Permit Fact Sheet

General Information

<table>
<thead>
<tr>
<th>Permit Number:</th>
<th>WI-0063398-04-0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permittee Name:</td>
<td>Betley Farms LLC</td>
</tr>
<tr>
<td>Address:</td>
<td>W1630 Redwood Dr</td>
</tr>
<tr>
<td>City/State/Zip:</td>
<td>Pulaski WI 54162</td>
</tr>
<tr>
<td>Discharge Location:</td>
<td>Main Dairy – W1630 Redwood Drive,</td>
</tr>
<tr>
<td></td>
<td>Pulaski, WI 54162; S ¼ of SW ¼</td>
</tr>
<tr>
<td></td>
<td>Section 9, T25N, R18E</td>
</tr>
<tr>
<td></td>
<td>Heifer Park Facility – 2207 Cedar</td>
</tr>
<tr>
<td></td>
<td>Rd, Pulaski, WI 54162; W ½ of NE ¼</td>
</tr>
<tr>
<td></td>
<td>Section 30, T25N, R18E</td>
</tr>
<tr>
<td></td>
<td>Ridge Facility – 3686 Hofa Park Rd,</td>
</tr>
<tr>
<td></td>
<td>Pulaski, WI 54162; SW ¼ of SE ¼</td>
</tr>
<tr>
<td></td>
<td>Section 13, T25N, R17E</td>
</tr>
<tr>
<td>Receiving Water:</td>
<td>unnamed tributary streams within</td>
</tr>
<tr>
<td></td>
<td>the Shioc River Watershed, and</td>
</tr>
<tr>
<td></td>
<td>groundwaters of the state</td>
</tr>
</tbody>
</table>

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>72</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Milking and Dry Cows</td>
<td>3822</td>
<td>3904</td>
<td>7770</td>
</tr>
<tr>
<td>Heifers (400 lbs. to 800 lbs.)</td>
<td>0</td>
<td>0</td>
<td>18</td>
</tr>
<tr>
<td>Heifers (800 lbs. to 1200 lbs.)</td>
<td>0</td>
<td>0</td>
<td>253</td>
</tr>
<tr>
<td>Total</td>
<td>3894</td>
<td>3904</td>
<td>8045</td>
</tr>
</tbody>
</table>

Facility Description

Brief Facility Description: Betley Farms LLC is an existing Concentrated Animal Feeding Operation (CAFO) that is owned & operated by Jeff Betley. Betley Farms LLC consists of 3 sites: The Main Dairy is located at W1630 Redwood Drive, Pulaski, WI; the Heifer Park Facility is located at 2207 Cedar Rd, Pulaski, WI; and the Ridge Facility is located at 3686 Hofa Park Rd, Pulaski, WI. Betley Farms LLC currently consists of 3,894 animal units (2,730 milking & dry cows, 0 heifers, 360 calves) and is proposing to expand during the upcoming permit term to 8,045 animal units (5,550 milking & dry cows, 260 heifers, 20 calves). This expansion will include the construction of new freestall barns, feed storage area expansion, manure digesters, and manure treatment construction among other projects. The farm is also looking into the use of a water treatment system to discharge treated water, however that is not included in this permit at this time. Betley Farms LLC has total of 4,902 acres available for land application of manure and process wastewater of which 4,847 are spreadable. Of this acreage, 1,713 acres are owned, and 3,189 acres are controlled through contracts, rental agreements, or manure agreements.
Substantial Compliance Determination

Enforcement During Last Permit: A Notice of Violation and an Enforcement Conference was held during the current permit term in response to a land application runoff event from July 2020. The facility has completed all previously required actions as part of the enforcement process.

<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). WSF #1 is an earthen-lined impoundment with a concrete floor located at the Main Dairy in the southeast corner of the production area. This facility has a total volume of 0.9 million gallons and a maximum operating level capacity of 0.7 million gallons. Liquid manure and process wastewater from the south freestall barn &amp; parlor are currently stored in this facility. Manure flow on the farm will be changed in the future to accommodate the digesters &amp; proposed manure treatment systems. When the maximum operating level is reached manure overflows to WSF #2 via an overflow channel in the separating berm. This facility was constructed in 2001 and has not been evaluated since the time of construction.</td>
</tr>
<tr>
<td>002</td>
<td>Sample point 002 is for liquid waste storage facility #2 (WSF #2). WSF #2 is an earthen-lined impoundment located at the Main Dairy in the southeast corner of the production area. This facility has a total volume of 3.8 million gallons and a maximum operating level capacity of 3.4 million gallons. Liquid manure and process wastewater from the south freestall barn &amp; parlor are currently stored in this facility after WSF #1 is filled to the maximum operating level. Manure flow on the farm will be changed in the future to accommodate the digesters &amp; proposed manure treatment systems. This facility was constructed in 2001 and has not been evaluated since the time of construction.</td>
</tr>
<tr>
<td>003</td>
<td>Sample point 003 is for liquid waste storage facility #3 (WSF #3). WSF #3 is a concrete-lined impoundment located at the Main Dairy in the southeast corner of the production area. This facility has a total volume of 2.1 million gallons and a maximum operating level capacity of 1.4 million gallons. Liquid manure from the middle freestall barn and runoff from the feed storage area is currently stored in this facility. Manure flow on the farm will be changed in the future to accommodate the digesters &amp; proposed manure treatment systems. This facility was constructed in 2006 and has not been evaluated since the time of construction.</td>
</tr>
<tr>
<td>004</td>
<td>Sample point 004 is for solid manure sources that are directly land applied and not stored in a waste storage facility. This includes solid sources such as calf hutch manure, maternity pen bedpack, heifer bedpack, etc. Representative samples shall be taken for each manure source type.</td>
</tr>
<tr>
<td>006</td>
<td>Sample point 006 is for visual monitoring and inspection of the calf hutch area and associated runoff control system. The calf hutch area is located at the Heifer Park Facility and are usually kept inside the building but may extend outside the building’s roofline at times onto an adjacent concrete slab. This concrete slab does not have engineered runoff controls. Proper operation and maintenance is required to ensure to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program.</td>
</tr>
<tr>
<td>008</td>
<td>Sample point 008 is for visual monitoring and inspection of the feed storage area and associated runoff control system. The feed storage area is located in the northeast corner of the Main Dairy production site &amp; is currently about 205,000 square feet in area. All leachate &amp; runoff flow to a central collection point. Leachate &amp; first flush runoff is transferred to WSF #3 for long term storage and remaining runoff is diverted to an adjacent vegetated treatment area. Proper operation and maintenance is required to ensure</td>
</tr>
</tbody>
</table>
### Sample Point Designation For Animal Waste

<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></td>
<td>discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. Plans for a 102,000 square foot addition were submitted to the department in April 2022 which also included upgrades to the runoff control system.</td>
</tr>
<tr>
<td>009</td>
<td>Sample point 009 is for liquid waste storage facility #4 (WSF #4). WSF #4 is a concrete-lined impoundment located at the Main Dairy on the west side of the production area. This facility has a total volume of 8.9 million gallons and a maximum operating level capacity of 7.9 million gallons. Liquid manure and process wastewater from the middle &amp; north freestall barns is currently stored in this facility. Manure flow on the farm will be changed in the future to accommodate the digesters &amp; proposed manure treatment systems. This facility was constructed in 2011 and has not been evaluated since the time of construction.</td>
</tr>
<tr>
<td>010</td>
<td>Sample point 010 is for manure solids removed from bottom of all liquid waste storage facilities. This includes sand laden manure, manure-laden solids, manure fiber solids, etc. Representative samples shall be taken from each waste storage facility.</td>
</tr>
<tr>
<td>011</td>
<td>Sample point 011 is for liquid waste storage facility #5 (WSF #5). WSF #5 is a concrete-lined impoundment located at the Heifer Park Facility on the east side of the production area. This facility has a total volume of 8.8 million gallons and a maximum operating level capacity of 7.8 million gallons. This storage accepts manure and process wastewater transferred from the main dairy via tanker trucks and unloaded into this facility prior to land application. This facility was constructed in 2020 and has not been evaluated since the time of construction.</td>
</tr>
<tr>
<td>012</td>
<td>Anaerobic Digesters: Sample point 012 addresses all digested liquids located within the 2 existing digester cells located to the north of WSF #4. Manure will be transferred from a proposed manure processing building to the digesters and then returned to the manure processing buildings (for solids removal) after the digestion is completed. Liquids will then be transferred to waste storages at the Main Dairy. Sampling from within the digester cell(s) for nutrient content is only required if the liquids are to be manually pumped from the cell(s) and directly land applied. The digesters were constructed in 2021.</td>
</tr>
<tr>
<td>013</td>
<td>Sample point 013 is for land applied separated manure solids. Fiber will typically be reused as bedding and stored in the solid separation building. The solid separation building has a concrete floor and walls and will be constructed in 2022. Representative samples are only required when the separated solids are directly land applied from this stacking area.</td>
</tr>
<tr>
<td>014</td>
<td>Sample point 014 is for solid manure land applied from approved headland stacking sites. Representative samples must be taken prior to land application. Stacks are defined as part of the production area and therefore subject to the production area discharge limitations of this permit. Weekly inspections of stack runoff controls are required and shall be recorded according to monitoring program.</td>
</tr>
<tr>
<td>015</td>
<td>Sample point 015 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 280 days of storage for liquid manure based on 3,904 Animal Units. 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

