Permit Fact Sheet

General Information

| Permit Number: | WI-0066982-01-0 |
| Permittee Name: | Nel Farm Inc. |
| Address: | W6119 Hazel Ridge Rd |
| City/State/Zip: | Elkhorn WI 53121-4204 |
| Discharge Location: | Unnamed tributaries to Turtle Creek in the Turtle Creek Watershed and groundwater of the state |

Animal Units

<table>
<thead>
<tr>
<th>Animal Type</th>
<th>Current AU</th>
<th>Proposed AU</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mixed</td>
<td>Individual</td>
</tr>
<tr>
<td>Dairy Calves (under 400 lbs.)</td>
<td>34</td>
<td>0</td>
</tr>
<tr>
<td>Milking and Dry Cows</td>
<td>588</td>
<td>601</td>
</tr>
<tr>
<td>Heifers (400 lbs. to 800 lbs.)</td>
<td>99</td>
<td>165</td>
</tr>
<tr>
<td>Heifers (800 lbs. to 1200 lbs.)</td>
<td>178</td>
<td>162</td>
</tr>
<tr>
<td>Total</td>
<td>899</td>
<td>601</td>
</tr>
</tbody>
</table>

Facility Description

Nel Farm, Inc. is an existing Animal Feed Operations for dairy cattle located in the Town of Sugar Creek in Walworth County, Wisconsin. Nel Farm, Inc has applied for a Wisconsin Pollutant Discharge Elimination System (WPDES) permit. Nel Farm, Inc consists of one production site located at W6119 Hazel Ridge Road, Elkhorn WI 54121 and is owned and operated by Marc Nelson and Scott Nelson.

Located on the south side of Hazel Ridge Road is 4 waste storage facilities, 2 feed storage facilities, two milking parlors, one outdoor heifer lot, and various barns. The calf barn is located on the north side of Hazel Ridge Road. Nel Farm, Inc plans to construct a new barn with a Weiser tank (WSF 5), a feed storage area and runoff controls for the feed storage areas and outdoor lot, and a mortality composting facility. Additionally, Nel Farm, Inc plans to increase animal units from 899.2 to 1,287.5 by 2024.

Approximately 10.4 million gallons of liquid manure and process wastewater, and 2,500 tons of solid manure are produced annually at the current herd size. With submitted documentation and construction of the new waste storage facility, Nel Farm, Inc has approximately 257 days of liquid manure and process wastewater storage capacity. This number will be verified during the review of engineering evaluations. Nel Farm, Inc owns or rents 1,642.9 acres of cropland, of which approximately 1,578.2 acres are available for manure application.
<table>
<thead>
<tr>
<th>Sample Point Number</th>
<th>Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>WSF 1: Sample point 001 is for liquid waste storage facility 1 (WSF 1) located at the east of the special needs barn. WSF 1 is a below ground concrete storage. The facility has a capacity (MOL) of 80,384 gallons and was constructed in 1985. This storage accepts manure and process wastewater from the special needs barn and fresh cow parlor. An engineering evaluation for WSF 1 was submitted in February 2022 and an engineering evaluation resubmittal is required per department letter on July 15, 2022; see Schedules section for due dates.</td>
</tr>
<tr>
<td>002</td>
<td>WSF 2: Sample point 002 is for solid waste storage facility 2 (WSF 2) located between the heifer barn and dry cow barn. WSF 2 is a concrete solid stacking storage with concrete walls. The facility has a capacity (MOL) of 15,821 gallons and was constructed in 2003. This storage accepts manure and process wastewater from the production site. An engineering evaluation for WSF 2 was submitted in February 2022 and an engineering evaluation resubmittal is required per department letter on July 15, 2022; see Schedules section for due dates.</td>
</tr>
<tr>
<td>003</td>
<td>WSF 3: Sample point 003 is for liquid waste storage facility 3 (WSF 3) located between the dry cow barn and heifer lot. WSF 3 is a concrete above ground storage located. The facility has a capacity (MOL) of 428,476 gallons and was constructed in 2003. This storage accepts manure and process wastewater from the transition barn and dry cow barn. An engineering evaluation for WSF 3 was submitted in February 2022 and an engineering evaluation resubmittal is required per department letter on July 15, 2022; see Schedules section for due dates.</td>
</tr>
<tr>
<td>004</td>
<td>WSF 4: Sample point 004 is for liquid waste storage facility 4 (WSF 4). WSF 4 is a Weiser Tank located below the southernmost freestall barn. The facility has a capacity (MOL) of 3,739,702 gallons and was constructed in 2010. This storage accepts manure and process wastewater from the freestall barn. An engineering evaluation for WSF 4 was submitted in February 2022 and an engineering evaluation resubmittal is required per department letter on July 15, 2022; see Schedules section for due dates.</td>
</tr>
<tr>
<td>005</td>
<td>WSF 5: Sample point 005 is for the proposed liquid waste storage facility 5 (WSF 5). WSF 5 is proposed a Weiser Tank storage located the proposed new freestall barn located north of WSF 4. The facility has a capacity (MOL) of 3,043,157 gallons and is planned to be constructed in 2022. This storage accepts manure and process wastewater from the freestall barn above. Plans and specifications for WSF 5 were reviewed and approved by the department in May 2022.</td>
</tr>
<tr>
<td>006</td>
<td>Settled Solids: Sample point 006 is for any manure solids removed from bottom of liquid waste storage facilities. This includes manure-laden sand solids, manure fiber solids, etc. Representative samples shall be taken from each waste storage facility.</td>
</tr>
<tr>
<td>007</td>
<td>Solids: 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>Mortality Composting Facility: Sample Point 008 is for the mortality composting facility located east of the heifer lot. The compost facility is used for calf and small heifer fatalities. Currently, the compost is done directly on the soil. Approximately 10 – 15 tons of compost are produced annually. This material will be sampled and applied in accordance with the approved NMP. Plans and specifications for the composting facility were approved by the department in May 2022.</td>
</tr>
</tbody>
</table>
### 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>
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</thead>
<tbody>
<tr>
<td>009</td>
<td>Outdoor Heifer Lot &amp; Runoff Control System: Sample point 009 is for visual monitoring and inspection of the concrete heifer lot and proposed runoff control system. Feedlot runoff is planned to be transferred into WSF 5. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. Plans and specifications for the outdoor heifer lot runoff controls were approved by the department in May 2022.</td>
</tr>
<tr>
<td>010</td>
<td>Feed Storage Area &amp; Runoff Control System: Sample point 010 is for visual monitoring and inspection of the feed storage area 1 and associated runoff control system located south of the Outdoor Heifer Lot. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. An engineering evaluation of the existing feed storage area pad was submitted in 2022 and requires a resubmittal based on the department’s letter sent July 15, 2022; see Schedules section for due dates. Plans and specifications for the feed storage area pad expansion and runoff controls were reviewed and approved by the department in May 2022.</td>
</tr>
<tr>
<td>011</td>
<td>Storm Water Runoff Control System: Sample point 011 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.</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 submitted to the Department for approval.

