1.3.2 Explanation of Operation and Management Requirements

There is no required nutrient sampling for the runoff control sample points. Rather weekly or quarterly inspections are required and shall be recorded according to the monitoring plan and submitted with the Annual Report.

2 Schedules

2.1 Emergency Response Plan

Required Action	Due Date
Emergency Response Plan: Update the written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	02/01/2027

Explanation of Schedules

An emergency response plan is required to be developed per s. NR 243.13(6)(a) Wis. Admin. Code.

2.2 Monitoring & Inspection Program

Required Action	Due Date
Proposed Monitoring and Inspection Program: Consistent with the Monitoring and Sampling Requirements subsection, the permittee shall submit a proposed monitoring and inspection program within 30 days of the effective date of this permit.	02/01/2027

Explanation of Schedules

A monitoring and inspection program is required to be submitted per s. NR 243.19(1) Wis. Admin. Code.

2.3 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.	01/31/2027
Submit Annual Report #2: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2028
Submit Annual Report #3: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2029
Submit Annual Report #4: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2030
Submit Annual Report #5: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2031
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	

Explanation of Schedules

Annual reports are required to be submitted per s. NR 243.19(3) Wis. Admin. Code.

2.4 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
Management Plan 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).	
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.	03/31/2027
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.	03/31/2028
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.	03/31/2029
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.	03/31/2030
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.	03/31/2031
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	

Explanation of Schedules

Nutrient management plan updates are required to be submitted per s. NR 243.19(3) Wis. Admin. Code.

2.5 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	07/01/2031

Explanation of Schedules

A permit reissuance application is required per s. NR 243.12(1)(d) Wis. Admin. Code.

Attachments

Reissuance Inspection Report 11/25/2025

Evaluation Review for Days of Storage Letter 08/27/2026

5-year NMP conditional Approval Letter 09/10/2026

Justification Of Any Waivers From Permit Application Requirements

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

Prepared By: Holly Stegemann Agricultural Runoff Management Specialist Date: 10/20/2026

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster Street
Box 7921
Madison WI 53707-7921

Tony Evers, Governor
Karen Hyun, Ph.D., Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

December 5, 2025

Jim Leick
Greenleaf Ledge Dairy
1966 Day Street
Greenleaf, WI 54126

WPDES Permit No. WI-0066761-01-0
Brown County

Subject: WPDES Reissuance Walkover Inspection Report

Dear Mr. Leick:

On November 25, 2025, the Department of Natural Resources (department) conducted a WPDES permit reissuance inspection of Greenleaf Ledge Dairy. Results and photos are included in the enclosed report.

Greenleaf Ledge Dairy's current permit will expire on November 30, 2026. A permit reissuance application is due on June 1, 2026.

If you have any questions regarding this letter or your WPDES permit requirements, please contact me at (920) 360-0794 or at holly.stegemann@wisconsin.gov.

Sincerely,

Holly Stegemann
Agricultural Runoff Management Specialist

Enclosure: Greenleaf Ledge Dairy 11/25/2025 Inspection Report

Electronic CC:
Nick Peltier - Brown County LWD
Kevin Beckard - AgSource
Joe Baeten - DNR

PRINTED ON RECYCLED PAPER

CAFO Compliance Report (12/05/2025)

Inspection Date: 11/25/2025

Inspection Type: Reissuance

Operation Name: Greenleaf Ledge Dairy

WPDES Permit No. WI-0066761-01-0

Operation Address: 1966 Day Street, Greenleaf, WI 54126

On-Site Representative(s): Jim Leick, Owner/Operator

DNR Staff / Report Writer: Holly Stegemann, Agricultural Runoff Management Specialist

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On November 25, 2025, Stegemann met with Leick and Kevin Beckard (AgSource) to conduct a WPDES permit reissuance inspection of Greenleaf Ledge Dairy. All facilities cover under the WPDES permit were inspected. Conditions during the inspections were cool and dry. No precipitation had fallen prior to inspection.



