

Permit Fact Sheet

General Information

Permit Number:	WI-0065790-02-0
Permittee Name:	Benton Dairy LLC DBA C Dairy
Address:	E7803 90 th Avenue
City/State/Zip:	Mondovi WI 54755
Discharge Location:	C Dairy (Main Farm): E7803 90 th Avenue, Mondovi, WI (<i>SW ¼ Sec. 19 & NE ¼ of the NW ¼ Sec. 30 T26N R11W</i>) Offsite Waste Storage: State Highway 85, Mondovi, WI (<i>NE ¼ of the SW ¼ Sec. 29 T26N R11W</i>)
Receiving Water:	Cranberry Creek within the Lowes and Rock Creek Watershed, and groundwaters of the state
Stream Classification:	303(d) Listed Impaired Water

Animal Units					
Animal Type	Current AU		Proposed AU (Note: If all zeroes, expansions are not expected during permit term)		
	Mixed	Individual	Mixed	Individual	Date of Proposed Expansion
Dairy Calves (under 400 lbs.)	2	0	0	0	-
Milking and Dry Cows	7280	7436	0	0	-
TOTAL	7282	7436	0	0	-

Facility Description

Benton Dairy LLC DBA C Dairy (C Dairy), previously owned by C Dairy LLC, is an existing Concentrated Animal Feeding Operation (CAFO) that is now owned and operated by Benton Dairy LLC and is currently managed by Martin Wayne. C Dairy currently has a total of 7,436 animal units (4,700 milking cows, 500 dry cows, 0 heifers, and 10 calves) and does not have plans to increase animal unit numbers during the upcoming five-year permit term. Based on the current herd size C Dairy has approximately 279 days of liquid manure storage capacity with the existing facilities and systems that are currently in place and authorized for use at the operation. C Dairy also plans to utilize a proposed manure digester facility to be constructed at the existing operation along with a newly constructed offsite liquid waste storage facility located on State Highway 85, approximately 1.5 miles southeast of the existing operation. The proposed digester facility (sample point 005) and the new offsite waste storage facility (sample point 004) will be covered under the proposed permit along with a number of the existing facilities that were covered under the previous permit. After the proposed permit has gone into effect both the digester facility (once constructed) and the new offsite waste storage facility will be authorized for use in accordance with permit conditions. Once the new facilities are in place and authorized for use, C Dairy will have approximately 376 days of liquid manure storage capacity with their current herd size.

C Dairy currently has 10,316 acres included in their nutrient management plan (NMP) that are available for land application of manure and process wastewater, of which 10,201 are considered spreadable acres. Of the total acreage, 1,763 are owned and 8,553 are controlled through contracts, rental agreements, leases, or are under manure agreements. C Dairy has also proposed a substantial modification to add approximately 2,136 additional landspreading acres to their current NMP, all of which are proposed to be controlled under manure agreements. During the public notice period for the proposed substantial modification, the Department received sufficient requests to hold a public informational hearing before issuing a final determination on the additional proposed landspreading acreage. The Department's final determination on the substantial modification to the current NMP will also apply to the five year NMP for the upcoming permit term. Therefore, the public informational hearing that was requested for the substantial modification to the NMP will be combined with the public informational hearing for reissuance of the proposed WPDES permit. The combined public informational hearing will be held virtually on **March 5, 2024** at 10:00 AM, at which point both the WPDES permit and substantial modification to the NMP will be open for public comment.

Substantial Compliance Determination

BENTON DAIRY LLC DBA C DAIRY IS IN SUBSTANTIAL COMPLIANCE WITH THE CURRENT PERMIT

Compliance determination entered by Clare Freix, Agricultural Runoff Management Specialist on December 12, 2023 (a summary of permit violations/noncompliance from the current permit term are outlined below)

1. Notice of Noncompliance: May 15, 2018

Permit Section 1.6.1: General Spreading Restrictions – *During dry weather conditions, manure or process wastewater may not run off the application site, nor discharge to waters of the state through subsurface drains.*

- On April 27, 2018 the Department observed manure which had migrated off an application site beyond the existing field boundary in which no discharges to waters of the state were observed. In response to the observed manure runoff, a perimeter tillage pass was completed in this area to prevent additional manure from leaving the field.

