

Permit Fact Sheet

General Information

Permit Number:	WI-0059544-05-0
Permittee Name:	Matsche Farm Inc
Address:	N9035 River Rd
City/State/Zip:	Birnamwood WI 54414
Discharge Location:	Main Dairy : N9035 River Road & W16550 County Rd N, Birnamwood, WI 54414 ,East 1/2 of Section 7 T28N R12E Pingel Farm: W16233 County Rd N, Birnamwood, WI 54414, NW 1/4 of SE 1/4 Section 8 T28N R12E Korbisch Pit: W18102 Hill Road, Birnamwood, WI, 54414, SW 1/4 of SW 1/4 Section 22 T29N R11E Western Ave Pit: W19069 Western Ave, Birnamwood, WI, 54414, SW 1/4 of SE 1/4 Section 18 T28N R11E Cherry Drive Pit: 216434 Black Cherry Drive, Eland WI 54427 SE ¼ of SE ¼ Section 10 T27N R 10E Sugarbush Pit: Sugar Bush Road, Birnamwood, WI, 54414, SW ¼ of SE ¼ Section 27 T29N R11E
Receiving Water:	the North Branch Embarrass River & unnamed tributaries within the North Branch Embarrass River Watershed, Railroad Creek & Unnamed tributaries to the South Branch Embarrass River Watershed, and groundwaters of the state
Discharge Type:	Existing

Animal Units					
Animal Type	Current AU		Proposed AU (Note: If all zeroes, expansions are not expected during permit term)		
	Mixed	Individual	Mixed	Individual	Date of Proposed Expansion
Dairy Calves (under 400 lbs.)	292	0	180	0	01/31/2026
Milking and Dry Cows	8397	8577	10080	10296	01/31/2026
Heifers (400 lbs. to 800 lbs.)	1215	2025	1230	2050	01/31/2026
Heifers (800 lbs. to 1200 lbs.)	3102	2820	3025	2750	01/31/2026
Total	13006	8577	14515	10296	

Facility Description

Brief Facility Description : Matsche Farm Inc is a existing Concentrated Animal Feeding Operation (CAFO). Matsche Farm Inc is owned and operated by the Matsche Family. It currently has 13,007 animal units (5,998 Milking & Dry Cows, 4,845 Heifers, and 1,462 Calves). Matsche Farm Inc is proposing an expansion in animal units to 14,515 animal units (7,200 Milking & Dry Cows, 4,800 Heifers, and 900 Calves) during the permit term. Matsche Farm Inc is expected to annually generate 90,878,015 gallons of manure and process wastewater and 4,536 tons of solid waste at the current animal units and increasing to 102,904,259 gallons of manure & process wastewater after the expansion. Matsche Farm Inc has a total of 10,138 acres available for land application of manure and process wastewater of which 10,042 are

spreadable. Of this acreage, 4,886 acres are owned, and 5,252 acres are controlled through contracts, rental agreements, leases, or under manure contracts. As part of the expansion, Matsche Farms Inc is proposing to build additional animal housing, an expansion of the Feed Storage Area, and an additional satellite waste storage facility.

Substantial Compliance Determination

Enforcement During Last Permit: 2 Notices of Noncompliance were issued for land applications violations. The facility has completed all previously required actions as part of the enforcement process.

After a desk top review of all reports, inspections application materials, engineering documentation and a site visit on 8/24/2022, this facility has been found to be in substantial compliance with their current permit.

Compliance determination entered by Brian Hanson, permit drafter on 4/4/2024.

Sample Point Designation For Animal Waste	
Sample Point Number	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
001	Sample point 001 is for an existing liquid waste storage facility (WSF #3). WSF #3 is a concrete lined impoundment located at main dairy site south of County Rd N, west of the freestall barns, & south of the heifer barn. This facility has a total volume of 8.9 million gallons and a maximum operating level capacity of 8.0 million gallons. This storage generally accepts manure and process wastewater that has been through the anaerobic digesters & solid separation system. The facility was constructed in 2010 & has not been evaluated since the time of construction.
002	Sample point 002 is for an existing liquid waste storage facility (WSF #2). WSF #2 is a concrete lined impoundment located at main dairy site south of County Rd N, west of the freestall barns, & south of WSF #3. This facility has a total volume of 5.9 million gallons and a maximum operating level capacity of 5.15 million gallons. This storage generally accepts manure & process wastewater from WSF #3 via a gravity overflow pipe. The facility was constructed in 2000 & has not been evaluated since the time of construction.
003	Sample point 003 is for an existing liquid waste storage facility (WSF #1). WSF #1 is a vertical walled concrete structure located at main dairy site south of County Rd N, west calf barns, & south of the original heifer barn. This facility has a total volume of 0.41 million gallons and a maximum operating level capacity of 0.35 million gallons. This storage accepts manure and process wastewater from the calf barns & original heifer barn. The facility was constructed in 1993 & has not been evaluated since the time of construction.
004	Sample point 004 is for any miscellaneous solid manure produced at the Pingel farm that is directly land applied and not stored in a waste storage facility. This includes any solid manure removed from the concrete lot or the onsite concrete reception basin referred to as WSF #6. Representative samples shall be taken for each manure source type.
007	Sample point 007 is for visual monitoring and inspection of the concrete feedlot and associated runoff control system located at the Pingel Farm. Feedlot runoff gravity flows into an adjacent vertical wall reception basin with access ramp. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. This lot & reception basin were built sometime between 2000-2005 and have never been

Sample Point Designation For Animal Waste

Sample Point Number	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
	evaluated. An engineering evaluation shall be submitted according to the schedules section of the permit.
008	Sample point 008 is for visual monitoring and inspection of the existing feed storage area and associated runoff control system. The existing feed storage area is located at the main dairy on the south side of County N. In total, the FSA is approximately 13.8 Acres in size and has multiple runoff collection systems that convey all runoff to the two runoff collection ponds. Plans for a 3.6 acre FSA expansion were submitted to the department on March 27, 2024. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections will be required and shall be recorded according to monitoring program.
009	Sample point 009 is for any miscellaneous solid manure produced at the main dairy site, directly land applied, and not stored in a waste storage facility. This includes calf hutch manure, maternity pen bedpack, heifer bedpack, manure fiber not reused as bedding, etc. Representative samples shall be taken for each manure source type.
010	Sample point 010 is for an existing liquid waste storage facility (WSF #4). WSF #4 is a concrete lined impoundment located at main dairy site north of County Rd N & west of the parlor. This facility has a total volume of 25.6 million gallons and a maximum operating level capacity of 23.5 million gallons. This storage generally accepts manure and process wastewater that has been through the anaerobic digesters & solid separation system. The facility was constructed in 2015 & has not been evaluated since the time of construction.
012	Sample point 012 is for existing liquid waste storage facility (WSF #5). WSF #5 is a set of two concrete lined impoundments located at the main dairy site south of County Rd N & south of the feed storage area. This combined facility has a total volume of 3.4 million gallons and a maximum operating level capacity of 1.0 million gallons. This storage generally accepts leachate & runoff from the feed storage areas. The facility was last expanded in 2018 and has not been evaluated since the time of construction.
013	Sample point 013 is for visual monitoring and inspection of the Main Dairy Site separated manure fiber storage. Proper operation and maintenance is required to ensure discharges of process wastewater to waters of the state do not occur. Weekly inspection are required and shall be recorded according to monitoring program.
014	Sample point 014 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.
015	Sample point 015 is for visual monitoring and inspection of the outdoor calf lot and associated runoff control system located Main Dairy south of County N & just south of the freestall barns & parlor. Feedlot runoff is kept on the lot with concrete curbing and manually scraped up. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program.
016	Sample point 016 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.

Sample Point Designation For Animal Waste	
Sample Point Number	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)
017	Sample point 017 addresses all digested liquids located within the 2 digester cells. Manure is pumped from an existing manure processing building to the digesters and then returned to the manure processing buildings (for solids removal) after the digestion is completed. Liquids will then be transferred to WSF #3 or WSF #4 for long term storage. Sampling from within the digester cell(s) for nutrient content is only required if the liquids are to be manually pumped from the cell(s) and directly land applied. These facilities were constructed in 2022 and have not been evaluated since the time of construction.
018	Sample point 018 is for an existing liquid waste storage facility (WSF #8). WSF #8 is located at the Western Ave Pit site. The facility is a concrete lined impoundment and has a total volume of 3.7 million gallons & MOL volume of 3.25 million gallons. This storage accepts manure and process wastewater transferred from the main dairy via tanker trucks and unloaded into this facility prior to land application. This facility was constructed in 2021 and has not been evaluated since the time of construction.
019	Sample point 019 is for an existing liquid waste storage facility (WSF #9). WSF #9 is a vertical wall concrete structure located at the Korbisch Pit site north of the existing farmstead. This facility has a total volume of 0.45 million gallons and a maximum operating level capacity of 0.38 million gallons. This storage accepts manure and process wastewater transferred from the main dairy via tanker trucks and unloaded into this facility prior to land application. The facility was constructed in 1991 and was last evaluated by the department in 2021.
020	Sample point 020 is for an existing liquid waste storage facility (WSF #10). WSF #10 is located at the Cherry Drive site in Marathon County. This facility is a concrete lined impoundment and has a total volume of approximately 2.25 million gallons & MOL volume of 1.87 million gallons. This storage will accept manure and process wastewater transferred from the main dairy via tanker trucks and unloaded into this facility prior to land application. This facility was constructed in 2004 and has not yet been evaluated by the department. An engineering evaluation of this facility was submitted to the department on 12/18/2022 and has not yet been reviewed. See permit schedules for a list of further actions required.
021	Sample point 021 is for a proposed liquid waste storage facility (WSF #11). WSF #11 is proposed to be located at the Sugarbush Road site. The proposed pit will be a concrete lined impoundment and have a total volume of approximately 3.7 million gallons & MOL volume of 3.3 million gallons. Plans and specifications for the proposed waste storage facility were submitted to the department on 3/27/2024 & will need to be approved prior to construction. This storage will accept manure and process wastewater transferred from the main dairy via tanker trucks and unloaded into this facility prior to land application.

