Permit Fact Sheet

General Information

Permit Number:	WI-0062651-04-0
Permittee Name:	Vir Clar Farms LLC
Address:	N5421 County Rd K
City/State/Zip:	Fond du Lac WI 54937
Discharge Location:	N5057 County Rd K, Fond du Lac WI
Receiving Water:	DeNeveu Creek
Discharge Type:	Existing

Animal Units					
	Current AU		**Proposed AU** (Note: If all zeroes, expansions are not expected during permit term)		
Animal Type	**Mixed**	**Individual**	**Mixed**	**Individual**	**Date of Proposed Expansion**
Dairy Calves (under 400 lbs.)	150	0	0	0	
Milking and Dry Cows	3227	3296	0	0	
Heifers (800 lbs. to 1200 lbs.)	125	114	0	0	
Total	3502	3296	0	0	

Facility Description

Vir Clar Farms LLC is an existing Concentrated Animal Feeding Operation (CAFO) dairy farm in the Town of Empire in Fond du Lac County. The operation consists of the Main Dairy Site and Artesian Road Site. The Main Dairy Site consists of three freestall barns, calf hutch housing area, calf loafing sheds; two feed storage pads; three vertical digesters; an under-barn manure storage structure; an open concrete-lined manure storage structure; feed center; large vertical grain bins; and several stormwater ponds. The Artesian Road Site consists of one loafing shed used to house dry cows and an open concrete-lined manure storage structure.

The farm is operating at 3,502 Animal Units (2,305 cows, 114 heifers, and 750 calves) and is not currently proposing an expansion during the next permit-term. Based on current animal numbers the operation is estimated to produce approximately 32,874,792 gallons of liquid waste and 900 tons of solid waste annually. Based on estimated waste generation, the farm is believed to have approximately 247 days of liquid storage available.

Substantial Compliance Determination

After a review of Annual Reports, permit reissuance application materials, and a site inspection on October 27, 2022, the farm has been found to be in substantial compliance with their permit.

Compliance determination entered by: Jeff Jackson – DNR Agriculture Runoff Specialist on April 18, 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 storage facility WSF-1. WSF-1 is an under-barn waste storage facility with slatted floors below Cow Barn 1. The storage structure has a capacity of approximately 4.3 million gallons.	
002	Sample point 002 is for liquid waste storage facility WSF-2. WSF-2 is a concrete lined storage structure located at the Main Farm Site. The facility was constructed in 2010 and has a capacity of approximately 12 million gallons.	
003	Sample point 003 is for liquid waste storage facility WSF-3. WSF-3 is located at the Artesian Road Site. WSF-3 is a concrete-lined storage with a capacity of approximately 6 million gallons and was constructed in 2016.	
004	Sample point 004 is for solids removed from the liquid waste stream through digested solids and/or solid separation. Solids are typically reused as animal bedding and stored unroof.	
005	Sample point 005 is for miscellaneous sources of solid waste such as used calf bedding, solids removed from waste storage facilities, waste feed, etc. which are land applied. Representative samples shall be taken for each waste source before it is land applied.	
006	Sample point 006 is for the future Feed Leachate Collection Basin. This structure is designed to storage feed leachate and feed pad runoff from the farm's feed storage pads. Waste will be transferred to WSF-2 via waste transfer system. Weekly inspections are required and shall be recorded according to the Vir Clar Farms Monitoring & Inspection Program.	
007	Sample point 007 is for the visual monitoring and inspection of the farm's Feed Storage Pads (FSPs) and associated runoff control systems. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to the Vir Clar Farms Monitoring & Inspection Program.	
008	Sample point 008 is for visual monitoring and inspection of the calf hutch housing area. Stacking of used bedding in this area shall be avoided. Weekly inspections are required in accordance with the Vir Clar Farms Monitoring & Inspection Program.	
009	Sample point 009 is for visual monitoring and inspection of all production area storm water conveyance systems, both at the Main Farm Site and Artesian Road Site. This includes drainage tile systems, grassed waterways, and other diversion systems that transport uncontaminated storm water from the site. 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 the Vir Clar Farms Monitoring & Inspection 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.