By the end of the first year of the permit term, the farm is expecting to have 4,939 animal units (3,400 milking & dry cows, 170 heifers, 10 calves), it is estimated that approximately 33,748,400 gallons & 2,513 tons of manure and process wastewater will be produced per year. Betley Farms LLC currently has 4,902.4 acres (1,713.3 owned and 3,189.1 controlled through contracts, rental agreements or leases, or under manure agreements) of which 4,846.7 are spreadable acres. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will
require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

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

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

In addition, the permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure (>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 ; 002- WSF #2; 003- WSF #3; 009- WSF #4; 011- WSF #5; 012- Digested Liquids

<table>
<thead>
<tr>
<th>Monitoring Requirements and Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
</tr>
<tr>
<td>Nitrogen, Total</td>
</tr>
<tr>
<td>Nitrogen, Available</td>
</tr>
<tr>
<td>Phosphorus, Total</td>
</tr>
<tr>
<td>Phosphorus, Available</td>
</tr>
<tr>
<td>Solids, Total</td>
</tr>
</tbody>
</table>

1.1.1 Changes from Previous Permit
Sample point language was updated to more accurately describe existing facilities. Sample points 011 & 012 were added to the permit as these two facilities were approved & either constructed or under construction during the previous permit term.

1.1.2 Explanation of Operation and Management Requirements
Liquid manure must be properly stored and land applied according to the permit and nutrient management plan.

Sample Point Number: 004- Misc Solid Manure; 010- WSF Solids Removal; 013- Seperated Manure Fiber; 014- Headland Stacking Sites

<table>
<thead>
<tr>
<th>Monitoring Requirements and Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
</tr>
<tr>
<td>Nitrogen, Total</td>
</tr>
<tr>
<td>Nitrogen, Available</td>
</tr>
<tr>
<td>Phosphorus, Total</td>
</tr>
<tr>
<td>Phosphorus, Available</td>
</tr>
<tr>
<td>Solids, Total</td>
</tr>
</tbody>
</table>

1.1.3 Changes from Previous Permit
Sample point language was updated to more accurately describe existing facilities. Sample point 013 was added for any separated solids not used for bedding purposes and land applied. Sample point 014 was added to account for any solid manure stored at headland stacking sites & land applied.

1.1.4 Explanation of Operation and Management Requirements
Solid manure sources must be properly sampled and land applied according to the permit and nutrient
management plan.

Sample Point Number: 006- Calf Hutch Area; 008- Feed Storage Runoff Controls, and 015- Storm Water Runoff

1.1.5 Changes from Previous Permit
Sample point language was updated. Sample point 015 was added to more accurately describe the existing production area. Sample point 005 was removed due to the outdoor lot being abandoned during the previous permit term.

1.1.6 Explanation of Operation and Management Requirements
Proper operation and maintenance is required to ensure unlawful discharges to waters of the state do not occur. Weekly or quarterly inspections are required and shall be recorded according to the monitoring plan.

2 Schedules

2.1 Emergency Response Plan

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop Emergency Response Plan: Update the written Emergency Response Plan within 30 days of permit coverage and submit to the department.</td>
<td>09/01/2022</td>
</tr>
</tbody>
</table>

2.2 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 60 days of the effective date of this permit.</td>
<td>10/01/2022</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: To 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: To 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: To 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: To 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>
</tbody>
</table>
Submit Annual Report #5: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<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

Submit annual nutrient management plan (NMP) updates by March 31 of each year. Note, in addition to annual NMP updates, submit NMP amendments and substantial revisions to the department for written approval prior to implementation of any changes to the NMP.

<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></td>
</tr>
<tr>
<td>Submit NMP Update #1: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.</td>
<td></td>
</tr>
<tr>
<td>Submit NMP Update #2: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.</td>
<td></td>
</tr>
<tr>
<td>Submit NMP Update #3: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.</td>
<td></td>
</tr>
<tr>
<td>Submit NMP Update #4: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.</td>
<td></td>
</tr>
<tr>
<td>Submit NMP Update #5: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.</td>
<td></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>

### 2.5 Manure Storage Facility - Engineering Evaluation

Applicable to WSF #1 & WSF #2 at the main dairy, further described as Sample Point 001 & 002 in this permit.

<table>
<thead>
<tr>
<th>Required Action</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retain Expert: Retain a qualified expert to complete an engineering evaluation for the liquid manure storage facilities and report the name of the expert to the Department.</td>
<td></td>
</tr>
<tr>
<td>Written Report: 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></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></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</td>
<td></td>
</tr>
</tbody>
</table>

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2.6 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>02/01/2027</td>
</tr>
</tbody>
</table>

2.7 Explanation of Schedules

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

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

Other schedule items are required to ensure existing facilities are still in compliance with s. NR 243 and WPDES permit conditions.

Other Comments:

If the farm chooses to construct a water treatment system that will discharge treated water, this permit must be modified to include the discharge limitations for that new sample point prior to any discharge.

Attachments:

Plan Approval Letter(s)

- R-2021-0199 Days Of Storage Review
- Nutrient Management Plan Conditional Approval Letter
- R-2021-0077 Plan Approval Letter_Digesters & Transfer Systems
- R-2022-0023 Plan Approval Letter_New Barn Transfer Systems
- R-2022-0090 Plan Approval Letter_Feed Storage Expansion

4/9/2021 Compliance Inspection Report

Proposed Expiration Date:

7/31/2027

Prepared By:

Brian Hanson Wastewater Specialist

Date: 6/13/2022
April 26, 2022

Shawano County Approval

Jeff Betley
Betley Farms LLC
W1630 Redwood Dr
Pulaski, WI 54162

SUBJECT: Conditional Approval of Betley Farms LLC Nutrient Management Plan, WPDES Permit No. 0063398-03-0

Dear Mr. Betley:

After completing a review of Betley Farms LLC 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 Betley Farms LLC review the NMP with those individuals involved with manure applications to ensure all remain familiar with the approved manure spreading protocol, spreading maps, field and map verification, record keeping requirements, and all the conditions of this approval. Specifically, some fields in Betley Farms LLC may have:

- Soils that may have bedrock or groundwater within 24 inches of surface,
- Multiple setback areas due to streams, conduits to streams, grassed waterways, wetlands or wells, and
- Evidence of possible soil erosion/flow channels. Note: road ditches or other man made channels may be considered flow channels or conduits to navigable water and may be subject to a SWQMA and setback.