Figure 1. Aerial overview of Greenleaf Ledge Dairy. Pink arrows indicate manure transfer lines. Orange arrows indicate leachate runoff flow paths. Blue arrows indicate stormwater flow paths.

SITE OBSERVATIONS

Feedlot Runoff

Greenleaf Ledge Dairy utilizes two outdoor concrete lots. One feed lot is located to the south of the parlor and one to the east of the parlor. The concrete lot to the south of the parlor recently had some curbing replaced to help contain and reduce manure tracking out of the lot. The feed lot to the east of the parlor is pitched to convey runoff towards a collection tank on the north side of the lot that is pumped south to enter the barns collection system that ends up in WSF 1.

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.

Calf Hutch Areas

Calf hutches are placed on the north end of the feed storage pad with any contaminated runoff being collected by the leachate basin.

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.

Waste Storage Facilities

Greenleaf Ledge Dairy utilizes two waste storage facilities. Manure solids are either put into WSF 1 or stacked near the calf hutches on the feed pad until land applied.

WSF 1 is a clay lined facility located west of the parlor, that was constructed in 1979. It has a maximum operating level of 1,182,664 gallons and accepts manure and process wastewater from the adjacent barns with an overflow weir to WSF 2. At the time of inspection, safety fencing was present.

WSF 2 is a clay lined facility, located south of WST 1, that was constructed in 2011. It has a maximum operating level of 7,768,990 gallons and accepts manure and process wastewater from WSF 1. At the time of inspection permanent markers and safety fencing were present.

WSF 3, the leachate basin, is a concrete lined storage, located north of the feed storage area, that was constructed in 2022. This storage accepts manure and process wastewater from the calf hutches and feed storage area and has a maximum operating level of 93,726 gallons. At the time of inspection, permanent markers and safety fencing were present.

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.

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

Parlor wash water is collected and transferred to WSF 1. Process wastewater sources (milking center, wash water, etc.) are managed to not have current or past indicators of discharges.

Feed Storage Area Runoff

Greenleaf Ledge Dairy utilizes one feed storage pad located on the southwest side of the production area. The concrete is pitched to the north to convey leachate and stormwater runoff to WSF 3. This feed pad and runoff collection system was upgraded in 2022 (R-2022-0049), expanding the pad and replacing the vegetated treatment area with WSF 3.

Feed storage areas and associated process wastewater 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.

Animal Mortality Disposal

Animal mortalities pick up as needed by OJ Krull. Animal mortalities are managed to not have current or past indicators of discharges.

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.).

SUMMARY

Areas of Concern
- Feed was observed over the edges of the feed pad. Proper feed placement and maintenance must occur to prevent potential discharges from the production site.

Action Items
None

Items for Next Permit Term

Required materials must be submitted together as a complete permit application through the ePermitting System: http://dnr.wi.gov/permits/water/. The system will not allow you to electronically sign and submit your application until all of the following are included:
• 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)
• A soil survey map of the dairy's production area
• A labeled aerial map showing the existing and proposed features and structures of the dairy's production area
• Calculations documenting days liquid manure and process wastewater storage
• Supporting documentation for days 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 for any proposed facilities

Photo #:	1
Date/Time of Photo:	11/25/2025 10:50AM
Photo By:	Stegemann
Photo Location:	North Outdoor Lot

Photo Description:

View of northern outdoor lot, looking south.



Photo #:	2
Date/Time of Photo:	11/25/2025 10:50AM
Photo By:	Stegemann
Photo Location:	North Outdoor Lot

Photo Description:

View of northern outdoor lot, looking south.



Photo #:	3
Date/Time of Photo:	11/25/2025 10:25AM
Photo By:	Stegemann
Photo Location:	South Outdoor Lot

Photo Description:

View of southern outdoor feel lot, looking northeast.



