

Permit Fact Sheet

General Information

Permit Number	WI-0064378-04-0
Permittee Name and Address	Brickstead Dairy LLC 1734 Wayside Rd, Greenleaf, WI 54126
Permitted Facility Name and Address	Brickstead Dairy LLC 1734 Wayside Road Greenleaf
Permit Term	December 01, 2025 to November 30, 2030
Discharge Location	Unnamed tributaries within the Lower Fox River watershed, and groundwaters of the state
Discharge Type	Existing

Animal Units					
Animal Type	Current AU		Proposed AU (Note: If all zeroes, expansions are not expected during permit term)		
	Mixed	Individual	Mixed	Individual	Date of Proposed Expansion
Milking and Dry Cows	1470	1502	1820	1859	12/31/2026
Total	1470	1502	1820	1859	

Facility Description

Brickstead Dairy LLC is a Concentrated Animal Feeding Operation (CAFO) owned and operated by Dan Brick. It currently has 1,470 animal units and based on current herd size, Brickstead Dairy has approximately 358 days of liquid waste storage. Brickstead Dairy generates 16,854,854 gallons of liquid manure and 4,430 tons of solid waste annually. Brickstead Dairy has a total of 1,895.5 acres available for land application of manure and process wastewater. Of this acreage, 1,720.9 are spreadable, 232.8 are owned, and 1,662.7 are rented or controlled through contracts.

Substantial Compliance Determination

Enforcement During Last Permit: None

After a desk top review of all compliance schedule items, and a site visit on **04/17/2025**, this facility has been found to be in substantial compliance with their current permit.

Compliance determination made by Holly Stegemann on 09/25/2025.

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). WSF 1 is an in-place earthen storage with concrete floor armoring located east of the dry cow barn. The facility has a maximum operating level of 401,865 gallons and was reconstructed in 2003. This facility accepts manure and process wastewater from the feed lanes. WSF 1 will require an engineering evaluation, see Schedules section for due dates.	
002	WSF 2: Sample Point 002 is for liquid waste storage facility 2 (WSF 2). WSF 2 is a liquid-tight concrete storage located south of WSF 1. This facility has a maximum operating level of 3,132,817 gallons and was constructed in 2007. This facility accepts manure and process wastewater from the adjacent barns.	
003	WSF 3: Sample point 003 is for liquid waste storage facility 3 (WSF 3). WSF is an in-place earthen lined storage with concrete agitation pads located south of WSF 2. This storage has a maximum operating level of 9,466,505 gallons and was constructed in 2010. The facility accepts manure and process wastewater from WSF 2.	
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	Miscellaneous Solids: 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	Concrete Lot: Sample Point 006 is for visual monitoring and inspection of concrete feedlots and associated runoff control system located northwest of WSF 1. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections 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 south end of the production site. Collected leachate and runoff is collected and pumped to WSF 4. 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	Stormwater: Sample Point 008 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.	
009	WSF 4: Sample Point 009 is for liquid waste storage facility 4 (WSF 4). WSF 4 is a liquid-tight concrete storage located east of the feed storage area. This facility has a maximum operating level of 1,820,380 gallons and was constructed in 2020. The facility accepts leachate and process wastewater from the feed storage area.	

Sample Point Designation For Animal Waste		
Sample Point Number	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)	
010	Pasture: Sample point 010 is for visual monitoring and inspection of the outdoor vegetated area located to the north of the freestall barn. Proper operation and maintenance is required to ensure vegetative cover is sustained across lot areas. Quarterly 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 358 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 1,470 animal units (1,050 milking and dry cows), it is estimated that approximately 16,854,854 gallons of manure and process wastewater will be produced per year. The permittee owns *approximately* 232.8 acres of cropland and rents about 1,662.7 acres. Given the rotation commonly used by the permittee, 1,720.9 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 in 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; 009- WSF 4

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 production site.

