Permit Fact Sheet

General Information

| Permit Number: | WI-0062880-03-0 |
| Permittee Name: | MDS Dairy Inc |
| Address: | 1126 Front Street |
| City/State/Zip: | Cashton WI 54619 |
| Discharge Location: | Main Farm: 9314 Kansas Ave, Sparta, WI 54656  
Leis Farm: 8062 County Road J, Sparta, WI 54656 |
| Receiving Water: | Tributaries of the Little La Crosse River and the Little La Crosse River within the Middle La Crosse River Watershed, and groundwaters of the state |

Animal Units

<table>
<thead>
<tr>
<th>Animal Type</th>
<th>Current AU</th>
<th>Proposed AU</th>
<th>Date of Proposed Expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mixed</td>
<td>Individual</td>
<td>Mixed</td>
</tr>
<tr>
<td>Dairy Calves (under 400 lbs.)</td>
<td>120</td>
<td>0</td>
<td>120</td>
</tr>
<tr>
<td>Milking and Dry Cows</td>
<td>3640</td>
<td>3718</td>
<td>4200</td>
</tr>
<tr>
<td>Heifers (400 lbs. to 800 lbs.)</td>
<td>120</td>
<td>200</td>
<td>120</td>
</tr>
<tr>
<td>Total</td>
<td>3880</td>
<td>3718</td>
<td>4440</td>
</tr>
</tbody>
</table>

Facility Description

MDS Dairy Inc is an existing Concentrated Animal Feeding Operation (CAFO). MDS Dairy Inc is owned and operated by Phil Mlsna. The farm currently has 3880 animal units and is proposing to expand to 4440 animal units by January 1, 2027. MDS Dairy Inc has a total of 3227.3 acres available for land application of manure and process wastewater.

Substantial Compliance Determination

Enforcement During Last Permit: MDS Dairy Inc’s previous permit expired on December 31, 2015. The permittee was referred to the Department of Justice due to failure to submit a complete permit reissuance application. The facility has completed all previously required actions as part of the enforcement process.

After a desk top review of all application materials and compliance reports, and a site visit on August 25, 2022, this facility has been found to be in substantial compliance with their current permit.
# Sample Point Designation For Animal Waste

<table>
<thead>
<tr>
<th>Sample Point Number</th>
<th>Sample Point Location, Waste Type/sample Contents and Treatment Description (as applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>Sample point 001 is for liquid waste storage facility 1 (WSF 1) located at the Main Farm. WSF 1 is a liquid-tight concrete storage located on the northwest corner of the production area. WSF 1 is the first-stage storage facility and is located to the east of WSF 2. The facility has a capacity of 2,037,629 gallons and was constructed in 2004. This storage accepts manure and process wastewater from the parlor and milking barns. A sand separation system is planned for installation. Once complete, WSF 1 will receive manure and process wastewater from the sand separation system.</td>
</tr>
<tr>
<td>002</td>
<td>Sample point 002 is for liquid waste storage facility 2 (WSF 2) located at the Main Farm. WSF 2 is a liquid-tight concrete storage located on the northwest corner of the production area. WSF 2 is the second-stage storage facility and is located to the west of WSF 1. The facility has a capacity of 9,439,042 gallons and was constructed in 2009. WSF 2 was expanded in 2017. This storage accepts manure and process wastewater from WSF 1. WSF 2 was last evaluated in 2017 and met permit requirements.</td>
</tr>
<tr>
<td>003</td>
<td>Sample point 003 is for proposed liquid waste storage facility 3 (WSF 3) located at the Main Farm. WSF 3 will be a liquid-tight concrete storage that receives waste from the Big Pit (WSF 2). The facility will have a capacity of approximately 6.9 million gallons. WSF 3 will be constructed in accordance with the Schedule section.</td>
</tr>
<tr>
<td>004</td>
<td>Sample point 004 is for liquid waste storage facility 4 (WSF 4) located at the Leis Farm. WSF 4 is a liquid-tight concrete storage. The facility has a capacity of 1,573,000 gallons and was constructed in 2012. WSF 4 was last evaluated in 2019 and met permit requirements.</td>
</tr>
<tr>
<td>005</td>
<td>Sample point 005 is for the proposed liquid waste storage facility 5 (WSF 5) located at the Main Farm. WSF 5 will be a liquid-tight concrete storage to be located to the east of WSF 1. The facility has a capacity of 2,341,658 gallons and will be constructed in accordance with the Schedule section. This storage will accept runoff and process wastewater from the feed storage area.</td>
</tr>
<tr>
<td>006</td>
<td>Sample point 006 is for solid manure stacked in approved headland stacking locations. Representative samples shall be taken of this manure prior to land application. Note: Headland stacking sites are subject to production site discharge limitations; weekly visual monitoring is required during use of stacking sites to ensure discharges meet permit requirements.</td>
</tr>
<tr>
<td>007</td>
<td>Sample point 007 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, steer manure, etc. Representative samples shall be taken for each manure source type.</td>
</tr>
<tr>
<td>008</td>
<td>Sample point 008 addresses all manure and process wastewater stored within the proposed digester vessel. Plans and specifications for the digester are required in accordance with the Schedule section. Sampling of liquids within the digester vessel for nutrient content is only required if the liquid is directly pumped from the vessel and land applied.</td>
</tr>
<tr>
<td>009</td>
<td>Sample point 009 is for visual monitoring and inspection of the feed storage area and associated runoff control system located at the Main Farm. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to the operation’s monitoring and inspection program. Upgrades to this system are required in accordance with the Schedule section.</td>
</tr>
</tbody>
</table>

