Permit Fact Sheet

General Information

Permit Number	WI-0067457-01-0
Permittee Name and Address	Sheadview Dairy LLC W215 State Road 21 Berlin WI 54923
Permitted Facility Name and Address	Sheadview Dairy LLC W215 State Rd 21 Berlin
Permit Term	May 01, 2025 to April 30, 2030
Discharge Location	Main Dairy – W215 State Road 21, Berlin, WI 54923; NW ¼ of SE ¼ Section 12, T18N, R13E Dry Cow Farm – W374 State Road 21, Berlin, WI 54923;SE ¼ of NW ¼ Section 12, T18N, R13E
Discharge Type	Exisitng

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.)	26	0	31	0	10/18/2026
Milking and Dry Cows	864	882	1033	1055	10/18/2026
Heifers (400 lbs. to 800 lbs.)	63	105	76	126	10/18/2026
Heifers (800 lbs. to 1200 lbs.)	248	225	298	271	10/18/2026
Total	1201	882	1438	1055	

Facility Description

Brief Facility Description : Sheadview Dairy LLC is an existing Concentrated Animal Feeding Operation (CAFO) that is owned & operated by the Krentz Family. Sheadview Dairy LLC consists of 2 sites: The Main Dairy is located at W215 State Highway 21, Berlin, WI and the Dry Cow farm is located at W374 State Road 21, Berlin, WI. Sheadview Dairy LLC currently consists of 1,200 animal units (617 milking & dry cows, 330 heifers, 130 calves) and is proposing to expand during the upcoming permit term to 1,438 animal units (725 milking & dry cows, 396 heifers, 149 calves). Sheadview Dairy LLC has total of 1,488 acres available for land application of manure and process wastewater of which 1,390 are spreadable. Of this acreage, 450 acres are owned, and, 1,038 acres are controlled though contracts, rental agreements, or manure agreements.

Substantial Compliance Determination

Enforcement During Last Permit:

The facility received a Notice of Noncompliance on 6/19/2024 for failing to submit required NMP Update. The facility has completed all previously required actions as part of the enforcement process.

After a desk top review of all annual reports, compliance schedule items, and a site visit on 5/18/2022, this facility has been found to be in substantial compliance with their current permit.

Compliance determination made by Brian Hanson on 2/27/2025.

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 #1 (WSF #1). WSF #1 is an earthen-lined impoundment with a concrete floor located south of the parlor at the Main Dairy. This facility has a total volume of 2.7 million gallons and a maximum operating level capacity of 2.1 million gallons. Liquid manure and process wastewater from the freestall barns & parlor are currently stored in this facility. This facility was constructed in 2009 and has not been evaluated since the time of construction.	
002	Sample point 002 is for liquid waste storage facility #2 (WSF #2). WSF #2 is an earthen-lined impoundment located south of WSF #1 at the Main Dairy This facility has a total volume of 9.7 million gallons and a maximum operating level capacity of 7.8 million gallons. Manure from the heifer barn, overflow from WSF #1, & feed storage area runoff are currently stored in this facility. This facility was constructed in 2009 and has not been evaluated since the time of construction.	
003	Sample point 003 is for manure solids removed from bottom of all liquid waste storage facilities. This includes sand laden manure, manure-laden solids, manure fiber solids, etc. Representative samples shall be taken from each waste storage facility.	
004	Sample point 004 is for solid manure sources that are directly land applied and not stored in a waste storage facility. This includes solid sources such as calf hutch manure, maternity pen bedpack, heifer bedpack, etc. Representative samples shall be taken for each manure source type.	
005	Sample point 005 is for solid manure land applied from a solid stacking pads located on the east end of the 2 southern heifer barns. These facilities were constructed around 2011 & 2024 and have not been evaluated since the time of construction.	
006	Sample point 006 is for solid manure land applied from approved headland stacking sites. Representative samples must be taken prior to land application. Stacks are defined as part of the production area and therefore subject to the production area discharge limitations of this permit. Weekly inspections of stack runoff controls are required and shall be recorded according to monitoring program.	
007	Sample point 007 is for visual monitoring and inspection of the feed storage area (FSA) and associated runoff control system. The FSA is located on the east side of the freestall barns at the Main Dairy and is approximately 4 acres in area. All leachate & runoff flow to a collection basin on the north side of the pad. Leachate & first flush runoff are pumped to WSF #1 and remaining runoff is diverted to a vegetated treatment area. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program.	