1.1.2 Explanation of Operation and Management Requirements

Manure must be properly stored, and land applied according to the permit and nutrient management plan.

1.2 Sample Point Number: 004- WSF Solids; 005- Misc. 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

No changes from previous permit.

1.2.2 Explanation of Operation and Management Requirements

Solid manure sources must be properly sampled and land applied according to the permit and nutrient management plan.

1.3 Sample Point Number: 006- Outdoor Lot; 007- Feed Storage Runoff Controls; 008- Stormwater, and 010- Pasture

1.3.1 Changes from Previous Permit

Sample point language was updated and 010 was added to more accurately describe the production site.

1.3.2 Explanation of Operation and Management Requirements

Proper operation and maintenance is required to ensure unlawful discharges to waters of the state do not occur. Weekly or quarterly inspections are required and shall be recorded according to the monitoring plan.

2 Schedules

2.1 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: Update the written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	01/01/2026

Explanation of Schedules

Schedule 2.1 is included in the permit as a general permit requirement.

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.	01/01/2026

Explanation of Schedules

Schedule 2.2 is included in the permit as a general permit requirement.

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.	01/31/2026
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.	

Explanation of Schedules

Schedule 2.3 is included in the permit as a general permit requirement.

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.	03/31/2026
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.	
---	--

Explanation of Schedules

Schedule 2.4 is included in the permit as a general permit requirement.

2.5 Manure Storage Facility - Engineering Evaluation

Applicable to sample point 001, WSF 1.

Required Action	Due Date
Written Report: Submit a written report evaluating the existing manure storage facility's ability to meet the conditions in the Production Area Discharge Limitations and Manure and Process Wastewater Storage subsections and s. NR 243.15, Wis. Adm. Code. (See Standard Requirements for report details.)	12/31/2026
Plans and Specifications: Submit plans and specifications for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code, to permanently correct any adverse manure storage conditions.	12/31/2027
Corrections and Post Construction Documentation: Complete construction on the manure storage facility that permanently corrects any adverse conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.	12/31/2028

Explanation of Schedules

Schedule 2.5 is an engineering evaluation that includes a written description of the existing WSF 1 and its adequacy to meet the conditions found in the Production Site Discharge Limitations and Process Wastewater Storage subsections and s. NR 243.15, Wis. Adm. Code.

2.6 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	06/01/2030

Explanation of Schedules

Schedule 2.6 is included in the permit as a general permit requirement.

Other Comments

None

Attachments

Plan Approval Letter(s)

- Reissuance Inspection Report – April 17, 2025
- Conditional Nutrient Management Plan Approval – September 12, 2025
- Days of Storage Review Letter – August 6, 2025

Justification Of Any Waivers From Permit Application Requirements

No waivers requested or granted as part of this permit reissuance

Prepared By: Holly Stegemann

Agricultural Runoff Management Specialist

Date: 09/25/2025



May 5, 2025

Dan Brick
Brickstead Dairy, LLC
1734 Wayside Road
Green leaf, WI 54126

WPDES Permit No. WI-0064378-03-0
Brown County

Subject: WPDES Permit Walkover Inspection Report

Dear Mr. Dan Brick:

On April 17, 2025, the Department of Natural Resources conducted a permit reissuance walkover inspection of Brickstead Dairy. Report and photo log are included in the enclosed report.

Brickstead Dairy's permit is set to expire on November 30, 2025. A permit reissuance application is due June 1, 2025.

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

Electronic CC:
Nick Peltier - Brown LCD
Bill Schaumberg, Jim West – Tilth Agronomy
Joe Baeten - DNR

CAFO Compliance Report (05/05/2025)



Inspection Date: 04/17/2025

Inspection Type: Reissuance

Operation Name: Brickstead Dairy

WPDES Permit No. WI-0064378-03-0

Operation Address: 1734 Wayside Road, Greenleaf, WI 54126

On-Site Representative(s): Dan Brick, Owner/Operator

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

On April 17, 2025, Stegemann met with Dan Brick as well as Jim West (Tilth Agronomy) to conduct WPDES reissuance inspection of Brickstead Dairy. All facilities currently covered under Brickstead Dairy's WPDES Permit were inspected. No liquid precipitation had fallen 24 hours prior to the inspection.