## 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 at least 180 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 3880 dairy animal units, it is estimated that approximately 475 tons of solid manure and 25,268,545 gallons of manure and process wastewater will be produced per year. The permittee owns approximately 1666.9 acres of cropland and rents about 1957.4. The permit requires all landsplaining 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 landsplained. Landsplaining rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landsplaining activities. The permit also requires the submittal of an annual report that summarizes all landsplaining activities. Plans must be updated annually to reflect
cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

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

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

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

### Monitoring and Sampling Requirements

The permittee must submit a monitoring and inspection program that outlines how the permittee will conduct self-inspections to determine compliance with permit conditions. These self-inspections include visual inspections of water lines, diversion devices, storage and containment structures and other parts of the production area. The permit requires periodic inspections and calibrations of landspreading equipment. The permittee must take corrective actions to problems identified inspections or otherwise notify the Department. Samples of manure, process wastewater and soils receiving land applied materials from the operation must also be collected and analyzed.

### Sampling Points

The permit identifies the different sources of land applied materials (e.g., manure storage facilities, milking centers, egg-washing facilities) as “Sampling Points.” For these Sampling Points, the permittee is required to sample and analyze the different sources for nutrients and other parameters which serve as the basis for determining rates of application for these materials. Other areas are also identified as Sampling Points as a means of identifying them as areas requiring action by the permittee, such as an upgrade or evaluation of a certain system or structure (e.g., runoff control systems), even though sampling is not actually required.

### Sample Point Number: 001- WSF 1 - Small Pit; 002- WSF 2 - Big Pit; 003- WSF 3 - New Pit; 004- WSF 4 - Leis Pit; 005- WSF 5 - Feed Storage; 008- Digester

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit and Units</th>
<th>Sample Frequency</th>
<th>Sample Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen, Total</td>
<td>lb/1000gal</td>
<td>2/Month</td>
<td>Grab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrogen, Available</td>
<td>lb/1000gal</td>
<td>2/Month</td>
<td>Calculated</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Monitoring Requirements and Limitations

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit and Units</th>
<th>Sample Frequency</th>
<th>Sample Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphorus, Total</td>
<td>lb/1000gal</td>
<td>2/Month</td>
<td>Grab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphorus, Available</td>
<td>lb/1000gal</td>
<td>2/Month</td>
<td>Calculated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solids, Total</td>
<td>Percent</td>
<td>2/Month</td>
<td>Grab</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 1.1.1 Changes from Previous Permit

Each of these sample points were added to the permit to reflect current or proposed facilities at MDS Dairy. Sampling for each of these facilities is only required in months when land application actually occurs.

### 1.1.2 Explanation of Operation and Management Requirements

See NR 243.17 for Operation and Maintenance requirements.

### Sample Point Number: 006- Headland Stacking; 007- Miscellaneous Solids

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Type</th>
<th>Limit and Units</th>
<th>Sample Frequency</th>
<th>Sample Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen, Total</td>
<td>lbs/ton</td>
<td>Quarterly</td>
<td>Grab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrogen, Available</td>
<td>lbs/ton</td>
<td>Quarterly</td>
<td>Calculated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphorus, Total</td>
<td>lbs/ton</td>
<td>Quarterly</td>
<td>Grab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphorus, Available</td>
<td>lbs/ton</td>
<td>Quarterly</td>
<td>Calculated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solids, Total</td>
<td>Percent</td>
<td>Quarterly</td>
<td>Grab</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 1.1.3 Changes from Previous Permit

Each of these sample points were added to the permit. Sampling is only required in quarters when land application of solids actually occurs.

### 1.1.4 Explanation of Operation and Management Requirements

See NR 243.17 for Operation and Maintenance requirements.

### Sample Point Number: 009- Feed Storage Runoff Controls

### 1.1.5 Changes from Previous Permit

This sample point was added to the permit.

### 1.1.6 Explanation of Operation and Management Requirements

See NR 243.17 for Operation and Maintenance requirements.
2 Schedules

2.1 Monitoring & Inspection Program

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>11/01/2023</td>
</tr>
</tbody>
</table>

2.2 Emergency Response Plan

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop Emergency Response Plan: Develop a written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.</td>
<td>09/01/2023</td>
</tr>
</tbody>
</table>

2.3 Annual Reports

Submit Annual Reports by January 31st of each year in accordance with the Annual Reports subsection in Standard Requirements.

