

# Permit Fact Sheet

## General Information

Permit Number:	WI-0063657-04-0
Permittee Name:	Blaken Farms LLC
Address:	W13887 Cty Rd D
City/State/Zip:	Melrose WI 54642
Discharge Location:	Town of Melrose
Receiving Water:	Douglas Creek
Discharge Type:	Existing

<b>Animal Units</b>					
<b>Animal Type</b>	<b>Current AU</b>		<b>Proposed AU</b> (Note: If all zeroes, expansions are not expected during permit term)		
	<b>Mixed</b>	<b>Individual</b>	<b>Mixed</b>	<b>Individual</b>	<b>Date of Proposed Expansion</b>
Dairy Calves (under 400 lbs.)	32	0	40	0	09/01/2028
Milking and Dry Cows	1092	1115	1372	1401	09/01/2028
Heifers (400 lbs. to 800 lbs.)	127	211	192	320	09/01/2028
Heifers (800 lbs. to 1200 lbs.)	322	293	638	580	09/01/2028
<b>Total</b>	<b>1573</b>	<b>1115</b>	<b>2242</b>	<b>1401</b>	

## Facility Description

Blaken Farms LLC is a Concentrated Animal Feeding Operation (CAFO) dairy farm in Jackson County. Blaken Farms is owned and operated by Joby Blaken, Larry Blaken, Terry Blaken, and John Dobbs. The dairy currently operates at 780 milking/dry cows, 504 heifers, and 160 calves (1,574 animal units). The dairy’s production area includes two cow barns, a milking parlor, one heifer barn, one calf barn, three waste storage structures, and a feed storage area.

Blaken Farms has a total of 1,579.7 cropland acres included in their nutrient management plan. Of these acres, 691.6 acres are owned, and 888.1 acres are rented or controlled by land agreement. Acres in the nutrient management plan are located in Jackson County.

## Substantial Compliance Determination

**Enforcement During Last Permit:** No enforcement action taken.

After a review of annual reports, permit reissuance application materials, and site inspections on 09/30/2021 and 08/22/2023, this facility has been found to be in substantial compliance with their current permit.

**Compliance determination entered by Clare Freix, Agricultural Runoff Specialist on 01/22/2024.**

<b>Sample Point Designation For Animal Waste</b>	
<b>Sample Point Number</b>	<b>Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)</b>
001	WSF 1 - Sample point 001 is for liquid waste storage facility one (WSF 1). WSF 1 is an earthen lined waste storage facility that was constructed in 2004. WSF 1 is located directly east of WSF 2 (sample point 002) and has an approximate maximum operating level capacity of 5,900,301 gallons. WSF 1 primarily accepts liquid manure and parlor wastewater generated within the freestall barns and milking parlor. WSF 1 also accepts wastewater from the calf barn, solid manure generated from the barn, and leachate from the feed storage area. Due to the age of the WSF 1, and since a complete engineering evaluation has not been submitted and reviewed by the Department to date, an engineering evaluation of WSF 1 will be included in the schedules section of the reissued permit.
002	WSF 2 - Sample point 002 is for liquid waste storage facility two (WSF 2). WSF 2 is a clay lined waste storage facility located directly west of WSF 1 (sample point 001). WSF 2 has an approximate maximum operating level capacity of 1,584,104 gallons and was completed in 2023. WSF 2 accepts liquid manure generated within then new heifer barn. WSF 1 and WSF 2 are connected by a transfer pipe which allows liquid manure to flow between the two storage facilities as needed.
003	Feed Storage Area Runoff Basin - Sample point 003 is for the concrete collection basin that was constructed in 2021. The 40,000-gallon concrete collection basin is located on the south side of the feed storage pad (sample point 008). Leachate and feed storage runoff flows into the concrete collection basin and drains into a manhole where it gravity flows into the freestall barn transfer channel to be transferred to WSF 1.
004	Farm Solid Manure - Sample point 004 is for the solid manure stacking area located at the east end of the calf barn and other miscellaneous sources of solid manure that are directly land applied. Solid manure generated from the barn is staged within the stacking area where it is either directly land applied when conditions allow, or otherwise added to liquid manure storage. Representative samples shall be taken for each manure source type.
005	Headland Stacking - Sample point 005 is for solid manure land applied from approved headland stacking sites. Representative samples shall be taken from each stacking site prior to land application. Stacking sites are defined as part of the production area and therefore are subject to the Production Area Discharge Limitations section of the permit. Weekly inspections of stacking sites are required and shall be recorded according to the monitoring and inspection program.
006	Feed Storage and Runoff Controls - Sample point 006 is for visual inspection and monitoring of the concrete feed storage pad and runoff control system located at the north end of the farm. The feed storage area was constructed around 2004 and is approximately 1.2 acres in size. Leachate and feed storage runoff flows into the 40,000-gallon concrete collection basin off the south side of the feed storage area. Excess leachate and feed storage runoff that the basin cannot accommodate overflows through an emergency overflow channel at the southeast corner of the basin. Any overflow from the runoff basin collects in a low spot within a grassy area just north of the freestall barns and eventually flows east through a grassed waterway into a field. Weekly inspections are required and shall be recorded according to monitoring