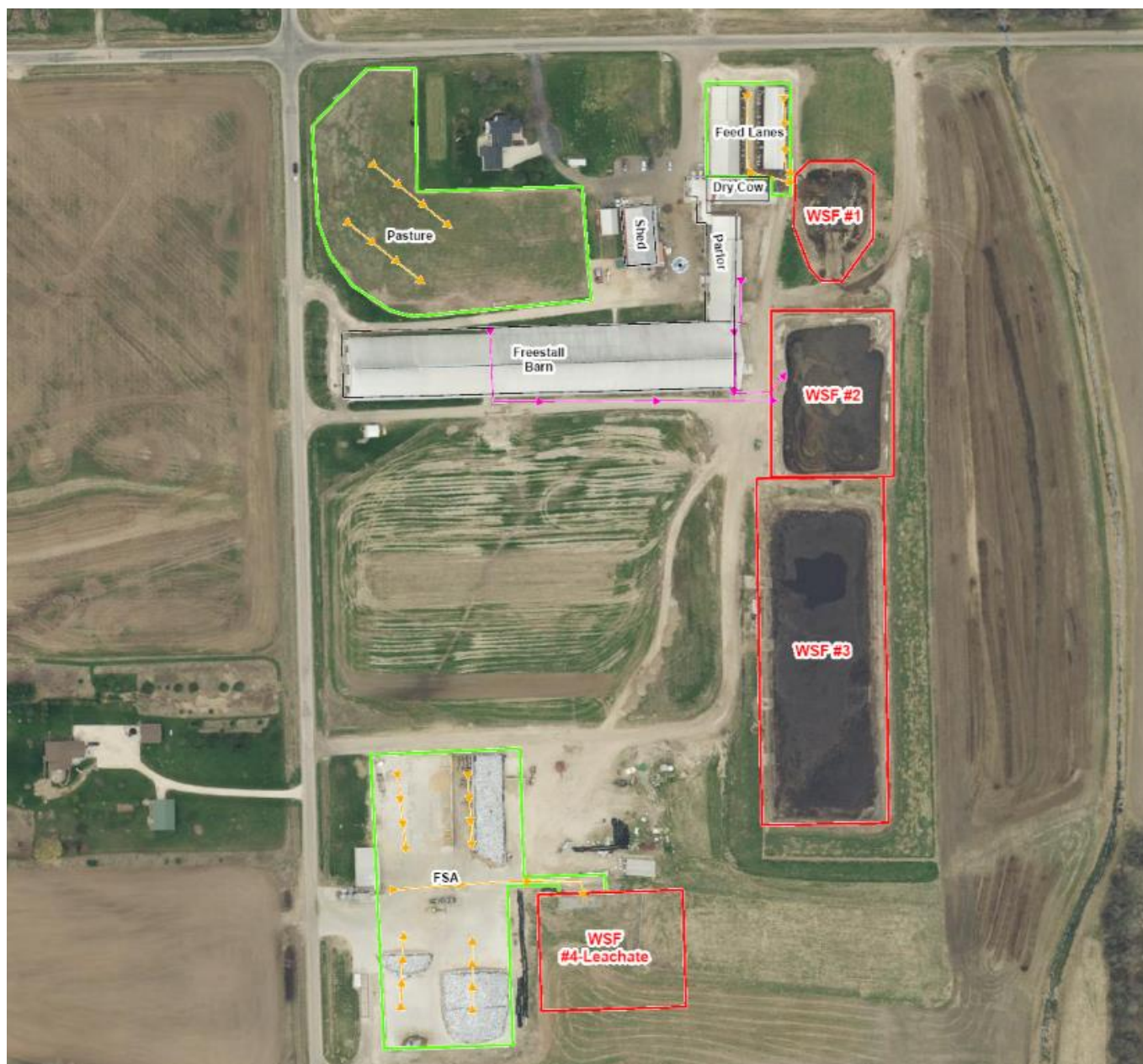


Figure 1. Aerial overview of Brickstead Dairy. Yellow arrows indicate approximate flow paths for contaminated runoff. Pink arrows indicate manure transfer lines.