Compliance Demonstrated

2. Notice of Noncompliance: October 9, 2018

Permit Section 1.6: Nutrient Management (1.6.8 Spreading Site Submittals) – *The management plan may be amended at any time provided the proposed amendments are approved in writing by the department and meet the requirements of s. NR 243.14.*

- On September 28, 2018 the Department discovered that the boundaries of a field within the existing nutrient management plan had been expanded. Written Department approval for this plan amendment was required, however, was not obtained prior to landspreading taking place on the expanded portion of the field.
- On October 15, 2018 the Department confirmed that the expanded portion of the field was being converted into concrete, no longer allowing for future land applications to take place on this portion of the field. Therefore, the previous field boundaries were restored and written Department approval for this plan amendment was no longer necessary.

Compliance Demonstrated –

Close Out Date: October 30, 2018

3. Notice of Noncompliance: October 30, 2018

Permit Section 2.10: Heifer Lot Runoff Control System – Engineering Evaluation (applicable to the outdoor heifer lot and associated runoff control system, if not abandoned) –

- 1) *Submit management plan and implement interim control measures for the outdoor heifer lot by 09/01/2017*
- 2) *Submit plans and specifications to permanently correct any adverse runoff control conditions by 02/01/2018*

3) *Complete construction of runoff controls to permanently correct adverse runoff control conditions as approved by the Department by 09/01/2018 and submit post construction documentation within 60 days of completion of the project.*

- On October 15, 2018 the Department was on site and determined that the outdoor heifer lot had not been abandoned nor had any of the items required under permit section 2.10 been completed to date.
- On December 26, 2018 the Department received documentation that all animals were removed from the heifer lot. On September 19, 2019 the Department was on site and verified that the heifer lot had been completely abandoned and converted into a cropped field.

Compliance Demonstrated –

Close Out Date: October 3, 2019

4. October 14, 2019: Notice of Noncompliance

Permit Section 3.1.13: Submittal of Plans and Specifications – *In accordance with s. NR 243.15, the permittee shall submit plans and specifications for proposed new or upgraded reviewable facilities or systems to the Department approval prior to construction.*

- On July 13, 2017 the Department approved plans and specifications for a 120,000 square foot expansion of the existing feed storage area. On September 5, 2019 the Department received post construction documentation associated with the feed storage expansion which showed that the feed storage was expanded a total of 232,000 square feet. The additional 112,000 square feet in which the feed storage area was expanded was not previously approved by the Department prior to construction.
- On October 17, 2019 the Department received an **engineering evaluation* of the expanded portion of the feed storage area that was not previously approved by the Department.

Compliance Demonstrated –

Close Out Date: October 25, 2019

**On January 31, 2020, the Department completed its review of the engineering evaluation and determined that the entire expanded portion of the feed storage area meets the applicable requirements of ch. NR 243, Wis. Adm. Code.*

5. October 15, 2021: Notice of Noncompliance

Permit Section 1.6 Nutrient Management: *Land application practices shall not exceed crop nutrient budgets determined in accordance with NRCS Standard 590, the permit and s. NR 243.14 and shall be based on manure and process wastewater analyses, soil test, as well as other nutrient sources to a field.*

- The Department determined that overapplications of nitrogen from manure and/or fertilizer had occurred on a number of landspreading fields over the course of several years. On August 26, 2021 the Department discussed the overapplications with the operation, in which many of the occurrences were explained as being a result of the crop showing need for additional nitrogen during crop scouting. However, the Department concluded that a visual observation of a crop showing need for additional nitrogen could not be used as a basis for exceeding the allowed recommendations in this case.
- On October 28, 2021 the Department received a written response explaining why numerous overapplication of nitrogen from manure and/or fertilizer had occurred along with an explanation for how the operation will prevent overapplications of nitrogen in the future.