### Manure and Process Wastewater Storage

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

The permittee currently has approximately 257 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 899 animal units (420 milking and dry cows, 327 heifers, and 170 calves), it is estimated that approximately 5,244,000 gallons of manure and process wastewater will be produced per year. The permittee owns approximately 770.6 acres of cropland and has 734.5 acres controlled through contracts, rental agreements or leases, or under manure agreements. Given the rotation commonly used by the permittee, 1,578.2 acres are available (or open) to receive manure and process wastewater on an annual basis. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

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

The 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.

**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; 003- WSF 3; 004- WSF 4; 005- WSF 5

<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>
<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>
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<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

None, first time permit issuance.

#### 1.1.2 Explanation of Operation and Management Requirements

Wastes shall be stored and land applied according to permit and nutrient management requirements.

### Sample Point Number: 002- WSF 2; 006- Settled Solids; 007- Solids; 008- Mortality Composting Facility

<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>
</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>
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</thead>
<tbody>
<tr>
<td>Phosphorus, Available</td>
<td></td>
<td>lbs/ton</td>
<td>Quarterly</td>
<td>Calculated</td>
<td></td>
</tr>
<tr>
<td>Solids, Total</td>
<td></td>
<td>Percent</td>
<td>Quarterly</td>
<td>Grab</td>
<td></td>
</tr>
</tbody>
</table>

**1.1.3 Changes from Previous Permit**

None, first time permit issuance.

**1.1.4 Explanation of Operation and Management Requirements**

Wastes shall be stored and land applied according to permit and nutrient management requirements.

**Sample Point Number: 009- Outdoor Heifer Lot & Controls; 010- Feed Storage & Runoff Controls, and 011- Storm Water Controls System**

**1.1.5 Changes from Previous Permit**

None, first time permit issuance.

**1.1.6 Explanation of Operation and Management Requirements**

There is no required sampling for runoff controls. Rather, there is required inspection and routine maintenance that should be recorded on a monitoring and inspection form or calendar. A copy of the inspection records shall be submitted with the Annual Report.

### 2 Schedules

**2.1 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: Shall include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.</td>
<td>01/31/2023</td>
</tr>
<tr>
<td>Submit Annual Report #2: Shall include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.</td>
<td>01/31/2024</td>
</tr>
<tr>
<td>Submit Annual Report #3: Shall include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.</td>
<td>01/31/2025</td>
</tr>
<tr>
<td>Submit Annual Report #4: Shall include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.</td>
<td>01/31/2026</td>
</tr>
<tr>
<td>Submit Annual Report #5: Shall include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.</td>
<td>01/31/2027</td>
</tr>
<tr>
<td>Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been</td>
<td></td>
</tr>
</tbody>
</table>
completed.

### 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>11/01/2022</td>
</tr>
</tbody>
</table>

### 2.3 Nutrient Management Plan

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>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).</td>
<td>10/01/2022</td>
</tr>
<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>03/31/2023</td>
</tr>
<tr>
<td>Management Plan Annual Update #2: Submit an Annual Update to the Nutrient Management Plan.</td>
<td>03/31/2024</td>
</tr>
<tr>
<td>Management Plan Annual Update #3: Submit an Annual Update to the Nutrient Management Plan.</td>
<td>03/31/2025</td>
</tr>
<tr>
<td>Management Plan Annual Update #4: Submit an Annual Update to the Nutrient Management Plan.</td>
<td>03/31/2026</td>
</tr>
<tr>
<td>Management Plan Annual Update #5: Submit an Annual Update to the Nutrient Management Plan.</td>
<td>03/31/2027</td>
</tr>
<tr>
<td>Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.</td>
<td></td>
</tr>
</tbody>
</table>

### 2.4 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 30 days of the effective date of this permit.</td>
<td>11/01/2022</td>
</tr>
</tbody>
</table>

### 2.5 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>03/31/2027</td>
</tr>
</tbody>
</table>
## 2.6 Manure Storage Facility - Engineering Evaluation
Applies to sample points 001 (WSF 1), 002 (WSF 2), 003 (WSF 3), and 004 (WSF 4).