Sample Point Designation For Animal Waste		
Sample Point Number	**Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**	
008	Sample point 008 is for visual monitoring and inspection of the calf hutch area. Hutches are bedded in straw on a gravel base, but do not have engineered runoff controls. Runoff from the calf hutch area flows south into an adjacent crop field. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program.	
009	Sample Point 009 is for visual monitoring & inspection of the outdoor lots. These lots are located on the east & north side of the barn at the Dry Cow Farm and are approximately 0.2 acres in size each. Runoff from the lots flow into adjacent fields. These lots do not have engineered runoff controls. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program.	
010	Sample point 010 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.	
011	Sample point 010 is for visual monitoring and inspection of CAFO outdoor vegetated areas located at the dairy. There are 3 areas utilized, 1 is located on the northwest side of heifer barn at the Main Dairy and the others are on the east side of the barn at the Dry Cow Farm. Proper operation and maintenance is required to ensure sufficient vegetative cover, as defined in s. NR 243.03 is sustained. Quarterly 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 326 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 a proposed herd size of 1,438 animal units (725 milking and dry cows, 396 heifers and 149 calves) , it is estimated that approximately 12,254,315 gallons and 14,210 tons of manure and process wastewater will be produced per year. The permittee owns *approximately* 450 acres of cropland & 1,038 acres controlled through contracts, rental agreements, or leases, or under manure agreements. Given the rotation commonly used by the permittee, 1,390 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.

1.1 Sample Point Number: 001- WSF #1; 002- WSF #2

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

N/A, this is the farm's first individual permit. It was previously covered under the general permit.

1.1.2 Explanation of Operation and Management Requirements

Liquid manure must be properly stored and land applied according to the permit and nutrient management plan.

1.2 Sample Point Number: 003- WSF Solids; 004- Misc Solids; 005- Stacking Pads; 006- Headland Stacks

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	

1.2.1 Changes from Previous Permit

N/A, this is the farm's first individual permit. It was previously covered under the general permit.

1.2.2 Explanation of Operation and Management Requirements

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

1.3 Sample Point Number: 007- Feed Storage Area; 008- Calf Hutch Area; 009- Outdoor Lots; 010- Storm Water, and 011- CAFO Outdoor Vegetated Area

1.3.1 Changes from Previous Permit

N/A, this is the farm's first individual permit. It was previously covered under the general permit.

1.3.2 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: Update the written Emergency Response Plan within 30 days of permit coverage, and submit to the Department.	06/01/2025

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.	07/01/2025

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.	01/31/2026
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.	

2.4 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).	
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.	

2.5 Pasture Management Plan

Submit and Implement the Pasture Management Plan after Approval

Required Action	Due Date
Submit Pasture Management Plan: Submit a Pasture Management Plan for all non-feedlot areas where animals are pastured for Department review and approval. The plan must include information detailing the pasture boundaries, density of livestock, timeframes, vegetative type, percent cover, and other management practices to insure proper operation of the area as a pasture. Once approved, implement the Pasture Management Plan.	08/01/2025

2.6 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	11/01/2029

2.7 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.

Other Comments

None

Attachments

Justification Of Any Waivers From Permit Application Requirements

No waivers requested or granted as part of this permit reissuance

Prepared By: Brian Hanson Wastewater Specialist Date: 2/27/2025

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2984 Shawano Ave.
Green Bay, WI 54313

Tony Evers, Governor

Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

WISCONSIN
DEPT. OF NATURAL RESOURCES

February 5, 2025

Kevin Krentz
Sheadview Dairy LLC
W215 State Road 21
Berlin, WI 54923

WPDES Permit No. WI-0067457-01-0
Waushara County

Subject: Conditional Approval of Sheadview Dairy LLC Nutrient Management Plan, WPDES Permit No.0067457-01-0

Dear Mr. Krentz:

The Wisconsin Department of Natural Resources (department) has completed their review of Sheadview Dairy's 2025-2029 Nutrient Management Plan (NMP) and is providing conditional approval hat 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 Sheadview 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 Augustian Farm's NMP may have:

- Soils that may have bedrock or groundwater within 24 inches of the ground's 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 Sheadview Dairy maintain compliance with their WPDES permit and Ch. NR 243 requirements.

