Permit Fact Sheet

General Information

Permit Number:	WI-0067342-01-0
Permittee Name:	Drumlin Dairy, LLC
Address:	N3569 Vanden Bosch Rd
City/State/Zip:	Kaukauna WI 54130
Discharge Location:	W4880 Dick Road Chilton WI 53014
Receiving Water:	an unnamed tributary within the De Neveu Creek-Frontal Lake Winnebago Watershed, and groundwaters of the state

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**
Goats (each)	1148	1148	0	0	
Total	1148	1148	0	0	

Facility Description

Drumlin Dairy LLC is an existing Concentrated Animal Feeding Operation (CAFO) that is currently covered under WPDES Permit WI-0061620-04-0, but upon issuance of this permit will be removed from that permit and now covered under this newly issued permit. Drumlin Dairy LLC is owned and operated by MilkSource LLC. It currently has 1,148 animal units (7,248 milking & dry does, 380 bucks and 3,854 kids) and based on current herd size Drumlin Dairy has approximately 320 days of liquid manure storage. Drumlin Dairy generates 8,176,393 gallons of manure and process wastewater and 8,850 tons of solid manure annually. Drumlin Dairy LLC has a total of 2,457.3 acres (107 owned and 2,350.3 controlled through contracts, rental agreements or leases, or under manure agreements) of which 2,410.7 are spreadable acres.

Substantial Compliance Determination

Enforcement During Last Permit: New permit issuance, no compliance issues

Compliance determination entered by Bethani Chambers Agricultural Runoff Management Specialist on 4/8/2024.

Sample Point Designation For Animal Waste		
Sample Point Number	**Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**	
001	Runoff Storage Facility WSF 1 - Sample point 001 is for liquid waste storage facility 1 (WSF 1, Runoff Storage Facility, RSF). WSF 1 is an earthen lined storage with concrete armoring located to the west of the compost stacking pad. WSF 1 has a maximum operating level capacity of approximately 759,105 gallons and was constructed in 2016. This storage accepts runoff from Compost Stacking Pad and parlor wash water.	
002	Compost Stacking Pad - Sample point 002 is for solid manure located on the compost stacking pad. The stacking pad is a concrete storage located to the north of the existing animal buildings. The stacking pad was constructed in 2016.	
003	Leachate Collection Basin WSF 2 - Sample point 003 is for liquid waste storage facility 2 (WSF 2, Leachate Collection Basin, LCB). WSF 2 is a concrete lined storage located to the west of the feed storage area. WSF 2 has a maximum operating level capacity of approximately 7,390,266 gallons and was constructed in 2023. This storage accepts runoff from the feed storage area.	
004	Feed Storage Area - Sample point 004 is for visual monitoring and inspection of the feed storage area and associated runoff control system located to the south of the animal buildings, constructed in 2023. Proper operation and maintenance is required to ensure discharges of process wastewater to waters of the state do not occur. Weekly inspections are required and shall be recorded according to monitoring program.	
005	Settled Solid Manure - Sample point 005 is for any manure solids removed from bottom of all liquid waste storage facilities. Representative samples shall be taken from each waste storage facility.	
006	Miscellaneous Solid Manure - Sample point 006 is for solid manure sources that are directly land applied and not stored in a waste storage facility. Representative samples shall be taken for each manure source type.	
007	Storm Water Conveyance 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 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 submitted to the Department for approval.

The permittee currently has approximately 320 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 1,148 animal units (7,248 milking & dry does, 380 bucks and 3,854 kids), it is estimated that approximately 8,176,393 gallons of manure and process wastewater and 8,850 tons of solid manure will be produced per year. The permittee owns *approximately* 107 acres of cropland and rents about 2,350.3 acres. Given the rotation commonly used by the permittee, 2,410.7 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 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 permitee 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.

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 RSF (Liquids); 003- WSF 2 LCB (Liquids)

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

First Issuance

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.

Sample Point Number: 002- Compost Stacking Pad (Solids); 005- Settled Solid Manure; 006- Misc Solid Manure

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

First Issuance

1.1.4 Explanation of Operation and Management Requirements

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

Sample Point Number: 004- Feed Storage Area and 007- Storm Water

1.1.5 Changes from Previous Permit

First Issuance

1.1.6 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: Develop a written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	08/30/2024

2.2 Monitoring & Inspection Program

Use of the department's monitoring and inspection program template is encouraged, but optional.

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 90 days of the effective date of this permit.	10/30/2024

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

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).	
Management Plan 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 for 3400-025D.	03/31/2025
Management Plan 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 for 3400-025D.	03/31/2026
Management Plan 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 for 3400-025D.	03/31/2027
Management Plan 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 for 3400-025D.	03/31/2028

Management Plan 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 for 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 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	02/01/2029

2.6 Explanation of Schedules

Emergency Response Plan, Monitoring and Inspection Program – Schedules consistent with permit requirements

Annual Reports, Nutrient Management Plan, Submit Permit Reissuance Application - Schedules consistent with permit requirements.

Other schedule items are required to comply with s. NR 243 and WPDES permit conditions.

Attachments:

Plan Approval Letter(s)

Public Notice

Expiration Date:

July 31, 2029

Prepared By: Bethani Chambers

Agricultural Runoff Management Specialist

Date: 4/5/2024

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster St., PO Box 7921
Madison, WI 53707

Tony Evers, Governor
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Toll Free 1-888-936-7463
TTY Access via relay - 711

April 16th, 2024

Calumet County
Approval

Todd Willer
Drumlin Dairy, LLC
3569 Vanden Bosch Rd
Kaukauna, WI 54130

SUBJECT: Conditional Approval of Drumlin Dairy, LLC Nutrient Management Plan, WPDES Permit No. 0067342-01-0

Dear Todd Willer:

After completing a review of Drumlin Dairy, LLC 2024-2028 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 Drumlin 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 Drumlin 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 Drumlin Dairy, LLC maintain compliance with their WPDES permit and Ch. NR 243 requirements.