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit Engineering Evaluation: Submit a written report evaluating the existing manure storage facility’s ability to meet the conditions in the Production Area Discharge Limitations and Manure and Process Wastewater Storage subsections and s. NR 243.15, Wis. Adm. Code. (See Standard Requirements for report details.)</td>
<td>01/31/2024</td>
</tr>
<tr>
<td>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.</td>
<td>06/01/2024</td>
</tr>
<tr>
<td>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.</td>
<td>06/01/2025</td>
</tr>
</tbody>
</table>

## 2.7 Feed Storage Pad - Engineering Evaluation
Applies only to the existing feed storage bunker system.

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit Engineering Evaluation: Submit an engineering evaluation that includes a written description of the existing feed storage area and its adequacy to meet the conditions found in the Production Area Discharge Limitations subsection and NR 243.15, Wis. Adm. Code.</td>
<td>01/31/2024</td>
</tr>
<tr>
<td>Plans and Specifications: Submit plans and specifications for Department review and approval to permanently correct any adverse conditions identified as part of the engineering evaluation for the feed storage area in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code.</td>
<td>06/01/2024</td>
</tr>
<tr>
<td>Corrections and Post Construction Documentation: Complete construction of improvements to permanently correct 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.</td>
<td>06/01/2025</td>
</tr>
</tbody>
</table>

## 2.8 Waste Transfer System - Engineering Evaluation
Applies to WT#1 and WT #2.

<table>
<thead>
<tr>
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<tr>
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</tr>
<tr>
<td>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.</td>
<td>01/31/2024</td>
</tr>
<tr>
<td>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.</td>
<td>06/01/2024</td>
</tr>
</tbody>
</table>
Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.

### 2.9 Mortality Composting Facility Installation
Applies to Mortality Composting Facility (Sample Point 008).

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation: Complete construction of the mortality composting system that was approved by the department in May 2022. 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>12/01/2022</td>
</tr>
</tbody>
</table>

### 2.10 Manure Storage Facility - Installation
Applies to WSF 5 (Sample Point 005)

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Installation: Complete construction of the manure storage facility 5 (WSF 5) that was approved by the department in May 2022. 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>12/01/2022</td>
</tr>
</tbody>
</table>

### 2.11 Runoff Control System - Installation
Applies to Outdoor Heifer Lot (Sample Point 009).

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Installation: Complete construction of runoff control system for the outdoor heifer lot that was approved by the department in May 2022. 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>12/01/2022</td>
</tr>
</tbody>
</table>

### 2.12 Feed Storage Area - Installation
This applies to the new feed storage area (sample point 010) approved by the department in May 2022.

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation: Complete construction of the feed storage area. The 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>12/01/2022</td>
</tr>
</tbody>
</table>

### 2.13 Explanation of Schedules
Schedules are included in the permit to ensure compliance with NR 243, Wis. Admin. Code, requirements. Schedules for the following items have been incorporated into the permit:

The schedules contained in 2.1, 2.2, 2.3, 2.4, and 2.5 are standard permit requirements.

The schedules in 2.6 applies to WSF 1 (Sample Point 001), WSF 2 (Sample Point 002), WSF 3 (Sample Point 003), and WSF 4 (Sample Point 004). The department received an engineering evaluation for the waste storage facilities, WSF 1, WFS 2, WSF 3, and WSF 4 on February 1, 2022. Evaluation review letter dated July 15, 2022 described the engineering
evaluation for these facilities as insufficient to meet the requirements of s. NR 243; therefore, an engineering evaluation resubmittal is required.

The schedules in 2.7 applies only to the existing feed storage bunker system. The department received an engineering evaluation for the existing feed storage area bunker system on February 1, 2022. Evaluation review letter dated July 15, 2022 described the engineering evaluation for these facilities as insufficient to meet the requirements of s. NR 243; therefore, an engineering evaluation resubmittal is required.

The schedules contained in 2.8 applies to the WT#1 and WT#2. The department received an engineering evaluation for the waste transfer system 1 (WT#1) and waste transfer system 2 (WT#2) on February 1, 2022. Evaluation review letter dated July 15, 2022 described the engineering evaluation for these facilities as insufficient to meet the requirements of s. NR 243; therefore, an engineering evaluation resubmittal is required.

The schedule contained in 2.9 applies to the mortality compositing facility. Plans and specifications were approved by the department on May 13, 2022 to construct a mortality composting facility. Submit post construction according to due dates.

The schedules contained in 2.10 applies to the installation of WSF 5. Plans and specifications were approved by the department on May 13, 2022 to construct a WSF 5. Submit post construction according to due dates.

The schedules contained in 2.11 applies to the installation of the runoff controls for the outdoor heifer lot. Plans and specifications were approved by the department on May 13, 2022 to construct a runoff control system for the outdoor heifer lot. Submit post construction according to due dates.

The schedules contained in 2.12 applies to the installation of the feed storage area and runoff control. Plans and specifications were approved by the department on May 13, 2022 to construct a runoff control system for the outdoor heifer lot. Submit post construction according to due dates.

**Special Reporting Requirements**

None

**Other Comments:**

None

**Attachments:**

- Sample Point Map
- Conditional Approval Plans and Specifications letter May 2022
- Further Actions Letter for Engineering Evaluations dated July 2022
- Nutrient Management Plan Conditional Approval Letter April 2022

**Proposed Expiration Date:**

September 30, 2027
May 13, 2022

Marc Nelson  
Nel Farm, Inc.  
W6119 Hazel Ridge Road  
Elkhorn, WI 53121

Subject: Conditional Approval of Plans & Specifications for a Waste Storage Facility (WSF #5), Compost Pad Modification, Feed Storage Area Expansion, Runoff Collection, and Waste Transfer at Nel Farm, Inc. in T3N, R16E, Section 33, Sugar Creek Township, Walworth County

Dear Mr. Nelson:

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 Erik Lietz, P.E., Oakridge Engineering, Inc. and received on January 30, 2022 with a complete date of February 13, 2022. Revisions were received on May 9, 2022. The review was conducted in accordance with s. 281.41, Wis. Stats., chs. NR 151 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: Waste Storage Facility (WSF #5), Compost Pad Modification, Feed Storage Area Expansion, Runoff Collection, and Waste Transfer.