FINDINGS OF FACT

The department confirms that:

1. A current dairy herd size of 1,200 animal units (617 milking and dry cows, 330 heifers and 130 calves) and a planned dairy herd size of 1,438 animal units (725 milking and dry cows, 396 heifers and 149 calves) by 2026.
2. Manure and process wastewater generation and spreading records indicate your herd will annually generate approximately 12,254,315 gallons and 14,210 tons of manure and process wastewater in the first year of the permit term.
3. On November 5, 2024, the department completed the days of storage review and determined Sheadview Dairy LLC has 9,896,016 gallons of storage (total MOL), or 295 days.
4. The use of application restriction options 1 and 5 within surface water quality management areas.
5. The use of phosphorus delivery method P Index.

6. That Sheadview Dairy LLC currently has 1,488 acres (450 owned and 1,038 controlled through contracts, rental agreements, or leases, or under manure agreements), of which 1,390 are spreadable acres.
7. That 2 fields are tiled:
   - Mar1N - Mar3S
8. 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 the ground's surface) at the time of application; required setbacks associated with wells, navigable waters, conduits to navigable waters, grassed waterways, wetlands, possible soil erosion/flow channels.
9. 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 Sheadview Dairy LLC NMP subject to the following conditions and the applicable requirements of Ch. NR 243, Wis. Adm. Code.

FIELD AND MANURE MANAGEMENT

1. The following fields are prohibited from receiving manure applications:
   a. Ber10 (soil test P greater than 200 ppm)
   b. PR3 (soil test P greater than 200 ppm)

2. 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 SnapPlus, evaluated for their nutrient needs, and approved by the department.

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 s. 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 content less than 2.0% and the percent ammonium (NH_4^+) is greater than 75% of the total N, Sheadview Dairy LLC must 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. Sheadview Dairy LLC shall record daily manure applications by using form 'Example of Daily Log'. This form shall be retained at the farm and provided to the department upon request.

7. Sheadview Dairy LLC shall annually submit a spreading report that summarizes the land application activities listed under s. NR 243.19(3)(c)5., Wis. Adm. Code by using form DNR Annual Spreading Report (CNM1).

8. The following fields are currently approved to receive industrial, municipal, or septage waste:
   - Ber03 & Ber05: Berlin Wastewater Treatment Facility field IP-1 (DNR# 117339)

   Prior to manure applications on these fields, Sheadview Dairy 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, Sheadview Dairy LLC shall contact each entity listed above to obtain spreading records from the previous year and properly track any applications in the farm's NMP. Note: Sheadview Dairy LLC is responsible for obtaining nutrient content values for all other wastes spread on any field in their NMP.

WINTER SPREADING

9. Liquid manure applications during winter conditions, as defined by s. NR 243.14(7), Wis. Adm. Code, are prohibited with the exception of emergency applications.

10. The following fields are approved for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:

- CarA
- CarC
- CarF
- CarG
- CarH
- Cis JK
- Der1
- Der2
- Der3
- Der4
- Der6
- Dus A
- Dus B
- Dus C
- E2
- E3
- E4
- E5
- Mus1N
- Mus3SB
- Mus3ST
- Par 2
- Par 3
- Par 6
- WayN
- WayS
- Zink

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 s. 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. The following sites are approved for non-winter and winter headland stacking in February and March with manure >32% solids:

- DadLMN
- DadO
- DER6
- DusA
- DusB
- DusC

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 50 checklists.

This conditional approval does not limit the department's regulatory authority to require NMP revisions (based upon new information) 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.

This approval by the Department of Natural Resources, Watershed Management Program does not relieve you of your obligations to meet all other applicable federal, state or local permits, zoning and regulatory requirements.

If you have any questions regarding this approval, please contact me at 920-366-2072 or Joseph.Baeten@Wisconsin.gov.