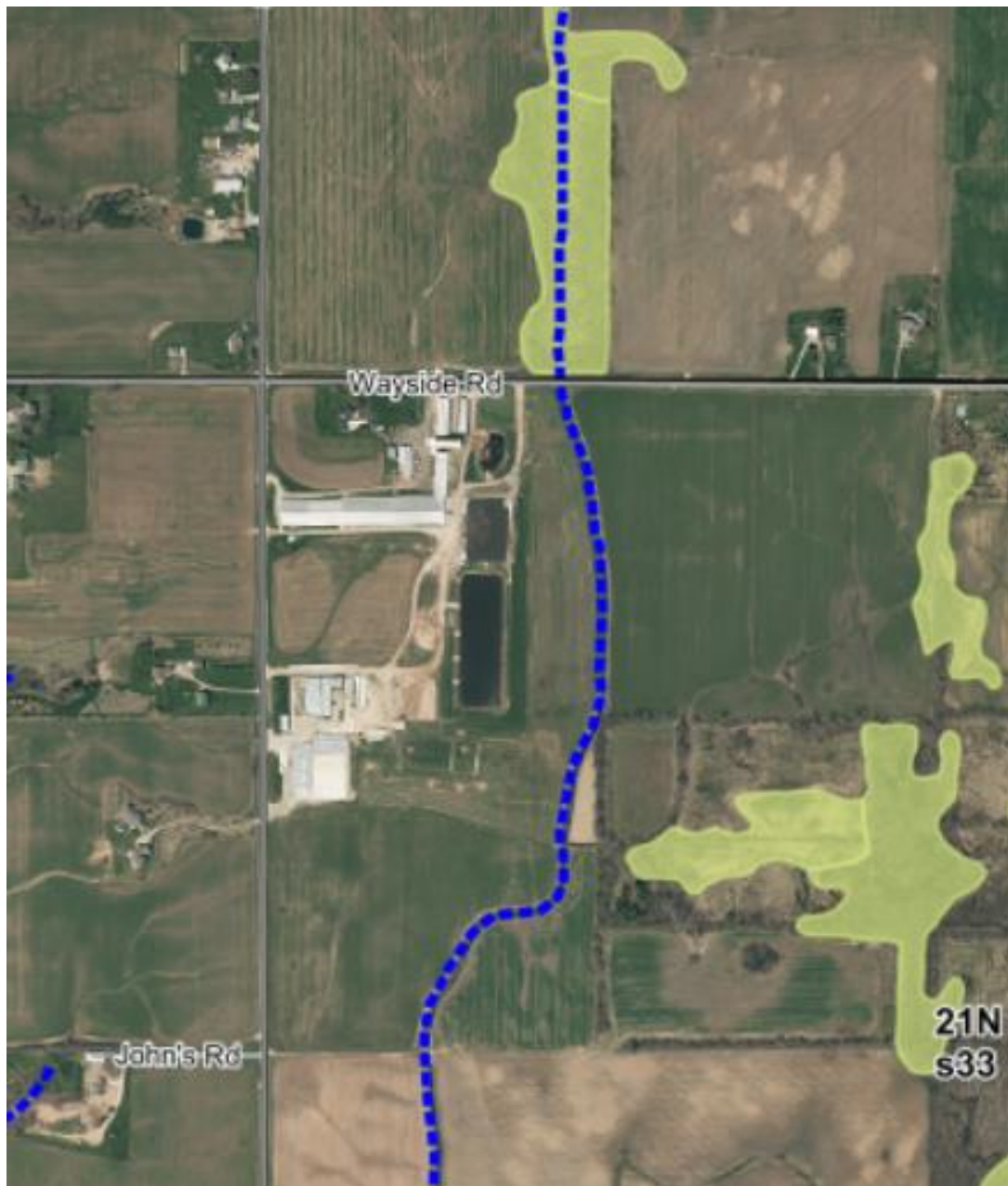


Figure 2. Aerial overview of Brickstead Dairy in relation to surface water features. Green areas indicate designated wetlands.

SITE OBSERVATIONS

Feedlot Runoff

Concrete open air feed lanes are utilized on the north side of the production area. Moveable canopies are used to divert clean water and create shade for animals during the summer months. Lots are scraped as needed and stored 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

Brickstead Dairy does not utilize any calf hutch areas. Calves are held onsite no more than a few days before they are picked up to be raised offsite.

Waste Storage Facilities

Manure and process wastewater is stored in four waste storage facilities on site. Brickstead Dairy utilizes sand for cattle bedding. Manure solids are placed on the south side of WSF 1 with any runoff flowing into the pit.

WSF 1 is an earthen pit with a concrete lined floor that was constructed in 2003. WSF 1 is used to store solid manure from the adjacent open-air lanes. This facility has a maximum operating level of 466,900 gallons. At the time of the inspection, permanent markers and safety fencing were present.

WSF 2 and WSF 3 operate as a two-celled system connected via a concrete overflow channel. WSF 2 is a concrete lined storage that was constructed in 2012 and relined with steel reinforced concrete-composite liner in 2014 (R-2014-0165) and is used as the sand settling cell. This storage accepts manure and process wastewater from the adjacent cattle freestall barn and parlor water and has a maximum operating level of 2.2 million gallons. Concrete agitation pads are present and fencing and permanent markers were in place during the inspection.

WSF 3 is an earthen lined storage constructed in 2010 that accepts manure and process wastewater from WSF 2. It has a maximum operating level of 9.87 million gallons. Concrete agitation pads are present and fencing and permanent markers were in place during the inspection.