**Conditions of Approval:** The plans and specifications for project number R-2022-0021 are hereby approved and subject to chs. NR 151 and NR 243, Wis. Adm. Code, and the conditions listed below:

1. The following conditions are authorized to address potential pollutant discharge, based on the site specific factors listed in s. NR 243.15(1)(d), Wis. Adm. Code, and described in the attached engineering report.
   a. Based on the soil investigations completed for the proposed construction of the Wieser waste storage facility, the soil bearing capacity for the bottom of the tank and footings shall be 1,500 pounds per square foot (PSF) based on NRCS 313, Table 3 (10/17). Construction of the waste storage facility, specifically the footings, shall be based upon a soil bearing capacity of 1,500 psf.
2. **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.
3. **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.
4. **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).
5. **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).

6. **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](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:

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(262) 949-1559; nelfarm@hotmail.com  

Erik Lietz, P.E.  
Oakridge Engineering, Inc.  
(715) 926-1110; erik@oakridgeeng.com  

Matt Woodrow, P.E.  
DATCP  
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Lindsay Motl; Deputy Director/County Conservationist  
LURM Walworth County  
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Rob Davis, P.E.  
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Aaron O’Rourke  
DNR, Eau Claire  
(715) 839-3775; Aaron.Orourke@wisconsin.gov
GENERAL INFORMATION

Farm Name: Nel Farm, Inc.  
WPDES Permit#: WI-0066982

Location Address: W6119 Hazel Ridge Road, Elkhorn  
DNR Project #: R-2022-0021

Engineering Plans Certified by: Erik Lietz, P.E.  
Initial Submittal: January 30, 2022 (received), February 13, 2022 (complete date)

Revised Submittal(s): May 9, 2022

Site Assessment: Geographical features of the site include soils that are primarily Miami loam and Miami silt loam. The nearest stream is approximately 1,500 ft to the west and the stream is intermittent in nature. The nearest wetland is approximately 300 ft to the northeast of the closest portion of the proposed construction area. No karst features are known to exist within 1,000 ft of the proposed facilities or systems. No ground water supply wells are located within 250 feet of the proposed facilities or systems.

Soil investigations were performed on June 23, 2021 consisting of 10 test pits in the proposed project area, which found the primary subsoils consist of clayey soils (CL) with a fines content generally in the range of 85.4-99.1% and plasticity index ranging from about 7-22. Bedrock was not found. Saturation was found in one test pit, but was at a depth greater than the required separation depth for the proposed WSF #5.

Proposed Facilities:

Waste Storage (WSF #5): The proposed design was submitted to meet NRCS 313 (10/17R) and NRCS 522, Table 2, Column B (6/21) and NRCS 522, Table 2A, Column A (6/21). The design is compliant with s. NR 243.15(3), Wis. Adm. Code. The proposed WSF #5 will be an underbarn storage and will be located immediately to the north of the existing barn with underbarn storage, near the southern portion of the site. Below is a summary of what is proposed.

- The proposed WSF #5 will be a precast Pan-L-Bilt Manure Storage Facility by Wieser Concrete that is an NRCS pre-approved structure.
- The proposed WSF #5 will be a rectangular shaped underbarn storage with interior top dimensions of 108 ft x 408 ft x 11.46 ft deep. The embankment walls and floor are designed with steel reinforced concrete and are 8 inches and 5 inches respectively.
- The proposed storage will have a total and maximum operating level (MOL) volume of 3,978,964 and 3,043,157 gallons respectively.
- The floor elevation will be 984.0 ft and the MOL elevation will be 993.79 ft.
- Soil bearing capacity for the bottom of the tank and footings is 1,500 psf minimum. Construction of the waste storage facility will be based on this bearing capacity. The Wieser drawings show footing designs for 1,500, 2,000 and 3,000 psf.
- An Operation and Maintenance (O&M) Plan was provided for the proposed WSF #5.

Waste Transfer System: The proposed design was submitted to meet with NRCS Standard 634 (1/14). The proposed design was submitted to be compliant with s. NR 243.15(2) and NR 243.15(4), Wis. Adm. Code.

- The runoff from the animal lot and compost area will be collected in a 4 ft diameter precast manhole and gravity flow to the south with an 18 inch PE waste transfer pipe.
- The 18 inch waste transfer pipe from the compost area will drain through a 6 ft diameter precast manhole which will collect runoff from the feed storage area. The combined runoff will gravity flow to the south with a 24 inch PE waste transfer pipe and discharge into the proposed underbarn storage, WSF #5.
- The waste transfer system is designed to convey full runoff collection of the 25-yr, 24-hr runoff event from both the animal lot and compost area as well as from the feed storage area and convey the runoff to storage via gravity flow pipes.
• There will be a 6 inch PE waste transfer pipe connecting the existing underbarn storage (WSF #4) to the proposed underbarn storage (WSF #5).

Feed Storage: The proposed design was submitted to meet with NRCS Standard 629, Table 1 (1/17). The design is compliant with s. NR 243.15(9), Wis. Adm. Code. The proposed feed storage pad addition will connect to the existing feed storage area along the south side and extend south 150 ft. Below is a summary of what is proposed.
• The proposed rectangular shaped feed storage pad addition will be 150 ft x 240 ft with a 4 inch thick working surface.
• The feed pad’s working surface will be constructed with asphalt.
• The proposed feed pad will connect to the existing feed pad that is to the north. The existing feed pad is just south of the existing outdoor lot and existing heifer shed.
• 6 inch drain tile will be installed in the drainage layer of the proposed feed storage area and will be along the north side (at the joint of the existing and proposed feed pad) as well as the south and east side. The drain tile will connect to the proposed waste transfer pipe and will drain to the proposed WSF #5.
• The proposed feed pad will continue to drain to the feed storage area collection area for pumping.
• The proposed feed pad will consist of 4 inches of asphalt, a 13 inch drainage layer (with drain tile), and a 2 ft layer of in place soil with a P200 of at least 50%.