Compliance Demonstrated –

Close Out Date: November 9, 2021

Sample Point Designation For Animal Waste	
Sample Point Number	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)
001	WSF 1 (South) - Sample point 001 is for liquid waste storage facility one (WSF 1). WSF 1 is a concrete lined waste storage facility located directly south of WSF 2 (sample point 002) and has an approximate maximum operating level capacity of 23,068,849 gallons. Plans and specifications for WSF 1 were approved by the Department in 2018 and construction was completed also completed in 2018. WSF 1 accepts digested liquid manure which is transferred from the sand separation building (sample point 006) after sand has first been separated out and remaining liquids are then processed through the digester facility (sample point 005) before being sent back to the separation building. WSF 1 also accepts any liquid manure from WSF 2 which overflows through a connecting overflow transfer channel as well as contaminated runoff from the solid manure stacking pad (sample point 007). A secondary earthen containment basin is located directly east of WSF 1 to provide emergency containment of any liquid manure that is unintentionally released from WSF 1.
002	WSF 2 (North) - Sample point 002 is for liquid waste storage facility two (WSF 2). WSF 2 is a concrete lined waste storage facility located directly north of WSF 1 (sample point 001) and has an approximate maximum operating level capacity of 23,143,869 gallons. Plans and specifications for WSF 2 were approved by the Department in 2018 and construction was also completed in 2018. WSF 2 accepts digested liquid manure which is transferred from the sand separation building (sample point 006) after sand has first been separated out and remaining liquids are then processed through the digester facility (sample point 005) before being sent back to the separation building. WSF 2 also accepts any liquid manure from WSF 1 which overflows through a connecting overflow transfer channel. A secondary earthen containment basin is located directly east of WSF 2 to provide emergency containment of any liquid manure that is unintentionally released from WSF 2.
003	WSF 3 (PWW) - Sample point 003 is for liquid waste storage facility three (WSF 3). WSF 3 is a concrete lined waste storage facility located adjacent to the feed storage area (sample point 010). Plans and specifications for WSF 3 were approved by the Department in 2018 and construction was also completed in 2018. WSF 3 has an approximate maximum operating level capacity of 3,219,610 gallons and accepts leachate and feed storage runoff (process wastewater) from the feed storage area.
004	WSF 4 (Offsite) - Sample point 004 is for liquid waste storage facility four (WSF 4) located offsite on State Highway 85, approximately 1.5 miles southeast of the production area. Plans and specifications for WSF 4 were approved by the Department in 2023 and construction was also completed in 2023. WSF 4 is a concrete lined waste storage facility and has an approximate maximum operating level capacity of 19,555,413 gallons. WSF 4 serves as a reception point for dragline land application to surrounding landspreading acreage and accepts liquid manure from WSF 1 (sample point 001) or WSF 2 (sample point 002) during times when land application occurs or is otherwise used for additional waste storage as needed. Post construction documentation for WSF 4 shall be submitted in accordance with the schedules section of the permit (permit section 2.3).
005	Digester - Sample point 005 is for the liquid manure digester facility. Plans and specifications for the digester facility were approved by the Department in 2022 and construction was completed in 2023. The digester facility processes the remaining liquid manure transferred from the sand separation building (sample point 006) after sand has been separated out. Digested liquid manure is transferred back to the sand separation building where it is then transferred to either WSF 1 (sample point 001) or WSF 2 (sample point 002). Post construction documentation for the digester facility shall be submitted in accordance with the schedules section of the permit (permit section 2.4).
006	Sand & Solid Separation - Sample point 006 is for the sand and solid manure separation building. Plans and specifications for the separation facility were approved by the Department in 2018 and construction was also