Reviewing the NMP and checking fields for these features and soil conditions prior to manure applications will help Betley Farms LLC 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 4939 animal units (3400 milking & dry cows, 170 heifers, and 10 calves). A planned herd size of 8042 animal units (5550 milking & dry cows, 260 heifers, and 20 calves) by 2026.
2. Manure generation and spreading records indicate your herd will annually generate approximately 33,748,400 gallons of manure and process wastewater and 2,513 tons of solid manure in the first year of the permit term.
3. The use of application restriction options 1 and 5 within surface water quality management areas.
4. The use of phosphorus delivery method P Index.
5. That Betley Farms LLC currently has 4,902.4 acres (1,713.3 owned and 3,189.1 controlled through contracts, rental agreements or leases, or under manure agreements) of which 4,846.7 are spreadable acres.
6. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to a 303(d) impaired water.
7. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters.
8. That 50 fields are tiled.
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 Betley Farms LLC Nutrient Management Plan subject to the following conditions and the applicable requirements of Ch. NR 243, Wis. Adm. Code:

FIELD AND MANURE MANAGEMENT

1. Fields not included in the NMP and new fields shall not receive manure or process wastewater applications until they have been properly soil sampled, entered into Snap Plus, evaluated for their nutrient needs, and approved by the Department.

2. 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.

3. All liquid manure samples collected may be analyzed, at a minimum, for percent dry matter, total nitrogen, percent \( \text{NH}_4^- \)N, percent \( \text{NO}_3^- \)N, phosphorus, potassium, and sulfur.

4. If manure sample results have a dry matter (DM) content less than 2.0% and the percent ammonium (\( \text{NH}_4^+ \)) is greater than 75% of the total N, Betley Farms LLC may use the following equation to adjust the first year available nitrogen when applications are injected or incorporated within 1 hour:

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

5. Betley Farms LLC shall record daily manure applications by using form 3200-123A.

6. Betley Farms LLC shall annually submit a spreading report that summarizes the land application activities listed under NR 243.19(3)(c)5., Wis. Adm. Code by using form 3200-123.

WINTER SPREADING

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

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

   - 1
   - 2
   - 6
   - 8
   - 10
   - 11
   - 12
   - 14
   - 16
   - 17
   - 21
   - 22
   - 26
   - 28
   - 108
   - 110
   - 111
   - 113
   - 114
9. 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.

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

11. 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

12. The following sites are approved for non-winter and winter headland stacking:

- 1
- 2
- 4
- 6
- 12
- 14
- 17
- 21
- 24
- 100
- 108
- 21

MANURE & PROCESS WASTEWATER IRRIGATION

13. Irrigation of manure or process wastewater is prohibited.

SUBMITAL AND RECORDKEEPING REQUIREMENTS

14. 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 920-360-9010 or Brandon.Flenz@Wisconsin.gov.

Sincerely,

Brandon Flenz
WDNR Agricultural Runoff Specialist
Wisconsin Department of Natural Resources

cc: Brian Hanson, WDNR Agricultural Runoff Specialist (Brian.Hanson@wisconsin.gov)
Joe Beaten, WDNR Watershed Field Supervisor (Joseph.Beaten@wisconsin.gov)
Chris Clayton, WDNR Ag Runoff Section Chief (Christopherr.Clayton@wisconsin.gov)
Aaron O’Rourke, WDNR NMP Specialist (Aaron.ORourke@wisconsin.gov)
Scott Frank, Shawano County Conservationist (scott.frank@co.shawano.wi.us)
Bill Schaumberg, Tilth Agronomy (bill@tilthag.com)
File
June 9, 2022

Jeff Betley
Betley Farms LLC
W1630 Redwood Dr
Pulaski, WI 54162

Subject: Days of Storage Review for Betley Farms LLC, SW¼ SW¼ of T25N, R18E, Section 09 in Maple Grove Township, Shawano County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Betley:

This letter is to inform you that the Wisconsin Department of Natural Resources (Department) has completed its review of the calculation of days of storage submitted under certification by Darrin Sherstad, OCEP and Bill Schaumberg, Tilth Agronomy on September 30, 2021 with revisions received on June 6, 2022 on behalf of Betley Farms LLC.

The Department reviewed the submitted calculations in accordance with ss. NR 243.14(9) and NR 243.15(3)(i) to (k), Wis. Adm. Code. Under s. NR 243.17(3)(c), Wis. Adm. Code, the permittee shall demonstrate compliance with the 180-day design storage capacity requirement at specified times. For the following liquid manure storage calculations, the Department has determined no additional actions on your part are required.

Days of Available Liquid Waste Storage: The submitted information states that Betley Farms LLC has 280 days of liquid waste storage based on the volumes listed in the table below with respect to s. NR 243.15(3)(i) to (k), Wis. Adm. Code. The current number of animal units provided for the calculation is 3904. The liquid waste volumes are based on manure hauling logs and a collection period of 365 days. The calculations do not take into account the Aqua Innovation system that was approved for use. A days of storage calculations showing the proposed conditions of the site after an expanded herd size, feed storage area expansion, leachate management system modification, and use of the Aqua Innovation system can be found in the engineering plans and specifications approval letter File Ref: R-2022-0090.

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Total MOL Vol: 21,243,575

Days of Storage: 280
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</table>

**Average Volume/AU** 7,090

**Average Annual Volume for Current AUs** 27,680,145

Should you have any questions, please contact Tony Salituro, 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

Tony Salituro, E.I.T.
CAFO Intake Specialist
Watershed Management Program

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Bill Schaumberg; Titlth Agronomy
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Ashley Scheel; DNR, Central Office
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Matt Woodrow; DATCP
(920) 427-8505; matthew.woodrow@wisconsin.gov
July 16, 2021

Jeff Betley
Betley Farms LLC
W1630 Redwood Dr
Pulaski, WI 54162

Subject: Conditional Approval of Plans & Specifications for Digester, Transfer System, Separation Building, and Well Waiver Setback at Betley Farms LLC in Shawano County

Dear Mr. Betley:

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 Darrin Sherstad, P.E., Resource Engineering Associates Inc and received on April 20, 2021 with revisions received on July 8, 2021. 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 engineering report below describes the project, lists standards that apply and provides compliance analysis. Questions may be directed to the assigned regional staff or the review engineer Ian Hansen (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: Manure Storage, Manure Transfer Pipe, Reception Tank, Digester, Solids Separation, Manure Transfer Channel, Well Waiver Request

Conditions of Approval: The plans and specifications for project number R-2021-0077 are hereby approved and subject to chs. NR 151 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.

Grant of Waiver: In accordance with s. NR 243.15(1)(c), Wis. Adm. Code, a waiver is hereby granted from s. NR 243.15(1)(a)2., Wis. Adm. Code, to allow a digester, 7,000 gallon reception tank, 25,000 gallon reception tank and waste transfer piping to be located within 250 ft of a groundwater supply well, based on justifications set forth in the proposed plans and specifications.
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/.

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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

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Brian Hanson; DNR, Northeast Region
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Joe B Baeten; DNR, Northeast Region
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Scott Frank; Shawano County
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Ian Hansen; DNR, Northern Region
(608) 400-2536; Ian.Hansen@wisconsin.gov
**GENERAL INFORMATION**

**Farm Name:** Betley Farms LLC  
**WPDES Permit#:** WI-0063398  
**Location Address:** W1630 Redwood Dr, Pulaski, WI  
**DNR Project #:** R-2021-0077  
**Engineering Plans Certified by:** Darrin Sherstad, P.E.  
**Initial Submittal:** April 20, 2021  
**Revised Submittal(s):** July 8, 2021

**Site Assessment:**

The project is located in the S ½, SW ¼, of Sec. 9, T25N, R18E, Town of Maple Grove, Shawano County, Wisconsin. Geographical features of the site include soils that are Onaway-Ossineke fine sand loams. The farm is in the Shioc River Watershed (HUC10: 0403020208). The nearest stream is a first order Unnamed stream (WBIC 5015241) that flows south towards Black Creek (WBIC 317100). There are no mapped wetlands but there are wetland indicators throughout the production area. A wetland delineation was completed by Wisconsin DNR Assured Wetland Delineator Chad Fradette with Evergreen Consultants LLC and determined that 4 small, isolated areas were considered artificial wetlands used as agricultural drainage ditches to convey stormwater away from the production area. The artificial wetland determination was confirmed by DNR wetland staff in a letter dated April 8, 2021. The project is not located in a 100-year floodplain. Clean water runoff will be diverted around waste handling areas to existing waterways. No karst features are known to exist within 1,000 ft of the project site. The site has four existing potable wells with three of the wells located >250 ft from proposed facilities. One of the digesters is proposed to be located ~107 ft east of Well AAC622. The Aqua Innovations water treatment building is proposed to be located ~158 ft southeast of Well AAC622. Transfer piping is located as close as 164 ft southeast of Well AAC622. A variance to the 250 ft setback was requested.