1 Livestock Operations - Proposed Operation and Management

Production Area Discharge Limitations

Beginning on the effective date of the permit, the permittee may not discharge pollutants from the operation’s production area (e.g., manure storage areas, outdoor animal lots, composting and leachate containment systems, milking center wastewater treatment/containment systems, raw material storage areas) to navigable waters, except in the event a 25-year, 24-hour rainfall event (or greater) causes the discharge from a structure which is properly designed and maintained to contain a 25-year, 24-hour rainfall event for this location as determined under s. NR 243.04. If an allowable discharge occurs from the production area, state water quality standards may not be exceeded.

Runoff Control

The permit requires control of contaminated runoff from all elements of the production area to prevent a discharge of pollutants to navigable waters in accordance with the Production Area Discharge Limitations and to comply with surface water quality standards and groundwater standards. Beginning on the effective date of this permit, (if needed) interim measures shall be implemented to prevent discharges of pollutants to navigable waters. In addition, permanent runoff control system(s) shall be designed, operated and maintained in accordance with the requirements found in USDA Natural Resources Conservation Service standards and ch. NR 243, Wis. Adm. Code. If any upgrading or modifications to runoff controls are necessary, formal engineering plans and specifications must be submitted to the Department for approval.

Manure and Process Wastewater Storage

The permit requires the operation to have adequate storage for manure and process wastewater and that storage or containment facilities are designed, operated and maintained to prevent overflows and discharges to waters of the state. In order to prevent overflows, the permittee must maintain levels of materials in liquid storage or containment facilities at or below certain levels including a one foot margin of safety that can never be exceeded. If any upgrading or modifications to the storage facilities are necessary, formal engineering plans and specifications must be submitted to the Department for approval.

The permittee currently has approximately 201 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.

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 13,007 animal units (5,998 Milking & Dry Cows, 4,845 Heifers, and 1,462 Calves), it is estimated that approximately 90,878,015 gallons of manure and process wastewater and 4,536 tons of solid waste will be produced in the first year of the permit. The permittee owns *approximately* 4,886 acres of cropland and has 5,252 controlled through contracts, rental agreements or leases, or under manure agreements. Given the rotation commonly used by the permittee, 10,042.4 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 of practices to address potential water quality impacts associated with the land application of manure and process wastewater. Among the permit conditions are restrictions on manure ponding, restrictions on runoff of manure and process wastewater from cropped fields, and setbacks from wells and direct conduits to groundwater (e.g., sinkholes, fractured bedrock at the surface). In addition, the permittee must implement a phosphorus based nutrient management plan that addresses phosphorus delivery to surface waters by basing manure and process wastewater applications on soil test phosphorus levels or the Wisconsin Phosphorus index. Additional phosphorus application restrictions apply to fields that are high in soil test phosphorus (>100 ppm).

The permittee must also implement conservation practices when applying manure near navigable waters and their conduits, referred to as the Surface Water Quality Management Area (SWQMA). These practices include a 100-foot

setback from navigable waters and their conduits, a 35-foot vegetated buffer adjacent to the navigable water or conduit, or a practice that provides equivalent pollutant reductions equivalent to or better than the 100-foot setback.

In addition, the permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure ($\geq 12\%$ solids) on frozen or snow-covered ground during February and March.

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 #3; 002- WSF #2; 003- WSF #1; 010- WSF #4; 012- Leachate WSF; 017- Digested Liquids; 018- WSF #8-Western Ave; 019- WSF #9-Korbisch; 020- WSF #10-Cherry Drive, and 021- WSF #11-Sugar Bush

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lb/1000gal	2/Month	Grab	
Nitrogen, Available		lb/1000gal	2/Month	Calculated	
Phosphorus, Total		lb/1000gal	2/Month	Grab	
Phosphorus, Available		lb/1000gal	2/Month	Calculated	
Solids, Total		Percent	2/Month	Grab	

1.1.1 Changes from Previous Permit

Sample point language was updated to more accurately describe existing facilities. Sample point 020 & 021 were added to the permit in order to be available for use by Matsche Farms once they are properly evaluated or constructed.

1.1.2 Explanation of Operation and Management Requirements

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

Sample Point Number: 004- Pengil Farm; 009- Dairy Site Misc Solids; 013- Separated Solids , and 016- Headland Stacking Sites

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lbs/ton	Quarterly	Grab	
Nitrogen, Available		lbs/ton	Quarterly	Calculated	
Phosphorus, Total		lbs/ton	Quarterly	Grab	
Phosphorus, Available		lbs/ton	Quarterly	Calculated	
Solids, Total		Percent	Quarterly	Grab	

1.1.3 Changes from Previous Permit

Sample point language was updated to more accurately describe existing facilities. Sample Point 005 was removed from the permit due to the farm no longer utilizing any of the facilities at the Home Farm.

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: 007- Pengil Farm Lot; 008- Feed Storage Area; 014- Stormwater, and 015- Calf Lot

1.1.5 Changes from Previous Permit

Sample point language was updated to more accurately describe existing facilities. Sample point 006 for the Home Farm Outdoor Lot was removed from the permit as the farm is long longer utilizing any of the facilities at the Home Farm.

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: Update the written Emergency Response Plan within 30 days of permit coverage, and submit to the Department.	07/01/2024

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.	08/01/2024

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).	
Submit NMP Update #1: To include actual cropping, tillage, and nutrient application data from the	03/31/2025

previous calendar or crop year, consistent with the requirements of department for 3400-025D.	
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.	03/31/2026
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.	03/31/2027
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.	03/31/2028
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.	03/31/2029
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	

2.5 Runoff Control System - Engineering Evaluation

Applicable to the Sample Point 007, Pingel Farm Outdoor Lot & Runoff Control System

Required Action	Due Date
Complete Engineering Evaluation: Retain a qualified expert to complete an engineering evaluation for the Pingel Farm Outdoor Lot runoff control system and report the name of the expert to the Department.	07/15/2024
Written Description of Existing System: Submit a written description of the existing runoff control system and its adequacy to permanently meet the conditions in the Production Area Discharge Limitations and Runoff Control subsections and s. NR 243.15, Wis. Adm. Code. (See Standard Requirements for report details.)	02/15/2025
Plans and Specifications: Submit plans and specifications for Department review and approval to permanently correct any adverse runoff control conditions in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code.	03/01/2026
Corrections and Post Construction Documentation: Complete construction of runoff controls that permanently correct any adverse runoff control conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.	11/01/2026

2.6 Manure Storage Facility - Engineering Evaluation

Applicable to Sample Point 20, WSF #10-Cherry Drive. Pending review of existing engineering evaluation, further actions may be required.

Required Action	Due Date
Plans and Specifications: Submit plans and specifications for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code, to permanently correct any adverse manure storage conditions.	03/31/2025
Corrections and Post Construction Documentation: Complete construction on the manure storage facility that permanently corrects any adverse conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.	12/31/2025

2.7 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	12/01/2028

2.8 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.

Schedule 2.5 – Facility was not previously approved or evaluated by the department. Evaluation needed to determine if runoff controls meet NR 243 & permit requirements.

Schedule 2.6 – Facility was not previously approved or evaluated by the department. Evaluation needed to determine if waste storage facility meets NR 243 & permit requirements.