Sincerely,

Joe Baeten
Northeast Watershed Management Team Supervisor
Wisconsin Department of Natural Resources

Electronic Copy: Brian Hanson, Chris Clayton, Aaron O'Rourke, Falon French – WDNR
Josh Saykally – Waushara County LCD
Chris Casper – Winnebago County LCD
Scott Petges – Petges AG Services LLC
File

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster Street
Box 7921
Madison WI 53707-7921

Tony Evers, Governor

Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

WISCONSIN DEPT. OF NATURAL RESOURCES

November 5, 2024

FILE REF: R-2024-0252
WPDES Permit #: WI-0063274

Kevin Krentz
Sheadview Dairy, LLC
W215 State Highway 21
Berlin, WI 54923

Subject: Days of Storage Review for Sheadview Dairy, LLC T18N, R13E, Section 12 in Aurora Township, Waushara County – NO ADDITIONAL ACTION REQUIRED

Dear Kevin Krentz:

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 Patrick Roach, Roach & Associates, LLC on September 30, 2024, on behalf of Sheadview 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 Sheadview Dairy, LLC has 326 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 1176. The operation plans to expand the heard size to 1438 animal units with 1379 animal units contributing to liquid waste during the next permit term. The facility is proposed to have 295 days of storage following expansion. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values for a collection period of 365 days. Feed storage area leachate and first flush volumes are discharged to permanent waste storages and additional runoff is treated by the farm's vegetative treatment area.

Existing Conditions

Total Liquid Waste Storage Capacity (gallons)						
Waste Storage	Total Vol. from Settled Top to Bottom	-Solids Storage	-25-yr, 24-hr Precip. on Storage	25-yr, 24-hr Collected Runoff	Freeboard Vol.	Max. Operating Level (MOL) Vol.
#1	2,690,529	0	139,860	0	441,409	2,109,260
#2	9,769,160	778,487	268,264	0	935,653	7,786,756
					Total MOL Vol:	9,896,016
					Days of Storage:	**326**

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding	6,455,498
Parlor Wastewater	1,571,335
Feed Storage Leachate	153,446
Feed Storage Runoff Collected	1,069,433
Net Precipitation on Storage Surface(s)	1,832,945
TOTAL:	**11,082,657**

Proposed Conditions

Total Liquid Waste Storage Capacity (gallons)						
Waste Storage	Total Vol. from Settled Top to Bottom	-Solids Storage	-25-yr, 24-hr Precip. on Storage	25-yr, 24-hr Collected Runoff	Freeboard Vol.	Max. Operating Level (MOL) Vol.
#1	2,690,529	0	139,860	0	441,409	2,109,260
#2	9,769,160	778,487	268,264	0	935,653	7,786,756
					Total MOL Vol:	9,896,016
					Days of Storage:	**295**

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding	7,313,470
Parlor Wastewater	1,885,021
Feed Storage Leachate	153,446
Feed Storage Runoff Collected	1,069,433
Net Precipitation on Storage Surface(s)	1,832,945
TOTAL:	**12,254,315**

Should you have any questions, please contact Tabby Davis, DNR Madison 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

Tabby Davis
CAFO Review Engineer
Watershed Management Program

Email: Kevin Krentz; Krentz Family Dairy Inc.
(920) 570-0158; krentz.kevin@gmail.com

Patrick Roach; Roach & Associates, LLC
(920) 833-6340; pat@jmroach.com

Aaron O'Rourke; DNR, Eau Claire
(715) 839-3775; aaron.orourke@wisconsin.gov

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

Tabatha A Davis; DNR-Central Office
(608) 712-2324; tabatha.davis@wisconsin.gov

Brian Hanson; DNR-Northeast Region
(920) 366-3302; brian.hanson@wisconsin.gov

Joe B Baeten; DNR-Northeast Region
(920) 366-2072; Joseph.Baeten@wisconsin.gov

Ashley Scheel; DNR, Central Office
(608) 261-6419; ashley.scheel@wisconsin.gov

Josh Saykally; Waushara County Land Conservation Department
(920) 787-0443; Josh.Saykally@co.waushara.wi.us

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

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

June 28, 2022

Kevin Krentz
Krentz Family Dairy LLC
W215 State Road 21
Berlin, WI 54923

WPDES Permit No. WI- 0063274-01-0
Waushara County

Subject: Walkover Inspection Report – Follow Up Items Requested

Dear Mr. Krentz:

On May 18, 2022 the department conducted a walkover inspection of your dairy, Krentz Family Dairy. Results and photos are included in the enclosed report.