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit Annual Report #1:</td>
<td>01/31/2024</td>
</tr>
<tr>
<td>Submit Annual Report #2:</td>
<td>01/31/2025</td>
</tr>
<tr>
<td>Submit Annual Report #3:</td>
<td>01/31/2026</td>
</tr>
<tr>
<td>Submit Annual Report #4:</td>
<td>01/31/2027</td>
</tr>
<tr>
<td>Submit Annual Report #5:</td>
<td>01/31/2028</td>
</tr>
<tr>
<td>Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.</td>
<td></td>
</tr>
</tbody>
</table>

2.4 Nutrient Management Plan

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Plan Annual Update #1: Submit an Annual Update to the Nutrient Management Plan by March 31st of each year. Note: In addition to Annual Updates, submit Management Plan Amendments to the Department for written approval prior to implementation of any changes to nutrient management practices, in accordance with the Nutrient Management requirements in the Livestock Operational and Sampling Requirements section.</td>
<td>03/31/2024</td>
</tr>
<tr>
<td>Management Plan Annual Update #2: Submit an Annual Update to the Nutrient Management Plan.</td>
<td>03/31/2025</td>
</tr>
<tr>
<td>Management Plan Annual Update #3: Submit an Annual Update to the Nutrient Management Plan.</td>
<td>03/31/2026</td>
</tr>
<tr>
<td>Management Plan Annual Update #4: Submit an Annual Update to the Nutrient Management Plan.</td>
<td>03/31/2027</td>
</tr>
</tbody>
</table>
### 2.5 Feed Storage Runoff Control System - Installation

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plans and Specifications: Submit plans and specifications for a permanent feed storage runoff control system for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code. See Standard Requirements for plan content information.</td>
<td>08/31/2023</td>
</tr>
<tr>
<td>Complete Installation: Complete construction of feed storage runoff control system. The project includes expansion of the existing feed pad and installation of a permanent transfer system. System shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.</td>
<td>12/31/2023</td>
</tr>
</tbody>
</table>

### 2.6 Digester System Installation

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plans and Specifications: Submit complete plans and specifications for a digester waste treatment system 90 days prior to construction of the system for Department review and approval in accordance with s. 281.41, Wis. Stats., and ch. NR 243, Wis. Adm. Code. See Standard Requirements for plan content information.</td>
<td>03/31/2024</td>
</tr>
<tr>
<td>Complete Installation: Complete construction of the digester system. System shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.</td>
<td>12/31/2024</td>
</tr>
<tr>
<td>Post-Construction Documentation: Post-construction documentation shall be submitted within 60 days of completion of the project.</td>
<td></td>
</tr>
</tbody>
</table>

### 2.7 Waste Storage Facility 3 - Installation

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plans and Specifications: Submit plans and specifications for a manure storage facility (WSF 3) for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code. See Standard Requirements for plan content information.</td>
<td>03/31/2024</td>
</tr>
<tr>
<td>Complete Installation: Complete construction of the manure storage facility. The facility shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.</td>
<td>12/31/2024</td>
</tr>
</tbody>
</table>

### 2.8 Waste Storage Facility 5 - Installation
2.9 Submit Permit Reissuance Application

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.</td>
<td>02/02/2028</td>
</tr>
</tbody>
</table>

2.10 Explanation of Schedules

2.1, 2.2, 2.3, 2.4, and 2.5 are typical schedule items for all CAFO permittees.

Schedule items 2.5, 2.6, 2.7, and 2.8 are to accommodate construction activities during the permit term. MDS Dairy plans to complete the the permanent feed storage runoff control system. The farm also intends to construct a third-stage waste storage facility, a digester, and potentially a storage for feed pad runoff and process wastewater.

Attachments:

- Nutrient Management Plan Approval Letter
- Evaluation Review Letter
- Plans and Specifications Approval Letters

Proposed Expiration Date: July 31, 2028

Justification Of Any Waivers From Permit Application Requirements

None

Prepared By:

Tyler Dix       CAFO Permit Coordinator
Date: 6/20/2023
February 1st, 2023

Phil Mlsna
MDS Dairy, Inc
1126 Front Street
Cashton, WI 54619

SUBJECT: Conditional Approval of MDS Dairy, Inc Nutrient Management Plan, WPDES Permit No. 0062880-03-0

Dear Mr. Mlsna:

After completing a review of MDS Dairy, Inc 2023-2027 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 MDS Dairy, 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 MDS Dairy, 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 MDS Dairy, 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 3,480 animal units (2,243 milking & dry cows, 500 heifers, and 200 calves). A planned herd size of 4,440 animal units (3,000 milking & dry cows, 200 heifers, and 600 calves) by 2027.
2. Manure generation and spreading records indicate your herd will annually generate approximately 25,268,545 gallons of manure and process wastewater and 475 tons of solid manure in the first year of the permit term. Once the full expansion has taken place in 2027, the farm will generate approximately 32,239,178 gallons of manure and process wastewater and 475 tons of solid manure.
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 MDS Dairy, Inc currently has 3,624.3 acres (1,666.9 owned and 1,957.4 controlled through contracts, rental agreements or leases, or under manure agreements) of which 3,227.3 are spreadable acres.
6. That some fields included in the NMP are directly adjacent to or have high potential to deliver nutrients and sediment to Little La Crosse River (listed 303(d) impaired water by ‘total phosphorus’).