FINDINGS OF FACT

The Department confirms that:

1. A current dairy goat herd size of 1,148 animal units (7,248 milking & dry does, 380 bucks and 3,854 kids). Currently there are no planned expansions in the next permit term.
2. Manure generation and spreading records indicate your herd will annually generate approximately 8,176,393 gallons of manure and process wastewater and 8,850 tons of solid manure in the first year of the permit term.
3. The use of application restriction options 1, 2 & 5 within surface water quality management areas.
4. The use of phosphorus delivery method P Index.
5. That Drumlin Dairy, LLC currently has 2,457.3 acres (107 owned and 2,350.3 controlled through contracts, rental agreements or leases, or under manure agreements) of which 2,410.7 are spreadable acres.

6. That some fields included in the NMP are directly adjacent to or have high potential to deliver nutrients and sediment to Lake Winnebago (listed 303(d) impaired water by 'sediment/total suspended solids', 'PCBs', 'mercury' & 'total phosphorus'), Mud Creek, Unnamed (Brothertown Creek), Pipe Creek, South Branch Manitowoc River (listed 303(d) impaired water by 'total phosphours').
7. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters.
8. That 19 fields are tiled.

- 801-001	- 801-007	- 801-008	- 801-010
- 801-015	- 801-017	- 801-018	- 801-022
- 801-001	- 801-006	- 805-001	- 805-006
- 805-007	- 805-008	- 805-012	- 805-020
- 805-024	- 805-035	- 805-041	

9. 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.
10. 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 2024-2028 Drumlin 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:
   - 802-001 (default)
   - 803-006 (default)

   If Drumlin 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 NH_4-N, percent NO_3-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, Drumlin Dairy, LLC may use the following equation to adjust the first-year available nitrogen when applications are injected or incorporated within 1 hour:

$$\text{First-Year Available N} = NH_4\text{-N} + [0.25 \times (\text{Total N} - NH_4\text{-N})]$$

6. Drumlin 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. Drumlin 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:
   - 801-017 - 801-018 - 805-015 - 805-016
   - 805-018 - 805-019 - 805-020

10. 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.

11. Winter applications of liquid manure shall only occur under emergency situations, after notifying the Department and receiving verbal approval.

12. 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

13. No headland stacking sites are approved.

NR243.143/151.075 SILURIAN BEDROCK PERFORMANCE STANDARDS

14. Manure generated by Drumlin 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.
   - 800-001 - 801-007 - 801-008 - 801-009
   - 801-010 - 801-012 - 801-013 - 801-014
   - 801-015 - 801-016 - 801-017 - 803-001
   - 803-002 - 803-003 - 803-004 - 803-005
   - 803-006 - 803-007 - 804-001 - 804-002
   - 804-003 - 804-004 - 804-005 - 804-006

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.

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 locate 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,

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

cc: Bethani Chambers, WDNR Agricultural Runoff Specialist (Bethani.Chambers@Wisconsin.gov)
Joe Baeten, WDNR Watershed Field Supervisor (Brian.Hanson@Wisconsin.gov)
Christopher Clayton, WDNR Runoff Management Section Chief (Christopherr.Clayton@Wisconsin.gov)
Tyler Dix, WDNR CAFO Program Coordinator (Tyler.Dix@Wisconsin.gov)
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Sarah Babcock, MilkSource Environmental Coordinator (Sbabcock@Milksource.net)

File

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Tony Evers, Governor
Adam N. Payne, Secretary
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February 23, 2023

FILE REF: R-2022-0272

Todd Willer
Drumlin Dairy LLC
N3569 Vanden Bosch Rd
Kaukauna, WI 54130

Subject: Days of Storage Review for Drumlin Dairy LLC Town 17N, Range 19E, Section 7 in Brothertown Township, Calumet County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Willer:

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 Jennifer Keuning, GHD on December 23, 2022 on behalf of Drumlin Dairy LLC.

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 Drumlin Dairy LLC has 101 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 1,148. All manure is handled as a solid. The liquid waste volumes are based on calculated values of liquid waste & runoff produced from the compost stacking pad along with parlor wastewater. The liquid waste volumes are based upon a collection period of 365 days. Plans for a proposed feed pad and runoff collection basin for this site was approved by the Dept. on Sept. 19, 2022 for the Holsum Dairies – Drumlin Dairy site which would increase the days of storage to 320 days.

Waste Storage	Total Vol. from Settled Top to Bottom	Solids Storage	25-yr, 24hr Precip. On Storage	25-yr, 24-hr Collected Runoff	Freeboard Volume	Max. Operating Level (MOL) Vol.
#1	1,290,923	0	67,404	288,479	175,923	759,105
					Total MOL Vol:	759,105
					Days of Storage:	**101**

Liquids Collected/Stored	**Annual Gallons**
Manure (handled as solid manure)	0
Parlor Water	323,800
Total Feed Storage Runoff Collected:	0
Compost Pad Annual Runoff	2,120,480
Net Precipitation on Storage Surfaces:	308,090
Total:	**2,752,370**

Should you have any questions, please contact Brian Hanson, DNR Shawano 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

Brian Hanson
Ag Runoff Management Specialist
Watershed Management Program

Email:
Todd Willer; Drumlin Dairy, LLC
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Jennifer Keuning; GHD
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Aaron O'Rourke; DNR, Eau Claire
(715) 839-3775; aaron.orourke@wisconsin.gov

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

Bethani Chambers; DNR-Northeast Region
(920) 573-8033; bethani.chambers@wisconsin.gov

Joe B Baeten; DNR-Northeast Region
(920) 662-5196; Joseph.Baeten@wisconsin.gov

Tony Reali; Calumet County
(920) 849-1493; reali.anthony@co.calumet.wi.us

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Oshkosh Service Center
625 East County Road Y, STE 700
Oshkosh WI 54901-9731

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October 25, 2021

Brent Cousin
Holsum Dairies LLC
N6296 Elm Rd,
Hilbert, WI 54129

WPDES Permit No. WI- 0061620-04-0
Calumet County

Subject: Permit Reissue Inspection Report and Request for Additional Information

Dear Mr. Cousin:

On August 30 – September 1, 2021 the department conducted a permit reissuance walkover inspection of Holsum Dairies. Results and photos are included in the enclosed report. The department has noted actions items on page 24 in the enclosed report.