WSF 4, the leachate basin, is a concrete lined storage that was constructed in 2020 (R-2020-0108). WSF 4 collects leachate and process wastewater from the feed storage area. It has a maximum operating level of 1.91 million gallons. Fencing and permanent markers were present at the time of inspection.

Solid and liquid waste storage facilities are managed to not have current or past indicators of discharges (includes headland stacking sites). Solid and liquid waste storage structures are well-maintained, in good repair, and in compliance with permit requirements. Liquid waste storage facilities have permanent markers installed.

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

Waste from the milking center is stored in WSF2. Process wastewater sources (milking center, wash water, etc.) are managed to not have current or past indicators of discharges.

Feed Storage Area Runoff

All feed is kept under plastic in concrete bunkers. The concrete is pitched to convey runoff towards the center of the feed storage area and then to the east where it is collected in the newly constructed leachate basin. The vegetated treatment area that was previously utilized by the farm has had the transfer lines capped and the vegetated area turned back into cropland. Perimeter tile is in place around the north and western sides of the feed pad. Captured runoff gravity flows to the leachate basin.

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.

Animal Mortality Disposal

Mortalities are temporarily placed on a concrete pad near WSF 2 prior to pick up. Animal mortalities are managed to not have current or past indicators of discharges.

Ancillary Service Areas

Barn gutters are in place to divert clean water from coming into contact with manure sources. Preventative maintenance actions and visual inspections are occurring to minimize pollutant discharges from ancillary service and storage areas.

Brickstead Dairy utilizes one pasture on the north side of the production area. At the time of inspection, the pasture was being prepped for hosting Sunset on the Farm.

