

Permit Fact Sheet

General Information

Permit Number	WI-0067449-01-0
Permittee Name and Address	Four Cubs Farm LLC 23250 S Williams Rd, Grantsburg, WI 54840
Permitted Facility Name and Address	Four Cubs Farm LLC 23250 south Williams Road Grantsburg
Permit Term	July 01, 2025, to June 30, 2030
Discharge Location	Wood River Township, Burnett County
Receiving Water	Unnamed Tributary to Wood River
Discharge Type	Existing Source

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
Dairy Calves (under 400 lbs.)	3	0	0	0	
Milking and Dry Cows	1540	1573	0	0	
Heifers (800 lbs. to 1200 lbs.)	39	35	0	0	
Total	1582	1573	0	0	

Facility Description

Four Cubs Farm LLC is a Concentrated Animal Feeding Operation (CAFO) dairy farm located in Wood River Township in Burnett County. The dairy has been a permitted CAFO since 2013 and needs to have their permit reissued for another permit-term.

The dairy is owned and operated by the Peterson Family (Gary, Cris, and Ben), currently operating with approximately 1,100 milking/dry cows, 52 heifers, and 75 calves (~ 1,612 animal units). The dairy is not proposing a herd expansion during the next permit-term.

The dairy site is comprised of one manure storage structure, solid manure stacking pad, feed bunker area, vertical grain silos and several equipment buildings.

Substantial Compliance Determination

Enforcement During Last Permit:

The department did not take enforcement actions against Four Cubs Farm during the previous permit-term.

After a review of annually submitted reports, permit reissuance application materials, and site inspections on August 31, 2021, October 12, 2021, and April 8, 2025, Four Cubs Farm has shown to be in substantial compliance with their WPDES CAFO permit.

Compliance determination made by Jeff Jackson – DNR Agricultural Runoff Specialist on May 12, 2025.

Sample Point Designation for Animal Waste		
Sample Point Number	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)	
001	Manure Pit: Sample point 001 is for liquid waste stored in waste storage facility 1 (Manure Pit). Manure Pit is a clay-lined storage structure constructed in 2007, then expanded in 2023. The structure has a maximum operating level capacity of approximately 8.6 million gallons. Representative manure samples shall be taken in accordance to permit requirements.	
002	Solid Stacking Pad: Sample point 002 is for solid manure stored on the Solid Stacking Pad. Representative manure samples shall be taken in accordance to permit requirements.	
003	Miscellaneous Solids: Sample point 003 is for solid waste sources that are directly land applied and not stored on the Solid Stacking Pad or in the Manure Pit. This includes solid sources such as maternity pen pack, calf bedding, frozen liquid manure, waste feed, etc. Representative samples shall be taken for each solid waste source type.	
005	Feed Bunkers & Runoff Control System: Sample point 005 is for visual monitoring & inspection of the feed bunkers and associated runoff control systems. Proper operation and maintenance are required to prevent unlawful discharges to waters of the state. Weekly inspections are required and shall be recorded according to the farm's monitoring & inspection program.	
006	Storm Water Systems: Sample point 006 is for weekly visual monitoring and inspection of all production site storm water conveyance systems. This includes drain tile systems, grassed stormwater channels, and other diversion systems that are meant to 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.

The permittee currently has approximately 229 days of storage for liquid manure and process wastewater. The permittee must maintain 180 days of storage, unless temporary reductions in required storage are approved by the Department.

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 1,100 cows, 52 heifers, and 75 calves, it is estimated that approximately 12.8 million gallons of manure and process wastewater and 178 tons of solid manure will be produced per year. The permittee owns *approximately* 345 acres of cropland and rents about 1,854 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.

1.1 Sample Point Number: 001- Manure Pit

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes

1.1.1 Changes from Previous Permit

No change

1.1.2 Explanation of Operation and Management Requirements

Sampling frequencies for sample point 001 meet standard CAFO permit requirements.

1.2 Sample Point Number: 002- Solid Stacking Pad; 003- Miscellaneous Solids

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lbs/ton	Quarterly	Grab	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
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

1.2.2 Explanation of Operation and Management Requirements

Sampling frequencies for sample point 001 meet standard CAFO permit requirements.

1.3 Sample Point Number: 005- Feed Bunkers & Runoff Controls and 006- Stormwater Systems

1.3.1 Changes from Previous Permit

Sample points 005 and 006 are being added to account for runoff control systems on site.

1.3.2 Explanation of Operation and Management Requirements

Visual monitoring and inspection of these structures are required and shall comply with permit requirements.

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.	07/30/2025

2.2 Explanation of Schedules

This is a standard CAFO permit requirement.

2.3 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.	07/30/2025

2.4 Explanation of Schedules

This is a standard CAFO permit requirement.

2.5 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.	

2.6 Explanation of Schedules

This is a standard CAFO permit requirement.

2.7 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
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.	

2.8 Explanation of Schedules

This is a standard CAFO permit requirement.

2.9 Feed Storage - Engineering Evaluation

This item pertains to the runoff control system, including the vegetated treatment area, that services the feed bunkers.

Required Action	Due Date
Written Description of Existing System: Submit an engineering evaluation that includes a written description of the existing feed storage area and its adequacy to meet the conditions found in the Production Area Discharge Limitations subsection and NR 243.15, Wis. Adm. Code.	07/01/2026
Plans and Specifications: Submit plans and specifications for Department review and approval to permanently correct any adverse conditions identified as part of the engineering evaluation for the feed storage area in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code.	02/01/2027
Corrections and Post Construction Documentation: Complete construction of improvements to permanently correct 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.	12/01/2027

2.10 Explanation of Schedules

The intent of this schedule item is to ensure runoff controls for the feed bunkers meet permit discharge requirements.