Holsum Dairies WPDES permit expires on May 31, 2022. A permit reissuance application is due to the department by November 30, 2021.

Page 24 of the enclosed report includes a detailed list of "materials required as part of the permit application "to be completed. Review this section carefully. Please note, an environmental analysis questionnaire is not required as part of your application.

If you have any questions regarding this letter or your WPDES permit requirements, please contact me at 920 573-8033 or at bethani.chambers@wisconsin.gov.

Bethani Chambers
Agricultural Runoff Management Specialist

Enclosure:
Holsum Dairies Permit Reissuance Inspection Report
Schneider Farm Permit Reissuance Inspection Report

Electronic CC:
Joe Baeten, Anthony Salituro, Holly Stegemann - DNR
Calumet County LCD
John Vandenboom – Holsum Dairies LLC

CAFO Compliance Report (October 25, 2021)

Inspection Date: August 30 – September 1, 2021

Inspection Type: Permit Reissue

Operation Name: Holsum Dairies

WPDES Permit No. 0061620-04-0

Operation Address:

Holsum Irish – N5701 Irish Road Hilbert WI
Holsum Elm – N6206 Elm Road Hilbert WI
Drumlin Dairy – W4800 Dick Road Chilton WI
Ditter Farm Satellite Pit – N6033 County Road BB Chilton WI

On-Site Representative(s): Brent Cousins, Authorized Representative & Farm Staff

DNR Staff / Report Writer: Bethani Chambers Agricultural Runoff Management Specialist

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On August 30 – September 1, 2021 Chambers and Holly Stegemann (DNR Agricultural Runoff Management Specialist) met with Brent Cousins, Authorized Representative & several farm staff to conduct a permit reissuance inspection of the Holsum Dairy facilities. Inspections were conducted at all sites currently covered under the WPDES Permit: Holsum Irish, Holsum Elm, Drumlin Dairy, and the Ditter Farm Satellite Pit. Holsum Dairies intends to add the Schneider Farm main site to their permit during the reissuance process. This location was not inspected due to a recent DNR reissuance inspection for the Schneider Farms permit conducted on October 7, 2020, a copy of that report has been included. No precipitation had fallen 24 hours prior to the inspection, conditions during the inspection were warm and dry. Follow up items are requested on page 24.

Holsum Irish

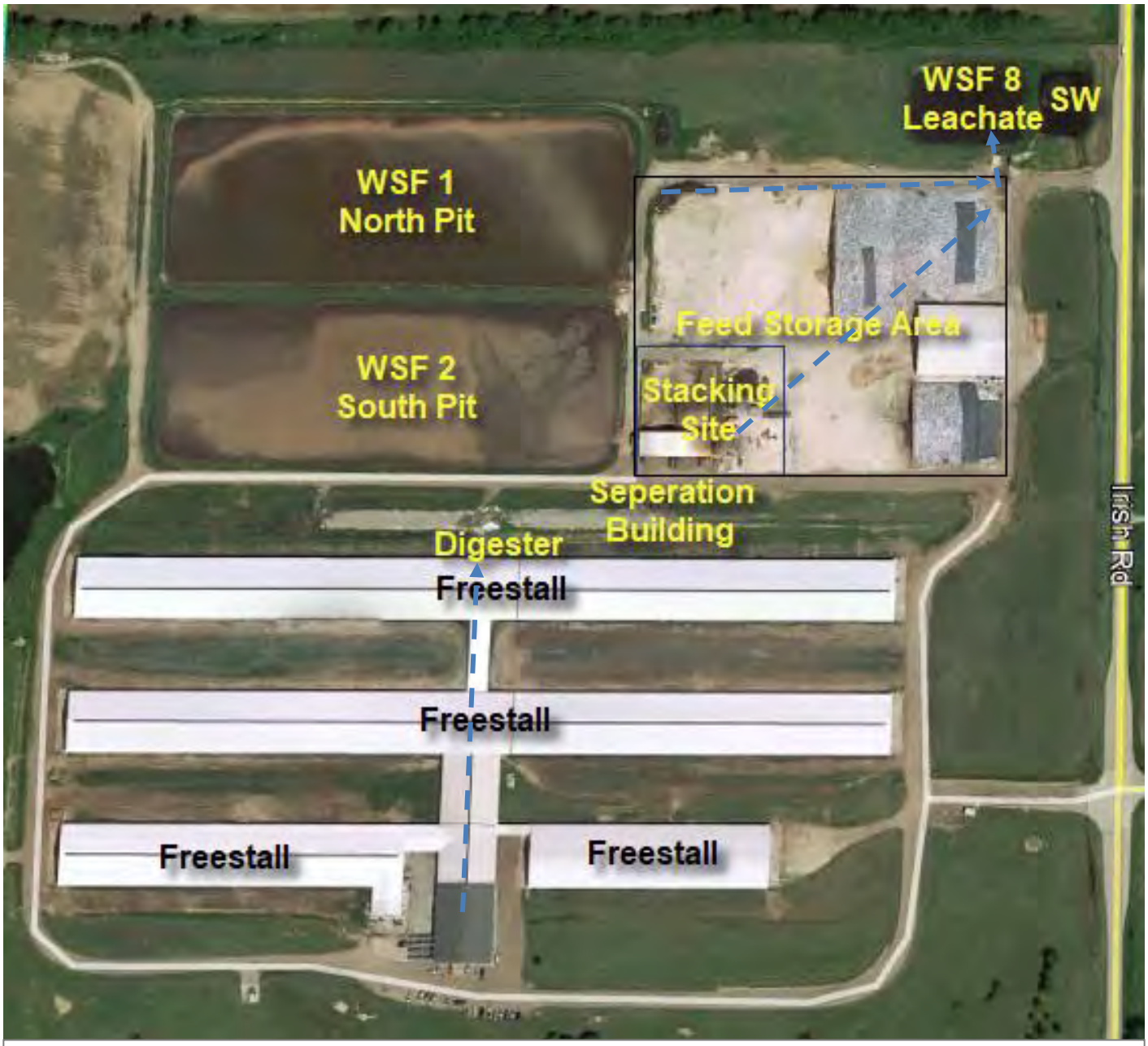

Figure 1. Aerial overview of Holsum Dairy: Holsum Irish Site. Blue arrows indicate flow paths for manure or leachate.