Special Reporting Requirements

N/A

Other Comments:

None

Attachments:

Plan Approval Letter(s)

- 3/6/2024 Days of Storage Review
- 4/10/2024 Conditional NMP Approval

9/14/2022 Compliance Inspection Report

Public Notice

Expiration Date:

5/31/2029

Justification Of Any Waivers From Permit Application Requirements

N/A

Prepared By: **Brian Hanson** Wastewater Specialist

Date: **4/10/2024**



April 10th, 2024

Shawano County
Approval

Scott Matsche
Matsche Farm Inc.
N9035 River Rd
Birnamwood, WI 54414

SUBJECT: Conditional Approval of Matsche Farm Inc. Nutrient Management Plan, WPDES Permit No. 0059544-04-1

Dear Scott,

After completing a review of Matsche Farm Inc. 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 Matsche Farm Inc. 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 Matsche Farm Inc. 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 Matsche Farm Inc. 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 14,515 animal units (7,200 milking & dry cows, 4,800 heifers, and 900 calves). Currently there are no planned expansions in the next permit term.
2. Manure generation and spreading records indicate your herd will annually generate approximately 103,263,259 gallons of manure and process wastewater and 4,280 tons of solid manure in the first year of the permit term.
3. The use of application restriction options 1 and 5 within surface water quality management areas.
4. The use of phosphorus delivery method P Index.
5. That Matsche Farm Inc. currently has 10,138 acres (4,886 owned and 5,252 controlled through contracts, rental agreements or leases, or under manure agreements) of which 10,042.4 are spreadable acres.

6. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to a 303(d) impaired water.
7. That some fields included in the NMP are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters including water body name: Evergreen Creek, Evergreen River, Mayking Creek, Lower Demlow Lake, Sipes Creek, West Branch Red River, Mattoon Creek, Elmhurst Creek, Middle Br Embarrass River, Mondl Creek, Norrie Brook, Railroad Creek, Packard Creek, North Branch Embarrass River, Silver Creek, Gold Creek, Hennig Creek, Spranger Creek, Comet Creek, South Branch Embarrass River, Dent Creek, Simpson Creek, Pony Creek, Stengel Creek.
8. That the following fields included in the NMP are located within the well head protection area for the Name of City or Village: Walters-Pit Rd., Walters- Home, MET-08, HAT-01, HAT-02.
9. That no fields are tiled.
10. 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.
11. 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 Matsche Farm Inc. Nutrient Management Plan subject to the following conditions and the applicable requirements of Ch. NR 243, Wis. Adm. Code:

FIELD AND MANURE MANAGEMENT

1. Fields not included in the NMP and new fields shall not receive manure or process wastewater applications until they have been properly soil sampled, entered into Snap Plus, evaluated for their nutrient needs, and approved by the Department.
2. The following fields have also been approved to receive industrial, municipal, or septage waste:

Field Name	Other Permittee Name	Other Permittee Field Name	DNR #
Maykng-2	PECHA SEPTIC SERVICE	ELI – 1	107612
Maykng-2	PECHA SEPTIC SERVICE	ELI – 2	107613
Maykng-2	PECHA SEPTIC SERVICE	ELI – 3	107614
Maykng-2	PECHA SEPTIC SERVICE	ELI – 4	107615
Ralph-464	HATLEY WASTEWATER TREATMENT FACILITY	RALPH – 464	111307
Tellock 3-4	ROGER HANSON SANITATION & EXCAVATING, INC.	ET – 5	113305

Prior to any manure applications on these fields Matsche Farm Inc. 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 Matsche Farm Inc. shall contact each entity listed above to obtain spreading records from the previous year so that they can be properly tracked in the NMP. Please Note: Matsche Farm Inc. is responsible for obtaining nutrient content values for all other wastes spread on any field in their NMP.

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

- | | | |
|---|--|----------------------------|
| - Walters-Pit Rd. (area within 1,000 ft. of municipal well) | - Walters-Home (area within 1,000 ft. of municipal well) | - H144 (over 200ppm P) |
| - P90 (over 200ppm P) | - Beran-2-3-4 (default) | - Winks-Fuller 8 (default) |
| - Winks-Resch 8 (default) | - Winks-Southwest (default) | |

If Matsche Farm Inc. wishes to use these fields for applications of manure or process wastewater all necessary information shall be submitted to the Department prior to application to demonstrate compliance with NR 243 and other applicable codes. Written Department approval amending this condition approval must be received prior to application.

4. If existing fields yield a soil test results equal to or greater than 200 ppm P, those fields would be prohibited from receiving manure or process wastewater applications, unless you obtain Department approval in accordance with NR 243.14(5)(b)2., Wis. Adm. Code.
5. All liquid manure samples collected may be analyzed, at a minimum, for percent dry matter, total nitrogen, percent NH₄-N, percent NO₃-N, phosphorus, potassium, and sulfur.
6. If manure sample results have a dry matter (DM) content less than 2.0% and the percent ammonium (NH₄⁺) is greater than 75% of the total N, Matsche Farm Inc. may use the following equation to adjust the first-year available nitrogen when applications are injected or incorporated within 1 hour:

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

7. Matsche Farm Inc. shall record daily manure applications by using form 'Matsche Farms Manure Application Report.' These forms shall be retained at the farm and provided to the department upon request.
8. Matsche Farm Inc. 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 'CAFO Annual Spreading Report' generated by SNAP Plus.

WINTER SPREADING

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

10. The following field(s) are approved for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:

- | | | |
|--------------|---------|-----------------|
| - Dahlke Rd. | - HT104 | - TA-01 |
| - F227 | - HT109 | - Wickie-17 |
| - F229 | - M-61 | - WW316 |
| - FR274 | - P84 | - Zillmer Hwy C |
| - Hbnr-24 | - PT43 | |
| - Hbnr-50 | - T74 | |

11. The following field(s) are denied for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:
- C-1,2,3,4 (field does not exist)
 - Met-1,4,5 (field does not exist)
 - Mayking 1,2 (field does not exist)
 - TW-1 (field does not exist)
 - F230 (insufficient spreadable area)
12. 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.
13. Winter applications of liquid manure shall only occur under emergency situations, after notifying the Department and receiving verbal approval.
14. 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

15. The following headland stacking sites are denied due to not meeting subsurface saturation:
- Site 14 - Car-Home-5
 - Site 15 - Car-Home-16
 - Site 3 - FR274
 - Site 4 - FR277
 - Site 1 - N255
16. The following headland stacking sites are approved for use with greater than 32% solids only:
- Site 9 – Dahlke Rd
 - Site 10 – Dahlke Rd
 - Site 11 – Dahlke Rd
 - Site 2 – F231
 - Site 7 – Hat-01
 - Site 8 – Hat-01
 - Site 5 – Hatchery
 - Site 6 – Hbnr-24
 - Site 12 – Kpl-101
 - Site 13 – Kpl-101
 - Site 16 – TL Heifers
 - Site 17 – TL Beansies

All sites are subject to the following requirements:

- Sites may be used 1 out of every 2 years, stacking period may not exceed 8 months.
- Sites may be used during February and March, or any period of the year when the ground is not frozen or snow covered.

MANURE & PROCESS WASTEWATER IRRIGATION

17. Irrigation of manure or process wastewater is prohibited.

SUBMITAL AND RECORDKEEPING REQUIREMENTS

18. 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.
19. A complete set of winter restriction maps is due by **April 19th, 2024.**

This conditional approval does not limit the Department’s regulatory authority to require NMP revisions (based upon new information or manure irrigation research findings) or request additional information in order to confirm or ensure your farm operation remains in compliance with NR 243 and your WPDES permit conditions.

If additional information, project changes or other circumstances indicate a possible need to modify this approval, the Department may ask you to provide further information relating to this activity.

Please keep in mind that approval by the Department of Natural Resources – Runoff Management Program does not relieve you of obligations to meet all other applicable federal, state or local permits, zoning and regulatory requirements.

If you have any questions regarding this approval, I can be reached at 920-360-9010 or McKenna.Arnoldi@Wisconsin.gov.

Sincerely,



McKenna Arnoldi
Nutrient Management Specialist – LTE
Wisconsin Department of Natural Resources

Cc: Brian Hanson, WDNR Agricultural Runoff Specialist (Brian.Hanson@Wisconsin.gov)
Joe Baeten, WDNR Watershed Management Team Supervisor (Joseph.Baeten@Wisconsin.gov)
Christopher Clayton, WDNR Runoff Management Section Chief (Christopherr.Clayton@Wisconsin.gov)
Tyler Dix, WDNR CAFO Program Coordinator (Tyler.Dix@Wisconsin.gov)
Aaron O'Rourke, WDNR Nutrient Management Program Coordinator (Aaron.Orourke@Wisconsin.gov)
Falon French, WDNR Intake Specialist (Falon.French@Wisconsin.gov)
Ashley Scheel, WDNR NMP Reviewer (Ashley.Scheel@Wisconsin.gov)
Rob Davis, WDNR CAFO Engineer (Robert.Davis@Wisconsin.gov)
Tony Salituro, WDNR CAFO Engineer (Anthony.Salituro@Wisconsin.gov)
Scott Frank, Shawano County LCD (Scott.Frank@shawanocountywi.gov)
Chris Arrowood, Langlade County LCD (CArrowood@co.langlade.wi.us)
Kirstie Heidenreich, Marathon County LCD (kirstie.heidenreich@co.marathon.wi.us)
Steve Carlsen, Carlsen Crop Consulting (carlsen618@yahoo.com)



March 6, 2024

FILE REF: R-2024-0019
 WPDES Permit #: WI-0059544

Scott Matsche
 Matsche Farms Inc
 N9035 River Road
 Birnamwood, WI 54414

Subject: Days of Storage Review for Matsche Farms Inc, NE ½ Town 28N, Range 12E, Section 07 in Almon Township, Shawano County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Matsche:

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 Douglas Gatrell, GHD on April 4, 2023 & resubmitted on 1/19/2024 on behalf of Matsche Farms Inc.