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.

SUMMARY

Substantial Compliance

The permittee is in substantial compliance with the permit.

Areas of Concern

None

Permit Violations

None

Action Items

None

Materials Required as part of the Permit Application due **06/01/2025**

WSF 1 may require an evaluation if abandonment does not occur for farm expansion.

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)
- 3400-025G form (Evaluated Facilities of Systems 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 #:	875
Date/Time of Photo:	04/17/2025 9:34AM
Photo By:	Stegemann
Photo Location:	Open Air Feed Lanes

Photo Description:

View of open air feed lanes, looking south.



Photo #:	876
Date/Time of Photo:	04/17/2025 9:34AM
Photo By:	Stegemann
Photo Location:	Open Air Feed Lanes

Photo Description:

View of open air feed lanes, looking southeast.



Photo #:	881
Date/Time of Photo:	04/17/2025 9:35AM
Photo By:	Stegemann
Photo Location:	WSF 1

Photo Description:

View of WSF 1, looking southeast.



Photo #:	882
Date/Time of Photo:	04/17/2025 9:35AM
Photo By:	Stegemann
Photo Location:	WSF 1

Photo Description:

View of WSF 1, looking east.



Photo #:	884
Date/Time of Photo:	04/17/2025 9:36AM
Photo By:	Stegemann
Photo Location:	WSF 1

Photo Description:

View of permanent markers on southern berm, near ramp of WSF 1, looking northeast.



Photo #:	887
Date/Time of Photo:	04/17/2025 9:37AM
Photo By:	Stegemann
Photo Location:	WSF 2

Photo Description:

View of WSF 2, looking northeast.



Photo #:	889
Date/Time of Photo:	04/17/2025 9:37AM
Photo By:	Stegemann
Photo Location:	WSF 2

Photo Description:

View of WSF 2, looking southeast.



Photo #:	892
Date/Time of Photo:	04/17/2025 9:38AM
Photo By:	Stegemann
Photo Location:	WSF 2

Photo Description:

View of permanent markers in west berm of WSF 1, looking east.



Photo #:	897
Date/Time of Photo:	04/17/2025 9:39AM
Photo By:	Stegemann
Photo Location:	WSF 3

Photo Description:

View of permanent markers in west berm of WSF 3, looking east.



Photo #:	898
Date/Time of Photo:	04/17/2025 9:39AM
Photo By:	Stegemann
Photo Location:	WSF 3

Photo Description:

View of WSF 3, looking southeast.



Photo #:	901
Date/Time of Photo:	04/17/2025 9:42AM
Photo By:	Stegemann
Photo Location:	WSF 4

Photo Description:

View of permanent markers in north berm of WSF 4, looking southeast.



Photo #:	903
Date/Time of Photo:	04/17/2025 9:42AM
Photo By:	Stegemann
Photo Location:	WSF 4

Photo Description:

View of WSF 4, looking southwest.



Photo #:	905
Date/Time of Photo:	04/17/2025 9:43AM
Photo By:	Stegemann
Photo Location:	FSA

Photo Description:

View of feed storage area, looking east.



Photo #:	907
Date/Time of Photo:	04/17/2025 9:44AM
Photo By:	Stegemann
Photo Location:	FSA

Photo Description:

View of feed storage area, looking east.



Photo #:	910
Date/Time of Photo:	04/17/2025 9:49AM
Photo By:	Stegemann
Photo Location:	Pasture
Photo Description: View of the pasture, looking north.	



Photo #:	911
Date/Time of Photo:	04/17/2025 9:50AM
Photo By:	Stegemann
Photo Location:	Pasture
Photo Description: View of pasture, looking north.	