Holsum Elm

Figure 2. Aerial overview of Holsum Dairy: Holsum Elm Site. Blue arrows indicate flow paths for manure or leachate.

Holsum Drumlin

Figure 3. Aerial overview of Holsum Dairy: Drumlin Dairy. Blue arrows indicate flow paths for manure or leachate.

Holsum Ditter Farm

Figure 4. Aerial overview of Holsum Dairy: Ditter Farm Satellite Pit.

SITE OBSERVATIONS

Feedlot Runoff

Holsum Dairies does not currently operate any outdoor feedlots at any permitted location. All animals are kept under roof.

Waste Storage Facilities

Manure and process wastewater are stored in nine permitted waste storage facilities, one solid stacking pad used for composting, and two stacking areas located on concrete feed storage areas. With the addition of the Schneider farm, five additional WSF's are expected to be included in the next permit term.

Holsum Irish:

- WSF 1: North Pit is an earthen lined storage facility constructed in 2001 and serves as the second cell of a two-celled system. WSF 1 is located to the north side of the facility. WSF 1 accepts post-digester liquids and process wastewater. At the time of inspection, required fencing and permanent markers were in place. Concrete ramps were also observed.
- WSF 2: South Pit is an earthen lined storage facility constructed in 2001 and serves as the first cell of a two-celled system. WSF 2 is located to the south of WSF 1. WSF 2 accepts overflow from WSF 1. At the time of inspection, required fencing and permanent markers were in place. Concrete ramps were also observed.
- WSF 8 Leachate: The leachate pit is an earthen lined storage constructed in 2013 and is used to store additional runoff from the feed storage area, after the first flush collection. At the time of the inspection, fencing was observed, permanent markers were not installed
- Solid Manure Stacking: Solid manure is stacked on a designated concrete pad, constructed in 2001.
- Barn pushout areas: Pushout areas are kept clean, good housekeeping should be continued to be practiced in these areas to prevent waste from leaving designated areas.

Holsum Elm:

- WSF 3: Pond 1 is a concrete lined storage facility upgraded in 2016. This storage serves as the first cell of a three-celled system. WSF 3 is located between the existing feed storage are and free stall barn. WSF 3 accepts post-digester liquids and process wastewater and manure. At the time of inspection, required fencing and permanent markers were in place (WSF 5).
- WSF 4: Pond 2 is a concrete lined storage facility upgraded in 2016. This storage serves as the second cell of a three-celled system. WSF 4 is north of WSF 3. WSF 4 accepts overflow from WSF 4. At the time of inspection, required fencing and permanent markers were in place (WSF 5).
- WSF 5: Pond 3 is a concrete lined storage facility upgraded in 2016. This storage serves as the final cell of a three-celled system. WSF 5 is located to the east of WSF 4. WSF 5 accepts overflow from WSF 4. At the time of inspection, required fencing and permanent markers were in place. Concrete ramps were also observed.
- WSF 7 Leachate: The leachate pit is an earthen lined storage constructed in 2013 and is used to store additional runoff from the feed storage area, after the first flush collection. At the time of the inspection, fencing was observed.
- Solid Manure Stacking: Solid manure can be stacked on the concrete pad feed storage area as needed.
- Barn pushout areas: Pushout areas are kept clean, good housekeeping should be continued to be practiced in these areas to prevent waste from leaving designated areas.

Drumlin Dairy:

- WSF 6: Runoff Storage Facility is a concrete lined storage facility constructed in 2016 and is located to the east of the stacking pad. WSF 6 accepts runoff from the stacking pad, parlor wash water, and liquids from the animal barns. At the time of inspection, required fencing and permanent markers were in place.
- Drumlin Solid Manure Stacking Pad: Solid manure is stacked on the designated concrete pad, intended for composting. All runoff is collected in WSF 6.
- Barn pushout areas: Pushout areas are kept clean, good housekeeping should be continued to be practiced in these areas to prevent waste from leaving designated areas.

Ditter Farm Satellite Pit:

- WSF 9: Ditter Farm WSF is a concrete lined storage facility upgraded in 2016. This storage serves as a transfer pit prior to land applications. WSF 9 is located to the south east of the Holsum Elm site. WSF 9 accepts liquids from Holsum Elm. At the time of inspection, required fencing and permanent markers were in place, and a safety meter to monitor manure levels had been installed.

Solid and liquid waste storage facilities are managed to not have current or past indicators of discharges.
Solid and liquid waste storage structures are well-maintained, in good repair.

Photo #:	001
Date/ Time:	9/1/ 2021/ 12:31 PM
Photo Location:	WSF 1 North Pit
Photo By:	Bethani Chambers

Photo Description: View of WSF 1, North Pit. Concrete ramps present.

Photo Direction: W

Photo #:	002
Date/ Time:	9/1/2021 / 12:33 PM
Photo Location:	WSF 2 South Pit
Photo By:	Bethani Chambers

Photo Description: View of WSF 2, South Pit. Concrete ramps were observed.

Photo Direction: W

Photo #:	003
Date/ Time:	9/1//2021 / 12:31 PM
Photo Location:	WSF 1 North Pond
Photo By:	Bethani Chambers

Photo Description: View of permanent markers for WSF 1-2, located on the berm between the storages. An overflow weir is designated by the red circle.

Photo Direction: SW

Photo #:	004
Date/ Time:	9/1//2021 / 12:01 PM
Photo Location:	WSF 8 Leachate
Photo By:	Bethani Chambers

Photo Description: WSF 8, used to storage overflow leachate.