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 Matsche Farms Inc has 201 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 Cherry Drive waste storage facility currently has an evaluation submitted to the department. The number of days of storage are subject to change once this evaluation is reviewed & requires no further actions. The current number of animal units provided for the calculation is 13,007. An expansion to 14,515 Animal Units & total waste generation to 102,904,259 gallons is proposed during the permit term as is an additional satellite waste storage facility. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values. The liquid waste volumes are based upon a collection period of 365 days. Feed Leachate & Feed Storage Runoff Volumes were calculated separately as they have a separate waste storage system. Collected Runoff volumes were based off 1,200 sq ft concrete apron at the Western Ave Site & 6,510 sq ft concrete barnyard at the Pingel Site

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	415,277	0	18,168	0	51,910	345,199
#2	5,871,105	0	187,839	0	527,557	5,155,709
#3	8,934,872	0	236,877	17,043	663,875	8,017,077
#4	25,636,241	0	547,947	0	1,547,899	23,540,395
Korbisch	454,784	0	19,897	0	56,848	378,039
Western Ave	3,696,125	0	117,810	3,142	328,271	3,246,902
Cherry Drive	2,253,119	0	100,220	0	281,691	1,871,208
Total MOL Vol:						42,554,529
Days of Storage:						201

Liquids Collected/Stored	Annual Gallons
Manure, Bedding & Wastewater	70,933,005
Total Feedlot Runoff Collected (Pingel)	82,538
Total Concrete Apron Runoff Collected:	24,467
Net Precipitation on Storage Surfaces:	6,079,639
Total:	77,119,649

Days of Available Process Wastewater Storage: The submitted information states that Matsche Farm Inc. is proposed to have 26 days of process wastewater storage based on the volumes listed in the table below. The total proposed feed storage area collected is 13.8 Ac. and leachate from 150,000 tons of silage is collected. Runoff up to and including the 25-yr, 24-hr storm is collected. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values and based upon a collection period of 365 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.
LMP #1	245,529	0	33,555	4,254	85,549	122,171
LMP #2	3,132,046	0	163,649	1,569,284	454,292	944,821
Total MOL Vol:						1,066,992
Days of Storage:						26

Liquids Collected/Stored	Annual Gallons
Total Feed Storage Leachate	561,000
Total Feed Storage Runoff Collected	12,221,735
Net Precipitation on Storage Surfaces:	975.631
Total:	13,758,366

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

Email: Scott Matsche; Matsche Dairy Farm
(715) 610-1151; matscheck@gmail.com

Douglas Gatrell; GHD Services Inc
(920) 490-1663; douglas.gatrell@ghd.com

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

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



Brian Hanson
Ag Runoff Management Specialist
Watershed Management Program

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

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

Scott Frank; Shawano County
(715) 526-4820; scott.frank@co.shawano.wi.us

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
647 Lakeland Road
Shawano WI 54166

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



9/14/2022

Scott Matsche
Matsche Farms Inc
N9035 River Road
Birnamwood, WI 54414

WPDES Permit No. WI-0059544-04-1
Shawano County

Subject: 8/24/2022 Permit Compliance Inspection

Dear Mr. Matsche:

On August 24, 2022 the Department of Natural Resources met with the representatives of Matsche Farms Inc to conduct a full compliance inspection of your facility for permit reissuance. Department observations, including photographs, and a record of our conversations are included in the enclosed report.

The final pages of the report include a summary section identifying areas of concern as well as a list of actions items.

If you have any questions regarding this letter or your WPDES permit requirements, please contact me at 920-366-3302 or brian.hanson@wisconsin.gov.

Sincerely,

Brian Hanson
Agricultural Runoff Management Specialist
920-366-3302
brian.hanson@wisconsin.gov

Enc: 8/24/2022 Inspection Report

Electronic copy: Scott Frank - Shawano County LCD
Falon French, Tony Salituro, Joe Baeten - DNR
Steve Carlsen – Carlsen Crop Consulting

CAFO Compliance Inspection Report



Inspection Date: 8/24/2022

Report Final Date: 9/14/2022

Operation Name: Matsche Farms Inc.

WPDES Permit #: WI-0059544-04-1

Farm Address: **Main Dairy:** N9035 River Road, Birnamwood, WI 54414 , East 1/2 of Section 7 T28N R12E

Home Farm: N9089 Short Lane, Birnamwood, WI 54414, NW 1/4 of SW 1/4 Sec 7 T28N R12E

Pingel Farm: W16233 County Rd N, Town of Almon, NW 1/4 of SE 1/4 Section 8 T28N R12E

Korbisch Pit: W18004 Hill Road, Birnamwood, WI 54414, SE 1/4 of SW 1/4 Section 23 T 29N R11E

Western Ave:W19069 Western Ave, Birnamwood, WI 54414, SW 1/4 of SE 1/4 Section 18 T28N R11E

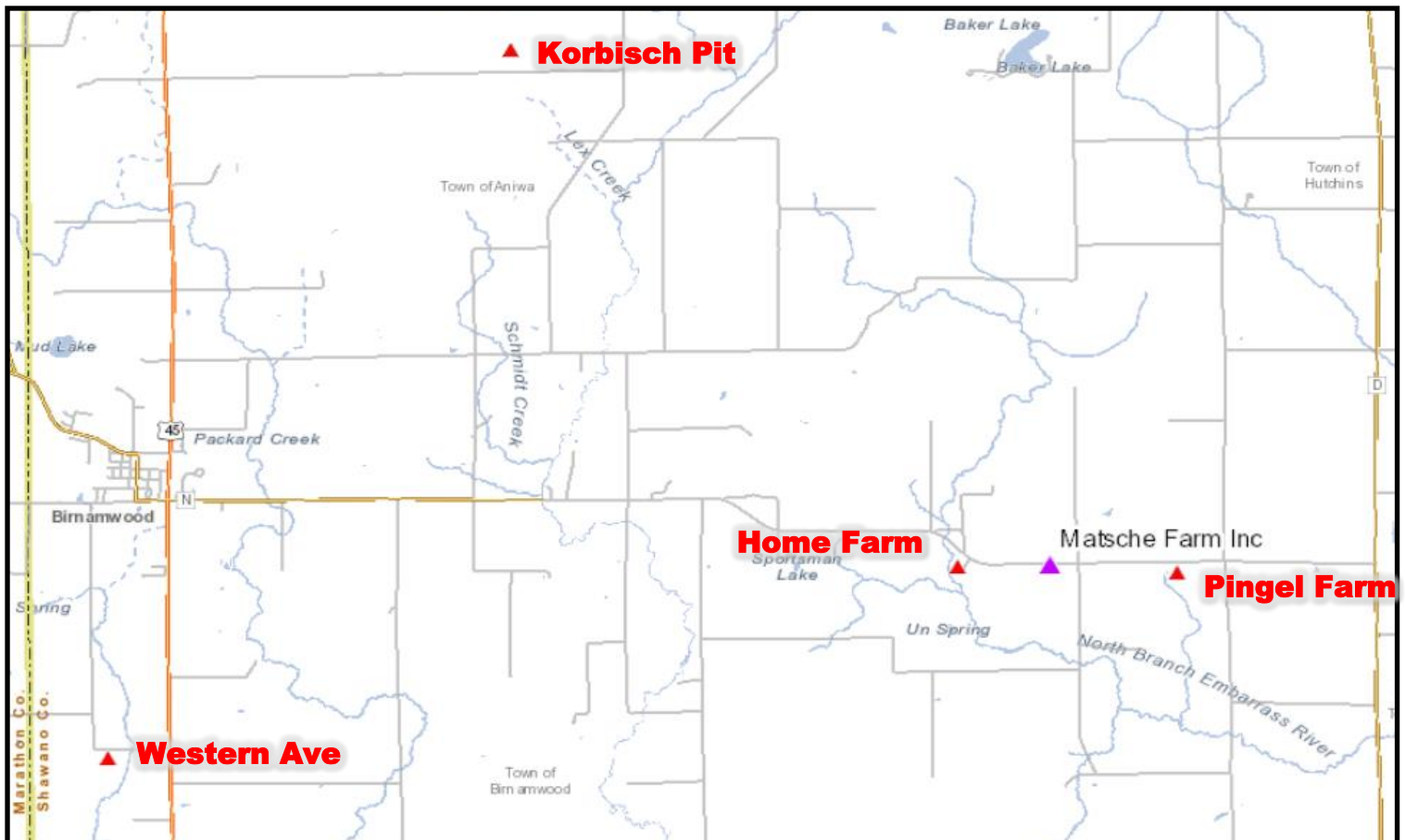
On-Site Representative(s): Scott Matsche & Heather Matsche (Owners & Operators) , Steve Carlsen (Agronomist)