A geotechnical evaluation was performed for the proposed project. Soil investigations were completed on March 22 and 23, 2021. A total of 11 soil borings were performed. The general soil profile consisted of CL soils underlain with SM soils, though there was variation across the site. Saturation was observed in 10 of the 11 borings at elevations as shallow as 888.2 ft MSL in the vicinity of the digesters. It is believed to be perching on clay/bedrock layers as non-saturated soils were observed in the lower soil profiles. The highest design drain tile elevation is proposed at 886.0 ft MSL, which would provide 3 ft of separation from the proposed finished digester floor tank elevations of 889.0 ft. Based on construction logs for the farm’s four wells, the regional water table elevation varies between 839-845 ft and 44-54 ft bgs. USGS Hydrologic Investigation Atlas HA 321 and HA 470 indicates groundwater at an elevation of ~870 ft. Design regional water table elevation was decided to be 845 ft MSL based on well construction logs. Well construction logs indicated limestone bedrock is present at elevations 857-866 ft and 28-32 ft bgs. Soil borings encountered bedrock in six of the borings between 12.3-31.5 ft bgs with the highest elevation being 880.5 ft (9 ft below digester floors).

**PROJECT SUMMARY**

This project includes construction of two digester tanks, waste transfer system, manure separation building, and Aqua Innovations building. Manure and wastewater will be pumped from the two existing reception tanks in the freestall barns through the separation building manifold, to the digesters. Digested manure will then be pumped back to the manure separation building. Post separation, the manure will be transferred to a 7,000 gallon Wieser Tank that feeds the Aqua Innovations system. Leachate and feed pad runoff stored in WSF Basin 1 will be pumped to the 7,000 gallon Wieser tank and be co-mingled with the digested manure. The Aqua Innovation system will treat and separate the mixed-waste into three separate waste streams: concentrate, tea-water, and clean water. Concentrate and tea-water waste streams will be sent to existing waste storage to be land applied via NMP. Clean water will be discharged pending WPDES permit coverage. The farm will be switching from sand bedding to manure fiber bedding.
Proposed Facilities:

Digester: The proposed design was submitted to meet NRCS 313 (10/17) and NRCS 522 (10/17) Table 3 Column A. The design is in compliance with s. NR 243.15(5), Wis. Adm. Code. Below is a summary of what is proposed.

- Two circular, concrete digesters with 96-foot diameter, 26-foot-depth (24 foot operating depth). Each digester is covered with a flexible membrane roof. 10.5 feet of the digester will be below ground.
- The total storage capacity per digester is 1,407,078 gallons at an elevation of 915.0 ft. Each digester is proposed to have a 2-foot freeboard and therefore has a usable capacity of 1,298,748 gallons. The floor elevation is 889.0 ft.
- Walls and floors are reinforced concrete and 16 inches and ≥10 inches thick respectively.
- The floor of each digester will be constructed in a single concrete pour event. There will be an embedded waterstop at the floor to footing joint. The walls will be poured in four sections, resulting in 4 vertical, embedded waterstop joints per digester.
- The digesters are complete mix and continuous flow.

Waste Transfer Pipe: The proposed design was submitted to meet NRCS Standard 634 (01/14). The design is in compliance with s. NR 243.15(4), Wis. Adm. Code.

- Manure and wastewater from the holding area/parlor reception tank will be routed to the Barn 1 reception tank via 6” diameter DR 17 HDPE pipe. Pipe Length: 350 ft. Pipe Rating: 125 psi. Pump: Existing 5 HP Houle Hog Manure Pump. Operating Pressure: 5.4 psi.
- Digester Supply: Two, 10” diameter DR 11 HDPE pressure pipe will transfer manure from Barns 1 and 3 reception tanks through the separation building pipe manifold system to the digesters. The pipes will penetrate the control room floor and an actuator valve will direct flow to either digester. Pipe Length: 1,000 ft and 1,020 ft. Pipe Rating: 200 psi. Pump: 15 HP Houle Futuro Piston Pump. Relief Valve Pressure: 30 psi.
- Digester Return: When operating level in the digester exceeds the MOL sensor, a centrifugal pump will convey digested manure to the separator building via 8” diameter DR 17 HDPE pipe. Pipe Length: 205 ft. Pipe Rating: 125 psi. Pump: 5 HP Summit. Operating Pressure: 6.7 psi.
- 7,000 Gallon Tank Supply: Effluent from the screw press in the separator building will collect in a 25,000 gallon Weiser tank and be pumped to a 7,000 gallon Weiser tank via 6” diameter DR 17 HDPE. Pipe Length: 60 ft. Pipe Rating: 125 psi. Pump: 3 HP Summit. Operating Pressure: 7.4 psi.
- Leachate and Feedpad Runoff Pipe: Leachate and feedpad runoff will be pumped from Basin 1 to the 7,000 gallon Wieser tank through a 4” diameter DR 17 HDPE pipe. Pipe Length: 1,630 ft. Pipe Rating: 125 psi. Pump: 7.5 HP Summit. Operating Pressure: 25.8 psi.
- Aqua Building Supply: Screw press (solids separation) effluent will be pumped from the 7,000 gallon Wieser tank to the Aqua Innovations treatment building via a 6” diameter DR 17 HDPE. Pipe Length: 125 ft. Pipe Rating: 125 psi. Pump: 3 HP Summit. Operating Pressure: 10.4 psi.
- Aqua Building Discharge: Two pumps in the Aqua Innovation building will discharge waste to Basin 1 via 1,430 ft of 4” diameter DR 17 HDPE pipe or Basin 3 via 135 ft of 4” diameter DR 17 HDPE pipes. Pipe Rating: 125 psi. Pump: 2 HP Summit. Operating Pressure: 3.9 psi.
- Digester Control Building Manhole: Floor drain wastewater will be pumped from the digester control building manhole to the 7,000 gallon Wieser tank via a 4” diameter DR 17 HDPE pipe. Pipe Length: 285 ft. Pipe Rating: 125 psi. Pump: 3 HP Summit. Operating Pressure: 9.3 psi. A 12” diameter HDPE N-12 gravity pipe overflows to WSF 3 but only intended to be used as emergency overflow.
- Aqua Building Manhole: Floor drain wastewater will be pumped from the Aqua Innovations building manhole to the 7,000 gallon Wieser tank via a 4” diameter DR 17 HDPE pipe. Pipe Length: 280 ft. Pipe Rating: 125 psi. Pump: 3 HP Summit. Operating Pressure: 9.3 psi. A 12” diameter HDPE N-12 gravity pipe overflows to WSF 3 but is only intended to be used as emergency overflow.
- Digester Balance: Two, 8" diameter DR 17 HDPE pipes balance liquid level in the digester tanks.

**Reception Tank:** The proposed design was submitted to meet NRCS Standard 634 (01/14). The design is in compliance with s. NR 243.15(4), Wis. Adm. Code.

- 7,000 Gallon Wieser Tank: This concrete tank is 9’ tall x 15’ long x 8.5’ wide. This prefabricated reception structure was structural evaluated by a registered professional engineer in Wisconsin and determined to meet or exceed standards in NRCS Standard 313 (10/17).

- 25,000 Gallon Wieser: This concrete tank is 13’ tall x 30’ long x 12’ wide. This prefabricated reception structure was structural evaluated by a registered professional engineer in Wisconsin and determined to meet or exceed standards in NRCS Standard 313 (10/17).

- 4’ diameter, 6’ deep manhole will receive floor drain wastewater from the digester control building. The manhole will comply with ASTM C478.

- 4’ diameter, 5’ deep manhole will receive floor drain wastewater from the Aqua Innovations building. The manhole will comply with ASTM C478.

- 3’ diameter, 3’ deep manhole will receive floor drain wastewater from the separation building. The manhole will comply with ASTM C478. A 12” diameter HDPE N-12 gravity pipe overflows to WSF3 but is only intended to be used as an emergency overflow.