September 12th, 2025

Brown County
Approval

Dan Brick
Brickstead Dairy, LLC
1734 Wayside Rd
Greenleaf, WI 54126

SUBJECT: Conditional Approval of Brickstead Dairy, LLC Nutrient Management Plan, WPDES
Permit No. 0064378-04-0

Dear Dan Brick:

After completing a review of Brickstead 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 Brickstead 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. Specifically, some fields in Brickstead Dairy, LLC may have:

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

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

FINDINGS OF FACT

The Department confirms that:

1. A current dairy herd size of 1,470 animal units (1,050 milking & dry cows). A planned herd size of 1,820 animal units (1,300 milking & dry cows) by 2028.
2. Manure generation and spreading records indicate your herd will annually generate approximately 16,854,854 gallons of manure and process wastewater and 4,430 tons of solid manure in the first year of the permit term. Once the full expansion has taken place in 2028, your herd is projected to annually generate approximately 19,469,376 gallons of manure and process wastewater and 4,430 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 Brickstead Dairy, LLC currently has 1,895.5 acres (232.8 owned and 1,662.7 controlled through contracts, rental agreements or leases, or under manure agreements) of which 1,720.9 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 Brickstead 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:
 - 139 (default soil test)

If Brickstead 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 $\text{NH}_4\text{-N}$, percent $\text{NO}_3\text{-N}$, 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, Brickstead Dairy, LLC may use the following equation to adjust the first year available nitrogen when applications are injected or incorporated within 1 hour:

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

6. Brickstead Dairy, LLC shall record daily manure applications by using form 3200-123A. These forms shall be retained at the farm and provided to the department upon request.
7. Brickstead 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 form 3200-123.

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:

- 110	- 114	- 115
- 121	- 122	- 123
10. The following field(s) are denied for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:
 - 124 (unverified areas of channelized flow)
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. There are currently no approved stacking sites until current manure samples are obtained to determine eligibility of manure to be stacked. The farm is able to submit these to the department at any time for review.

NR243.143/151.075 SILURIAN BEDROCK PERFORMANCE STANDARDS

15. Manure generated by Brickstead 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.

- 113	- 134
-------	-------

MANURE & PROCESS WASTEWATER IRRIGATION

16. Irrigation of manure or process wastewater is prohibited.

SUBMITAL AND RECORDKEEPING REQUIREMENTS

17. 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.

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

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

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

Sincerely,

A handwritten signature in black ink that reads "Ashley Scheel". The signature is written in a cursive, flowing style.

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

CC:

Holly Stegemann, WDNR Agricultural Runoff Management Specialist (holly.stegemann@wisconsin.gov)
Joe Baetan, WDNR Watershed Field Supervisor (joseph.baeten@wisconsin.gov)
Elizabeth Osborne, Acting Section Chief-Runoff Management Section (elizabeth.dettman@wisconsin.gov)
Victoria Ziegler, WDNR CAFO Program Coordinator (victoria.ziegler@wisconsin.gov)
Aaron O'Rourke, WDNR Nutrient Management Program Coordinator (aaron.orourke@wisconsin.gov)
Falon French, WDNR Intake Specialist (falon.french@wisconsin.gov)
Rob Davis, WDNR CAFO Engineer (robert.davis@wisconsin.gov)
Nick Peltier, Brown County (nick.peltier@wisconsin.gov)
Bill Schaumberg, Brickstead Dairy, LLC (bill@tilthag.com)
File



August 6, 2025

FILE REF: R-2025-0161
WPDES Permit #: WI-0064378

Dan Brick
Brickstead Dairy
1734 Wayside Road
Greenleaf, WI 54126

Subject: Days of Storage Review for Brickstead Dairy in T21N, R20E, Section 33, Holland Township,
Brown County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Brick:

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 Patrick Roach, P.E., Roach and Associates, LLC on May 29, 2025 with revisions received on August 6, 2025 on behalf of Brickstead Dairy.