Krentz Family Dairy is currently covered under an expired WPDES general permit # WI-0063274-01-0. A permit reissuance application has been requested by January 1, 2023.

Page 16 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.

Sincerely,

Bethani Chambers
Agricultural Runoff Management Specialist

Enclosure:
Krentz Family Dairy Inspection Report

Electronic CC:
Waushara LCD
Joe Baeten, Anthony Salituro, Holly Stegemann - DNR
John Roach - Roach and Associates, LLC

CAFO Compliance Report 6/27/2022

Inspection Date: 5/18/2022

Inspection Type: Reissuance Inspection

Operation Name: Krentz Family Dairy INC

WPDES Permit No. General Permit WI-0063274-01-0

Operation Address: **Main Dairy** – W215 State Road 21, Berlin WI

Dad's Farm – W374 State Rd 21, Berlin, WI

On-Site Representative(s): Kevin Krentz: Operator/ Facility Manager

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

On May 18, 2022, Chambers and Holly Stegemann met with Kevin Krentz at the main site for Krentz Family Dairy to conduct a permit reissuance inspection, intended to convert the farms current permit from a general permit (GP) to an individual permit (IP). Others in attendance included John Roach (Roach and Associates) as well as other farm staff. All facilities currently covered under Krentz Family Dairy WPDES permit were inspected. Conditions during the inspection were warm and dry.