**Separation, Treatment, and Control Buildings:** The proposed design was submitted to meet NRCS Standard 313 (10/17), NRCS Standard 522 (10/17), NRCS Standard 632 (04/14), and NRCS Standard 634 (01/14). The design is in compliance with s. NR 243.15 (3) and (4), Wis. Adm. Code.

- Separation Building: The concrete slab is 6” thick reduced seepage concrete with waterstop and reinforced with #4 bar, spaced 15” OC. The walls/curbs are supported by the foundation slab with an expansive waterstop between the joint. The building is curbed/walled and sloped to a floor drain. Dried manure solids will be stacking in this building. Reduced seepage concrete with waterstop is allowed as a liner in place of the stacking facility soil requirements of Table 5 NRCS Standard 313 (10/17).

- Aqua Innovation Building and Digester Control Building: The concrete slab is 6” thick reduced seepage concrete that connects to the foundation wall by dowels. There is expansive waterstop between the slab and wall connection. The slab is reinforced with #4 bar, spaced 15” OC. The buildings are curbed/walled and sloped to a floor drain. The floors are not anticipated to experience standing water.

**Well Waiver Request:** In accordance with s. NR 243.06(1), Wis. Adm. Code, the department may approve a variance to the 250 ft well setback requirement in s. NR 243.15(1)(a)2., Wis. Adm. Code when special circumstances show that a variance is needed and the variance will not negatively impact or threaten the environment or public health. Based on review of the site, it appears that the digesters are sited in the most feasible location considering the future barn expansions. The west digester is proposed to be located 107’ from Well AAC622. The Aqua Innovations building, which contains a 7,000 and 25,000 gallon reception tank is proposed to be 158’ of Well AAC622. Waste transfer piping is proposed to be located 164’ of Well AAC622. The digester is designed to ACI 350 criteria. The Aqua Innovation building floor is designed in accordance with NRCS Standard 522 (10/17) Table 2, Column A and Table 2A, Column B. The waste transfer pipelines will be fused without joints and operated less than 25% of rated capacity. Well AAC622 was constructed in June 2020 and drilled 210 ft deep. The well is cased to a depth of 81 ft. There is 31 feet of sandy clays underlain by 26 ft of limestone/dolomite bedrock underlain by 153 ft of sandstone bedrock. Table A, ch. NR 812, Wis. Adm. Code requires a 100’ setback for digesters (liquid-tight manure storage structure), 100’ for wastewater treatment unit (Aqua Innovations building), 50’ for manure reception tanks and loading areas, and 50’ for pressurized transfer pipes greater than 6” diameter. The setbacks in ch. NR 812, Wis. Adm. Code appear to be met.

**DAYS OF AVAILABLE LIQUID WASTE STORAGE:** Digesters do not contribute to days of storage.

**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 July 15, 2021, 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**.

Ian Hansen, P.E.
Water Resources Engineer
April 22, 2022

Jeff Betley
Betley Farms LLC
W1630 Redwood Dr
Pulaski, WI 54162

Subject: Conditional Approval of Plans & Specifications for Waste Transfer at Betley Farms LLC in Shawano County

Dear Mr. Betley:

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 Darrin Sherstad, P.E., Outagamie Clean Energy Partners and received on January 31, 2022 with revisions received on April 14, 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 engineering report below describes the project, lists standards that apply and provides compliance analysis. Questions may be directed to the assigned regional staff or the review engineer Ian Hansen (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: Reception Tank, Transfer Piping, Transfer Channel

Conditions of Approval: The plans and specifications for project number R-2022-0023 are hereby approved and subject to chs. NR 151 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:  Jeff Betley; Betley Farms LLC (920) 822-5402; jeff@betleyfarms.com
        Brian Hanson; DNR, Northeast Region (920) 366-3302; brian.hanson@wisconsin.gov
        Darrin Sherstad; OCEP (715) 220-0288; darrin@oceprng.com
        Joe Baeten; DNR, Northeast Region (920) 662-5196; Joseph.Baeten@wisconsin.gov
        Matt Woodrow; DATCP (920) 427-8505; matthew.woodrow@wisconsin.gov
        Scott Frank; Shawano County (715) 526-4820; scott.frank@co.shawano.wi.us
        Aaron O’Rourke; DNR, Eau Claire (715) 839-3775; aaron.orourke@wisconsin.gov
        Ian Hansen; DNR, Northern Region (608) 400-2536; Ian.Hansen@wisconsin.gov
**GENERAL INFORMATION**

**Farm Name:** Betley Farms LLC  
**WPDES Permit #:** WI-0063398  
**Location Address:** W1630 Redwood Dr, Pulaski, WI 54162  
**DNR Project #:** R-2022-0023  
**Engineering Plans Certified by:** Darrin Sherstad, P.E.  
**Initial Submittal:** January 31, 2022  
**Revised Submittal(s):** April 14, 2022

**Site Assessment:**
The project is located in SW ¼, SW ¼, Sec. 9, T25N, R18E, Town of Maple Grove, Shawano County, Wisconsin. The nearest stream is an Unnamed stream (WBIC 5015241) that flows south towards Black Creek (WBIC 317100). There are no mapped wetlands but there are wetland indicators throughout the production area. A wetland delineation was completed by a Wisconsin DNR Assured Wetland Delineator and determined that 4 small, isolated areas were considered artificial wetlands. The artificial wetland determination was confirmed by DNR wetland staff in a letter dated April 8, 2021. The project is not located in a 100-year floodplain. Clean water runoff will be diverted around waste handling areas to existing waterways. No karst features are known to exist within 1,000 ft of the project site. No groundwater supply wells are located within 250 ft of the proposed project area.

**Soils:**
Soils are USDA classified as Onaway-Ossineke fine sand loams based on NRCS Websoil Survey data. A geotechnical evaluation was performed for a previous approved digester project in 2021. Soil investigations were completed on March 22 and 23, 2021. A total of 11 soil borings were performed. The general soil profile consisted of CL soils underlain with SM soils, though there was variation across the site. Saturation was observed in 10 of the 11 borings at elevations as shallow as 888.2 ft in the vicinity of the digesters. It is believed to be perching on clay/bedrock layers as non-saturated soils were observed in the lower soil profiles. Based on construction logs for the farm’s four wells, the regional water table elevation varies between 839-845 ft and 44-54 ft bgs. USGS Hydrologic Investigation Atlas HA 321 and HA 470 indicates groundwater at an elevation of ~870 ft. Design regional water table elevation was decided to be 845 ft based on well construction logs. Well construction logs indicated limestone bedrock is present at elevations 857-866 ft and 28-32 ft bgs. Soil borings encountered bedrock in six of the borings between 12.3-31.5 ft bgs with the highest elevation being 880.5 ft.

Borings B-8 through B-11 are in vicinity of the proposed transfer systems. The proposed channels (elev: 886.8 for Barn 4 and 888.3 for Barn 5) will meet the 2 ft separation requirements in NRCS Standard 634 Table 1. The reception tank floors (elev: 881.9 for Barn 4 and 883.4 for Barn 5) are proposed to meet NRCS Standard Table 1 by complying with Note 3. Buoyancy calculations were performed and determined additional ballast was not necessary on the proposed reception structures.

**PROJECT SUMMARY**
Two new barns (Barns 4 and 5) will each have alley scrapers that scrape manure to a shuttle channel located in the center of each barn. The shuttle channels will convey manure to a Wieser precast wet well with an adjacent dry well and piston pump. Contents in the Barn 5 wet well will be transferred to the Barn 4 wet well, which will then be transferred to the existing solids separation building.

**Proposed Facilities:**
- **Waste Transfer Channel:** The proposed design was submitted to meet NRCS Standard 634 (01/14). The design is in compliance with s. NR 243.15(4), Wis. Adm. Code.
  - The 3 ft wide x 3 ft deep shuttle channels are Wieser precast concrete and designed to NRCS Standard 522 Table 2 Column C, which requires a minimum of 3 ft thick soils with P200>20% on all
sides. Subsoils will be in accordance with NRCS Standard 522 Table 2A Column B, which requires an additional 2 ft thick soils with P200>20% on all sides.

- The precast concrete channels were structural evaluated by a registered professional engineer in Wisconsin and determined to meet or exceed standards in NRCS Standard 313 (10/17).