Photo #:	4
Date/Time of Photo:	11/25/2025 10:25AM
Photo By:	Stegemann
Photo Location:	South Outdoor Lot

Photo Description:

View of southern outdoor feel lot, looking east.



Photo #:	5
Date/Time of Photo:	11/25/2025 10:39AM
Photo By:	Stegemann
Photo Location:	Calf Hutches

Photo Description:

View of calf hutches places on north side of feed pad, looking west.



Photo #:	6
Date/Time of Photo:	11/25/2025 10:40AM
Photo By:	Stegemann
Photo Location:	Calf Hutches

Photo Description:

View of calf hutches places on north side of feed pad, looking northeast.



Photo #:	7
Date/Time of Photo:	11/25/2025 10:26AM
Photo By:	Stegemann
Photo Location:	WSF 1

Photo Description:

View of WSF 1, looking southwest.



Photo #:	8
Date/Time of Photo:	11/25/2025 10:26AM
Photo By:	Stegemann
Photo Location:	WSF 1

Photo Description:

View of WSF 1, looking northwest.



Photo #:	9
Date/Time of Photo:	11/25/2025 10:43AM
Photo By:	Stegemann
Photo Location:	WSF 1/2

Photo Description:

View of overflow between WSF 1 and WSF 2, looking northeast.



Photo #:	10
Date/Time of Photo:	11/25/2025 10:43AM
Photo By:	Stegemann
Photo Location:	WSF 1/2

Photo Description:

View of overflow between WSF 1 and WSF 2, looking southeast.



Photo #:	11
Date/Time of Photo:	11/25/2025 10:44AM
Photo By:	Stegemann
Photo Location:	WSF 2

Photo Description:

View if WSF 2, looking southwest. Permanent marker circled in red.



Photo #:	12
Date/Time of Photo:	11/25/2025 10:28AM
Photo By:	Stegemann
Photo Location:	WSF 2

Photo Description:

View of WSF 2, looking south.



Photo #:	13
Date/Time of Photo:	11/25/2025 10:40AM
Photo By:	Stegemann
Photo Location:	WSF 3

Photo Description:

View of WSF 3, looking north. Permanent markers circled in red.



Photo #:	14
Date/Time of Photo:	11/25/2025 10:29AM
Photo By:	Stegemann
Photo Location:	WSF 3

Photo Description:

View of WSF 3, looking west.



Photo #:	15
Date/Time of Photo:	11/25/2025 10:33AM
Photo By:	Stegemann
Photo Location:	FSA

Photo Description:

View of feed storage area, looking south.



Photo #:	16
Date/Time of Photo:	11/25/2025 10:37AM
Photo By:	Stegemann
Photo Location:	FSA

Photo Description:

View of feed storage area, looking north.



Photo #:	17
Date/Time of Photo:	11/25/2025 10:30AM
Photo By:	Stegemann
Photo Location:	FSA

Photo Description:

View of feed storage area and calf hutches, looking west.



Photo #:	18
Date/Time of Photo:	11/25/2025 10:34AM
Photo By:	Stegemann
Photo Location:	FSA

Photo Description:

View of feed storage area, looking east.



Photo #:	19
Date/Time of Photo:	11/25/2025 9:59AM
Photo By:	Stegemann
Photo Location:	Records

Photo Description:

View of CAFO Calendar.