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 Unnamed (WBIC 5026976), Unnamed (WBIC 1657100), Timber Coulee Creek, Unnamed (WBIC 1646700), Spring Coulee Creek, Rullands Coulee Creek.

8. That 7 fields are tiled.
   - Blazek 01
   - M. Leis South
   - MWB 22
   - Green_04
   - Miller 03
   - Green_05
   - Miller 07

9. That all fields will be checked for the following features prior to/during manure or process wastewater applications: soil areas with possible shallow groundwater (i.e., within 24 inches of surface) at the time of manure application; required setbacks associated with wells, navigable waters, conduits to navigable waters, grassed waterways, wetlands, possible soil erosion/flow channels.

10. That surface applications of manure will not be completed when precipitation capable of producing runoff is forecasted within 24 hours of the time of planned application.

CONDITIONAL NUTRIENT MANAGEMENT PLAN APPROVAL

The Department hereby approves the 2023-2027 MDS Dairy, 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:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Other Permittee Name</th>
<th>DNR #</th>
<th>Other Permittee Site Name</th>
<th>Other Permittee Field Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABIN</td>
<td>LA CROSSE CITY</td>
<td>115150</td>
<td>113</td>
<td>1</td>
</tr>
<tr>
<td>DHE 01</td>
<td>LA CROSSE CITY</td>
<td>115134</td>
<td>109</td>
<td>4</td>
</tr>
<tr>
<td>DHE 01</td>
<td>LA CROSSE CITY</td>
<td>115135</td>
<td>109</td>
<td>5</td>
</tr>
<tr>
<td>DHE 01</td>
<td>LA CROSSE CITY</td>
<td>115136</td>
<td>109</td>
<td>6</td>
</tr>
<tr>
<td>DHE 01</td>
<td>LA CROSSE CITY</td>
<td>115137</td>
<td>109</td>
<td>7</td>
</tr>
<tr>
<td>DHM 01</td>
<td>LA CROSSE CITY</td>
<td>115138</td>
<td>109</td>
<td>8</td>
</tr>
<tr>
<td>DHM 06 07</td>
<td>LA CROSSE CITY</td>
<td>115138</td>
<td>109</td>
<td>8</td>
</tr>
<tr>
<td>O 01</td>
<td>LA CROSSE CITY</td>
<td>115173</td>
<td>111</td>
<td>4</td>
</tr>
<tr>
<td>O 01</td>
<td>LA CROSSE CITY</td>
<td>115174</td>
<td>111</td>
<td>5</td>
</tr>
<tr>
<td>O 02</td>
<td>LA CROSSE CITY</td>
<td>115173</td>
<td>111</td>
<td>4</td>
</tr>
<tr>
<td>O 02</td>
<td>LA CROSSE CITY</td>
<td>115174</td>
<td>111</td>
<td>5</td>
</tr>
<tr>
<td>O 03A</td>
<td>LA CROSSE CITY</td>
<td>115175</td>
<td>111</td>
<td>6</td>
</tr>
<tr>
<td>O 04A</td>
<td>LA CROSSE CITY</td>
<td>115170</td>
<td>111</td>
<td>1</td>
</tr>
<tr>
<td>O 04A</td>
<td>LA CROSSE CITY</td>
<td>115171</td>
<td>111</td>
<td>2</td>
</tr>
<tr>
<td>O 05</td>
<td>LA CROSSE CITY</td>
<td>115172</td>
<td>111</td>
<td>3</td>
</tr>
<tr>
<td>PL 02 03</td>
<td>LA CROSSE CITY</td>
<td>115142</td>
<td>109</td>
<td>12</td>
</tr>
<tr>
<td>PL 02 03</td>
<td>LA CROSSE CITY</td>
<td>115143</td>
<td>109</td>
<td>13</td>
</tr>
</tbody>
</table>
Prior to any manure applications on these fields MDS Dairy, 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 MDS Dairy, 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: MDS Dairy, 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:
   - Blazek 04*
   - Parker *
   - Sub B 02*
   - Sullivan_4*
   - MWB02 (>200 ppm P)
   - MWB 07 09 (>200 ppm P)
   - MWB 16 (>200 ppm P)
   - MWB 20 (>200 ppm P)
   - DS 01 19*
   - RA West N*
   - Sullivan_1*
   - Weiner*
   - MWB03 (>200 ppm P)
   - MWB 10 (>200 ppm P)
   - MWB 17 (>200 ppm P)
   - MWB 21 (>200 ppm P)
   - M. Leis South*
   - Ruedy Flat*
   - Sullivan_2*
   - Yield Pro*
   - MWB04 (>200 ppm P)
   - MWB 13 (>200 ppm P)
   - MWB 18 (>200 ppm P)
   - MWB 19 (>200 ppm P)
   - Miller 07*
   - Selbrede_07*
   - Sullivan_3*
   - MWB06 (>200 ppm P)
   - MWB 15 (>200 ppm P)
   - MWB 19 (>200 ppm P)
   - MWB 20 (>200 ppm P)

   * Indicates fields are not in compliance for soil sampling and using default soil value of 101 ppm Phosphorus. These fields must be sampled in order to be used for future spreading.