Report Author & other participating agencies: Brian Hanson: DNR Ag Runoff Specialist, Mark Kaczorowski—DNR

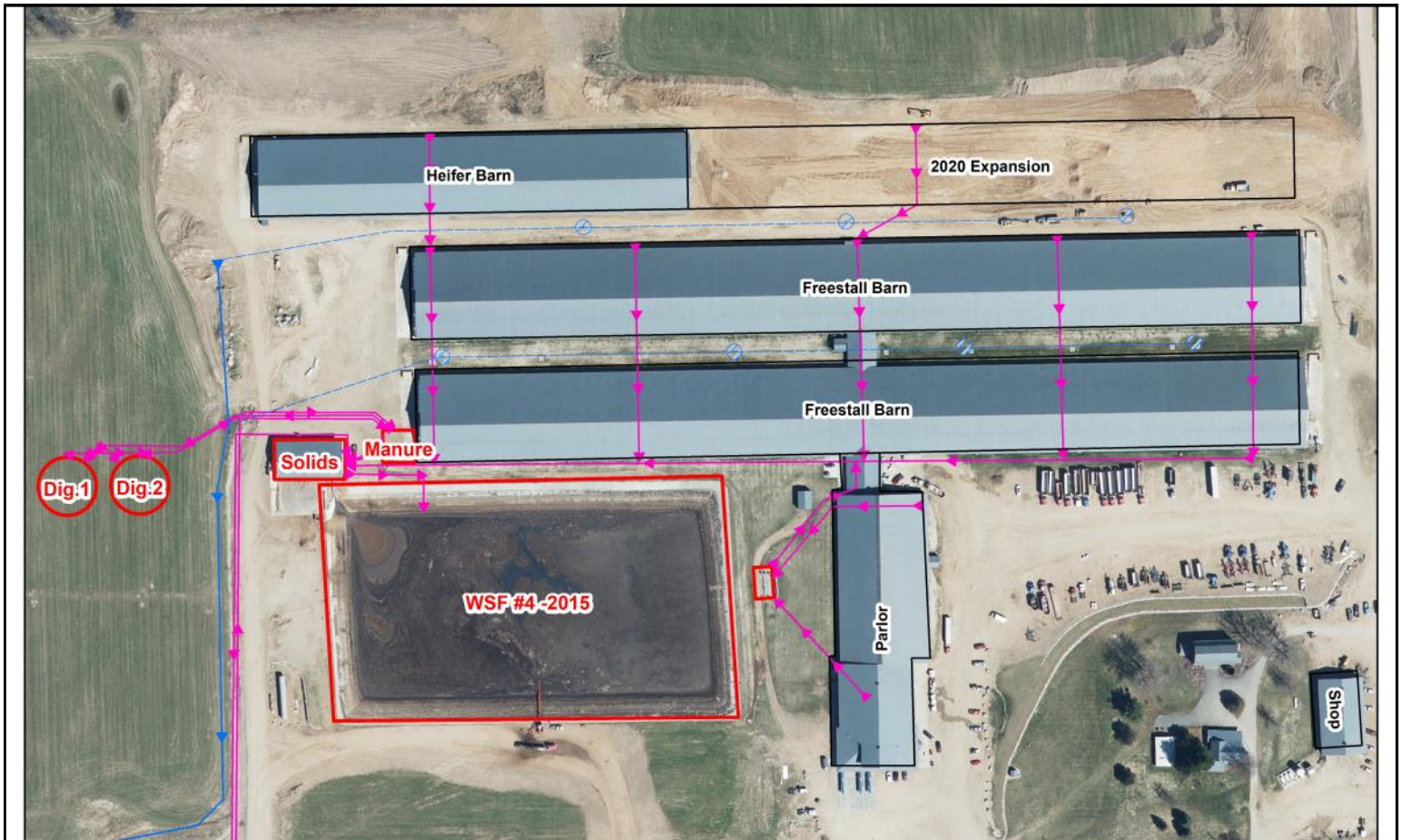
Introduction

On Wednesday August 24th Hanson & Kaczorowski met with Matsche, Matsche & Carlsen 09:00 at Matsche Farms Inc. site to conduct a permit reissuance walkover inspection. All five sites were inspected. No liquid precipitation had fallen recently and the temperature was in the 80's and sunny. No permit violations were observed, and no water samples were collected. Hanson & Kaczorowski departed at approximately 12:00. A summary of this report including action items can be found on the last page of the report

Site Overview Diagram (Main Farm, Home Farm, Pingel Farm, Western Ave, Korbisch Pit)



Site Overview Diagram (Main Farm North of County N: orange lines = potential contaminated runoff, blue lines = stormwater flow, pink lines = waste transfer system)



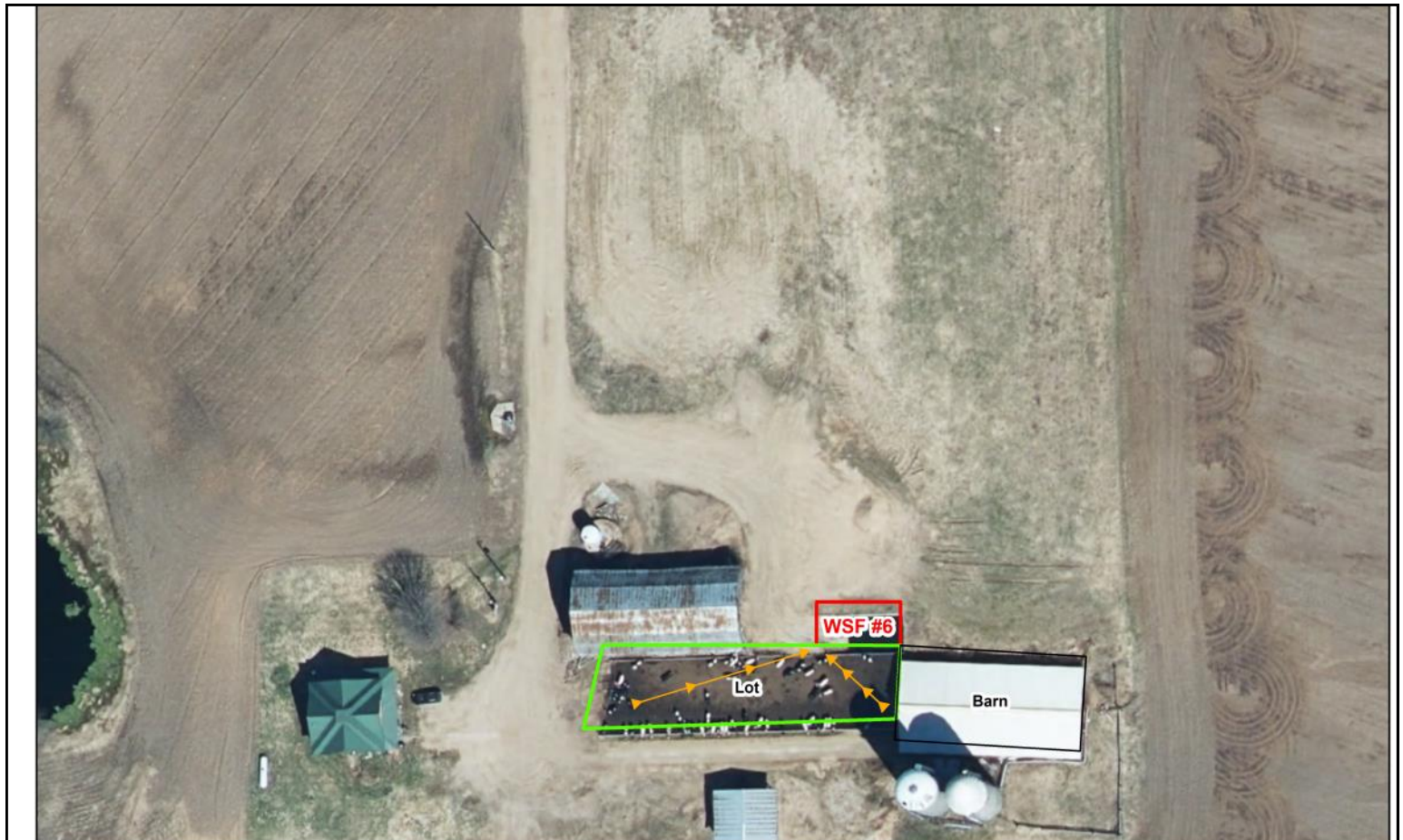
Site Overview Diagram (Main Farm South of County N: orange lines = potential contaminated runoff, blue lines = stormwater flow, pink lines = waste transfer system)



Site Overview Diagram (Home Farm: orange lines = potential contaminated runoff, blue lines = stormwater flow, pink lines = waste transfer system)



Site Overview Diagram (Pingel Farm: orange lines = potential contaminated runoff, blue lines= stormwater flow, pink lines= waste transfer system)



Site Overview Diagram (Western Ave Pit: orange lines = potential contaminated runoff, blue lines = stormwater flow, pink lines = waste transfer system)



Site Overview Diagram (Korbisch Pit: orange lines = potential contaminated runoff, blue lines= stormwater flow, pink lines= waste transfer system)



SITE OBSERVATIONS :

Feedlot Runoff (Photos on pages 8-9)

There are 3 feedlot runoff systems located on the farm.

