

Permit Fact Sheet

General Information

Permit Number:	WI-0062634-04-0
Permittee Name:	Hillsprairie Dairy LLC
Address:	S836 Subera Lane
City/State/Zip:	Hillsboro WI 54634
Discharge Location:	Town of Hillsboro, Vernon County
Receiving Water:	Hills Creek, within the Baraboo Watershed

Animal Units					
	Current AU		Proposed AU (Note: If all zeroes, expansions are not expected during permit term)		
	Mixed	Individual	Mixed	Individual	Date of Proposed Expansion
Dairy Calves (under 400 lbs.)	20	0	0	0	
Milking and Dry Cows	1425	1456	0	0	
Heifers (400 lbs. to 800 lbs.)	60	100	0	0	
Heifers (800 lbs. to 1200 lbs.)	61	55	0	0	
Beef Calves (under 400 lbs.)	1	0	0	0	
Total	1567	1456	0	0	

Facility Description

Hillsprairie Dairy LLC is a Concentrated Animal Feeding Operation (CAFO) dairy farm in Vernon County. Hillsprairie Dairy is owned and operated by the Mitchell Family. The dairy currently operates at 1,018 milking/dry cows, 155 heifers, 100 calves, and 6 beef cattle (1,456 animal units). The dairy’s production area consists of two cow barns, two youngstock barns, three waste storage structures, and a feed bunker area.

Substantial Compliance Determination

Enforcement During Last Permit: The Department issues Hillsprairie Dairy a Notice of Noncompliance on April 14, 2023, for insufficient record keeping in 2022. The facility has completed all previously required actions as part of the enforcement process.

After a review of annual reports, permit reissuance application materials, and site inspections on 3/31/2021, 5/11/2022, 11/17/2022, and 12/27/2023, this facility has been found to be in substantial compliance with their current permit

3)

Compliance determination entered by Jeff Jackson – CAFO Program Regional Field Staff on January 17, 2024.

Sample Point Designation for Animal Waste	
Sample Point Number	Sample Point Location, Waste Type/sample Contents and Treatment Description (as applicable)
001	Sample point 001 is for liquid waste stored in waste storage facility 1 "Stage One Lagoon". Stage One Lagoon is a clay-lined storage structure with a concrete floor. The concrete floor is used as a working surface to remove settled manure laden sand. This structure was built in 2003 and has a maximum operating level capacity of approximately 1.4 million gallons. This storage accepts manure and liquid waste produced at the farm. Used bedding and solid manure is seasonally stacked on the structures concrete ramp. Representative samples shall be taken monthly when land applying this material.
002	Sample point 002 is for liquid waste stored in waste storage facility 2 "Stage Two Lagoon". Stage Two Lagoon is a clay-lined storage structure that receives liquid manure from Stage One via concrete transfer channel. This structure was built in 2003 and has a maximum operating level capacity of approximately 6.7 million gallons. Representative samples shall be taken monthly when land applying this material.
003	Sample point 003 is for liquid waste stored in waste storage facility 3 "Feed Bunker Runoff Pond". This waste storage is a clay-lined storage structure that receives contaminated runoff from the feed bunker area. This structure was built in 2016 and has a volume capacity of 1.2 million gallons, with a maximum operating level capacity of approximately 684,000 gallons. Representative waste samples shall be taken monthly when directly land applying this material to cropped fields.
004	Sample point 004 is for all settled solids removed from Stage One Lagoon. This includes manure solids and recovered sands. Representative samples shall be taken quarterly when land applying this material to determine nutrient content.
005	Sample point 005 is for all solid waste sources that are directly land applied and not stored in Stage One Lagoon. This includes solid sources such as material from the calf barn, heifer barn, waste feed, etc. Representative samples shall be taken for each waste source type.
007	Sample point 007 is for visual monitoring & inspection of feed bunker area and associated runoff control system. Proper operation and maintenance are required to prevent unlawful discharges to surface and groundwater resources. Weekly inspections are required and shall be recorded according to the Hillsprairie Dairy Monitoring and Inspection Plan.
008	Sample point 008 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes drainage tile systems, grassed waterways, and other diversion systems that transport uncontaminated storm water off site. Proper operation and maintenance are required to keep uncontaminated runoff diverted away from manure and other raw materials.