Sample Point Designation For Animal Waste	
Sample Point Number	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)
	completed in 2018. Plans and specifications to modify the separation facility were later approved by the Department in 2023 and construction of the modifications was also completed in 2023. The modified separation facility includes an additional reception tank which feeds into the separation system. Vacuum trucks are used to transport liquid manure, contaminated sand bedding, and wastewater generated within the barns and milking parlor into the reception tank. Sand is then separated out and returned to the barns to be reused as bedding. Manure solids can also be separated out as needed, which are then directly land applied or are otherwise placed on the solid manure stacking pad (sample point 007). Representative samples shall be taken for manure solids, or for any contaminated, rejected, or recycled sand bedding which are directly land applied from the separation building. Post construction documentation for the modifications to the separation facility shall be submitted in accordance with the schedules section of the permit (permit section 2.5).
007	Solid Manure Stacking Pad - Sample point 007 is for the solid manure stacking pad located on the south side of WSF 1 (sample point 001). Plans and specifications for the solid manure stacking pad were approved by the Department in 2018 and construction was also completed in 2018. The solid stacking pad is used to store miscellaneous sources of solid manure generated by the operation that are not directly land applied and a portion of the pad is also utilized to compost animal mortalities. The stacking pad is a concrete lined pad with concrete wall surrounding the outer perimeter. The stacking pad slopes toward WSF 1 so that all leachate and contaminated runoff from the stacking pad surface flows directly into WSF 1. Representative samples shall be taken for solid manure and compost material that is land applied from the stacking pad.
008	Miscellaneous Solids - Sample point 008 is for miscellaneous sources of solid manure, separated manure solids, solids removed from liquid waste storage facilities, manure laden bedding, recycled or rejected sand, waste feed, etc. which are directly land applied. Representative samples shall be taken for each solid source that is directly land applied.
009	Headland Stacking Sites - Sample point 009 is for solid manure land applied from approved headland stacking sites. Representative samples shall be taken from each stacking site prior to land application. Stacking sites are defined as part of the production area and therefore are subject to the Production Area Discharge Limitations section of the permit. Weekly inspections of stacking sites are required and shall be recorded according to the monitoring and inspection program.
010	Feed Storage Area & Runoff Controls - Sample point 010 is for visual monitoring and inspection of the feed storage area and associated runoff control system. Plans and specifications of the feed storage area and associated runoff controls were approved by the Department in 2018 and construction was completed the same year. The associated runoff control system directs leachate and feed storage area runoff into WSF 3 (sample point 003) and was designed for total containment of leachate and feed storage runoff for up to a 25 year 24 hour storm event (or greater). Proper operation and maintenance are required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to the Monitoring and Inspection Program.
011	Storm Water Runoff Controls - Sample point 011 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes roof gutters and downspout structures, drainage systems, storm water ponds, grassed waterways and any other diversion systems which transport uncontaminated storm water. Proper operation and maintenance are required to keep uncontaminated runoff diverted away from manure and process wastewater handling systems. Weekly inspections are required and shall be recorded according to the Monitoring and Inspection Program.

1 Livestock Operations - Proposed Operation and Management

Production Area Discharge Limitations

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

Runoff Control

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

Manure and Process Wastewater Storage

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

The permittee currently has approximately 279 days of storage for liquid manure with the facilities currently authorized for use at the operation. Once the new offsite waste storage facility is authorized for use following permit reissuance, the permittee will have approximately 376 days of storage for liquid manure. The permittee must maintain 180 days of storage, unless temporary reductions in required storage are approved by the Department.

Solid Manure Stacking

The operation has proposed to stack solid manure. All stacking of solid manure shall be done in accordance ch. NR 243, Wis. Adm. Code, which includes restrictions from NRCS Standard 313. Stacking of manure is considered to be part of the production area and is subject to the Production Area Discharge Limitations.

Ancillary Service and Storage Areas

The permittee shall take preventative maintenance actions and conduct visual inspections to minimize pollutant discharges from areas of the operation that are not part of the production area or land application areas. These areas are called ancillary service and storage areas and include access roads, shipping and receiving areas, maintenance areas, refuse piles and CAFO outdoor vegetated areas.

Nutrient Management

With 7,436 animal units (4,700 milking cows, 500 dry cows, 0 heifers, and 10 calves), it is estimated that approximately 64,755,705 gallons of manure and process wastewater and 720 tons of solid manure will be produced per year. The permittee owns *approximately* 1,763 acres of cropland and rents about 8,553. Given the rotation commonly used by the permittee, approximately 6,000 to 6,700 acres are planned to receive manure and process wastewater on an annual basis. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to

maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

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

The permittee must also implement conservation practices when applying manure near navigable waters and their conduits, referred to as the Surface Water Quality Management Area (SWQMA). These practices include a 100-foot setback from navigable waters and their conduits, a 35-foot vegetated buffer adjacent to the navigable water or conduit, or a practice that provides equivalent pollutant reductions equivalent to or better than the 100-foot setback. In addition, the permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure ($\geq 12\%$ solids) on frozen or snow-covered ground during February and March.