<b>Sample Point Designation For Animal Waste</b>	
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	program.
007	Storm Water Runoff Control System - Sample point 007 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.

# 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.

Based on 1,574 animal units, it is estimated the permittee will have 256 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 780 milking/dry cows, 504 heifers, and 160 calves (1,574 animal units) it is estimated Blaken Farms will produce 11 million gallons of liquid manure and 525 tons of solid manure produced per year. The permittee owns *approximately* 691.6 acres of cropland and rents about 888.1. Given the rotation commonly used by the permittee, 1,492.3 acres are available (or open) to receive manure and process wastewater on an annual basis. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

The permittee is required to implement a number of practices to address potential water quality impacts associated with the land application of manure and process wastewater. Among the permit conditions are restrictions on manure ponding, restrictions on runoff of manure and process wastewater from cropped fields, and setbacks from wells and direct conduits to groundwater (e.g., sinkholes, fractured bedrock at the surface). In addition, the permittee must implement a phosphorus based nutrient management plan that addresses phosphorus delivery to surface waters by basing manure and process wastewater applications on soil test phosphorus levels or the Wisconsin Phosphorus index. Additional phosphorus application restrictions apply to fields that are high in soil test phosphorus (>100 ppm).

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

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

## **Monitoring and Sampling Requirements**

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

## **Sampling Points**

The permit identifies the different sources of land applied materials (e.g., manure storage facilities, milking centers, egg-washing facilities) as "Sampling Points." For these Sampling Points, the permittee is required to sample and analyze the different sources for nutrients and other parameters which serve as the basis for determining rates of application for these materials. Other areas are also identified as Sampling Points as a means of identifying them as areas requiring action by

the permittee, such as an upgrade or evaluation of a certain system or structure (e.g., runoff control systems), even though sampling is not actually required.

**Sample Point Number: 001- WSF 1; 002- WSF 2; 003- Runoff Collection Basin**

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 descriptions have changed to better represent current operations at the farm.

**1.1.2 Explanation of Operation and Management Requirements**

Sampling frequency and analysis parameters are consistent with CAFO sampling requirements.

**Sample Point Number: 004- Solid Manure; 005- Headland Stacking Sites**

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	

**1.1.3 Changes from Previous Permit**

Sample point descriptions have changed to better represent current operations at the farm.

**1.1.4 Explanation of Operation and Management Requirements**

Sampling frequency and analysis parameters are consistent with CAFO sampling requirements.

## Sample Point Number: 006- Feed Storage & Runoff Controls and 007- Storm Water Runoff Controls

### 1.1.5 Changes from Previous Permit

Sample Point 007 Storm Water Runoff Controls have been added.

### 1.1.6 Explanation of Operation and Management Requirements

Inspection of Storm Water Runoff Controls have been added to the monitoring and inspection plan.

## 2 Schedules

### 2.1 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: Develop a written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	04/30/2024

### 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 60 days of the effective date of this permit.	05/31/2024

### 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.	01/31/2025
Submit Annual Report #2: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2026
Submit Annual Report #3: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2027
Submit Annual Report #4: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2028
Submit Annual Report #5: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2029

Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	
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## 2.4 Nutrient Management Plan

Submit annual Nutrient Management Plan (NMP) updates by March 31st of each year. Note, in addition to 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
Submit NMP Annual Update #1: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department form 3400-025D.	03/31/2025
Submit NMP Annual Update #2: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department form 3400-025D.	03/31/2026
Submit NMP Annual Update #3: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department form 3400-025D.	03/31/2027
Submit NMP Annual Update #4: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department form 3400-025D.	03/31/2028
Submit NMP Annual Update #5: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department form 3400-025D.	03/31/2029
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	

## 2.5 Manure Storage Facility - Engineering Evaluation

An engineering evaluation report will be required for WSF-1 (Sample Point 001). The report will need to demonstrate the structure's ability to meet permit discharge limitations.