- The outdoor lot located at the Main Farm is a south facing bedded pack calf shed with a roof over a portion of the lot. This lot houses approximately 50 calves and is located on the south side of the road just south of the parlor. This lot does not have any runoff collection or transfer system. Instead drivable curbs were installed at each end to contain all manure & runoff from leaving the lot. The lot is manually scraped as necessary.
- A second outdoor feedlot is located at the home farm just north of the barn. This feedlot has the capacity to hold about 100 heifers and consists of a feed alley with drive by feeding. The lot was not in use during the inspection and the farms intends to permanently abandon this site. Runoff from this lot flows east and is stored in a small concrete drive in structure which is emptied as necessary.
- A third outdoor lot is located at the Pingel Farm just west of the barn. This feedlot has the capacity to hold about 100 heifers/steers and consists of a feed alley with drive by feeding. Animals also have access to a loafing barn for shelter. Runoff from this lot flows northeast and is stored in a small concrete drive in structure which is emptied as necessary.

Feedlot areas are managed to not have current or past indicators of discharges. Feedlot runoff control systems are well-maintained, in good repair and in compliance with permit requirements.

Calf Hutch Areas(Photo on page 10)

There are no outdoor calf hutches located on the farm at this time. Calf hutches are kept under roof in barns at the Main Farm south of the road. These barns have a floor drain system to collect any liquid in the buildings which then gets pumped to WSF #1

Waste Storage Facilities (Photos on pages 10-23)

There are 7 long term liquid waste storage facilities, 2 short term liquid facilities, 2 solid storage facilities, & 2 digester tanks located on the farm.

- WSF #1 is a vertical walled concrete structure that was built in 1993 and is located at the Main Farm southeast of the feed storage area on the south side of the road. This storage accepts waste from the heifer barn directly to the north as well as any liquids collected from the 4 calf hutch barns directly east of the pit.
- WSF#2 is a concrete lined impoundment that was constructed in 2000 and is located at the Main Farm directly west of the freestall barns on the south side of the road. Almost all liquid manure on the farm is now diverted through the digesters located on the north side of the road. Manure is pumped back to this facility for long term storage. Leachate from the 2016 feedpad runoff system can also be pumped to WSF #2 if needed, but since WSF #5 was built in 2018, this rarely is used. There is also a 24" gravity pipe that connects WSF #2 and WSF #3 so they will equalize in elevation after about 2/3 full.
- WSF #3 is a concrete lined impoundment that was constructed in 2010 and is located at the Main Dairy south of the road directly north of WSF #2. Almost all liquid manure on the farm is now diverted through the digesters located on the north side of the road. Manure is pumped back to this facility for long term storage. A 24" gravity pipe also connects WSF #2 and WSF #3 so they will equalize after about 2/3 full.
- WSF #4 is a concrete lined impoundment that was built in 2015 and is located directly west of the parlor on the north side of the road. Almost all liquid manure on the farm is now diverted through the digesters located on the north side of the road. Manure is pumped back to this facility for long term storage.
- WSF #5 is a concrete lined impoundment that was last expanded in 2018 and is located on the south end of the Main Farm on the south side of the road. This facility acts as the leachate collection basin for the farm. The feed storage area has multiple collection points and surface inlets that gravity flow to WSF #5. There previously was a pump station that would transfer manure from WSF #5 up to WSF #2, but that has not been in use for the last few years.

- WSF # 6 is a small vertical walled concrete structure built around 2008 and located at the Pingel Farm. Runoff and manure from the feedlot gravity flow to the storage and are temporarily stored in this facility until land applied or transferred to long term storage.
- WSF #7 is a small vertical walled concrete structure built around 2009 and located at the Home Farm. Runoff and manure from the feedlot gravity flow to the storage and are temporarily stored in this facility until land applied or transferred to long term storage. The home farm is no longer in use and any associated sample points will be removed in the next permit term.
- WSF #8 is a concrete lined impoundment located at the Western Ave site. This storage accepts manure and process wastewater transferred from the main dairy via tanker trucks and unloaded into this facility prior to land application. This facility was constructed in 2021.
- WSF #9 is a vertical walled concrete structure located at the Korbisch site. This storage accepts manure and process wastewater transferred from the main dairy via tanker trucks and unloaded into this facility prior to land application. This facility was constructed in 1991 and last evaluated in 2021
- There are also 2 solid storage facilities on the farm. They are both located at the Main Dairy with one facility on each side of the road. Both facilities are connected to the solid separation buildings and are used to store manure fibers that are reused as a bedding material or land applied. They were constructed in 2010 & 2016.
- Digesters: 2 steel digester tanks are now present on the west end of the main dairy site, north of the road. Each units holds approximately 2.5 million gallons. Almost all of the manure from the main dairy, north & south is diverted through the digesters prior to manure processing building and then pumped back to respective waste storage facilities for long term storage.

The Solid and liquid waste storage structures are well-maintained, in good repair, and in compliance with permit requirements. Long Term Liquid waste storage facilities have permanent markers installed. See photo log for details.

Process Wastewater (other than feed storage area leachate/runoff)

Milking parlor washwater at the Main Dairy is collected and mixed with the manure from the dairy barns

Feed Storage Area Runoff (Photos on pages 24-31)

All feed storage areas and runoff controls are located at the Main Farm on the south side of the road. Surface drainage of leachate and runoff is directed to multiple collection points which gravity flow to the WSF #5. Runoff from the 2016 expansion area also has the option to be pumped to WSF #2, but that is rarely used now that WSF #5 is large enough to collect & store runoff from multiple events. The feed storage area was last expanded in 2022 in accordance with approved Plans & Specifications. A new commodity shed and hay shed were also constructed in 2022 at the southwest corner of the production site near the 2021 feedpad addition.

The feed storage areas and runoff control systems are well-maintained, in good repair and in compliance with permit requirements.

Animal Mortality Disposal

Mortalities are moved to dedicated locations near the at the ends of buildings and picked up daily as needed by OJ Krull.

Ancillary Service Areas (Photos on pages 32-33)

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.). At the time of the inspection, all stormwater channels were well vegetated and other areas were free of manure & feed solids. Farm should continue to manage these areas to minimize the chance of runoff from the production area. There is a manure load out area on the east end of the north calf barn that the farm needs to monitor closely in order to avoid a potential discharge from this area.

The farm does not have any CAFO outdoor vegetated areas as part of their operation.

RECORDS REVIEW (Photos on pages 33)

The permittee has current WPDES Permit and Nutrient Management Plan onsite, is located in office.

The permittee provided complete production site inspection records that are required to be retained. Daily Hauling logs, CAFO Calendar for required inspections and manure pit volume logs were all available for inspection.

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.

Chris Matsche is generally in charge of daily inspections. Steve Carlson is generally in charge of weekly inspections & quarterly inspections. Brandon & Clayton are the main contacts for manure hauling applications & record keeping.

Photo #:	3295
Date/Time of Photo:	8/24/2022 11:02
Photo By:	Brian Hanson
Photo Location:	Main Dairy South

Photo Description:

Standing on the west end of the outdoor calf lot looking east: View of outdoor calf lot. Raised curb at west entrance keeps runoff from leaving the lot. Manure & runoff manually scraped up and hauled away.



Photo #:	3314
Date/Time of Photo:	8/24/2022 11:15
Photo By:	Brian Hanson
Photo Location:	Pingel Farm

Photo Description:

Standing on the north side of the outdoor lot at the Pingel farm looking west: View of the west half of the outdoor lot. Arrows indicate direction of runoff flow.



Photo #:	3317
Date/Time of Photo:	8/24/2022 11:15
Photo By:	Brian Hanson
Photo Location:	Pingel Farm

Photo Description:

Standing on the north side of the outdoor lot at the Pingel farm looking east: View of the east half of the outdoor lot. Notice gap in wall where runoff exits lot and flows into storage structure. Arrows indicate direction of flow.



Photo #:	3322
Date/Time of Photo:	8/24/2022 11:19
Photo By:	Brian Hanson
Photo Location:	Home Farm

Photo Description:

Standing on the east end of the outdoor lot at the home farm looking west: View of abandoned outdoor lot at the home farm.



Photo #:	3290
Date/Time of Photo:	8/24/2022 11:00
Photo By:	Brian Hanson
Photo Location:	Main Dairy South

Photo Description:

Standing at the west end of a calf barn looking east: Typical view of the interior of the calf hutch barns. Barns have floor drains that collect any liquid in the barn and pump it to WSF #1.