2.11 Submit Permit Reissuance Application

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

2.12 Explanation of Schedules

This is a standard CAFO permit requirement.

Attachments

- Sample Point Map
- NMP Approval Letter

Prepared By: Jeffrey Jackson Agricultural Runoff Management Specialist

Date: May 12, 2025

Four Cubs Farm LLC Sample Point Site Map



Sample Points – Waste Materials

- 001 Manure Pit
- 002 Solid Stacking pad
- 003 Miscellaneous Solids

Monitoring Points – Runoff Controls

- 005 Feed Pad & Runoff Control System
- 006 Stormwater Structures Around the site



March 25, 2025

Burnett County
Approval

Ben Peterson
Four Cubs Farm LLC
23250 S Williams Rd
Grantsburg, WI 54840

SUBJECT: Conditional Approval of Four Cubs Farm LLC Nutrient Management Plan, WPDES
Permit No. 0067449-01-0

Dear Mr. Peterson:

After completing a review of Four Cubs Farm LLC 2025-2029 Nutrient Management Plan (NMP) the Wisconsin Department of Natural Resources (Department) is providing conditional approval that it is consistent with Nutrient Management Requirements in s. NR 243, Wis. Adm. Code. This part of your WPDES permit application is now ready for the public notice and comment process as required by Ch. 283 Stats.

Before applying manure onto approved fields each season, the Department recommends Four Cubs Farm LLC review the NMP with those individuals involved with manure applications to ensure all remain familiar with the approved manure spreading protocol, spreading maps, field and map verification, record keeping requirements, and all the conditions of this approval.

FINDINGS OF FACT

The Department confirms that:

1. A current dairy herd size of 1,612 animal units (1,100 milking & dry cows, 52 heifers, and 75 calves). Currently there are no planned expansions in the next permit term.
2. Manure generation and spreading records indicate your herd will annually generate approximately 12,870,265 gallons of manure and process wastewater and 178 tons of solid manure in the first year of the permit term.
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 Four Cubs Farm LLC currently has 2,199 acres (345 owned and 1,854 controlled through contracts, rental agreements or leases, or under manure agreements) of which 2,123 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 2025-2029 Four Cubs Farm 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 have also been approved to receive industrial, municipal, or septage waste:

Field Name	Other Permittee Name	Other Permittee Field Name	DNR #
WR17-A	Burnett Dairy Cooperative	Byers-8	29949
WR19-D	Burnett Dairy Cooperative	Byers-9B	29951
WR22-A	Burnett Dairy Cooperative	Chell-17	29962

Prior to any manure applications on these fields Four Cubs Farm LLC shall contact the entities listed above to obtain recent spreading records and make the necessary adjustments to the planned manure application rates. At the end of each year Four Cubs Farm LLC shall contact each entity listed above to obtain spreading records from the previous year so that they can be properly tracked in the NMP. Please Note: Four Cubs Farm LLC is responsible for obtaining nutrient content values for all other wastes spread on any field in their NMP.

3. The following fields are prohibited from receiving applications of manure or process wastewater:

- WR18-F (>200ppm P)
- WR20-F (>200ppm P)
- WR29-F (default soil test)

If Four Cubs Farm 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.

4. 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.
5. All liquid manure samples collected may be analyzed, at a minimum, for percent dry matter, total nitrogen, percent NH₄-N, percent NO₃-N, phosphorus, potassium, and sulfur.

6. 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, Four Cubs Farm LLC may use the following equation to adjust the first year available nitrogen when applications are injected or incorporated within 1 hour:

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

7. Four Cubs Farm 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.
8. Four Cubs Farm 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

9. Liquid manure applications during winter conditions, as defined by NR 243.14(7), Wis. Adm. Code, are prohibited with the exception of emergency applications.
10. The following field(s) are approved for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:

- D27-A	- D27-B	- G13-B
- TL6-B	- WR8-A	
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. No headland stacking sites are approved.

MANURE & PROCESS WASTEWATER IRRIGATION

15. Irrigation of manure or process wastewater is prohibited.

SUBMITAL AND RECORDKEEPING REQUIREMENTS

16. 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.
17. Within **30 days** of this approval, submit updated spreading maps that encompass all manure spreading restrictions. The current versions of the maps have road ditches, SWQMA areas, and concentrated flow channels all on separate maps.

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 715-214-5503 or Aaron.Orourke@Wisconsin.gov.

Sincerely,

A handwritten signature in black ink, appearing to be 'AOR', written over a light gray grid background.

Aaron O'Rourke
WDNR Nutrient Management Program Coordinator
Wisconsin Department of Natural Resources

cc: Jeff Jackson, WDNR Agricultural Runoff Specialist (Jeffery.Jackson@Wisconsin.gov)
Brad Johnson, WDNR Watershed Field Supervisor (BradleyA.Johnson@Wisconsin.gov)
Chris Clayton, WDNR Ag Runoff Section Chief (Christopherr.Clayton@Wisconsin.gov)
Ashley Scheel, WDNR CAFO NMP Reviewer (Ashley.Scheel@Wisconsin.gov)
Falon French, WDNR Intake Specialist (Falon.French@Wisconsin.gov)
Dave Ferris, Burnett County (dave.ferris@burnettcountywi.gov)
Jeffery Frase, Frase Crop Consulting (frasecrop@gmail.com)
File