**Waste Transfer Pipe:** The proposed design was submitted to meet NRCS Standard 634 (01/14). The design is in compliance with s. NR 243.15(4), Wis. Adm. Code.

- Barn 5 wet well to Barn 4 wet well: 290 ft of 12 inch DR 17 HDPE pipe rated at 125 psi. 15 HP Futuro piston pump and pressure relief valves activated at 30 psi.
- Barn 4 wet well to separation building: 590 ft of 12 inch DR 17 HDPE pipe rated at 125 psi. 15 HP Futuro piston pump and pressure relief valves activated at 30 psi.
- Small volumes of screw press effluent within the existing separation building will be pumped to the head of each barn channel to increase the liquid content of the manure so it is easier to pump via two, 6 inch DR 17 HDPE pipes and 5 HP Summit SN04A pumps. The pipe is rated at 125 psi and will have an operating pressure of 8.7 psi.
- Clean outs are proposed every 400-600 ft because farm has equipment with 300 ft jetting capability.

**Reception Tank:** The proposed design was submitted to meet NRCS Standard 634 (01/14). The design is in compliance with s. NR 243.15(4), Wis. Adm. Code.

- 8 ft long x 12 ft wide x 8 ft deep Wieser precast concrete dry well
- 8 ft long x 14 ft wide x 8 ft deep Wieser precast concrete wet well
- Both wet and dry wells are designed to NRCS Standard 522 Table 2, Column A. The wet and dry wells were structural evaluated by a registered professional engineer in Wisconsin and determined to meet or exceed standards in NRCS Standard 313 (10/17).
- Both dry wells will house a 15 HP Futuro piston pump. Pumps turn on when liquid level is 4.5 ft above the tank floor. Pumps turn off when liquid level is 1 ft above the tank floor.
- Wet wells contain high level alarms which trigger an alarm if liquid level exceeds 6 ft above the tank floor.

**DAYS OF AVAILABLE LIQUID WASTE STORAGE:** The submitted information states that Betley Farms LLC has 210 days of liquid waste storage based on the volumes listed in the table below with respect to s. NR 243.15(3)(i) to (k), Wis. Adm. Code. The current number of animal units provided for the calculation is 6,460 AU. 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.

<table>
<thead>
<tr>
<th>Liquids Collected/Stored</th>
<th>Annual Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manure and Bedding (1):</td>
<td>23,862,283</td>
</tr>
<tr>
<td>Parlor Wastewater (2):</td>
<td>7,393,241</td>
</tr>
<tr>
<td>Total Feed Storage Leachate (80,000 tons) (3):</td>
<td>59,840</td>
</tr>
<tr>
<td>Total Feed Storage Runoff Collected (321,120 ft²) (3):</td>
<td>1,235,090</td>
</tr>
<tr>
<td>Total Feedlot Runoff Collected:</td>
<td>0</td>
</tr>
<tr>
<td>Net Precipitation on Storage Surfaces (4):</td>
<td>3,685,631</td>
</tr>
<tr>
<td>Other:</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Liquid Waste Stored Below the MOL</strong></td>
<td><strong>36,236,086</strong></td>
</tr>
</tbody>
</table>

(1) Annual manure and bedding generation volume of 35,775,537 gal is reduced by 33.3% by Aqua Innovations dewatering/treatment system, therefore annual volume is 23,862,283 gal.
(2) Parlor wastewater generation volume of 8 gal per cow per day x 3,796 milking cows = 11,084,320 gal per year. To be reduced by 33.3% using Aqua Innovation system resulting in 7,393,241 gals annually.

(3) Leachate and feed storage runoff stored in WSF2 will be processed through Aqua Innovations system where 80% of calculated volumes will be discharged as clean water.

(4) Top Areas: WSF 1A: 29,720 ft\(^2\) | WSF 1B: 44,300 ft\(^2\) | WSF 2: 32,500 ft\(^2\) | WSF 3: 91,761 ft\(^2\) | WSF 4: 100,416 ft\(^2\)

### Total Liquid Waste Storage (Gallons)

<table>
<thead>
<tr>
<th>Waste Storage</th>
<th>Total Vol. from Top to Bottom</th>
<th>-Solids Storage (^{(1)})</th>
<th>-25-yr, 24-hr Precip on Storage</th>
<th>-25-yr, 24-hr Collected Runoff</th>
<th>-Freeboard Vol.</th>
<th>Max Operating Level (MOL) Vol.</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1A (Main)</td>
<td>927,915</td>
<td>0</td>
<td>56,863</td>
<td>0</td>
<td>162,466</td>
<td>708,586</td>
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<tr>
<td>#1B (Main)</td>
<td>3,819,750</td>
<td>0</td>
<td>115,977</td>
<td>0</td>
<td>331,364</td>
<td>3,372,409</td>
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<tr>
<td>#2 (Main)</td>
<td>2,120,505</td>
<td>0</td>
<td>85,085</td>
<td>793,583 (^{(2)})</td>
<td>243,100</td>
<td>998,737</td>
</tr>
<tr>
<td>#2 (Main)</td>
<td>8,858,004</td>
<td>0</td>
<td>240,233</td>
<td>0</td>
<td>686,380</td>
<td>7,931,391</td>
</tr>
<tr>
<td>#4 (Satellite)</td>
<td>8,839,506</td>
<td>0</td>
<td>262,907</td>
<td>9,885 (^{(3)})</td>
<td>728,233</td>
<td>7,838,481</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20,849,604</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20,849,604</td>
</tr>
</tbody>
</table>

\(^{(1)}\) All WSF assumed zero solids because manure is digested and processed through solid separation and treatment. Processed solids reused as fiber bedding. Clean water discharged via WPDES permitted discharge. 1A: concrete, no sump, no ramp | 1B: soil liner with ramp and sump | 2: soil liner with ramp | 3: concrete with ramp | 4: concrete with sump

\(^{(2)}\) Feed storage area: 321,120 ft\(^2\) | RCN: 98 | 25-yr, 24-hr Shawano County: 4.2 inches

\(^{(3)}\) Adjacent concrete pad: 4,000 ft\(^2\) | RCN: 98 | 25-yr, 24-hr Shawano County: 4.2 inches

**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 April 18, 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.

Ian Hansen, P.E.
Water Resources Engineer
June 9, 2022

Jeff Betley
Betley Farms LLC
W1630 Redwood Dr
Pulaski, WI 54162

Subject: Conditional Approval of Plans & Specifications for a feed storage expansion at, Betley Farms LLC at SE¼ SW¼ of T25N, R18E, Section 09 in Maple Grove Township, Shawano County

Dear Mr. Betley:

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 Darrin Sherstad, P.E., Outagamie Clean Energy Partners and received on April 13, 2022 with revisions received on June 6, 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 reviewer Tony Salituro (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: Concrete feed storage area and waste transfer pipelines.

Conditions of Approval: The plans and specifications for project number R-2022-0090 are hereby approved and subject to chs. NR 151 and NR 243, Wis. Adm. Code, and the conditions listed below:

1. Percent Fines Analysis: No percent fines content of over burden proposed to be used for feed storage area liner is available. The soil percent fines analysis shall be provided as part of the post construction documentation.

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) 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:  
Darrin Sherstad; OCEP  
(715) 220-0288; darrin@oceprng.com  
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Scott Frank; Shawano County  
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Joe B Baeten; DNR-Northeast Region  
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Aaron O’Rourke; DNR, Eau Claire  
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Ashley Scheel; DNR, Central Office  
(608) 261-6419; ashley.scheel@wisconsin.gov
## WISCONSIN DEPARTMENT OF NATURAL RESOURCES ENGINEERING REPORT

### GENERAL INFORMATION

| Farm Name: | Betley Farms LLC | WPDES Permit#: | WI-0063398 |
| Location Address: | W1630 Redwood Dr, Pulaski, WI 54162 | DNR Project #: | R-2022-0090 |
| Engineering Plans Certified by: | Darrin Sherstad, P.E. | Initial Submittal: | April 13, 2022 |
| | | Revised Submittal(s): | June 6, 2022 |

### Site Assessment:
Geographical features of the site include soils that are sandy loam and loams. The nearest stream is approximately 4,500 ft to the southwest and the nearest wetland is approximately 2,000 ft to the east 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. No ground water supply wells are located within 250 feet of the proposed facilities or systems.