If MDS Dairy, 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 (NH$_4^+$) is greater than 75% of the total N, MDS Dairy, 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. MDS Dairy, Inc shall record daily manure applications by using form 3200-123A. These forms shall be retained at the farm and provided to the department upon request.

8. MDS Dairy, 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 form 3200-123.

**WINTER SPREADING**

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

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

<table>
<thead>
<tr>
<th>Field</th>
<th>Location</th>
<th>Slope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miller 05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MWB 22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By Trailer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miller 04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MWB 14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MWB 24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miller 03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. Winter spreading of solid and liquid manure may not occur during the “high risk runoff period” pursuant to s. NR 243.14(6)(c) and NR 243.14(7)(c), respectively.

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

13. Liquid applications shall be limited to 3,500 gallons per acre or 30 lbs. P per acre, whichever is less, on slopes 2-6% and 7,000 gallons per acre or 60 lbs. P per acre, whichever is less, on slopes 0-2%. Winter applications of solid manure shall be limited to 60 lbs. P per acre.

**HEADLAND STACKING**

14. The following headland stacking sites are only approved for use with greater than 32% solids during the months of February and March, or when the ground is not frozen, or snow covered. This is due to the soil type of each stacking site and the slope classification falling up to 6%.

<table>
<thead>
<tr>
<th>Stacking Site Name:</th>
<th>Soil Type Associated:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacking Site #1</td>
<td>382B (Bertrand Silt Loam) 1-6% Slope</td>
</tr>
<tr>
<td>Stacking Site #4</td>
<td>133B2 (Valton Silt Loam) 2-6% Slope</td>
</tr>
<tr>
<td>Stacking Site #3</td>
<td>132B2 (Brinkman Silt Loam) 2-6% Slope</td>
</tr>
</tbody>
</table>

*It is noted at current the farm does not have a manure analysis to support that the solids produced fall within range to use these sites. Future use needs to be verified with a manure analysis to verify solids content falls above 32%.

**MANURE & PROCESS WASTEWATER IRRIGATION**

15. Irrigation of manure or process wastewater is prohibited.

**SUBMITAL AND RECORDKEEPING REQUIREMENTS**
16. A copy of this conditional approval shall be included in all future annual Nutrient Management Plan Updates in addition to the NR 243 and NRCS 590 checklists.

17. The farm is required to collect 2 liquid manure samples per month when hauling is taking place, and quarterly samples for solids when hauling is taking place.

18. Updated stacking site maps are due back to the department by no later than February 6th, 2023.

This conditional approval does not limit the Department’s regulatory authority to require NMP revisions (based upon new information or manure irrigation research findings) or request additional information in order to confirm or ensure your farm operation remains in compliance with NR 243 and your WPDES permit conditions. If additional information, project changes or other circumstances indicate a possible need to modify this approval, the Department may ask you to provide further information relating to this activity.

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

If you have any questions regarding this approval, I can be reached at 608-212-8460 or Ashley.Scheel@Wisconsin.gov.

Sincerely,

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

cc: Tyler Dix, CAFO Program Coordinator (Tyler.Dix@Wisconsin.gov)
Andrea Gruen, Environmental Enforcement Specialist (Andrea.Gruen@Wisconsin.gov)
Christopher Clayton, WDNR Runoff Management Section Chief (Christopherr.Clayton@Wisconsin.gov)
Aaron O’Rourke, WDNR Nutrient Management Program Coordinator (Aaron.Orourke@Wisconsin.gov)
Tony Salituro, WDNR Intake Specialist (Anthony.Salituro@Wisconsin.gov)
Rob Davis, CAFO Engineer (Robert.Davis@Wisconsin.gov)
Ben Anderson, Monroe County (Benjamin.Anderson@Co.Monroe.Wi.us)
Ben Wojahn, Vernon County (Bwojahn@Vernoncounty.org)
Matt Hanewall, Lacrosse County (Mhanewall@Lacrossecounty.org)
Kyle Govin, Company (Kgovin@NutrientAdvisors.com)
File
April 27, 2022

Phil Mlsna
MDS Dairy Inc
1126 Front St.
Cashton, WI 54619

Subject: Evaluation Review for MDS Dairy Inc, (Leis Farm) T16N, R04W, Section 15 in Leon Township, Monroe County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Mlsna:

This letter is to inform you that the Department received on December 19, 2019, the evaluation for the manure storage basin, submitted under certification by Darrin Sherstad, P.E., Resource Engineering Associates, Inc on behalf of MDS Dairy Inc. The manure storage basin was evaluated based on applicable NRCS Standards and ch. NR 243 Wis. Adm. Code.

In accordance with s. 243.16(1), Wis. Adm. Code, when submitting an evaluation for an existing facility the evaluation shall include, at a minimum, the following information:

(a) A narrative providing general background and operational information on existing facilities and systems.
(b) Available post-construction documentation including the date and materials of construction.
(c) For facilities or systems that are part of the production area, an assessment of the ability of the facility or system to meet the production area requirements in s. NR 243.13, the adequate storage requirement under s. NR 243.14 (9), and accepted management practices.
(d) An assessment of the ability of the facility or system to meet the applicable design requirements identified in s. NR 243.15.
(e) Any proposed actions to address issues identified as part of the evaluation.