Vir Clar Farms has an estimated 247 days of storage for manure and process wastewater based on current animal numbers and systems. 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

Vir Clar Farms has a total of 3,428.7 acres in their nutrient management plan. Of these acres, 2,284.8 acres are owned, and 1,143.9 acres are rented or controlled through manure spreading contracts. Acres are located within the Fond du Lac County townships of Fond du Lac, Empire, Byron, Eden, and Taycheedah.

The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report

that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

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

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

In addition, the permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure (≥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- Underbarn Manure Storage; 002- WSF-2; 003- WSF-3 (Artesian Site); 006- Leachate 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	

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
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 006 – Leachate Collection Basin has been added to reflect future changes at the farm.

1.1.2 Explanation of Operation and Management Requirements

Sample point 006 will require routine monitoring & inspection and will be included in the Vir Clar Farm Monitoring & Inspection Program. Waste material will need to be sampled for nutrient content if directly land applied.

Sample Point Number: 004- Digested/Separated Solids; 005- Miscellaneous 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

No changes.

1.1.4 Explanation of Operation and Management Requirements

Sampling requirements are standard for solid sources.

Sample Point Number: 007- West FSP and Runoff Controls; 008- Calf Hutch Housing, and 009- Stormwater

1.1.5 Changes from Previous Permit

Sample point 007 now includes both feed storage pads. Pads have been combined to reflect the future runoff control systems.

1.1.6 Explanation of Operation and Management Requirements

These structures will need to be included in the Vir Clar Farm Monitoring & Inspection Program.

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.	07/30/2024

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.	07/30/2024

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.	

2.4 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.	03/31/2025
Management Plan Annual Update #2: Submit an Annual Update to the Nutrient Management Plan.	03/31/2026
Management Plan Annual Update #3: Submit an Annual Update to the Nutrient Management Plan.	03/31/2027
Management Plan Annual Update #4: Submit an Annual Update to the Nutrient Management Plan.	03/31/2028
Management Plan Annual Update #5: Submit an Annual Update to the Nutrient Management Plan.	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 Runoff Control System - Engineering Evaluation

This permit schedule item pertains to the existing outdoor calf hutch housing area runoff controls (Sample Point 008).

Required Action	Due Date
Written Description of Existing System: Submit a written description of the existing runoff control system and its adequacy to permanently meet the conditions in the Production Area Discharge Limitations and Runoff Control 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 to permanently correct any adverse runoff control conditions in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code.	06/30/2025
Corrections and Post Construction Documentation: Complete construction of runoff controls that permanently correct any adverse runoff control 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.	11/30/2026

2.6 Runoff Control System - Installation

This item pertains to runoff control system upgrades to Feed Storage Pad 1 (Sample Point 006).

Required Action	Due Date
Plans and Specifications: Submit engineering plans and specifications for a permanent East Feed Storage Pad runoff control system for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code. See Standard Requirements for plan content information.	12/31/2024
Complete Installation: Complete construction of runoff control system. System shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.	12/31/2025

2.7 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	01/01/2029

2.8 Explanation of Schedules

Permit Section 2.5 has been included to address runoff from the calf hutch housing area.

Permit Section 2.6 has been included to reflect runoff from feed storage pad 1.

Special Reporting Requirements

None

Other Comments:

None

Attachments:

Vir Clar Farm Sample Point Map

Expiration Date:

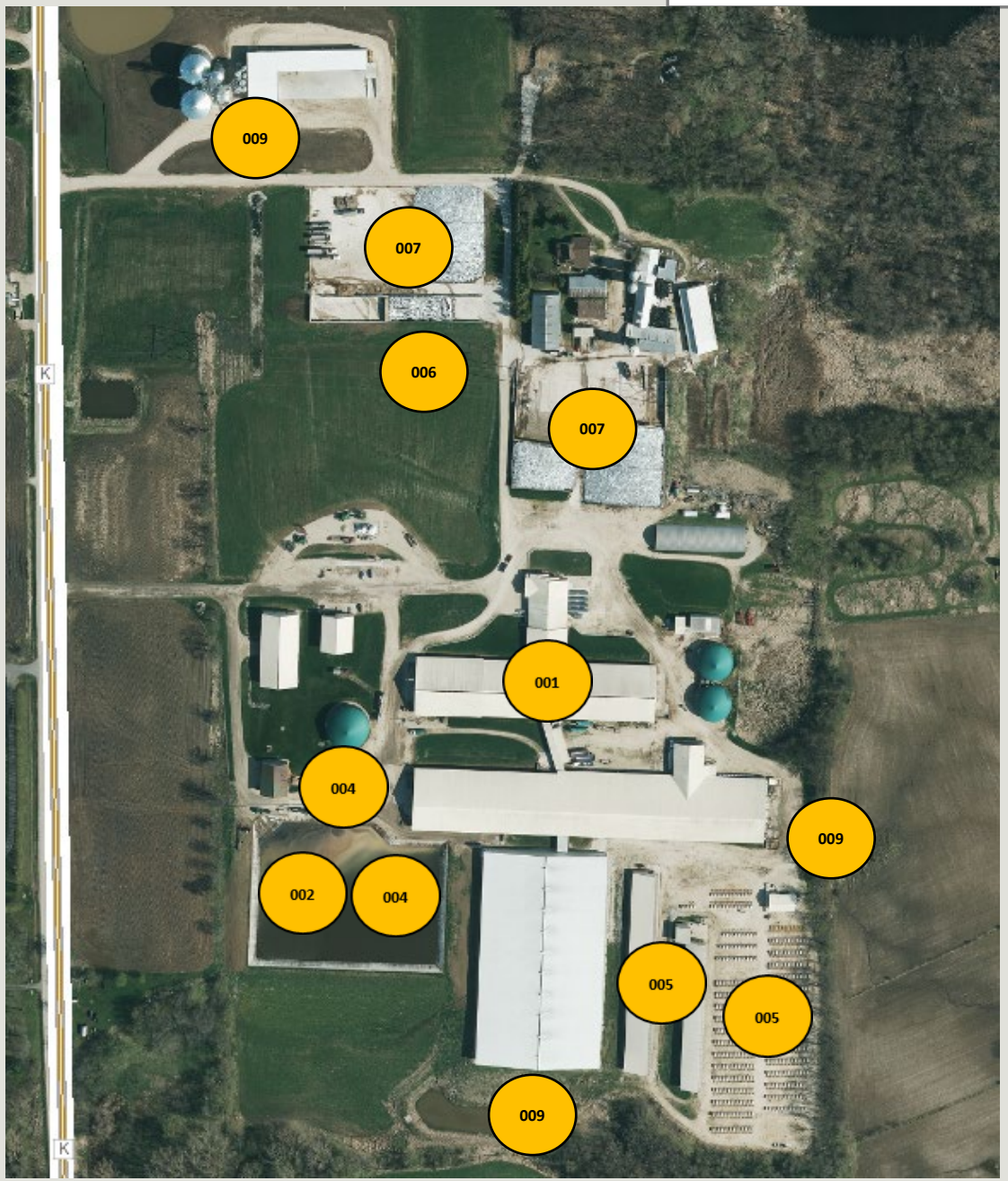
June 30, 2029

Justification Of Any Waivers from Permit Application Requirements

No waivers issued.

Prepared By: Jeffrey Jackson Agricultural Runoff Management Specialist **Date:** April 18, 2024

Vir Clar Farms LLC



Sample Points – Manure & Wastewater

(Areas Requiring Sampling of Material)

- **001** WSF-1 (Underbarn Storage)
- **002** WSF-2 (Open Air Concrete Storage)
- **004** Digested/Separated Solids
- **005** Miscellaneous Solids
- **006** Leachate Collection Basin (Future)

Sample Points – Runoff Controls

(Areas Requiring Regular Monitoring & Inspection)

- **007** Feed Storage Pads (Runoff Controls)
- **008** Calf Hutch Housing Area
- **009** Stormwater Features

Vir Clar Farms (Artesian Road Site) Sample Points

Sample Points – Manure & Wastewater

003 **WSF-3 (Artesian Road Pit)**

005 **Miscellaneous Solids**

Sample Points – Runoff Controls

009 **Stormwater Structures Around the site**