Aug 24, 2022 at 11:00:02 AM

Photo #:	3285
Date/Time of Photo:	8/24/2022 10:59
Photo By:	Brian Hanson
Photo Location:	WSF #1

Photo Description:

Standing on the south side of WSF #1 looking northwest: View of WSF #1



Aug 24, 2022 at 10:59:36 AM

Photo #:	3288
Date/Time of Photo:	8/24/2022 10:59
Photo By:	Brian Hanson
Photo Location:	WSF #1

Photo Description:

Standing on the east side of WSF #1 looking north: View of east side of WSF #1. MOL & MOS markers highlighted.



Photo #:	3198
Date/Time of Photo:	8/24/2022 10:32
Photo By:	Brian Hanson
Photo Location:	WSF #2

Photo Description:

Standing at the northeast corner of WSF #2 looking south: View of east end of WSF #2.



Photo #:	3212
Date/Time of Photo:	8/24/2022 10:34
Photo By:	Brian Hanson
Photo Location:	WSF #2

Photo Description:

Standing on the north side of WSF #2 looking west: view of north side of WSF #2.



Photo #:	3209
Date/Time of Photo:	8/24/2022 10:34
Photo By:	Brian Hanson
Photo Location:	WSF #2

Photo Description:

Standing on the north side of WSF #2 looking southeast & down: View of permanent markers in WSF #2.



Photo #:	3203
Date/Time of Photo:	8/24/2022 10:32
Photo By:	Brian Hanson
Photo Location:	WSF #3

Photo Description:

Standing on the east side of WSF #3 looking west: View of WSF #3.



Aug 24, 2022 at 10:32:58 AM

Photo #:	3207
Date/Time of Photo:	8/24/2022 10:34
Photo By:	Brian Hanson
Photo Location:	WSF #3

Photo Description:

Standing on the south side of WSF #3 looking west: View of permanent markers in WSF #3.



Aug 24, 2022 at 10:34:36 AM

Photo #:	3151
Date/Time of Photo:	8/24/2022 09:50
Photo By:	Brian Hanson
Photo Location:	WSF #4

Photo Description:

Standing at the southeast corner of WSF #4 looking north: View of east edge of WSF #4.



Photo #:	3152
Date/Time of Photo:	8/24/2022 09:50
Photo By:	Brian Hanson
Photo Location:	WSF #4

Photo Description:

Standing at the southeast corner of WSF #4 looking northwest: View of east half of WSF #4.



Photo #:	3155
Date/Time of Photo:	8/24/2022 09:50
Photo By:	Brian Hanson
Photo Location:	WSF #4
Photo Description:	
<p>Standing on the south side of WSF #4 looking northeast & down: View of permanent markers in WSF #4.</p>	



Photo #:	3181
Date/Time of Photo:	8/24/2022 10:13
Photo By:	Brian Hanson
Photo Location:	WSF #4
Photo Description:	
<p>Standing at the northwest corner of WSF #4 looking southeast: View of north edge of WSF #4.</p>	



Photo #:	3182
Date/Time of Photo:	8/24/2022 10:13
Photo By:	Brian Hanson
Photo Location:	WSF #4

Photo Description:

Standing at the northwest corner of WSF #4 looking south: View of northwest corner of WSF #4 where dried manure solids accumulate from exhaust pipe. More solids in the pit and less outside of pit in comparison to previous inspections.



Photo #:	3184
Date/Time of Photo:	8/24/2022 10:13
Photo By:	Brian Hanson
Photo Location:	WSF #4

Photo Description:

Standing at the northwest corner of WSF #4 looking west: Alternate view of dryer exhaust pipe from manure separation building.



Photo #:	3230
Date/Time of Photo:	8/24/2022 10:42
Photo By:	Brian Hanson
Photo Location:	WSF #5 Leachate

Photo Description:

Standing on the north end of the leachate basin looking south: Overview of leachate basin.



Photo #:	3278
Date/Time of Photo:	8/24/2022 10:56
Photo By:	Brian Hanson
Photo Location:	WSF #5 Leachate

Photo Description:

Standing at the southwest corner of WSF #5 looking north: View of outlet pipe from 2021 & 2022 feed storage area expansions.



Photo #:	3281
Date/Time of Photo:	8/24/2022 10:56
Photo By:	Brian Hanson
Photo Location:	WSF #5 Leachate
Photo Description:	
Standing on the south side of WSF #5 looking east: View of southeast corner of leachate pond.	



Photo #:	3282
Date/Time of Photo:	8/24/2022 10:57
Photo By:	Brian Hanson
Photo Location:	WSF #5 Leachate
Photo Description:	
Standing on the east side of WSF #5 looking north: View of permanent markers in WSF #5.	



Photo #:	3313
Date/Time of Photo:	8/24/2022 11:15
Photo By:	Brian Hanson
Photo Location:	WSF #6 Pingel Farm
Photo Description:	
<p>Standing on the north side of outdoor lot at Pingel Farm looking east: View of temporary waste storage and runoff collection area for outdoor lot.</p>	



Photo #:	3320
Date/Time of Photo:	8/24/2022 11:19
Photo By:	Brian Hanson
Photo Location:	WSF #7 Home Farm
Photo Description:	
<p>Standing on the east end of outdoor lot at Home Farm looking north: View of temporary waste storage facility & runoff collection area for outdoor lot. Lot & storage area no longer in use.</p>	



Photo #:	3330
Date/Time of Photo:	8/24/2022 11:59
Photo By:	Brian Hanson
Photo Location:	WSF #8 Western Ave
Photo Description:	
<p>Standing on the north side of WSF #8 looking southwest: View of west half of WSF #8.</p>	



Photo #:	3335
Date/Time of Photo:	8/24/2022 12:01
Photo By:	Brian Hanson
Photo Location:	WSF #8
Photo Description:	
<p>Standing at the northeast corner of WSF #8 looking south: View of permanent markers in WSF #8</p>	



Photo #:	3324
Date/Time of Photo:	8/24/2022 11:46
Photo By:	Brian Hanson
Photo Location:	WSF #9 Korbisch Pit

Photo Description:

Standing on the south side of WSF #9 looking northeast:
View of east side of WSF #9



Photo #:	3329
Date/Time of Photo:	8/24/2022 11:46
Photo By:	Brian Hanson
Photo Location:	WSF #9 Korbisch Pit

Photo Description:

Standing on the east side of WSF #9 looking southwest:
View of permanent markers in WSF #9.



Photo #:	3173
Date/Time of Photo:	8/24/2022 10:05
Photo By:	Brian Hanson
Photo Location:	Main Dairy North—Digester

Photo Description:

Standing on the north side of digesters looking south: View of newly constructed digesters. 1st digester was undergoing initial filling and startup at time of inspection.



Photo #:	3158
Date/Time of Photo:	8/24/2022 09:56
Photo By:	Brian Hanson
Photo Location:	Main Dairy North-Digester

Photo Description:

Standing on the south side of digesters looking south: View of stormwater pond directly south of digesters. Area also designed to be utilized as emergency collection area in case of digester failure.



Photo #:	3216
Date/Time of Photo:	8/24/2022 10:36
Photo By:	Brian Hanson
Photo Location:	Main Dairy South-Solids

Photo Description:

Standing on the east side of solids separation building looking west: View of bedding solids stacking area on the south side of the road. Solids used to bed freestall barns.



Photo #:	3186
Date/Time of Photo:	8/24/2022 10:15
Photo By:	Brian Hanson
Photo Location:	Main Dairy North-Solids

Photo Description:

Standing on the west side of solids separation building looking northeast: View of bedding solids stacking area on the north side of the road. Solids used to bed freestall barns.



Photo #:	3219
Date/Time of Photo:	8/24/2022 10:39
Photo By:	Brian Hanson
Photo Location:	Feed Storage— Bunkers

Photo Description:

Standing on the east side of the bunkers looking west: View of original commodity shed and apron area for bunkers. Arrows indicate direction of runoff flow.



Aug 24, 2022 at 10:39:39 AM

Photo #:	3225
Date/Time of Photo:	8/24/2022 10:40
Photo By:	Brian Hanson
Photo Location:	Feed Storage Bunkers

Photo Description:

Standing at the southwest corner of bunkers looking east: Alternate view of commodity shed & bunker apron. Arrows indicate direction of runoff flow.



Aug 24, 2022 at 10:40:38 AM

Photo #:	3223
Date/Time of Photo:	8/24/2022 10:40
Photo By:	Brian Hanson
Photo Location:	Feed Storage-Bunkers

Photo Description:

Standing at the southwest corner of the bunkers looking southwest: View of grated inlet used to collect runoff from bunkers and commodity shed.