Composting: The proposed design was submitted to meet with NRCS Standards 313, Table 6, Column 3 (10/17). The design is compliant with s. NR 243.15(8) and NR 502.12, Wis. Adm. Code. The proposed composting modifications are to an existing small composting site that is connected to and immediately east of the existing outdoor lot and existing heifer shed. Below is a summary of what is proposed.
• There is an existing soil composting pad. This project proposes to modify the pad to collect runoff by adding a sloped concrete working surface and 8 ft tee walls to contain compost and runoff.
• The existing composting pad to be modified is 50 ft x 50 ft and will have a 6 inch thick steel reinforced concrete working surface on a 3 ft layer of in place soil liner with a P200 of at least 40%.

DAYS OF AVAILABLE LIQUID WASTE STORAGE: The submitted information states that Nel-Farm, Inc. has 257 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 after construction of the proposed WSF #5. Please be aware that the existing WSFs #1-4 have an evaluation that has been submitted but has not yet been reviewed. Without the existing WSFs #1-4, after construction of WSF #5, there would be only 107 days of liquid waste storage. The official number of days of storage will change once the evaluation for the waste storages requires no further actions. The current number of animal units provided is 899 and will be increasing to 1,288 by 2023. The numbers below are based on 1,288 animal units. 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. WSF #1 is covered and WSF #4 and #5 are underbarn storages, so there is no direct precipitation on these storages.

<table>
<thead>
<tr>
<th>Description</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Liquid Waste Storage</td>
<td>9,112,622  gallons</td>
</tr>
<tr>
<td>Total Solids Storage</td>
<td>703,050    gallons</td>
</tr>
<tr>
<td>Total 25-yr, 24-hr Precip. on Storage</td>
<td>31,015       gallons</td>
</tr>
<tr>
<td>Total 25-yr, 24-hr Collected Runoff</td>
<td>247,646   gallons</td>
</tr>
<tr>
<td>Total Freeboard Vol.</td>
<td>823,371    gallons</td>
</tr>
<tr>
<td>Total MOL Liquid Waste Storage</td>
<td>7,307,540  gallons</td>
</tr>
<tr>
<td>Manure, Bedding, and Parlor Wastewater</td>
<td>8,445,122  gallons</td>
</tr>
<tr>
<td>Total Feed Storage Leachate</td>
<td>79,497     gallons</td>
</tr>
<tr>
<td>Total Feed Storage Runoff Collected</td>
<td>1,384,630  gallons</td>
</tr>
<tr>
<td>Net Precipitation on Storage Surfaces</td>
<td>190,974     gallons</td>
</tr>
</tbody>
</table>
Animal Lot and Compost Pad Runoff Collected: 294,234 gallons

Total Liquid Waste Stored Below the MOL 10,394,457 gallons

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 May 11, 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 with specific conditions (justification provided). The following condition is recommended to be added to the approval letter:

- Based on the soil investigations completed for the proposed construction of the Wieser waste storage facility, the soil bearing capacity for the bottom of the tank and footings shall be 1,500 pounds per square foot (PSF) based on NRCS 313, Table 3 (10/17). Construction of the waste storage facility, specifically the footings, shall be based upon a soil bearing capacity of 1,500 psf.

Rob Davis, P.E.
Water Resources Engineer
July 14, 2022

Marc Nelson
Nel Farm Inc.
W6119 Hazel Ridge Road
Elkhorn, WI 53121-4204

Subject: Evaluation Review for Nel Farm Inc. in T3N, R16E, Section 33, Sugar Creek Township, Walworth County – FURTHER ACTIONS ARE REQUIRED

Dear Mr. Nelson:

This letter is to inform you that the Department received on February 1, 2022 the evaluation for all of the reviewable facilities at Nel Farm, submitted under certification by Erik Lietz, P.E., Oakridge Engineering Inc. on behalf of Nel Farm Inc. Erik Lietz evaluated the facilities listed below 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 evaluation for the reviewable facilities listed below and finds that they do not meet the requirements for submission listed above. The Department has only received post-construction documentation for WSF #3. Several other reviewable facilities noted post-construction documentation, but it was not found within the submittal. These facilities include WSF #2, WSF #4, WT #1, WT #2, and FSA #1. In accordance with NR 243.16 (1) (b), the post-construction documentation must be submitted. Erik Lietz assessed each reviewable facility in accordance with s. NR 243.16(1) and has concluded that the reviewable facilities listed below meet the ch. NR 243 requirements or will be compliant with ch. NR 243 once the proposed construction projects are completed. Other reviewable facilities found insufficient details or missing information that are necessary to justify the conclusion. Details that were found to be insufficient or missing are listed below.

**Reviewable Facilities Requiring an Evaluation Resubmittal**
- WSF #1, WSF #2, WSF #3, WSF #4, WT #1, WT #2, and FSA #1: The evaluation report did not make a conclusion on whether or not these facilities were compliant with NR 243. The Department also found additional missing or insufficient details listed below in the Engineering Report.

**Reviewable Facilities Requiring Some Other Submittal**
• FSA #2: An abandonment plan must be submitted to formally abandon FSA #2. Submit abandonment plan to the Regional CAFO Specialist.
• Wells: A site map of the production area with 250 ft radius circles for each well must be provided to demonstrate setback compliance for each of the onsite wells with NR 243.