Photo Direction: NW

Photo #:	005
Date/ Time:	9/1/2021 / 12:35 PM
Photo Location:	Solid Storage
Photo By:	Bethani Chambers

Photo Description: Solid manure stacked on concrete at the Irish site

Photo Direction: NW

Photo #:	006
Date/ Time:	9/1/2021 / 12:01 PM
Photo Location:	Solid Storage
Photo By:	Bethani Chambers

Photo Description: Drain located in the solid storage area used to convey runoff to permanent storage

Photo Direction: NW

Photo #:	007
Date/ Time:	8/31/2021 / 1:00 PM
Photo Location:	WSF 3 Pond 1
Photo By:	Bethani Chambers

Photo Description: View of WSF 3, Pond 1 and overflow weir used to convey manure and process wastewater to WSF 4. Serves as initial cell.

Photo Direction: S

Photo #:	008
Date/ Time:	8/31/2021 / 1:00 PM
Photo Location:	WSF 4 Pond 2
Photo By:	Bethani Chambers

Photo Description: View of WSF 4, Pond 2. Serves as the second cell.

Photo Direction: NE

Photo #:	009
Date/ Time:	8/31/2021 / 1:05 PM
Photo Location:	WSF 5 Pond 3
Photo By:	Bethani Chambers

Photo Description: View of WSF 5 Pond 3. Serves as third cell. Permanent markers designated by red circle.

Photo Direction: NE

Photo #:	010
Date/ Time:	8/31/2021 / 12:54 PM
Photo Location:	WSF 7 Leachate
Photo By:	Bethani Chambers

Photo Description: WSF 7, used to storage overflow leachate.

Photo Direction: NW

Photo #:	011
Date/ Time:	9/1/2021 / 12:19 PM
Photo Location:	Irish Pushout Area
Photo By:	Bethani Chambers

Photo Description: Pushout area at the Irish site. Some manure observed outside boundaries, but no runoff risk was observed.

Photo Direction: SE

Photo #:	012
Date/ Time:	8/31/2021 / 12:47 PM
Photo Location:	Elm Pushout Area
Photo By:	Bethani Chambers

Photo Description: Pushout area used at the Elm site. Solids stored on concrete.

Photo Direction: S

Photo #:	013
Date/ Time:	8/30/2021 / 12:34 PM
Photo Location:	Drumlin Compost
Photo By:	Bethani Chambers

Photo Description: Solid manure composting site located at the Drumlin site. Runoff is conveyed towards permanent storage.

Photo Direction: NW

Photo #:	014
Date/ Time:	8/30/2021 / 12:39 PM
Photo Location:	WSF 6 RSF
Photo By:	Bethani Chambers

Photo Description: View of WSF 6, Runoff storage facility. Used to store liquids from the composting pad and other process wastewaters from the Drumlin site.

Photo Direction: W

Photo #:	015
Date/ Time:	8/30/2021 / 12:28 PM
Photo Location:	Drumlin Pushout
Photo By:	Bethani Chambers

Photo Description: Pushout area used at the Drumlin site.

Photo Direction: NW

Photo #:	016
Date/ Time:	5/14/2021 / 12:01 PM
Photo Location:	WSF 9 Ditter Pit
Photo By:	Bethani Chambers

Photo Description: View of WSF 9, the Ditter Satelitte pit.

Photo Direction: NW

Digestor Separated Solids

Separated solids are stored in designated buildings, under cover. Runoff from these areas is stored in permanent storage.

Process wastewater sources are managed to not have current or past indicators of discharges.

Photo #:	017
Date/ Time:	8/31/2021 / 12:43 PM
Photo Location:	Elm Separated Solids
Photo By:	Bethani Chambers

Photo Description: Separated solids used for animal bedding stored under roof at the Elm site.

Photo Direction: W

Photo #:	018
Date/ Time:	8/31/2021 / 12:43 PM
Photo Location:	Elm Separated Solids
Photo By:	Bethani Chambers

Photo Description: Runoff from the area is conveyed towards a collection pipe and stored in permanent storage.

Photo Direction: N

Feed Storage Area Runoff

Irish: All feed is kept on a designated concrete pad and covered with plastic. Runoff is directed towards the north west corner of the feed storage area and runoff controls and pump. First flush runoff is collected by the pump and storage in permanent waste storage, additional runoff is collected via the overflow basin. This basin is designated as WSF 8. Required fencing was installed at the time of inspection, permanent markers were absent. Feed pad maintenance was discussed during the inspection. Areas of wear were observed during the inspection. Runoff control screens cleaned as needed.

Elm: All feed is kept on a designated concrete pad and covered with plastic. Runoff is directed towards the north west corner of the feed storage area and runoff controls and pump. First flush runoff is collected by the pump and storage in permanent waste storage, additional runoff is collected via the overflow basin. This basin is designated as WSF 7. Required fencing was installed at the time of inspection, permanent markers were absent. Feed pad maintenance was discussed during the inspection. Areas of wear and cracks were observed during the inspection. Runoff control screens cleaned as needed.

Drumlin: All feed is kept under cover in the main barn. Goats are fed a dry diet, no leachate is produced or collected.

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 and in good repair.
Required markers were absent, feed pad maintenance is recommended.

Photo #:	019
Date/ Time:	9/1/2021 / 12:25 PM
Photo Location:	Irish Feed Storage
Photo By:	Bethani Chambers

Photo Description: Curbing observed at the Irish site feed pad, conveying runoff towards a collection point.

Photo Direction: N

Photo #:	020
Date/ Time:	5/14/2021 / 12:25 PM
Photo Location:	Irish Feed Storage
Photo By:	Bethani Chambers

Photo Description: Cracks observed at the Irish site feed storage area.

Photo Direction: W

Photo #:	021
Date/ Time:	9/1/2021 / 12:27 PM
Photo Location:	Irish Feed Storage
Photo By:	Bethani Chambers

Photo Description: View of runoff controls for the Irish feed storage area. Screens cleaned as needed.

Photo Direction: N

Photo #:	022
Date/ Time:	9/1/2021 / 12:27 PM
Photo Location:	Irish Feed Storage
Photo By:	Bethani Chambers

Photo Description: View of concrete conveyance towards leachate pond.