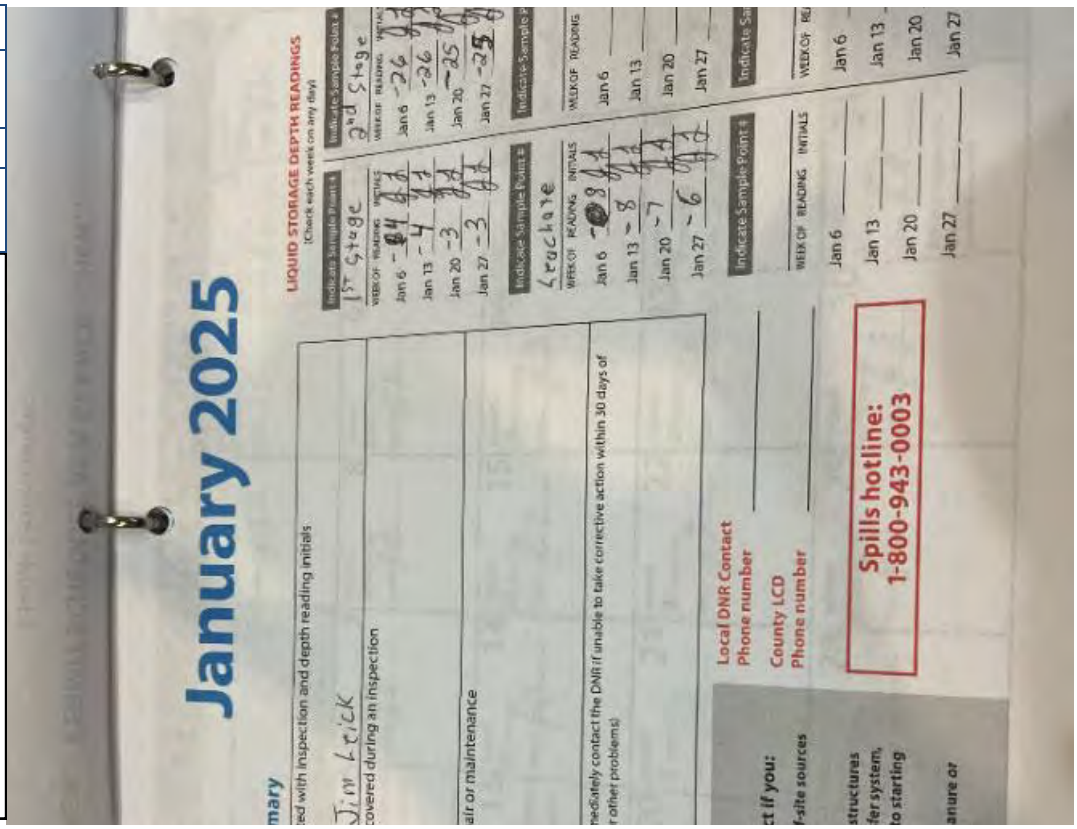
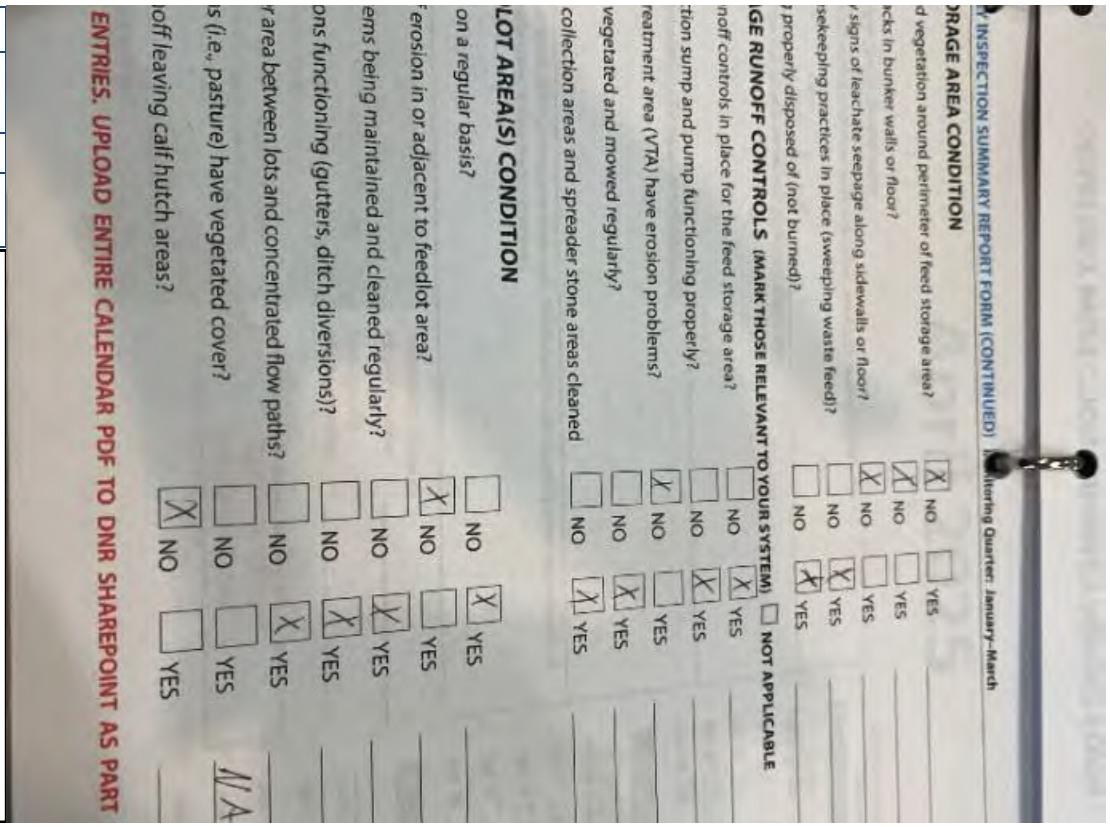