Monitoring and Sampling Requirements

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

Sampling Points

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

1.1 Liquid Sample Points

Sample Point Number: 001- WSF 1 (South); 002- WSF 2 (North); 003- WSF (PWW); 004- WSF 4 (Offsite); 005- Digester

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

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

1.2 Solid Sample Points

Sample Point Number: 006- Sand & Solid Separation; 007- Solid Manure Stacking Pad; 008- Misc. Solids; 009- Headland Stacking Sites

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

1.3 Runoff Control Sampling Points (No Sampling Required)

Sample Point Number: 010- Feed Storage & Runoff Controls and 011- Storm Water Runoff

1.4 Changes from Previous Permit

Sample Point: 001

Previous Permit: HDPE Waste Storage Facility (Abandoned)

Proposed Permit: Waste Storage Facility (South)

Explanation: The HDPE liquid waste storage facility has been abandoned and is no longer in existence at the operation. Sample point 001 is now applicable to the southern liquid waste storage facility.

Sample Point: 002

Previous Permit: Waste Storage Facility (South)

Proposed Permit: Waste Storage Facility (North)

Explanation: The southern liquid waste storage facility has been changed to sample point 001 and sample point 002 is now applicable to the northern waste storage facility.

Sample Point: 003

Previous Permit: Waste Storage Facility (North)

Proposed Permit: Waste Storage Facility (Process Wastewater)

Explanation: The northern liquid waste storage facility has been changed to sample point 002 and sample point 003 is now applicable to the liquid waste storage facility used for process wastewater from leachate and feed storage area runoff.

Sample Point: 004

Previous Permit: Waste Storage Facility (Process Wastewater)

Proposed Permit: Waste Storage Facility (Offsite)

Explanation: The process wastewater waste storage facility for leachate and feed storage area runoff has been changed to sample point 003 and sample point 004 is now applicable to the new offsite liquid waste storage facility.

Sample Point: 005

Previous Permit: Miscellaneous Sources of Solid Manure

Proposed Permit: Manure Digester Facility

Explanation: Miscellaneous sources of solid manure are now covered under sample point 008 and sample point 005 is now applicable to the proposed manure digester facility.

Sample Point: 006

Previous Permit: Solids Removed From Liquid Waste Storage Facilities

Proposed Permit: Sand & Solid Separation Facility

Explanation: Solids removed from liquid waste storage facilities are now covered under sample point 008 for miscellaneous sources of solid manure and sample point 006 is now applicable to the sand & solid manure separation facilities and the associated separated solids.

Sample Point: 007

Previous Permit: Headland Stacking Sites

Proposed Permit: Solid Manure Stacking Pad

Explanation: Headland stacking sites and associated solid manure is now covered under sample point 009 and sample point 007 is now applicable to the solid manure stacking pad.

Sample Point: 008

Previous Permit: Calf Hutch Area & Associated Runoff Controls (Abandoned)

Proposed Permit: Miscellaneous Sources of Solid Manure

Explanation: The calf hutch area and associated runoff controls have been abandoned and are no longer in existence at the operation. Sample point 008 is now applicable to miscellaneous sources of solid manure.

Sample Point: 009

Previous Permit: North Feed Storage Area & Associated Runoff Controls (Abandoned)

Proposed Permit: Headland Stacking Sites

Explanation: The north feed storage area and associated runoff controls have been abandoned and are no longer in existence at the operation. Sample point 009 is now applicable to headland stacking sites and associated solid manure.

Sample Point: 010

Previous Permit: Feed Storage Area & Associated Runoff Controls

Proposed Permit: Feed Storage Area & Associated Runoff Controls

Explanation: Sample point 010 is still applicable to the feed storage area and associated runoff control system which includes the recent feed storage expansion (now the only feed storage area at the operation).

Sample Point: 011

Previous Permit: Storm Water Runoff Controls

Proposed Permit: Storm Water Runoff Controls

Explanation: No changes.

Sample Point: 012

Previous Permit: Outdoor Heifer Lot & Associated Runoff Controls (Abandoned)

Proposed Permit: None

Explanation: The outdoor heifer lot and associated runoff controls have been abandoned and are no longer in existence at the operation. There is no longer a need for sample point 012 and it has been removed.

2 Schedules

2.1 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: Develop a written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	05/01/2024

2.2 Monitoring & Inspection Program

Use of the department’s monitoring and inspection program template is encouraged, but optional.