Photo Direction: N

Photo #:	023
Date/ Time:	8/31/2021 / 12:52 PM
Photo Location:	Elm Feed Storage
Photo By:	Bethani Chambers

Photo Description: Curbing observed at the Elm site feed storage, feed kept under plastic.

Photo Direction: S

Photo #:	024
Date/ Time:	8/31/2021 / 12:53 PM
Photo Location:	Elm Feed Storage
Photo By:	Bethani Chambers

Photo Description: Runoff is conveyed towards runoff controls at the Elm site feed storage area.

Photo Direction: N

Photo #:	025
Date/ Time:	8/31/2021 / 12:55 PM
Photo Location:	Elm Feed Storage
Photo By:	Bethani Chambers

Photo Description: View of Elm site runoff controls.

Photo Direction: NE

Photo #:	026
Date/ Time:	8/31/2021 / 12:01 PM
Photo Location:	Elm Feed Storage
Photo By:	Bethani Chambers

Photo Description: View of concrete conveyance towards leachate pond.

Photo Direction: N

Photo #:	027
Date/ Time:	5/14/2021 / 12:01 PM
Photo Location:	Drumlin Feed Area
Photo By:	Bethani Chambers

Photo Description: Animal feed is kept under roof at the Drumlin site.

Photo Direction: NE

Animal Mortality Disposal
Mortalities are kept in designated areas prior to pickup by OJ Krull.
Animal mortalities are managed to not have current or past indicators of discharges.

Ancillary Service Areas
Irish: Stormwater is diverted to a single stormwater pond to the northeast. No indications of excessive nutrient runoff were observed.

Elm: Stormwater is diverted to three existing stormwater ponds on site. No indications of excessive nutrient runoff were observed.

Drumlin: Stormwater is diverted to two existing stormwater ponds on site. No indications of excessive nutrient runoff were observed.

Preventative maintenance actions and visual inspections are occurring to minimize pollutant discharges from ancillary service and storage areas (i.e. storm water conveyance systems, driveways, etc.).

Photo #:	028
Date/ Time:	8/30/2021 / 12:29 PM
Photo Location:	Drumlin SW Pond
Photo By:	Bethani Chambers

Photo Description: Stormwater pond at the Drumlin site. No indications of nutrient pollution observed.

Photo Direction: NW

Photo #:	029
Date/ Time:	8/30/2021 / 12:42 PM
Photo Location:	Drumlin SW Pond
Photo By:	Bethani Chambers

Photo Description: No indications of nutrient pollution observed.

Photo Direction: NW

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 on site, a monitoring and inspection plan was provided to the farm.
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
The feed storage areas for the Irish and Elm sites have the potential for an unauthorized discharge.

- Cracks and rebar from wear were observed in the concrete at both locations

Permit Noncompliance
None

Action Items

1. **Feed Storage Area Maintenance**
    a. Submit to the department by 11/30/2021 a detailed timeline for the repair to the feed storage area concrete. Pending any major repairs needed, plans and specifications may be required during the next permit term.
2. **Permanent Markers: Waste Storage Facility**
    a. Submit to the department by 11/30/2021 documentation of the installation of required markers (Margin of safety, MOS; Maximum Operating Level, MOL) in all applicable WSF's as required by NR 243.15(3). Applicable to WSF 7-8, leachate storages. Please note, storages with multiple cells are only required to have one set of permanent markers in the last cell of the system.

Items for Next Permit Term

Potential addition of digester sample points for the Drumlin Dairy Site.

Materials Required as part of the Permit Application **Due 11/30/2021**

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

Additionally: information regarding Holsum Dairies' intended use of the Digested Organics SC1 LLC WPDES No. WI-0067091-01-0 digester should be included in the farm's application materials.

CAFO Compliance Report 12/16/2020

Inspection Date: 10/7/2020

Inspection Type: Reissuance Inspection

Operation Name: Schneider Farms LLC

WPDES Permit No. WI-0065978-01-0

Operation Address: Main Farm: W2920 Faro Springs Rd Hilbert, WI 54129

Home Farm: W3181 Schneider Rd Hilbert, WI 54129

On-Site Representative(s): David Schneider, Ryan Schneider Owner/ Operator; Doug Kapral Crop Consultant

DNR Staff / Report Writer: Bethani Chambers Agricultural Runoff Management Specialist

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On October 7, 2020 Chambers and Brandon Flenz, Wastewater Specialist met with David and Ryan Schneider and other Farm representatives at the main farm to conduct a permit reissuance inspection of Schneider Farms LLC. All facilities currently covered under Schneider Farm's WPDES permit were inspected. Overall, the permittee is in substantial compliance with the permit. Follow up items are requested on page 12-13.