Photo #:	20
Date/Time of Photo:	11/25/2025 10:00AM
Photo By:	Stegemann
Photo Location:	Records

Photo Description:

View of CAFO Calendar.



State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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Karen Hyun, Ph.D., Secretary
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August 27, 2026

FILE REF: R-2026-0117
WPDES Permit #: WI-0066761

Jim Leick
Greenleaf Ledge Dairy, LLC
1966 Day Street
Greenleaf, WI 54126

Subject: Days of Storage Review for Greenleaf Ledge Dairy, LLC in T21N, R20E, Section 9, Wrightstown Township, Brown County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Leick:

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 by Doug Gatrell, P.E., GHD Services Inc. on June 1, 2026 with revisions received on August 27, 2026 from Jen Keuning on behalf of Greenleaf Ledge 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 Greenleaf Ledge Dairy currently has 340 days of liquid waste storage and will have 313 days of liquid waste storage after the proposed herd expansion based on the volumes listed in the table below with respect to s. NR 243.15(3)(i) to (k), Wis. Adm. Code. However, because WSP 1 and WSP 2 for Greenleaf Ledge Dairy currently require additional actions to be completed based on the evaluation review letter for Project Number R-2022-0224 that was dated May 18, 2026, the number of days of storage could actually be less in accordance with s. NR 243.15(3). The number of days of storage may change once the evaluations for the waste storage facilities require no further actions. The current number of animal units provided for the calculation is 923. The proposed expansion during the permit term will increase the animal units to 1,067. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values for a collection period of 365 days. WSP 1 and WSP 2 assume a remaining waste depth of 2 ft in the bottom because they are earthen structures. Full collection of leachate and contaminated runoff for up to the 25-yr, 24-hr storm event is provided for the feed storage area.

Existing Conditions (923 AU) – 340 Days of Storage

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	**Annual Gallons**
Manure, Bedding, and Parlor Wastewater:	5,423,900
Total Feed Storage Leachate:	56,100
Total Feed Storage Runoff Collected:	2,207,950
Net Precipitation on Storage Surfaces of WSP #1 and WSP #2:	1,413,550
Net Precipitation on Storage Surface of Attenuation Basin:	214,087
Total Liquid Waste Stored Below the MOL:	**9,315,587**