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 current animal numbers and existing structures, Hillsprairie Dairy has approximately 262 days of storage for liquid manure. Permittees 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 1,018 cows, 155 heifers, 100 calves, and 6 beef cattle, it is estimated that approximately 11.7 million gallons of manure & process wastewater and 2,752 tons of solids will be produced per year. Hillsprairie Dairy owns *approximately* 774.7 acres of cropland and rents an additional 888 acres. 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- Stage One Lagoon; 002- Stage Two Lagoon; 003- Feed Bunker Runoff Pond

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- Stage One - Solids; 005- Daily Generated 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	

1.1.3 Changes from Previous Permit

Sample point descriptions have been changed to better represent current management of solids 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: 007- Feed Bunkers & Runoff Controls and 008- Stormwater Runoff Control

1.1.5 Changes from Previous Permit

A sample point has been added for stormwater runoff controls.

1.1.6 Explanation of Operation and Management Requirements

Inspection of stormwater runoff control features will now be required as part of the farm's Monitoring & 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.	03/30/2024

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 30 days of the effective date of this permit.	03/30/2024

2.3 Mortality Management Plan

Required Action	Due Date
Submit Mortality Management Plan: Mortality Management Plan: Develop a written mortality management plan within 30-days of permit coverage. Plan shall identify daily and catastrophic mortality disposal practices that will be implemented to stay compliant with pollutant discharge limitations identified in Permit Section 3.2.4 Mortality Management.	03/30/2024

2.4 Annual Reports

Submit Annual Reports by January 31st of each year in accordance with the Annual Reports subsection in Standard Requirements.

Required Action	Due Date
Submit Annual Report #1: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2025
Submit Annual Report #2: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E. In addition, provide documentation of the completed corrective actions taken for areas of Stage Two Lagoon (sample point 002) identified in the Hillsprairie Dairy Permit Meeting & Inspection Report - January 9, 2024. Submitted documentation shall include photo documentation and a description of actions taken. If completed a head of schedule, corrective actions documentation can be provided via email to your DNR CAFO Program point of contact.	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.	

2.5 Nutrient Management Plan

Required Action	Due Date
-----------------	----------

Management Plan Annual Update #1: Submit an Annual Update to the Nutrient Management Plan by March 31st of each year. Note: In addition to Annual Updates, submit Management Plan Amendments to the Department for written approval prior to implementation of any changes to nutrient management practices, in accordance with the Nutrient Management requirements in the Livestock Operational and Sampling Requirements section.	03/31/2024
Management Plan Annual Update #2: Submit an Annual Update to the Nutrient Management Plan.	03/31/2025
Management Plan Annual Update #3: Submit an Annual Update to the Nutrient Management Plan.	03/31/2026
Management Plan Annual Update #4: Submit an Annual Update to the Nutrient Management Plan.	03/31/2027
Management Plan Annual Update #5: Submit an Annual Update to the Nutrient Management Plan.	03/31/2028
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	

2.6 Permanent Markers - Installation

Required Action	Due Date
Complete Installation: Complete installation of permanent markers in the Feed Bunker Runoff Pond.	12/31/2024

2.7 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	09/01/2028

2.8 Explanation of Schedules

In addition to standard CAFO permit schedule items, additional actions have been added based on previous department inspections.

Other Comments:

N/A

Attachments:

Sample point map of the production area

Expiration Date:

February 28, 2029

Justification Of Any Waivers from Permit Application Requirements

No waivers issued.

Prepared By: Jeffrey Jackson Agricultural Runoff Management Specialist

Date: January 17, 2024

Notice of permit reissuance was published in the [Enter name of publication], [Enter address of publication].