Reviewable Facilities Requiring Construction of the Proposed Projects from Approved Plans for Project R-2022-0021 (completion of these actions shall be documented in the post-construction submittal)
• FSA Runoff Controls
• Animal Lot Runoff Controls
• Composting Area and Runoff Controls

Reviewable Facilities Requiring Maintenance Actions (completion of these actions shall be sent to the regional CAFO Specialist)
• WSF Markers and Safety Features (signage and fencing)

A request for an alternative well setback practice or design was not included with the evaluation. Wells were shown on the site map, but the 250’ setback distance was not included. Based on my approximate measurements, it appears alternative well setback approvals may be needed for some of the wells. This should be looked at and included in the re-submittal.

In accordance with s. NR 243.16(3), Wis. Adm. Code, the Department may require additional practices or actions based on the Department’s review of the submitted evaluation for the previously constructed structures or systems. This may include (1) additional technical analysis, modeling or monitoring to demonstrate compliance or (2) installation, replacement or upgrade of systems or structures in order to ensure compliance with requirements in ss. NR 243.13 and 243.15, prevent exceedances of groundwater or surface water quality standards or to prevent impairments to wetland functional values.

Due to the missing and/or insufficient details needed to justify the conclusion, the evaluation must be revised and resubmitted in its entirety via the DNR’s e-Permitting system at http://dnr.wi.gov/permits/water/. Submittal due dates may be included in your upcoming draft WPDES permit Schedules section(s). The DNR CAFO Specialist will contact you to discuss next steps. Questions concerning permit requirements should be directed to the DNR CAFO Specialist. (Contact information at the end of this letter.) Questions concerning the review may be directed to Rob Davis.

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.

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STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

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

Enclosures: Wisconsin DNR Engineering Report
Wisconsin DNR CAFO Evaluation Checklist

Email:

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Rob Davis, P.E.
DNR, Central Office
(608) 225-2720; Robert.Davis@Wisconsin.gov
WISCONSIN DEPARTMENT OF NATURAL RESOURCES ENGINEERING REPORT

GENERAL INFORMATION

Farm Name: Nel Farm Inc.  
Proposed WPDES Permit#: WI-0066982

Location Address: W6119 Hazel Ridge Road, Elkhorn  
DNR Project #: R-2022-0040

Engineering Certification by: 
Erik Lietz, P.E.

Evaluated Facilities:

Waste Storage #1: WSF #1 is a round, vertical walled, concrete tank with a concrete cover that is 41 ft in diameter and 10 ft deep. The tank was constructed around 1980. Manure is pumped out of the tank with portable PTO powered pumps through the roof access hatches.

- Submit documentation that permanent markers have been installed in accordance with s. NR 243.15(3)(e), Wis. Adm. Code as well as identifying the location and elevation.
  - Markers are planned to be installed with the 2022 construction project. This information should be submitted to Victoria Ziegler.

- Submit documentation that assesses the ability of the facility to meet s. NR 243.16(2).
  - Two test pits were excavated immediately adjacent to the tank on the exterior that extended to the bottom of the tank walls, however, they do not appear to have extended below the tank walls to verify separation from subsurface saturation. Given the mapped wetland that is very close to WSF #1 to the east, a test pit is needed to confirm separation from subsurface saturation and the test pit log must contain Munsell soil colors.

Waste Storage #2: WSF #2 is a rectangular, vertical walled, open concrete pit that is 20 ft wide, 64 ft long, and 8 ft deep with a ramp on the east side that has an 8:1 slope. The pit was constructed in 2003.

- Submit documentation that permanent markers have been installed in accordance with s. NR 243.15(3)(e), Wis. Adm. Code as well as identifying the location and elevation. Also, install warning signage.
  - Markers and signage are planned to be installed with the 2022 construction project. This information should be submitted to Victoria Ziegler.

- Submit documentation that assesses the ability of the facility to meet s. NR 243.16(1)(b).
  - Post construction documentation was submitted, but if there is any soil log or test pit information from the documentation, please submit that information as well.

- Submit documentation that assesses the ability of the facility to meet s. NR 243.15(3), Wis. Adm. Code.
  - Photographs show the waste storage to have substantial waste in it at time of observation.
    - The waste storage must be empty as much as possible to properly evaluate and visually inspect the waste storage. Photographs must also be submitted to document the visual inspection, paying close attention to the wall/floor joint.
  - If the post construction documentation does not include soil investigation logs, then new soil investigation test pits/boring must be conducted to verify separation to subsurface saturation and bedrock. Investigation logs must include Munsell soil colors.

Waste Storage #3: WSF #3 is a rectangular, vertical walled, open concrete pit that is 40 ft wide, 244 ft long, and 8 ft deep with a ramp on the west side that has an 8:1 slope. The pit was constructed in 2003.

- Submit documentation that permanent markers have been installed in accordance with s. NR 243.15(3)(e), Wis. Adm. Code as well as identifying the location and elevation. Also, install warning signage.
  - Markers and signage are planned to be installed with the 2022 construction project. This information should be submitted to Victoria Ziegler.

- Submit documentation that assesses the ability of the facility to meet s. NR 243.16(1)(b).
Post construction documentation was submitted, but if there is any soil log or test pit information from the documentation, please submit that information as well.

- Submit documentation that assesses the ability of the facility to meet s. NR 243.15(3), Wis. Adm. Code.
  - Photographs show the waste storage to have substantial waste in it at time of observation.
    - The waste storage must be empty as much as possible to properly evaluate and visually inspect the waste storage. Photographs must also be submitted to document the visual inspection, paying close attention to the wall/floor joint.
  - If the post construction documentation does not include soil investigation logs, then new soil investigation test pits/boring must be conducted to verify separation to subsurface saturation and bedrock. Investigation logs must include Munsell soil colors.