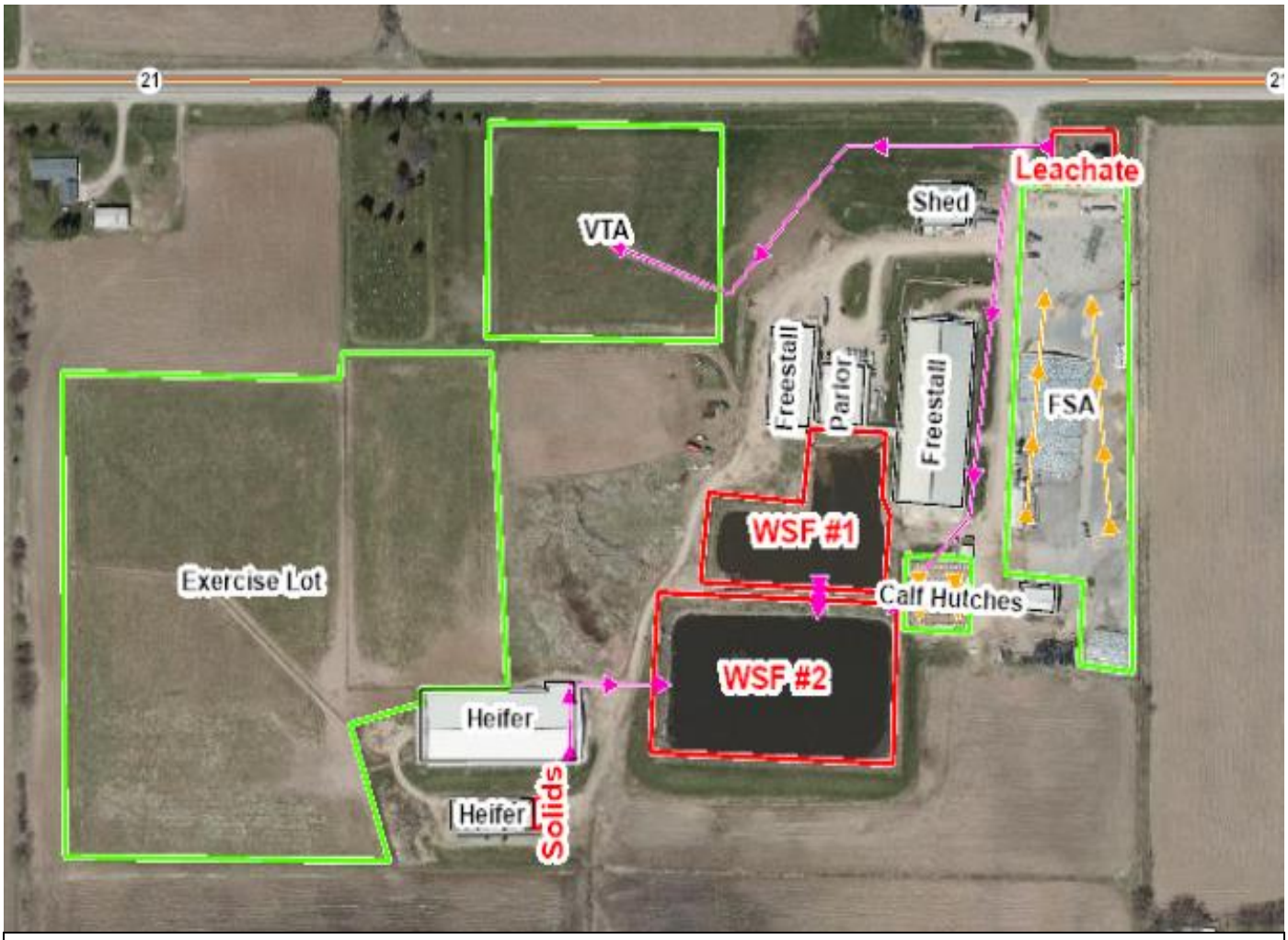

Figure 1. Aerial overview of Krentz Family Dairy Main Dairy site. Yellow arrows indicate approximate contaminated runoff flow paths, pink arrows indicate manure transfer systems.

Figure 2. Aerial overview of Krentz Family Dairy Main, Dad's Farm site. Yellow arrows indicate approximate contaminated runoff flow paths, pink arrows indicate manure transfer systems.

Figure 3. Aerial overview of Krentz Family Dairy in relation to surface water features. Yellow areas represent designated wetlands.

SITE OBSERVATIONS

Feedlot Runoff

Krentz Family Dairy utilizes earthen and concrete lots at the Dad's Farm site. Lots are scraped as needed, but do no have engineered runoff controls. Rain gutters have been installed on the adjacent barns to prevent the mixing of clean water with lot runoff. The lots should be monitored according to the monitoring and inspection program to prevent any unauthorized discharges.

Photo #:	001
Date/ Time:	5/18/2022 / 11:24 AM
Photo Location:	Dad's Farm
Photo By:	Bethani Chambers

Photo Description: Animals within the concrete feedlot at Dad's Farm.

Photo Direction: N

Photo #:	002
Date/ Time:	5/18/2022 / 11:29 AM
Photo Location:	Dad's Farm
Photo By:	Bethani Chambers

Photo Description: Earthen lot at Dad's Farm, no indication of contaminated runoff leaving the lot boundaries.

Photo Direction: E

Calf Hutch Area

Calves are kept in hutches, bedded with straw and other materials on gravel, south of the existing freestall barns. No runoff controls were present, runoff drains towards a cropped field that does not have drain tile. No indications of unpermitted discharges were observed.

Photo #:	003
Date/ Time:	5/18/2022 / 10:54 AM
Photo Location:	Calf Hutch Area, Main Farm
Photo By:	Bethani Chambers

Photo Description: Calf hutches bedded on gravel and hay, no engineered runoff controls. Runoff flows south from this area into a cropped field

Photo Direction: E

Waste Storage Facilities

Manure and process wastewater is approved to be stored in two waste storage facilities. Additionally, solid manure is stored in permanent storage.

WSF 1 is an earthen lined waste storage facility, with a concrete bottom constructed in 1999 located at the Main Dairy west of the existing feed storage area. Concrete agitation pads are in place along the sides of the pit. WSF 1 accepts manure and process wastewater from the parlor, free stall barns, and serves as the first cell of a two-celled system. A concrete overflow channel was observed between WSF 1 and WSF 2. At the time of inspection, required fencing and permanent markers were observed.

WSF 2 is an earthen lined waste storage facility constructed in 2009 located at the Main Dairy. WSF 2 accepts process wastewater and manure runoff from WSF 2. Concrete agitation pads are in place along the sides of the pit. At the time of inspection, required fencing and permanent markers were observed.

Solid manure is stored in a concrete storage area adjacent to the heifer barn west of WSF 2.