The Department has reviewed the MDS Dairy Inc evaluation for the liquid waste storage described below and finds that it meets the requirements for submission listed above. Darrin Sherstad’s conclusion of the evaluation is that the liquid waste storage meets the ch. NR 243 requirements. The Department has found sufficient details to justify the conclusion.

MDS Dairy intends to use this liquid waste storage as a back up to their other main storage facilities.


- Assessment References: NRCS Standard 313 (06/09) and s. NR 243.15(3) and Ch NR 213, Wis. Adm. Code.
- The WSF was designed by REA in May 2012 and the plans were approved by Monroe County and the NRCS. Construction was completed in August 2012. Post construction was approved by NRCS prior to release of cost-share funding.
- The basin floor is 70 ft by 125 ft and is 14 ft with 2.5:1 sideslopes. The liner is concrete with waterstop and is poured in four sections and underlain by CL/ML soils.
- The basin was used from August 2012 until Nov. 2019 when the Leis Farm sold their dairy herd.
- The basin total volume is 1.865 MG and the MOL volume is 1.573 MG.
- Test pits showed the basin met the NRCS 313 (6/09) separation distance to bedrock and groundwater of 2 ft.
• Visual observation indicate that the basin floor and sidewalls appear in good condition.
• There are 4 pipe penetrations.
• The record drawings show the placement of MOS and MOL markers.

**Department Comments on Evaluation Conclusion**

• The usage of the liquid waste storage as a process wastewater storage (feed pad runoff) would necessitate it to be compliant with the requirements of NR 213. The NR 213 design criteria for separation between the storage liner and bedrock and groundwater is 5 ft, which was not demonstrated in the evaluation. However, the Department is allowing the NRCS 313 Standard separation distance in lieu of the NR 213 criteria (as long as the storage otherwise meets the other NRCS 313 design criteria) as an Alternative Practice or Design as described in s. NR 243.15(1)(c) Wis. Adm. Code.

Should you have any questions, please contact Bernie Michaud, 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

Email:  
Bob Pofahl; REA Inc.  
Bob.pofahl@reang.com

Bob Micheel; Monroe County LCD  
(608) 269-8975; bmicheel@co.monroe.wi.us

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

Deb Dix; DNR - Div. of PS and RP  
Deborah.dix@wisconsin.gov

Claire OConnell; DNR-South Central Region  
(608) 963-1463; Claire.OConnell@wisconsin.gov

Laura A Bub; DNR-South Central Region  
(608) 712-5249; Laura.Bub@wisconsin.gov

Bernie Michaud; DNR-Central Office  
(608) 512-2065; Bernard.Michaud@wisconsin.gov

Phil Mlsna; MDS Dairy  
(608) 386-5568; philmlsna@gmail.com
October 31, 2022

Phil Mlsna
MDS Dairy Inc.
1126 Front Street
Cashton, WI 54619

Subject: Conditional Approval of Plans & Specifications for a Runoff Management System at MDS Dairy Inc. in T16N, R4W, Section 13, Leon Township, Monroe County

Dear Mr. Mlsna:

This letter is to inform you that the Wisconsin Department of Natural Resources (Department) has reviewed and conditionally approves the above referenced plans and specifications, submitted under certification by Dave McDaniel, P.E., Auth Consulting and received on August 4, 2022. The review was conducted in accordance with s. 281.41, Wis. Stats., chs. NR 151, NR 213, and NR 243, Wis. Adm. Code, and applicable NRCS Standards. The attached engineering report describes the project, lists standards that apply and provides compliance analysis. Questions may be directed to the assigned regional staff or the review engineer Rob Davis (contact information is at the end of this letter).

Proposed Project: The proposed project includes the following facilities that are reviewable under s. NR 243.15, Wis. Adm. Code: Feed storage runoff collection system, waste transfer, feed storage pad expansion, waste storage facility, and clean water diversions.

Conditions of Approval: The plans and specifications for project number R-2022-0185 are hereby approved and subject to chs. NR 151, NR 213, and NR 243, Wis. Adm. Code, and the conditions listed below:

1. Revisions: If revisions are made to the approved plans and specifications, revised plans and specifications shall be submitted for approval modification, in accordance with ss. NR 108.03 and NR 108.04, Wis. Adm. Code, and s. 281.41(1)(c), Wis. Stats. Submit revised plans and specifications via the Department’s e-Permitting System. Note: This includes revisions for local permitting. If a formal approval modification may not be warranted, contact the review engineer to confirm.

2. Approval Period: In accordance with ss. NR 243.15(1)(a)1., and NR 108.04(2)d., Wis. Adm. Code, if construction is not commenced within 2 years from the approval date, the approval is void, and a new approval must be obtained prior to commencing construction.

3. Notification: Prior to construction and when construction is complete, notify the Department’s regional contact and county contact provided a copy of the approval (contact information is at the end of this letter).