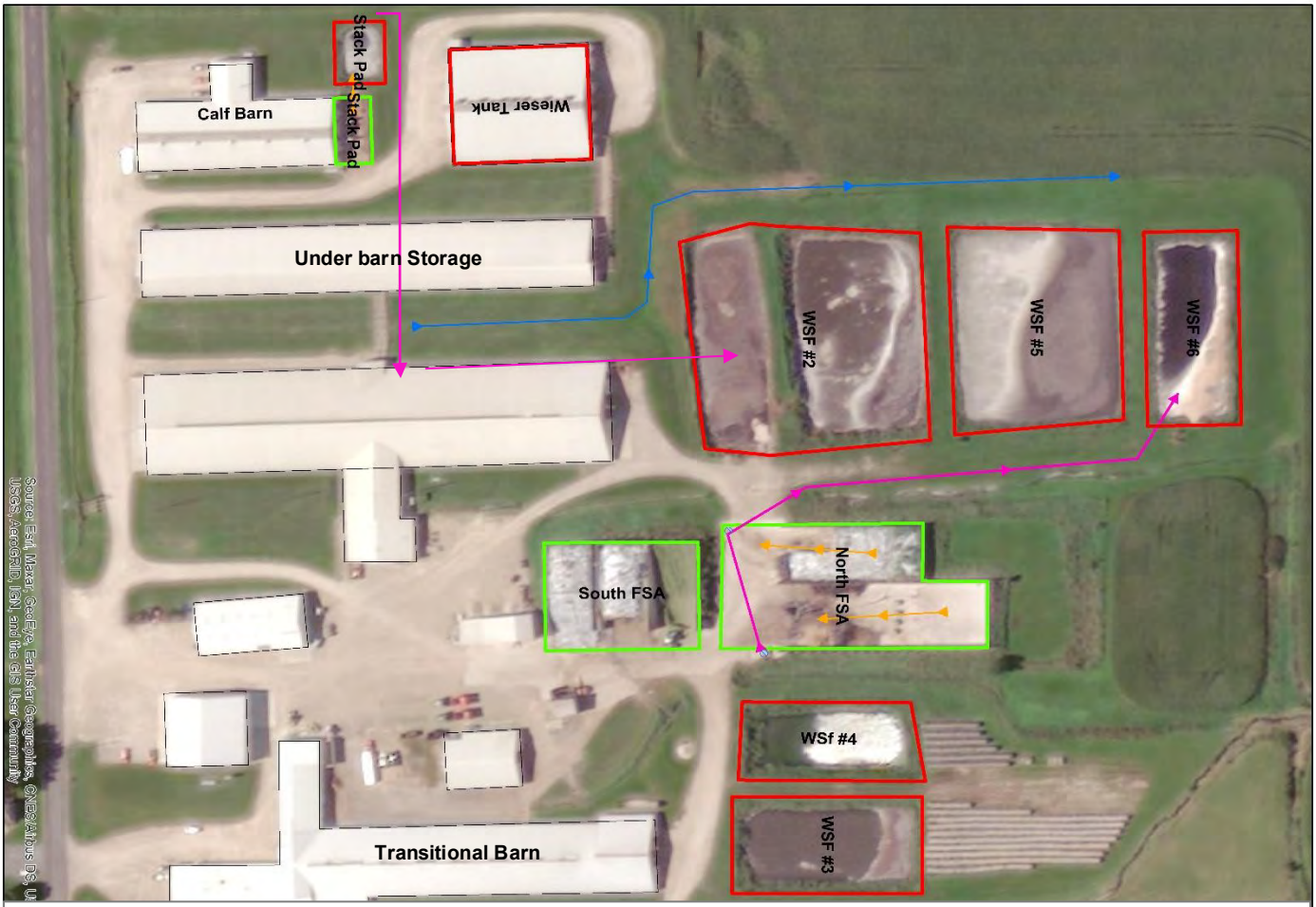

Figure 1. Aerial overview of Schneider Farms Main Farm site. Blue arrows indicate approximate stormwater flow paths. Yellow arrows indicate approximate contaminated runoff flow paths. Pink arrows indicate manure transfer systems.

Figure 2. Aerial overview of Schneider Farms Home Farm site. Blue arrows indicate approximate stormwater flow paths. Yellow arrows indicate approximate contaminated runoff flow paths. Pink arrows indicate manure transfer systems.

Figure 3. Aerial overview of Schneider Farms Main Farm site in relation to surface water features. Green areas represent designated wetlands. Image obtained from SNAP Maps v.18

Figure 4. Aerial overview of Schneider Farms Home Farm site in relation to surface water features. Green areas represent designated wetlands. Image obtained from SNAP Maps v.18

SITE OBSERVATIONS

Feedlot Runoff
Schneider Farms does not utilize any outdoor feedlots, animals are kept under roof.

Calf Barn
Schneider Farms utilizes a calf barn to house their young livestock. Manure and bedding are removed from the barn and stored on a designated concrete stacking pad to the north of the barn. Liquids are stored in the adjacent WSF, to the west of the concrete pad.

Waste Storage Facilities
Manure and process wastewater are stored in seven waste storage facilities and one solid stacking pad. One storage is located at the Home Farm for liquid manure, and five located at the Main Farm for liquid manure and one for solid manure.

Home Farm:
WSF 1 is an earthen lined storage facility constructed in 1991. WSF 1 is located to the south of the free stall barn. WSF 1 accepts manure and process wastewater from the adjacent animal barn. At the time of inspection, required fencing and permanent markers were not in place.

Main Farm:
WSF 2 is a 2 celled earthen lined storage facility constructed in 1995, and later expanded in 2009. WSF 2 accepts process wastewater and runoff from the adjacent animal barns At the time of inspection, required fencing was in place, permanent markers were absent.

WSF 3 is an earthen lined pit constructed in 1977 and accepts manure and process wastewater and runoff from the adjacent animal barns. At the time of inspection, required fencing and permanent markers were in place. WSF 3 was last evaluated in 2017 and was found to be in compliance.

WSF 4 is an earthen lined pit constructed in 1977 and accepts manure and process wastewater and runoff from the adjacent animal barns. At the time of inspection, required fencing and permanent markers were in place. WSF 4 was last evaluated in 2017 and was found to be in compliance.

WSF 5 is an earthen lined pit constructed in 2009 and accepts manure and process wastewater and runoff from the adjacent animal barns. At the time of inspection, required fencing and permanent markers were in place.

WSF 6 is an earthen lined pit constructed in 2014 and accepts process wastewater and runoff from the feed storage area. Liquid from this storage is transferred to other sample points prior to land application to add liquid to the waste stream. At the time of inspection, required fencing and permanent markers were in place.

Miscellaneous Manure sources:
Additional manure sources include, the calf barn stacking pad and runoff waste storage, and an under-barn storages. The calf barn stacking pad runoff waste storage facility is used to store calf manure and bedding from the adjacent calf barn, liquids are diverted to the waste storage pond. Liquids from this facility is transferred to other sample points prior to land application, solids are removed and stored on approved headland stacking areas. This facility is considered to be in noncompliance and pending additional information (R -2017-0202i).

The under barn was constructed in 2008 and is used to store manure and process wastewater from the associated barn. Waste from this facility is transferred to other sample points prior to land application.

Solid and liquid waste storage facilities appear managed to not have current or past indicators of discharges.