Aug 24, 2022 at 10:40:27 AM

Photo #:	3224
Date/Time of Photo:	8/24/2022 10:40
Photo By:	Brian Hanson
Photo Location:	Feed Storage-Asphalt Pad

Photo Description:

Standing at the southeast corner of asphalt pad: View of concrete apron on south side of asphalt pad used to convey runoff to WSF #5. Arrows indicate direction of runoff flow.



Aug 24, 2022 at 10:40:35 AM

Photo #:	3243
Date/Time of Photo:	8/24/2022 10:44
Photo By:	Brian Hanson
Photo Location:	Feed Storage- 2011 Addition
Photo Description:	
<p>Standing on the west side of feedpad looking southeast: View of west edge of Feedpad. Arrows indicate direction of runoff flow.</p>	



Photo #:	3245
Date/Time of Photo:	8/24/2022 10:44
Photo By:	Brian Hanson
Photo Location:	Feed Storage- 2016 Addition
Photo Description:	
<p>Standing at the southwest corner of feedpad looking northeast: View of south portion of this feed storage area. Arrows indicate direction of runoff flow.</p>	



Photo #:	3250
Date/Time of Photo:	8/24/2022 10:46
Photo By:	Brian Hanson
Photo Location:	Feed Storage 2016 Addition
Photo Description:	
Standing on the west side of feedpad looking north: View of western edge of feedpad.	



Photo #:	3251
Date/Time of Photo:	8/24/2022 10:46
Photo By:	Brian Hanson
Photo Location:	Feed Storage- 2016 Addition
Photo Description:	
Standing on the west side of feedpad looking east: View of middle section of FSA. Arrows indicate direction of flow.	



Photo #:	3246
Date/Time of Photo:	8/24/2022 10:45
Photo By:	Brian Hanson
Photo Location:	Feed Storage-2016 Addition
Photo Description:	
<p>Standing in the middle of feedpad looking east: View of runoff collection area for 2016 expansion. Inlet highlighted and arrows indicate direction of flow.</p>	



Photo #:	3254
Date/Time of Photo:	8/24/2022 10:49
Photo By:	Brian Hanson
Photo Location:	Feed Storage-2021 Addition
Photo Description:	
<p>Standing at the northeast corner of feedpad looking south: View of eastern edge of FSA. Also notice new commodity she under construction. Arrows indicate direction of runoff flow.</p>	



Photo #:	3258
Date/Time of Photo:	8/24/2022 10:50
Photo By:	Brian Hanson
Photo Location:	Feed Storage- 2021 Addition
Photo Description:	
<p>Standin at the northwest corner of feedpad looking south: View of north end of FSA where 2022 addition meets 2021 addition. Arrows indicate direction of runoff flow.</p>	



Photo #:	3259
Date/Time of Photo:	8/24/2022 10:51
Photo By:	Brian Hanson
Photo Location:	Feed Storage- 2022 Addition
Photo Description:	
<p>Standing at the northwest corner of feedpad looking south: View of western edge of FSA.</p>	



Photo #:	3262
Date/Time of Photo:	8/24/2022 10:52
Photo By:	Brian Hanson
Photo Location:	Feed Storage- 2022 Addition

Photo Description:

Standing at the southwest corner of feedpad looking east: View of south edge of FSA. Arrows indicate direction of runoff flow.



Photo #:	3271
Date/Time of Photo:	8/24/2022 10:54
Photo By:	Brian Hanson
Photo Location:	Feed Storage- 2021 Addition

Photo Description:

Standing at southeast corner of feedpad looking northwest: View of runoff collection inlet in southeast corner of feedpad used to collect all runoff from 2021 & 2022 additions. Arrows indicate direction of runoff flow.



Photo #:	3220
Date/Time of Photo:	8/24/2022 10:39
Photo By:	Brian Hanson
Photo Location:	Feed Storage- Old Commodity

Photo Description:

Standing on the south side of bunkers looking south: View of original commodity shed located directly south of bunkers.



Photo #:	3274
Date/Time of Photo:	8/24/2022 10:54
Photo By:	Brian Hanson
Photo Location:	Feed Storage- New Commodity

Photo Description:

Standing at the southeast corner of 2021 addition looking north: View of new commodity shed currently under construction.



Photo #:	3180
Date/Time of Photo:	8/24/2022 10:12
Photo By:	Brian Hanson
Photo Location:	Main Dairy— North
Photo Description:	
<p>Standing on the west side of freestall barns looking east: View of stormwater runoff area between barns.</p>	



Photo #:	3297
Date/Time of Photo:	8/24/2022 11:03
Photo By:	Brian Hanson
Photo Location:	Main Dairy— South
Photo Description:	
<p>Standing on north side of heifer barn looking east: View of stormwater runoff area on north side of heifer barn.</p>	



Photo #:	3302
Date/Time of Photo:	8/24/2022 11:06
Photo By:	Brian Hanson
Photo Location:	Main Dairy-South

Photo Description:

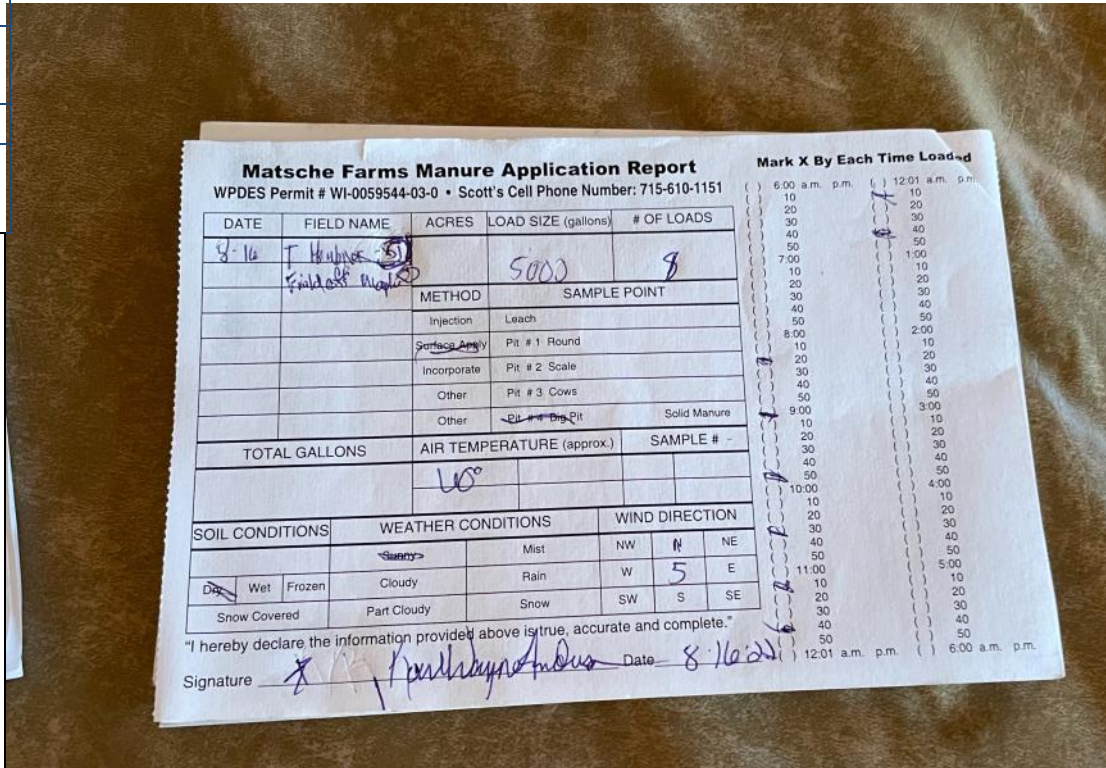
Standing on the east end of heifer barn looking south: View of manure load out area on east end of heifer barn. This area needs to be kept clean to prevent discharges.



Photo #:	3148
Date/Time of Photo:	8/24/2022 09:24
Photo By:	Brian Hanson
Photo Location:	Office Records

Photo Description:

Example of daily manure hauling log sheet used by the farm to track manure applications.



SUMMARY:

Substantial Compliance

- The permittee is currently in substantial compliance with the permit.

Areas of Concern

- Manure solids in the NW corner of WSF #4 that enter the pit through the dryer exhaust pipe have a chance to blow outside of the pit during certain weather events. Matsche Farms should continue to monitor this and clean up any manure solids that are outside of the storage. Recent changes to exhaust pipe have helped to prevent this from happening in the future.
- The north calf barn has a load out area on the east side that is prone to have manure present. Due to its proximity to stormwater channels and drainage patterns, Matsche Farms should keep a close eye on this area to prevent any unlawful discharges from this location.

Permit Violations

- No violations were observed during the inspection.

Action Items

- Submit Post construction documentation for FSA expansion & digesters/manure transfer projects when they are completed.
- Submit a complete reissue application by 2/28/2023

Items that may be included in Next Permit Term

- Due to age of facility, submit engineering evaluation of WSF #1 which was constructed in 1993.
- Evaluation of outdoor lot runoff controls and waste storage facility located at the Pingel farm.
- Removal of all sample points associated with the home farm.

Materials Required as part of the Permit Application

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)