4. Inspection: During the construction of critical components, inspection shall be performed by a Wisconsin registered professional engineer or other qualified third party (excludes the owner and construction contractor and their employees).

5. Post-Construction Documentation: In accordance with the permit, a post-construction report must be submitted to the DNR’s e-Permitting website (http://dnr.wi.gov/permits/water) within 60 days of completing construction. The report must include documentation specified by s. NR 243.15(10), Wis. Adm. Code.

Limitation of Approval: The Department reserves the right to order changes or additions should conditions arise making this necessary. This approval is not to be construed as a determination on the issuance of a Wisconsin Pollutant Discharge Elimination System Permit or opinion as to the ability of the proposed system to comply with effluent limitations in such a permit, approval of an Environmental Impact Statement that may be prepared, or approval for any activities requiring a permit under chs. 30 or
31, Wis. Stats. Where necessary, plans and specifications should be submitted to the Department of Safety and Professional Services or other state or local agencies to ensure conformance with applicable codes or regulations of such agencies.

**Tax Treatment:** Tangible personal property, that becomes part of a waste treatment of pollution abatement plant or equipment, may be exempt from sales tax under s. 77.45(26), Wis. Stats. Similarly, property purchased or constructed as a waste treatment facility and used for industrial waste treatment may be exempt from general property taxes under s. 70.11(21), Wis. Stats. A prerequisite to exemption is filing a statement on prescribed forms. To obtain the forms, and information about this sales tax exemption, please contact the Department of Revenue, P.O. Box 8933, Madison, WI 53708, or check their website [http://www.revenue.wi.gov/](http://www.revenue.wi.gov/).

**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**  
For the Secretary

Bernie Michaud, P.E.  
CAFO Engineer Supervisor  
Watershed Management Program

Enclosures: Wisconsin DNR Engineering Report

Email:  
Dave McDaniel, P.E.; Auth Consulting  
(715) 232-8490; dmcdaniel@authconsulting.com  
Bob Micheel; Monroe County LCD  
(608) 269-8975; bmicheel@co.monroe.wi.us  
Matt Woodrow, P.E.; DATCP  
(920) 427-8505; matthew.woodrow@wisconsin.gov  
Phil Mlsna; MDS Dairy  
(608) 386-5568; philmlsna@gmail.com  
Tyler Dix; DNR, Central Office  
(608) 220-2096; Tyler.Dix@wisconsin.gov  
Chris Clayton; DNR, Central Office  
(608) 333-9265; christopherr.clayton@wisconsin.gov  
Rob Davis, P.E.; DNR, Central Office  
(608) 225-2720; Robert.Davis@wisconsin.gov  
Aaron O’Rourke; DNR, Eau Claire  
(715) 839-3775; aaron.orourke@wisconsin.gov
## GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Farm Name</th>
<th>MDS Dairy Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location Address</td>
<td>9314 Kansas Avenue, Sparta</td>
</tr>
<tr>
<td>WPDES Permit#</td>
<td>WI-0062880</td>
</tr>
<tr>
<td>DNR Project #</td>
<td>R-2022-0185</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Engineering Plans Certified by:</th>
<th>Initial Submittal:</th>
<th>Revised Submittal(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dave McDaniel, P.E.</td>
<td>August 4, 2022</td>
<td>NA</td>
</tr>
</tbody>
</table>

### Site Assessment:
Geographical features of the site include soils that are mapped by NRCS as Tarr sands. The nearest stream is approximately 700 ft to the southwest and the nearest wetland is approximately 800 ft to the west of the proposed construction area. Clean runoff will be diverted around waste handling areas to existing waterways. No karst features are known to exist within 1,000 ft of the proposed facilities or systems. The site soils below the proposed facilities meet the definition of “site susceptible to groundwater contamination” in s. NR 151.015(18), Wis. Adm. Code. No ground water supply wells are located within 250 feet of the proposed facilities or systems.

Soil investigations were performed on May 19, 2016 consisting of 6 test pits in the proposed project area, which found the subsoils consist of sand (SP). 3 additional test pits were excavated in the project area on June 3, 2022 due to changes in the proposed plan from the previously approved project R-2020-0098 that was approved on August 14, 2020 and matched the initial 6 test pits very closely. Neither bedrock nor sub-surface saturation were found within the required separation distance.

### PROJECT SUMMARY:
Project R-2020-0098 was submitted and approved by the Department on August 14, 2020 for a runoff management system. This project slightly modifies the previously approved project by proposing construction of a new waste storage facility for runoff collection rather than collecting the runoff in an existing waste storage facility. The reception tank that was approved in project R-2020-0098 was constructed in 2021, but for the remainder of the project the approval has expired which is the reason for this submittal and approval.

### Proposed Facilities:

#### Waste Storage (Runoff Collection Basin):
The proposed design was submitted to meet NRCS 313 (10/17) and Table 3, Column A of NRCS 522 (6/21). The proposed design was also submitted to meet ch. NR 213, Wis. Adm. Code. The design is compliant with s. NR 243.15(3), Wis. Adm. Code. The proposed runoff collection basin will be located near the northeast corner of the existing northerly barn. Below is a summary of what is proposed.