Photo #:	001
Date/ Time:	10/7/2020 / 12:00 PM
Photo Location:	WSF 1
Photo By:	Bethani Chambers

Photo Description: Overview of WSF 1. Fencing and markers missing

Photo Direction: E

Photo #:	002
Date/ Time:	10/7/2020 / 10:41 AM
Photo Location:	WSF 2: Cell 1
Photo By:	Bethani Chambers

Photo Description: View of the first cell of WSF 2. Fencing present

Photo Direction: SW

Photo #:	003
Date/ Time:	10/7/2020 / 10:14 AM
Photo Location:	WSF 2, Cell 1
Photo By:	Bethani Chambers

Photo Description: View of the second cell of WSF 2. Fencing present

Photo Direction: NW

Photo #:	004
Date/ Time:	10/7/2020 / 10:09 AM
Photo Location:	WSF 3
Photo By:	Bethani Chambers

Photo Description: WSF 3, permanent markers circled in red

Photo Direction: N

Photo #:	005
Date/ Time:	10/7/2020 / 10:09 AM
Photo Location:	WSF 4
Photo By:	Bethani Chambers

Photo Description: WSF 4, permanent markers circled in red

Photo Direction: N

Photo #:	006
Date/ Time:	10/7/2020 / 10:15 AM
Photo Location:	WSF 5
Photo By:	Bethani Chambers

Photo Description: WSF 5, permanent markers circled in red

Photo Direction: W

Photo #:	007
Date/ Time:	10/7/2020 / 10:17 AM
Photo Location:	WSF 6
Photo By:	Bethani Chambers

Photo Description: WSF 6, permanent markers circled in red

Photo Direction: NW

Photo #:	008
Date/ Time:	10/7/2020 / 10:31 AM
Photo Location:	Stacking Area
Photo By:	Bethani Chambers

Photo Description: Calf barn stacking area, pond used to store liquids located behind concrete wall (not pictured)

Photo Direction: W

Feed Storage Area Runoff

Schneider Farm keeps all feed under plastic either on concrete or in concrete bunkers. The feed storage area is divided into two section, the North and the South feed storage areas located at the main site.

North Feed Pad:

The north feed storage area is used to store animal feed. Runoff is conveyed towards two collection points (screened manholes) then transferred via gravity flow to WSF 6. Leachate and feed storage runoff appeared to be flowing towards the intended collection points.

South Feed Pad:

The south feed storage area is used to store haylage and straw used for animal bedding. Runoff is not actively collected via the feed storage runoff controls, however, installed drain tile is used to collect additional runoff from the north and south feed storage areas. Additionally, bales are stored to the north of WSF 3 and WSF 4.

Good housekeeping should be continued to be practice for the feed storage area, including the cleanup of windblown feed due to its proximity to a drainage swale which serves as a conduit to a navigable waterway, North Branch Manitowoc River

Feed storage areas and associated process wastewater (leachate, runoff) appear managed to not have current or past indicators of discharges.

Feed storage areas and runoff control systems appear well-maintained, in good repair and in compliance with permit requirements.

Photo #:	009
Date/ Time:	10/7/2020 / 10:10 AM
Photo Location:	Feed Storage
Photo By:	Bethani Chambers

Photo Description: Overview of North feed storage area

Photo Direction: NW

Photo #:	010
Date/ Time:	10/7/2020 / 10:12 AM
Photo Location:	Feed Storage
Photo By:	Bethani Chambers

Photo Description: View of inlet for feed storage runoff. Windblown feed present outside feed storage area boundaries. No indications of discharges or overflow present

Photo Direction: S

Photo #:	011
Date/ Time:	10/7/2020 / 10:13 AM
Photo Location:	Feed Storage
Photo By:	Bethani Chambers

Photo Description: View of inlet for feed storage runoff. No indications of discharges or overflow present

Photo Direction: W

Animal Mortality Disposal
Mortalities are picked up by OJ Krull.
Animal mortalities appear managed to not have current or past indicators of discharges.

Ancillary Service Areas
Clean water diversions are in place between the free stall barns to divert roof water from the facility.

Preventative maintenance actions and visual inspections appear to be occurring to minimize pollutant discharges from ancillary service and storage areas (i.e. storm water conveyance systems, driveways, etc.).

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.

Permit Noncompliance
Permit Section 2.3 - Manure Storage Facility Engineering Evaluation: Applicable to the calf barn stacking pad runoff WSF, WSF #3, and WSF #4. (*Please note, WSF #3 and WSF #4 have been deemed compliant (R-2017-0202) and therefor satisfy the permit requirement*)

- Written Description of Existing System Due 8/31/2016
    - Applicable to ONLY the Calf Barn Stacking Pad Runoff Waste Storage Facility. This facility is considered to be in noncompliance and pending additional information (R -2017-0202i).
- Plans and Specification Due 9/30/2016
    - Required to permanently correct any adverse manure storage conditions identified in evaluation
- Complete Installation Due 11/27/2017

Areas of Concern
Feed Storage Area has the potential for an unauthorized discharge due to proximity of surface waters
- Operation and Management Plan should be followed as applicable

Action Items
1. **Permanent Markers: Waste Storage Facility**
    - **a.** Submit to the department by **1/31/2021** documentation of the installation of required markers in all applicable WSFs (WSF 1 & WSF 2) as required by NR 243.15(3) **OR** submit a timeframe for the installation of required markers. Please note, WSF 2 only requires a marker be installed in the second cell of the storage.
2. **WSF Fencing**

a. Submit to the department by **1/31/2021** documentation of the installation of required fencing around WSF 1 in accordance with NRCS Standard 313 (Waste Storage Facility) OR submit a timeframe for the installation of required markers

3. **General Housekeeping**
   a. Blown or spilled feed, waste plastics, and other items should be cleaned from feed storage area and runoff controls to ensure proper function
4. **Permit Section 2.3 - Manure Storage Facility Engineering Evaluation**
   a. Submit to the department by **1/31/2021** the requested information regarding the evaluation of the Calf Barn Stacking Pad Runoff Waste Storage Facility OR submit a timeframe for the submission of the requested information and any follow up schedule items.

Items for Next Permit Term
Installation of permanent markers and fencing unless installed before permit reissuance.
Potential modification during the permit term to include an additional production site

Materials Required as part of the Permit Application **Due 1/31/2021**
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