**Waste Storage #4:** WSF #4 is a rectangular, vertical walled, concrete tank beneath a freestall barn (underbarn storage) that is 108 ft in wide x 410 ft long, parlor area 120 ft x 48 ft, and barn link 22 ft x 12 ft x 12 ft deep by Wieser Concrete. The tank was constructed in 2010. Manure is pumped out of the tank with a PTO powered pump through the pump-out ports with lids on the north side of the barn.

- Submit documentation that permanent markers have been installed in accordance with s. NR 243.15(3)(e), Wis. Adm. Code as well as identifying the location and elevation. Also, install warning signage.
  - Markers and signage are planned to be installed with the 2022 construction project. This information should be submitted to Victoria Ziegler.
- Submit documentation that assesses the ability of the facility to meet s. NR 243.16(1)(b).
  - Post construction documentation for the tank must be submitted along with soil logs from 2010 construction to document separation from subsurface saturation.
- Submit documentation that assesses the ability of the facility to meet s. NR 243.15(3), Wis. Adm. Code.
  - Photographs show the waste storage from the outside surface. An attempt to look inside of the tank should be made to provide some inspection of the inside. The visible concrete from the outside should be inspected, particularly in the area of the pump-out ports where damage can occur during pumping.
  - If the post construction documentation does not include soil investigation logs, then new soil investigation test pits/boring must be conducted to verify separation to subsurface saturation and bedrock. Investigation logs must include Munsell soil colors.

**Transfer System:** There are two systems, WT #1 and WT #2. WT #1 is for the dry cow barn and is a concrete channel on the east end of the barn that is 8 ft wide x 107 feet long x 8 ft deep. The channel extends outside of the south side of the barn and flows by gravity into WSF #3. The system was constructed in 2003. WT #2 is for the transition barn and is a concrete U-channel gutter that is 80 ft long that flows by gravity into a small reception tank. The tank is 8 ft x 8 ft x 8 ft deep. The reception tank has a chopper style pump that pumps the waste to WT #1. The transfer pipe is a 6 in diameter PVC pipe that is 140 ft long. The system was constructed in 2018.

- Submit documentation that assesses the ability of the facility to meet s. NR 243.15(4), Wis. Adm. Code.
  - If there is an ability to provide any visual inspection of WT #1, it must be visually inspected. Please provide photographs of this visual inspection.
- Submit documentation that assesses the ability of the facility to meet s. NR 243.16(1)(b).
  - Post construction documentation for WT #2 must be submitted along with soil logs from 2018 construction to document separation from subsurface saturation.

**Feed Storage:** The feed storage area (FSA #1) is an asphalt paved FSA with a drainage layer and drain tile system. It was originally 240 ft (east-west) x 100 ft (north-south) and constructed in 2010. The FSA was expanded 50 ft to the south in 2014. The runoff from this FSA flows to the east and originally flowed into a small reception tank. The tile system also drained into this small reception tank. Sometime after 2014 the reception tank was removed and no FSA runoff or leachate was captured after that time.
• Submit documentation that assesses the ability of the facility to meet s. NR 243.16(1)(b).
  o Post construction documentation for FSA #1 must be submitted for the feed storage area.
• Submit documentation that demonstrates maintenance activities are completed for the facility to meet s. NR 243.15(9) Wis. Adm. Code.
• The liner of the feed storage area must be looked at using the post construction documentation to ensure compliance with liner design requirements and separation to sub-surface saturation.
• Runoff controls are proposed to be handled in the upcoming approved construction project with project number R-2022-0021.

**Production Area Runoff Controls:** Currently there are no runoff controls in place. The approved plans with project number R-2022-0021 will be constructed in the upcoming construction project. The runoff controls approved in the plans are proposed to have full collection of the 25-yr, 24-hr storm event from the FSA (including proposed expansion area), from the existing heifer lot, and from the animal mortality compost site that is proposed to be reconstructed with the project.

**Composting:** The animal mortality compost area is located east of the heifer shed and outdoor lot. The existing compost area is 20 ft in diameter with 8 ft tall walls. There is currently no floor in this area and the compost is directly on soil. There are also currently no runoff controls. The compost area is proposed to be reconstructed to be in compliance with NRCS standards with approved project number R-2022-0021. Runoff controls will be part of the project and there will be full collection of the 25-yr, 24-hr storm event.

**Abandonment:**
• The evaluation states, “FSA #2 will be abandoned.”
  o If a facility will be abandoned or discontinued, an abandonment plan is required in accordance with s. NR 243.17(7), Wis. Adm. Code. Until a plan is submitted to the Department, an evaluation is still required in accordance with s. NR 243.16(1), Wis. Adm. Code.
  o Plans are to be submitted to the Department to abandon or discontinue in accordance with s. NR 243.17(7), Wis. Adm. Code. Submit abandonment plan to the Regional CAFO Specialist.
• The evaluation states, “This area will no longer be a FSA and will be used to store bedding materials.
  o Submit documentation of the type of bedding that will be stored. Depending on the type of bedding, it is possible that they will discharge pollutants during a rain event.

**Days of Available Storage:** The days of storage calculations were reviewed with the recent plan submittal, R-2022-0021. The submitted information states that Nel Farm, Inc. will have 257 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 after construction of the proposed WSF #5. Please be aware that this calculation is based on the findings of this evaluation and that WSFs #1-4 currently all have further actions required. Without the existing WSFs #1-4, after construction of WSF #5, there would be only 107 days of liquid waste storage. The official number of days of storage will change if the evaluations for the existing waste storages requires no further actions. The current number of animal units provided is 899 and will be increasing to 1,288 by 2023. The numbers below are based on 1,288 animal units. 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. WSF #1 is covered and WSF #4 and #5 are underbarn storages, so there is no direct precipitation on these storages.