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

Photo #:	004
Date/ Time:	5/18/2022 / 10:52 AM
Photo Location:	WSF 1
Photo By:	Bethani Chambers

Photo Description: WSF 1, and concrete pushout ramps from adjacent buildings

Photo Direction: NW

Photo #:	005
Date/ Time:	5/18/2022 / 11:11 AM
Photo Location:	WSF 1
Photo By:	Bethani Chambers

Photo Description: Concrete ramp located on the west side of WSF 1

Photo Direction: S

Photo #:	006
Date/ Time:	5/18/2022 / 11:13 AM
Photo Location:	WSF 1
Photo By:	Bethani Chambers

Photo Description: Permanent markers in WSF 1, red post indicated MOS and yellow post indicates MOL

Photo Direction: SE

Photo #:	007
Date/ Time:	5/18/2022 / AM
Photo Location:	WSF 2
Photo By:	Bethani Chambers

Photo Description: WSF 2 permanent makers (fore ground) with concrete channel between WSF 1 and WSF 2 (background)

Photo Direction: N

Photo #:	008
Date/ Time:	5/18/2022 / 10:54 AM
Photo Location:	WSF 2
Photo By:	Bethani Chambers

Photo Description: Overview of WSF 2, heifer barn can be seen from the background

Photo Direction: W

Photo #:	009
Date/ Time:	5/18/2022 / 10:56 AM
Photo Location:	WSF 2
Photo By:	Bethani Chambers

Photo Description: Permanent markers for WSF 2 in foreground, concrete channel between WSF 1 and WSF 2 in background, circled in red

Photo Direction: N

Photo #:	010
Date/ Time:	5/18/2022 / 11:00 AM
Photo Location:	Solid Storage
Photo By:	Bethani Chambers

Photo Description: Concrete solid manure storage adjacent to the heifer barn

Photo Direction: NW

Feed Storage Area Runoff

All feed is kept on concrete under plastic on the designated feed pad, on the east side of the Main Dairy. No feed is kept at Dad's Farm. Runoff is directed north towards a concrete collection basin. First flush runoff is transferred to WSF 1, with additional runoff diverted to an earthen collection basin then to bubblers and a VTA. During the inspection, the VTA was in alfalfa. The stone around the bubblers appeared in good condition. Underground tile lines run along the perimeter of the feed pad to collect additional runoff. As a general reminder, good housekeeping should be practiced for the feed storage area to reduce risk of unpermitted discharges; this should include cleaning of spilled or windblown feed.

Feed storage area runoff controls appear managed to not have current or past indicators of discharges

Photo #:	011
Date/ Time:	5/18/2022 / 10:40AM
Photo Location:	Feed Storage Area
Photo By:	Bethani Chambers

Photo Description: View of feed storage area pump used, pump is operational and functioning as intended

Photo Direction: S

Photo #:	012
Date/ Time:	5/18/2022 / 10:41 AM
Photo Location:	Feed Storage Area
Photo By:	Bethani Chambers

Photo Description: Concrete collection basin, part of the runoff controls for the feed storage area

Photo Direction: W

Photo #:	013
Date/ Time:	5/18/2022 / 10:41 AM
Photo Location:	Feed Storage Area
Photo By:	Bethani Chambers

Photo Description: Secondary earthen collection basin for feed storage area, white pipe (red circle) conveys runoff towards onsite VTA

Photo Direction: NE

Photo #:	014
Date/ Time:	5/18/2022 / AM
Photo Location:	VTA
Photo By:	Bethani Chambers

Photo Description: View alfalfa field, and VTA

Photo Direction: W

Photo #:	015
Date/ Time:	5/18/2022 / 11:16 AM
Photo Location:	VTA
Photo By:	Bethani Chambers

Photo Description: One of several bubblers used for the VTA, appeared in good condition