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.)	12/31/2024
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.	06/30/2025
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.	12/31/2026

## 2.6 Manure Analysis Results

Submittal of Manure Analysis Results - Submit analysis for all manure samples taken from each source/sample point land applied from during the specific quarter.

Required Action	Due Date
Manure Analysis Results 2024 Q2: Submittal of Manure Analysis Results - Submit analysis for all manure samples taken from each source/sample point land applied during second quarter of 2024.	07/30/2024
Manure Analysis Results 2024 Q3: Submittal of Manure Analysis Results - Submit analysis for all manure samples taken from each source/sample point land applied during third quarter of 2024.	10/30/2024
Manure Analysis Results 2024 Q4: Submittal of Manure Analysis Results - Submit analysis for all manure samples taken from each source/sample point land applied during fourth quarter of 2024.	01/30/2025
Manure Analysis Results 2025 Q1: Submittal of Manure Analysis Results - Submit analysis for all manure samples taken from each source/sample point land applied during first quarter of 2025.	04/30/2025
Manure Analysis Results 2025 Q2: Submittal of Manure Analysis Results - Submit analysis for all manure samples taken from each source/sample point land applied during second quarter of 2025.	07/30/2025
Manure Analysis Results 2025 Q3: Submittal of Manure Analysis Results - Submit analysis for all manure samples taken from each source/sample point land applied during third quarter of 2025.	10/30/2025
Manure Analysis Results 2025 Q4: Submittal of Manure Analysis Results - Submit analysis for all manure samples taken from each source/sample point land applied during fourth quarter of 2025.	01/30/2026
Manure Analysis Results 2026 Q1: Submittal of Manure Analysis Results - Submit analysis for all manure samples taken from each source/sample point land applied during first quarter 2026.	04/30/2026

## 2.7 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	10/02/2028

## 2.8 Explanation of Schedules

Schedule sections 2.1, 2.2, 2.3, 2.4, and 2.7 represent standard CAFO requirements. Schedule sections 2.5 and 2.6 have been added based on file and permit application review.

## Special Reporting Requirements

NA

## Other Comments:

NA



**Attachments:**

NA

**Expiration Date:**

March 31, 2029

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

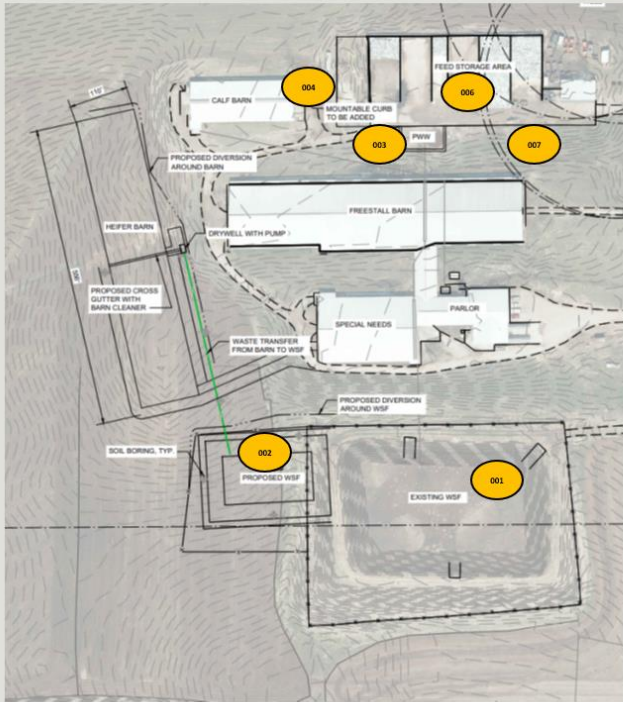
NA

**Prepared By: Clare Freix**

**Agricultural Runoff Management Specialist**

**Date: 01/22/2024**

## Blaken Farms Sample Points



### Sample Points – Waste Materials

- 001
**Waste Storage Facility 1**
- 002
**Waste Storage Facility 2**
- 003
**Feed Storage Area Runoff Basin**
- 004
**Farm Solid Manure**

### Sample Points – Runoff Controls

- 006
**Feed Storage and Runoff Controls**
- 007
**Stormwater Runoff Control System**

### Sample Point – Outside of Production Area

- 005
**Headland Stacking**