Soil investigations were performed in April 2012 consisting of five test pits in the proposed project area, which found the primary subsoils consisting of clays (CL). Bedrock and saturation were not found in any test pit.

### PROJECT SUMMARY

#### Proposed Facilities:

**Runoff Collection System Modifications:** 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.

- Two 24-inch HDPE gravity pipelines will be installed to transfer feed storage runoff from the existing leachate collection basin to permanent storage in Basin 2. All pipe penetrations in the collection basin and Basin 2 will be made liquid tight with expansive waterstop. Insulation will be provided to the pipeline due to being located less than 4 feet below ground in certain sections of the pipeline.
- A 4-inch SCH 40 PVC pressure pipeline will be installed from the existing pump station to transfer additional waste from the existing leachate collection basin to Basin 2. The pipeline will have an operating pressure of 5.5 psi and operating velocity of 7.8 ft/sec. The pipeline is being equipped with concrete thrust blocks or mega lugs at bends due to the higher velocity.
- The existing MOL marker in Basin 2 will be lowered to an elevation of 888.0 ft to account for the additional runoff collected.

**Feed Storage Expansion:** The proposed design was submitted to meet with NRCS Standard 629, Table 1, Column A (1/17). The design is compliant with s. NR 243.15(9), Wis. Adm. Code. The feed storage area expansion will connect to the north edge of the existing area. Below is a summary of what is proposed.

- The proposed feed storage pad expansion will be 200 ft x 510 ft with a 6 inch thick concrete working surface. The total feed storage area will be 321,120 ft². An 8-inch leachate drainage layer consisting of crushed stones will be placed below the concrete working surface. A two foot thick soil liner with a percent fines of 50% or greater will be placed below the leachate drainage layer. Over-burden is proposed to be used for the soil liner, and providing the percent fines of the material in post construction is recommended to be a condition of approval.
- A 4-inch drain tile lateral will be located throughout the expanded feed storage area and collect to a proposed 6-inch drain tile header, and ultimately the existing drain tile system.

**DAYS OF AVAILABLE LIQUID WASTE STORAGE:** The submitted information states that Betley Farms LLC will have 210 days of liquid waste storage after construction of the feed pad expansion based on the volumes listed in the table below with respect to s. NR 243.15(3)(i) to (k), Wis. Adm. Code. The proposed number of animal units provided for the calculation is 6,460. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values and a collection period of 365 days. All runoff, up to the 25yr – 24hr storm, is collected from the feed storage area and collected in Basin 2. All runoff from an adjacent concrete pad is collected in the satellite Basin 4. An aqua innovation system is used by the site and is detailed below.
<table>
<thead>
<tr>
<th>Liquids Collected/STORED</th>
<th>Annual Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manure and Bedding (1)</td>
<td>23,862,283</td>
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<tr>
<td>Parlor Wastewater (2)</td>
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<tr>
<td>Feed Storage Leachate (3)</td>
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<td>Net Precipitation on Storage Surfaces</td>
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<td><strong>TOTAL:</strong></td>
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(1) Annual manure and bedding generation volume of 35,775,537 gal is reduced by 33.3% by Aqua Innovations dewatering/treatment system, therefore annual volume is 23,862,283 gal.

(2) Parlor wastewater generation volume of 8 gal per cow per day x 3,796 milking cows = 11,084,320 gal per year. To be reduced by 33.3% using Aqua Innovation system resulting in 7,393,241 gals annually.

(3) Leachate and feed storage runoff stored in WSF2 will be processed through Aqua Innovations system where 80% of calculated volumes will be discharged as clean water.

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Total MOL Vol: 20,849,604

Days of Storage: 210

**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 June 7, 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 recommended to be added to the approval letter:

- Due to no percent fines analysis currently available on the over-burden soils, the soils analysis should be provided in post construction to verify that soils meet NRCS 629 (1/17) requirements.

*Anthony Salituro, EIT*
CAFO Intake Specialist
Subject: 4/9/2021 Permit Reissuance Inspection

Dear Mr. Betley:

On April 9, 2021 the Department of Natural Resources met with the representatives of Betley Farms LLC to conduct a full compliance inspection of your facility for the purposes of permit reissuance. Department observations, including photographs, and a record of our conversations are included in the enclosed report.

The final pages of the report include a summary section identifying areas of concern & action items which you should address.

Betley Farms LLC must submit a complete permit reissuance application through the Department’s ePermitting System no later than 9/30/2021. A list of all materials required for a complete application have been provided within the enclosed report. If you have any questions regarding the final application materials or the ePermitting submittal process feel free to contact me (contact info below) or Tony Salituro at (608) 267-7150 or Anthony.Salituro@Wisconsin.gov.

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

Sincerely,

Brian Hanson
Agricultural Runoff Management Specialist

Enc: 4/9/2021 Compliance Inspection Report

Electronic copy: Bill Schaumberg – Tilth Agronomy
Scott Frank - Shawano County LCD
Joe Baeten, Tony Salituro - DNR
CAFO Compliance Inspection Report

Inspection Date: 4/9/2021
Report Final Date: 4/15/2021
Operation Name: Betley Farms LLC
WPDES Permit #: WI-0063398-03-0

Farm Address:  
- **Main Dairy** - W1630 Re3dwood Drive, Pulaski, WI ; T25N R18E Sec 9
- **Ridge Farm** - 3686 Hofa Park Drive, Pulaski, WI ; T25N R18E Sec 30
- **Heifer Park Farm** — 2207 Cedar Road, Pulaski, WI ; T25N R17E Sec 8

On-Site Representative(s): Jeff Betley (Owner & Operator)
Report Author: Brian Hanson: DNR Agricultural Runoff Specialist
Other Participating Agencies: Bill Schaumberg—Tilth Agronomy

**Introduction**

On Friday April 9, 2021 Hanson met with Betley & Schaumberg at 09:00 at Betley Farms LLC site to conduct a permit reissuance walkover inspection. All three sites were inspected. No liquid precipitation had fallen on the day of the inspection, but a small amount of rain had fallen in the previous 48 hours. The temperature was in the 50's and cloudy. No permit violations were observed, and no water samples were collected. Hanson departed at approximately 11:00.

**Site Overview Diagram (Main Dairy, Ridge Farm & Heifer Park Farm)**
Site Overview Diagram (Main Dairy: orange lines = potential flow path of contaminated runoff, blue lines = stormwater flow path, pink lines = waste transfer system)

Site Overview Diagram (Ridge Farm: orange lines = potential flow path of contaminated runoff, blue lines = stormwater flow path, pink lines = waste transfer system)
SITE OBSERVATIONS:

Feedlot Runoff (Photo on page 5)
There are no longer any outdoor feedlots located on the farm. The previous outdoor lot was located at the main dairy south of the freestall barns. This lot and adjacent barn were abandoned & razed in 2020 following a recent expansion of the new freestall barns.

Calf Hutch Areas (Photos on pages 5-6)
There is 1 calf hutch area located on the farm at this time. It is located at the south end of the heifer park site. Currently all calf hutches are located under roof. While not part of normal operations, there may be times when some calf hutchtes are located outside of the building. In this case, any runoff generated would flow south across the adjacent crop field. Most calves and youngstock are raised by a separate custom heifer raising facility out of state.

Waste Storage Facilities (Photos on pages 6-12)
There are 5 liquid waste storage facilities located on the farm. 4 storages are located at the Main Dairy and 1 is located at heifer park site.

Manure at the main dairy is handled by a variety of collection channels, pipes, and pumps. Generally, Manure from the south & north freestall is pumped to WSF #4 on the west side of the farm. Manure from the middle barn is pumped to WSF #3 on the east side of the farm. Process wastewater from the parlor is pumped to WSF #1. Leachate and feedpad runoff is pumped from the leachate basin to WSF #3

Manure & bedding from the ridge farm & heifer park farm is scraped up manually and either land applied or hauled to and stored in one of the WSF’s.

Other solid manure is either land applied or stacked on the concrete access ramp of one of the WSF’s.