- The proposed WSF will be rectangular shaped with interior top dimensions of 225 ft x 200 ft x 16 ft deep. The embankment walls and floor are designed with 5 inch thick ACI-350 liquid tight concrete with waterstop. Concrete will have 4,500 psi design compressive strength and requires a w/c of 0.42.
- The proposed storage will have a total and maximum operating level (MOL) volume of 3,232,887 and 2,341,658 gallons respectively.
- The floor elevation will be 846.0 ft and the MOL elevation will be 859.3 ft. Interior and exterior embankment slopes will be 3:1 with a berm width of 12 ft.

#### Waste Transfer System:
The proposed design was submitted to meet with NRCS Standard 634 (1/14). The design is compliant with s. NR 243.15(4), Wis. Adm. Code. Below is a summary of what is proposed.

- There will be dual 350 ft long, 12 inch diameter SDR 21 D2241 PVC pressurized transfer pipelines from the existing reception tank to the proposed runoff collection basin.
- Each pipeline will be charged by a 40 hp pump sized to convey the 25-yr, 24-hr peak flow from the feed storage area runoff to the proposed runoff collection basin.
- The PVC pipe is rated for 200 psi. The design operating pressure is 12.1 psi and the design operating pipe flow velocity is 6.5 ft/sec.
Feed Storage: The proposed design was submitted to meet with NRCS Standard 629 Table 3 (1/17). The design is compliant with s. NR 243.15(9), Wis. Adm. Code. The feed storage extension will be on the north side of the existing feed storage pad. Below is a summary of what is proposed.

- The proposed feed storage pad will be 249 ft wide and of irregular shape with a 6 inch thick steel reinforced concrete with waterstop liner. The slab is designed for loading from a front end loader. The area is 12,000 sq. ft.
- The proposed feed pad will connect to the existing feed pad to the south and also will connect to the proposed reception tank on the north side in a liquid tight manner.
- Drain tile will extend from the proposed reception tank to the edge of the new concrete liner adjacent to the existing feed pad surface in anticipation for a possible future liner reconstruction of the existing feed pad.
- It is anticipated that the existing feed storage pad, which this proposed pad connects to, will need to be evaluated and possibly replaced with a new liner so the edge of the proposed pad will be constructed such that a new concrete pad can be connected to it.

Clean Water Diversion: The proposed design was submitted to be compliant with s. NR 243.15(4), Wis. Adm. Code. Below is a summary of what is proposed.

- There will be a clean water diversion swale that diverts clean water flow away from the south edge of the existing feed storage pad. This will minimize the amount of runoff collected to the proposed collection system.
- There will be clean water diversion swales graded around the perimeter of the proposed runoff collection basin to protect the integrity of the basin from stormwater runoff coming from the slope to the northeast/east of the basin.

DAYS OF AVAILABLE LIQUID WASTE STORAGE: The submitted information states that MDS Dairy Inc. will have 227 days of liquid waste storage after construction of the proposed runoff collection storage facility 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 3,480. 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. Full collection of feed storage runoff from a 110,000 sq ft drainage area is provided.

<table>
<thead>
<tr>
<th>Description</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Liquid Waste Storage</td>
<td>18,380,230</td>
</tr>
<tr>
<td>Total Solids Storage</td>
<td>100,352</td>
</tr>
<tr>
<td>Total 25-yr, 24-hr Precip. on Storage</td>
<td>693,658</td>
</tr>
<tr>
<td>Total 25-yr, 24-hr Collected Runoff</td>
<td>350,376</td>
</tr>
<tr>
<td>Total Freeboard Vol.</td>
<td>1,530,448</td>
</tr>
<tr>
<td><strong>Total MOL Liquid Waste Storage:</strong></td>
<td><strong>15,705,398</strong></td>
</tr>
<tr>
<td>Manure and Bedding</td>
<td>14,880,928</td>
</tr>
<tr>
<td>Parlor Wastewater</td>
<td>5,283,740</td>
</tr>
<tr>
<td>Total Feed Storage Leachate</td>
<td>149,600</td>
</tr>
<tr>
<td>Total Feed Storage Runoff Collected</td>
<td>2,185,508</td>
</tr>
<tr>
<td>Net Precipitation on Storage Surfaces</td>
<td>2,768,770</td>
</tr>
<tr>
<td><strong>Total Liquid Waste Stored Below the MOL:</strong></td>
<td><strong>25,268,545</strong></td>
</tr>
</tbody>
</table>

PURPOSE OF THIS REPORT: This report documents review of plans and specifications for each structure or practice indicated below, including findings regarding the structure or practice’s compliance with applicable standards. The reviewer considered if management and site assessment were conducted,
documented, and reflected in the final design, and if proper construction and related plans (operation and maintenance, inspection, erosion control if applicable) were provided, and demonstrated compliance with applicable rules standards.

**DECISION RECOMMENDATION:** Based on my review completed on October 31, 2022, the proposed plans and specifications meet ch. NR 243, Wis. Adm. Code, and applicable NRCS Standards. Therefore, I recommend the plans and specifications be approved.

Rob Davis, P.E.
Water Resources Engineer