**Evaluation Stated Proposed Actions**
• The evaluation states the WSF markers and safety features will be installed during the construction project in 2022. As maintenance items, this information must be submitted to Victoria Ziegler when completed.
• The evaluation proposes runoff collection with the construction of the approved project R-2022-0021 with construction of WSF #5 and will collect runoff from the existing animal lot, animal mortality facility, existing FSA #1, and proposed expansion to FSA #1.
• The evaluation proposes to abandon FSA #2.
• The animal mortality composting area will be reconstructed with project R-2022-0021.

Department Comments to Proposed Actions
• The proposed construction of approved project R-2022-0021 will bring a number of the facilities into compliance. The submittal of WSF marker documentation and safety features will be a portion of the necessary actions toward bringing the WSFs into a position to have no additional actions required.
• Regarding FSA #2, the Department concurs with the need for abandonment and needs to review the proposed abandonment plans. Submit abandonment plan to the Regional CAFO Specialist.
• Regarding the animal mortality composting area, the Department concurs with the conclusion of reconstruction of this area.

DECISION RECOMMENDATION: Based on my review completed on June 30, 2022, the reviewable facilities identified above require further actions.

Rob Davis, P.E.
Water Resources Engineer
Watershed Management Program
April 12th, 2022

Marc Nelson
Nel Farm Inc.
W6119 Hazel Ridge Rd
Elkhorn, WI 53121-4204

SUBJECT: Conditional Approval of Nel Farm Inc. Nutrient Management Plan, WPDES Permit No. 0066982-01-0

Dear Mr. Nelson:

After completing a review of Nel Farm Inc. 2022-2026 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 Nel 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 Nel 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 Nel 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 899.2 animal units (420 milking & dry cows, 327 heifers, and 170 calves). A planned herd size of 1,287.5 animal units (600 milking & dry cows, 470 heifers, and 240 calves) by 2023.
2. Manure generation and spreading records indicate your herd will annually generate approximately 5,244,000 gallons of manure and process wastewater and 2,500 tons of solid manure in the first year of the permit term. Once the facility has reached full expansion in 2023, the herd will generate approximately 10,394,457 gallons of manure and process wastewater and 2,500 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 Nel Farm Inc. currently has 1,642.9 acres (770.6 owned and 734.5 controlled through contracts, rental agreements or leases, or under manure agreements) of which 1,578.2 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 Unnamed Tributary to Turtle Creek (listed 303(d) impaired water by ‘total phosphorus’).

7. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters.

8. That 5 fields are tiled.
   - Field 13
   - Elkhorn West (Kinkaid)
   - Field 18
   - Field 23-25
   - Norma 6 (Brummel)

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 2022-2026 Nel 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 are prohibited from receiving applications of manure or process wastewater due to issues with soil sampling where the field either has insufficient soil sample density, no lab number recorded, or is utilizing a default soil test value:
   - Amos Rd (Watson)
   - Holtz-22 (Watson)
   - Holtz-3 (Watson)
   - Home-1 (Watson)
   - Home-2 (Watson)
   - Home-3 (Watson)
   - Home-4 (Watson)
   - Norman 1 (Brummel)
   - Norman 2 (Brummel)
   - Norman 3 (Brummel)
   - Norman 4 (Brummel)
   - Norman 5 (Brummel)
   - Norman 6 (Brummel)

The following fields are prohibited from receiving manure where they are within 1000’ of a public or community well:
   - Norman 3 (Brummel)
   - Norman 4 (Brummel)

If Nel 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.

3. If existing fields yield a soil test results equal to or greater than 200 ppm P, those fields would be prohibited from receiving manure or process wastewater applications, unless you obtain Department approval in accordance with NR 243.14(5)(b)2., Wis. Adm. Code.
4. All liquid manure samples collected may be analyzed, at a minimum, for percent dry matter, total nitrogen, percent NH₄-N, percent NO₃-N, phosphorus, potassium, and sulfur.

5. 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, Nel Farm Inc. may use the following equation to adjust the first-year available nitrogen when applications are injected or incorporated within 1 hour:

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

6. Nel Farm 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.

7. Nel 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 form 3200-123.

WINTER SPREADING

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

9. The following field(s) are approved for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:
   - Field 19-21
   - Elkhorn East (Kinkaid)

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

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

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

HEADLAND STACKING

13. No headland stacking sites are approved.

MANURE & PROCESS WASTEWATER IRRIGATION

14. Irrigation of manure or process wastewater is prohibited.

SUBMITAL AND RECORDKEEPING REQUIREMENTS

15. A copy of this conditional approval shall be included in all future annual Nutrient Management Plan Updates in addition to the NR 243 and NRCS 590 checklists.

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

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

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

Sincerely,

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

cc: Victoria Ziegler, WDNR Agricultural Runoff Specialist (Victoria.Ziegler@Wisconsin.gov)
Ben Benninghoff, WDNR Watershed Field Supervisor (Benjamin.Benninghoff@Wisconsin.gov)
Christopher Clayton, WDNR Runoff Management Section Chief (Christopher.Clayton@Wisconsin.gov)
Aaron O’Rourke, WDNR Nutrient Management Program Coordinator (Aaron.Orourke@Wisconsin.gov)
Tony Salituro, WDNR Intake Specialist (Anthony.Salituro@Wisconsin.gov)
Michael Cotter, Walworth County (Mcotter@Co.Walworth.Wi.Us)
Nick Rankin, The Delong Company (Nrankin@Delongcompany.com)
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