Photo Direction: S

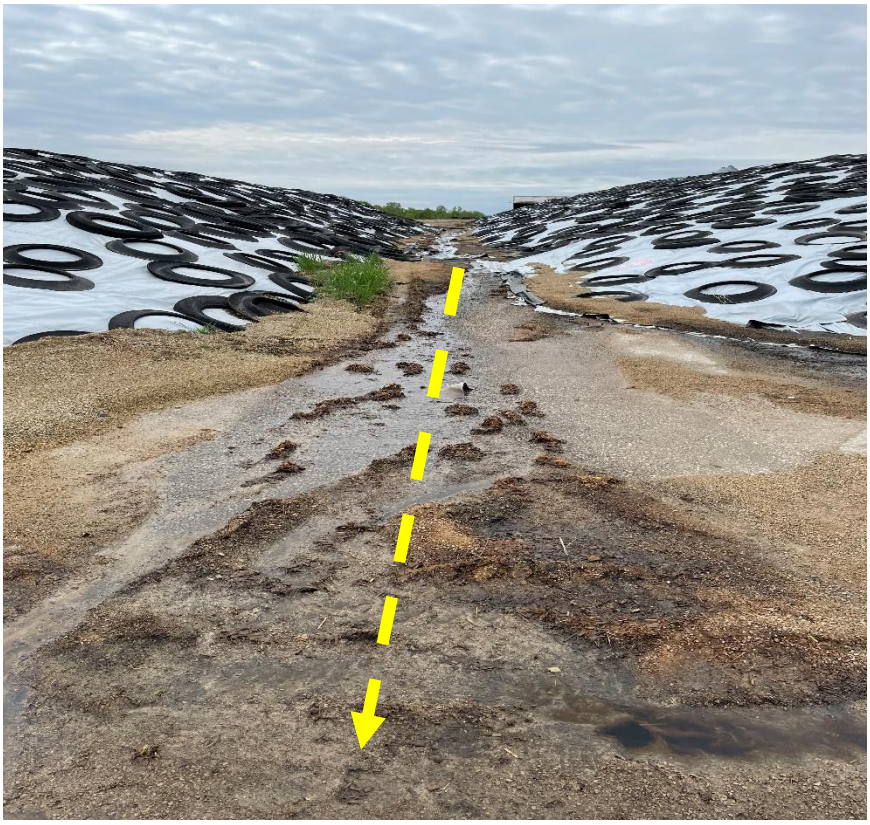

Photo #:	016
Date/ Time:	5/18/2022 / 10:42 AM
Photo Location:	Feed Storage Area
Photo By:	Bethani Chambers

Photo Description: View of runoff flowing towards collection area for feed storage area, flow indicated by yellow arrow

Photo Direction: S

Photo #:	017
Date/ Time:	5/18/2022 / 10:44 AM
Photo Location:	Feed Storage Area
Photo By:	Bethani Chambers

Photo Description: Gravel berm on the outer side of the feed storage area, concrete is sloped for runoff collection

Photo Direction: S

Animal Mortality Disposal
Mortalities kept in a designed area next to the solid stacking area and are picked up as needed by Red Granite Stock Removal.
Animal mortalities are managed to not have current or past indicators of discharges.

Ancillary Service Areas
Clean water diversions are in place to divert clean water, including gutters on buildings. No indications of past discharges were observed.

Krentz Family Dairy utilizes CAFO outdoor lots for during non-winter conditions. The lots appeared in sufficient vegetation, and the farm is currently working to expand and manage the grassed areas. Continued proper rotation and grass management should be maintained to keep lots functioning as intended.

Photo #:	018
Date/ Time:	5/18/2022 / 11:25 AM
Photo Location:	Dad's Farm
Photo By:	Bethani Chambers

Photo Description: Gutters installed on buildings at Dad's Farm to convey clean water away from lots

Photo Direction: NW

Photo #:	019
Date/ Time:	5/18/2022 / 11:04 AM
Photo Location:	Exercise Lots
Photo By:	Bethani Chambers

Photo Description: Outdoor exercise lots, in sufficient vegetation

Photo Direction: NW

Photo #:	020
Date/ Time:	5/18/2022 / 11:08 AM
Photo Location:	Exercise Lots
Photo By:	Bethani Chambers

Photo Description: View of additional lots, to be used after vegetation has grown in

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 and monitoring and inspection program plan 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
None

Areas of Concern
The earthen lots at the Dads Farm site have the potential for unauthorized discharges

a. Regular maintenance and cleaning of the lot should be conducted

Action Items
None

Items for Next Permit Term
Switching from GP to IP, no additional requirements

Materials Required as part of the Permit Application **Due 1/1/2023**
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