WSF # 1 has an earthen liner with a concrete floor. WSF #2 has an earthen liner. WSF #3,4,5 all have concrete liners.
Waste Storage Facilities—Continued

WSF #5 which was constructed in 2020 does have permanent markers embedded into the concrete wall along the access ramp. The other 4 storages do no have the required MOL or MOS markers currently installed. They previously had freestanding markers, but due to damage and fear of the pieces getting into manure pumps, the farm has removed the remaining freestanding markers and not replaced them with a different type of marker.

None of the storages currently have a safety fence installed and post construction documentation has yet to be submitted for WSF #5. Roach & Assoc. is aware of this and plans to submit it in the near future after the fence is installed.

A line of tress appears to have been planted along the eastern edge of WSF #4. Due to the proximity of these trees to the earthen liner of WSF #4, these trees should be removed or increased monitoring & maintenance of the earthen liner shall be performed to make sure the root system has not effected the integrity of the earthen liner.

Except for those items noted above, Liquid waste storage structures appear well-maintained and in good repair. See photo log for details.

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

Milking parlor washwater at the Main Dairy is collected and pumped to WSF #1 for long term storage.

Feed Storage Area Runoff (Photos on pages 13-16)

All feed storage areas and runoff controls are located at the main dairy. The feedpad is sloped so that all leachate & runoff flows to the southern edge of the feedpad. A collection channel along the southern edge of the feedpad then directs runoff into the leachate collection basin. The leachate basin is only sized to handle the first flush and once it fills up, the remaining runoff backs up in the collection channel and eventually overtops the channel and flows to the south across a vegetated treatment area. The vegetated treatment area was well vegetated and showed no signs of burn out or solids accumulation. There was 1 small gully forming just off the edge of the feedpad that will need to be addressed. This gully was the result of a tire track created in the field during wet soil conditions. The area should be regraded and revegetated as soon as possible.

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

Animal Mortality Disposal

Mortalities are picked up daily as needed by OJ Krull.

Ancillary Service Areas (Photo on page 16)

Preventative maintenance actions and visual inspections are occurring to minimize pollutant discharges from ancillary service and storage areas (i.e. storm water conveyance systems, driveways, etc.). At the time of the inspection, all stormwater channels were well vegetated and other areas were free of manure & feed solids. Farm should continue to manage these areas to minimize the chance of runoff from the production area.

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

RECORDS REVIEW

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

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

The permittee provided adequate documentation that the facility has a minimum of 180 days of liquid manure storage capacity.

The permittee has copies of their emergency response and monitoring and inspection plans onsite.

The permittee is up to date on required reporting and actions as specified in the Schedules section of permit.
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<td>Photo Description:</td>
<td>Standing on the west end of the calf hutch area looking southeast: View of the concrete yard located directly south of the calf hutch building. This area is used to house calf hutches only when animals are not able to be shipped to custom growers. Arrows indicate potential flow paths.</td>
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<td>Standing on the north side of WSF #1 looking southwest: View of WSF #1. Notice lack of safety fence.</td>
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Standing on the north side of WSF #1 looking south: View of berm separating WSF #1 & WSF #2.

Standing on the north side of WSF #2 looking southeast: View of WSF #2. Notice lack of safety fence & trees planted along eastern end.
Standing on south side of feedpad looking south:
Alternate view of trees planted in eastern berm of WSF #2

Photo Description:

Standing on the east side of WSF #3 looking west: View of northern part of WSF #3. Notice lack of safety fence.

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Standing at the Southeast corner of WSF #4 looking west: View of the southern edge of WSF #4. Notice solid manure stacked along the access ramp in the southwest corner.

Standing on the north side of WSF #5 looking south: View of the newly constructed WSF #5. Typically used as a satellite storage facility used to store manure prior to land application. Pipe visible in southeast corner stubbed in and capped just outside of the pit.
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**Photo Description:**

Standing on the north end of WSF #5 looking east: View of access ramp located in northeast corner of WSF #5. Permanent markers embedded in concrete safety wall. Also notice lack of safety fence.

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**Photo Description:**

Standing at southeast corner of heifer barn looking west: View of manure load out area associated with bedpack barn. No signs of current or past discharges.
Photo Description:

Standing at the northwest corner of the freestall barn looking east: View of the manure load out area associated with the freestall barn. No signs of current or past discharges.

Photo Location: Ridge Farm Freestall Barn

Date/Time of Photo: 4/9/2021 10:01

Photo #:

6644

Photo By:

Brian Hanson

Photo Log

Betley Farms LLC

4/9/2021

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Photo Description:

Standing on the north side of the manure load out area looking east: View of the back side of the containment walls. No signs of manure or other discharges.

Photo Location: Ridge Farm Freestall Barn

Date/Time of Photo: 4/9/2021 10:02

Photo #:

6646

Photo By:

Brian Hanson

Photo Log

Betley Farms LLC

4/9/2021
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<td>Photo Description:</td>
<td>Standing on the east side of the feedpad looking southwest: View of the feed storage area. Arrows indicate direction of flow.</td>
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<td>Photo Description:</td>
<td>Standing on the east side of the feedpad looking north: View of the eastern edge of the feedpad with raised lip to contain runoff. Arrows indicate direction of flow.</td>
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Standing near the leachate collection pit looking east: View of the eastern 1/2 of the runoff collection channel along the south edge of the feedpad.

Standing next to the leachate basin looking west: View of the western 1/2 of the collection channel along the south edge of the feedpad.
Standing on the south side of the leachate collection basin looking northeast: View of the leachate collection basin. Basin was full due to rain events over the past 2 days. Was being pumped into WSF #3 at the time of the inspection.

Standing on the south side of the feedpad looking south: View of the vegetated treatment area where runoff overflows the collection channel. Notice small gully forming in tire marks left from manure pumping equipment. This area needs to be regraded & seeded.
Standing on the south side of the feedpad looking south: View of VTA on east side of WSF #2. Arrows indicate flow path.

Standing on the east side of WSF #4 looking southeast: View of typical storwater channels located in between freestall barns. Water surface flows to surface inlets and then flows south and west to main drainage ditch. Areas were well vegetated.
SUMMARY:

Substantial Compliance

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

Areas of Concern

- WSF 1-4 do not have the required Maximum Operating Level (MOL) & Margin of Safety (MOS) markers. They were removed and not replaced.
- Trees along the east side of WSF #2 are very close in proximity to the earthen liner. Roots from the trees have the potential to affect the integrity of the earthen liner.
- None of the Waste Storage Facilities have a safety fence installed as required by NRCS Practice Standard 313.
- Small gully at the beginning of the vegetated treatment area is forming in equipment tire tracks.

Permit Violations

- No violations were observed during the inspection.

Action Items

- Submit a complete reissuance application by 9/30/2021. See additional details below.
- Regrade & Reseed small gully at the beginning of the vegetated treatment area for the feed storage area. By 7/1/2021, submit to the department photo documentation of required maintenance activities.
- Install safety fence per NRCS 313 around all waste storage facilities.
- Install MOL & MOS markers in WSF 1-4. By 7/1/2021, install and submit photo documentation of required markers.

Required in Next Permit Term

- Add Sample point for newly constructed WSF #5.
- Depending on the status & timing of proposed digester project, add sample point and permit language for Biogas Digesters.
- If not already completed, install MOS & MOL markers in WSF 1-4.
- Due to age of facilities, submit engineering evaluation of WSF #1 & WSF #2, which were constructed in 2001.

Materials Required as part of the Permit Application

Required materials must be submitted together as a complete permit application through the ePermitting System: http://dnr.wi.gov/permits/water/. The system will not allow you to electronically sign and submit your application until all of the following are included:

- 3400-025 form (Livestock/Poultry Operation WPDES Permit Application)
- 3400-025A form (Animal Units Calculation Worksheet)
- 3400-025G form (Evaluated Facilities of Systems Checklist)
- 3400-025C form (Reviewable Facilities of Systems Checklist)
- A soil survey map of the dairy’s production area
- A labeled aerial map showing the existing and proposed features and structures of the dairy’s production area
- Calculations documenting days liquid manure and process wastewater storage
- Supporting documentation for days storage calculations
- A complete 5-year Nutrient Management Plan (NMP). If necessary, include a description of permanent spray irrigation systems and any other landspreading or treatment systems (proposed or active)