Total Liquid Waste Storage Capacity (Gallons)						
Waste Storage	Total Volume from Top to Bottom	-Remaining Waste	-25-yr, 24-hr Precipitation on Storage	-25-yr, 24-hr Collected Runoff	-Freeboard Volume	Max. Operating Level (MOL) Volume
WSP #1	1,760,293	278,575	79,177	0	219,877	1,182,664
WSP #2	8,915,270	607,379	214,096	0	599,749	7,494,046
Atten. Basin	580,069	0	27,620	284,853	176,837	90,759
					Total MOL Volume:	8,676,710

Proposed Conditions (1,067 AU) – 313 Days of Storage

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	**Annual Gallons**
Manure, Bedding, and Parlor Wastewater:	6,192,225
Total Feed Storage Leachate:	74,800
Total Feed Storage Runoff Collected:	2,207,950
Net Precipitation on Storage Surfaces of WSP #1 and WSP #2:	1,413,550
Net Precipitation on Storage Surface of Attenuation Basin:	214,087
Total Liquid Waste Stored Below the MOL:	**10,102,612**

Total Liquid Waste Storage Capacity (Gallons)						
Waste Storage	Total Volume from Top to Bottom	-Remaining Waste	-25-yr, 24-hr Precipitation on Storage	-25-yr, 24-hr Collected Runoff	-Freeboard Volume	Max. Operating Level (MOL) Volume
WSP #1	1,760,293	278,575	79,177	0	219,877	1,182,664
WSP #2	8,915,270	607,379	214,096	0	599,749	7,494,046
Atten. Basin	580,069	0	27,620	284,853	176,837	90,759
					Total MOL Volume:	8,676,710

Should you have any questions, please contact Rob Davis, DNR Madison office or your Regional Agricultural Runoff 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



Rob Davis, P.E.
Water Resources Engineer
Watershed Management Program

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Karen Hyun, Ph.D., Secretary
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September 10th, 2026

Brown County
Approval

Jim Leick
Greenleaf Ledge Dairy LLC
1966 Day Street
Greenleaf, WI 541265

SUBJECT: Conditional Approval of Greenleaf Ledge Dairy LLC Nutrient Management Plan, WPDES Permit No. 0066761-02-0

Dear Jim Leick:

After completing a review of Greenleaf Ledge Dairy LLC 2026-2030 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 Greenleaf Ledge 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 923 animal units (590 milking & dry cows, 40 heifers, 40 Steers, and 65 calves). A planned herd size of 1,067 animal units (650 milking & dry cows, 90 heifers, 40 Steers, and 90 calves) by 2030.

2. Manure generation and spreading records indicate your herd will annually generate approximately 9,315,587 gallons of manure and process wastewater and 154 tons of solid manure in the first year of the permit term. By the year 2030, the farm is projected to generate 10,102,612 gallons of manure and process wastewater and 214 tons of solid manure.

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 Greenleaf Ledge Dairy LLC currently has 1,588 acres (148 owned and 1,440 controlled through contracts, rental agreements or leases, or under manure agreements) of which 1,532 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 manure application; required setbacks associated with wells, navigable waters, conduits to navigable waters, grassed waterways, wetlands, possible soil erosion/flow channels.

7. 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 2026-2030 Greenleaf Ledge Dairy LLC 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 are prohibited from receiving applications of manure or process wastewater:
   - 11-12 (Deerhaven) (Default)
   - School Rd (Default)

   If Greenleaf Ledge Dairy LLC 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.

3. 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.

4. All liquid manure samples collected may be analyzed, at a minimum, for percent dry matter, total nitrogen, percent NH_4-N, percent NO_3-N, phosphorus, potassium, and sulfur.