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 Brickstead Dairy currently has 358 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 1,470. Brickstead Dairy plans to expand to 1,820 animal units within the permit term which would lower the days of liquid waste storage to 299. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values for a collection period of 365 days. There is a dedicated storage for PWW only, WSF 4, which is stored separately from manure and provides 185 days of storage for PWW. WSF 4 provides full runoff collection of leachate and contaminated runoff for up to the 25-yr, 24-hr storm from the feed storage area. There is an additional 3,591,210 gallons of process wastewater, as shown below in the PWW only storage table, that is accounted for in the NMP in addition to the manure volumes.

Existing Condition (1,470 AU) – 358 Days of Storage

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding:	8,398,079
Parlor Wastewater:	2,593,719
Total Feed Storage Leachate:	0
Total Feed Storage Runoff Collected:	0
Net Precipitation on Storage Surfaces:	2,271,846
Total Liquid Waste Stored Below the MOL:	13,263,644

Total Liquid Waste Storage Capacity (Gallons)						
Waste Storage	Total Volume from Top to Bottom	-Remaining Solids	-25-yr, 24-hr Precipitation on Storage	-25-yr, 24-hr Collected Runoff	-Freeboard Volume	Max. Operating Level (MOL) Volume
WSF 1	559,865	0	43,268	0	114,732	401,865
WSF 2	3,602,226	0	131,162	0	338,247	3,132,817
WSF 3	11,697,972	1,061,938	307,180	0	862,349	9,466,505
					Total MOL Volume:	13,001,187

Proposed Condition (1,820 AU) – 299 Days of Storage

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding:	10,396,847
Parlor Wastewater:	3,209,473
Total Feed Storage Leachate:	0
Total Feed Storage Runoff Collected:	0
Net Precipitation on Storage Surfaces:	2,271,846
Total Liquid Waste Stored Below the MOL:	15,878,166

Total Liquid Waste Storage Capacity (Gallons)						
Waste Storage	Total Volume from Top to Bottom	-Remaining Solids	-25-yr, 24-hr Precipitation on Storage	-25-yr, 24-hr Collected Runoff	-Freeboard Volume	Max. Operating Level (MOL) Volume
WSF 1	559,865	0	43,268	0	114,732	401,865
WSF 2	3,602,226	0	131,162	0	338,247	3,132,817
WSF 3	11,697,972	1,061,938	307,180	0	862,349	9,466,505
					Total MOL Volume:	13,001,187

PWW STORAGE ONLY – 185 Days of Storage (Same for Existing and Proposed)

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding:	0
Parlor Wastewater:	0
Total Feed Storage Leachate:	56,104
Total Feed Storage Runoff Collected:	3,015,550
Net Precipitation on Storage Surfaces:	519,556
Total Liquid Waste Stored Below the MOL:	3,591,210

Total Liquid Waste Storage Capacity (Gallons)						
Waste Storage	Total Volume from Top to Bottom	-Remaining Solids	-25-yr, 24-hr Precipitation on Storage	-25-yr, 24-hr Collected Runoff	-Freeboard Volume	Max. Operating Level (MOL) Volume
WSF 4	2,738,080	118,537	110,279	389,467	299,417	1,820,380
					Total MOL Volume:	1,820,380

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

NOTICE OF APPEAL RIGHTS

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

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

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES



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



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

Email: Dan Brick; Brickstead Dairy
(920) 532-0386; dbrick@bricksteaddairy.com

Pat Roach, P.E.; Roach and Associates
(920) 833-6340; pat@jmroach.com

Matt Woodrow, P.E.; DATCP
(920) 427-8505; matthew.woodrow@wisconsin.gov

Nick Peltier; Brown County LCD
(920) 391-4633; Nick.Peltier@browncountywi.gov

Holly Stegemann; DNR, Northeast Region
(920) 360-0794; Holly.Stegemann@wisconsin.gov

Joe Baeten; DNR, Northeast Region
(920) 366-2072; Joseph.Baeten@wisconsin.gov

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

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