5. If manure sample results have a dry matter (DM) content less than 2.0% and the percent ammonium (NH_4^+) is greater than 75% of the total N, Greenleaf Ledge Dairy LLC may use the following equation to adjust the first year available nitrogen when applications are injected or incorporated within 1 hour:

$$\text{First-Year Available N} = NH_4\text{-N} + [0.25 \times (\text{Total N} - NH_4\text{-N})]$$

6. Greenleaf Ledge Dairy LLC shall record daily manure applications by using form 'Daily Spreading Log' generated by Snap Plus, or farm generated template called 'Greenleaf Ledge Dairy LLC Daily Manure Application Log'. These forms shall be retained at the farm and provided to the department upon request.

7. Greenleaf Ledge Dairy LLC 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 'CAFO Annual Spreading Reports' generated by Snap Plus.

WINTER SPREADING

8. Liquid manure applications during winter conditions, as defined by NR 243.14(7), Wis. Adm. Code, are prohibited with the exception of emergency applications.

9. The following field(s) are approved for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:
   - Joes
   - Kersten DEF
   - Blake Rd East
   - Blake Rd West
   - Home 2
   - Home 3
   - Home Corner

10. The following field(s) are denied for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:
   - BR-2 (Silurian)
   - BR-3 (Silurian)
   - Hickory (not found)
   - P1 (Silurian)

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. The following headland stacking sites are rejected until in field verification takes place in proximity to an area of channelized flow which looks apparent via aerial imagery:
   - Home 3 Site #1
   - Home Site 3 Site #2

15. The following headland stacking sites are approved for use with >32% solids only during February and March, or when ground is not frozen or snow-covered during remainder of the year. These sites are subject to the outlined use guidelines referenced below.
   - Sites may only be used for 1 year out of every 2 years.
   - Stacking site area may not exceed ≤40,000 cubic feet.
   - Stacking interval not to exceed 8 months.
   - **No manure less than 32% solids can be stacked here due to the slope range of 2-6%.**
   - **All sites are Hydrologic Soil Group of D, these can only be used with solids greater than 32% solids.**

   - Home 2 Site #1
   - Home 2 Site #2
   - Kersten DEF Site #1
   - Kersten DEF Site #2
   - Kersten DEF Site #3

NR243.143/151.075 SILURIAN BEDROCK PERFORMANCE STANDARDS

16. Manure generated by Greenleaf Ledge Dairy LLC that is mechanically applied to the following approved fields meet planning requirements under NR243.143/151.075, Silurian bedrock performance standards. The following fields are required to meet all requirements under NR243.143/151.075, Silurian bedrock performance standards immediately following this approval.

- School Rd	- BR1	- BR2
- BR3	- 11-12 (Deerhaven)	- 10
- G1	- G2	- G3
- G4	- P1	- Kabat NW
- Kabat SW	- JG-Don 4	- Refuge Rd
- DK13	- DK11S	- Martins
- Bill-1	- Bill-19	- Bill-25
- TB-8	- Rick 1	- Rick 2
- DK 12S	- RL-Klug 6,7,9	- RL-Klug 8
- RL-Klug 1-5	- RL-Buch 1	- RL-Buch 2
- RL-Buck 5-6	- RL-Buch 7-11	- 7 (Park Rd)
- DK 12N		-

MANURE & PROCESS WASTEWATER IRRIGATION

17. Irrigation of manure or process wastewater is prohibited.

SUBMITAL AND RECORDKEEPING REQUIREMENTS

18. 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.

19. The farm is required to take a minimum number of manures samples to meet permit requirements as follows:
    - Solid Manure: One solid sample per source on a quarterly basis when hauling occurs.
    - Liquid Manure: Two liquid samples per source on a monthly basis when hauling occurs.
20. Follow up action: A revised stacking site map for the Kersten sites showing #1, #2, and #3 listed appropriately. This is requested by September 18th, 2026.

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 locate 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:

Holly Stegemann, WDNR Agricultural Runoff Management Specialist (holly.stegemann@agsource.com)
Erin Hanson, WDNR Watershed Field Supervisor (erin.handson@wisconsin.gov)
Joe Baeten, WDNR Agricultural Runoff Section Manager (joseph.baeten@wisconsin.gov)
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