Required Action	Due Date
Proposed Monitoring and Inspection Program: Consistent with the Monitoring and Sampling Requirements subsection, the permittee shall submit a proposed monitoring and inspection program within 60 days of the effective date of this permit.	05/31/2024

2.3 Manure Digester System - Post Construction Documentation

Applicable to the digester facility and associated transfer system (sample point 005)

Required Action	Due Date
Post Construction Documentation: Post construction documentation for construction of the manure digester system and the associated waste transfer system shall be submitted within 60 days of completion of the project (DNR Project # R-2021-0228).	

2.4 Annual Reports

Submit annual reports by January 31 of each year in accordance with the annual reports subsection in standard requirements.

Required Action	Due Date

Submit Annual Report #1: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2025
Submit Annual Report #2: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2026
Submit Annual Report #3: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2027
Submit Annual Report #4: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2028
Submit Annual Report #5: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2029
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	

2.5 Nutrient Management Plan

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

Required Action	Due Date
Submit NMP Update #1: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2025
Submit NMP Update #2: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2026
Submit NMP Update #3: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2027
Submit NMP Update #4: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2028
Submit NMP Update #5: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2029
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	

2.6 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	10/02/2028

2.7 Explanation of Schedules

All schedules included in the proposed permit are standard permit schedule items which are included in most CAFO WPDES permits, with the exception of the following:

- **Permit Section 2.3: Manure Digester System – Post Construction Documentation** – *This permit schedule is applicable to the manure digester system (sample point 005) in which construction is proposed to be completed by Summer of 2024. Post construction documentation is required to be submitted within 60 days upon completion of the project.*

2.8 Groundwater Monitoring Recommendation

Per the correspondence memorandum dated November 17, 2023 – Ian Anderson, DNR CAFO Hydrogeologist, is not recommending that groundwater monitoring be required at this time. Therefore, groundwater monitoring has not been included as requirement in the proposed permit. See the Groundwater Monitoring Review Memo included within the attachments section for further details on this recommendation.

Attachments:

Sample Point Map
Reissuance Inspection Report
Stipulation of Permit Acceptance
Permit Application & Plan Submittals
Five-Year NMP Conditional Approval Letter
Plan & Spec Conditional Approval Letter (Manure Digester)
Plan & Spec Conditional Approval Letter (Offsite Waste Storage)
Plan & Spec Conditional Approval Letter (Sand Separation System)
180 Day Liquid Manure Storage Review Letter
Groundwater Monitoring Review Memo
Public Notice

Expiration Date:

March 31, 2029

Prepared By: Clare Freix, Agricultural Runoff Management Specialist

Date: December 28, 2023



WPDES Permit No. WI-0065790-01-1

October 15, 2021

Marty Wayne
C Dairy, LLC
PO Box 236
Greenwood, WI 54437

Subject: August 26, 2021 Reissuance Inspection Report – Response Requested

Dear Mr. Wayne:

On August 26, 2021 the Department met with the representatives of C Dairy, LLC at the operation located at E7803 90th Avenue, Mondovi, Wisconsin to conduct a full site inspection for permit reissuance. Department observations and a record of our conversation is included in the enclosed report. The Department believes your operation is not currently in substantial compliance with the permit. Please see the enclosed notice of noncompliance dated October 15, 2021.

A complete permit reissuance application must be submitted through the Department's ePermitting System (<https://dnr.wisconsin.gov/permits/water>) no later than **December 30, 2021**. A list of materials required for a complete permit application have been provided within the summary section of the enclosed report. The summary section also includes a list of additional action items to be completed. Please refer to the enclosed report for a complete list of required action items and associated deadlines.

Please do not hesitate to contact me if you have any questions or concerns.

Sincerely,

Clare Freix
Agricultural Runoff Specialist
Phone: (715) 492-4465
Email: Clare.Freix@Wisconsin.gov

Enc: August 26, 2021 Reissuance Inspection Report
Notice of Noncompliance dated October 15, 2021

Cc: Ben Uvaas, Aaron O'Rourke, Jill Schoen, Brad Johnson, Tony Salituro – WDNR
Cyndi Heath, Abby Rotering – Black's Valley Ag
Dave McDaniel – Auth Consulting & Associates
Chase Cummings, Bob Kaner – Dunn County Land Conservation

CAFO Compliance Report (October 15, 2021)

Inspection Date: August 26, 2021

Inspection Type: Permit Reissuance Inspection

Operation Name: C Dairy, LLC

WPDES Permit No. 0065790-01-1

Operation Address: E7897 90th Avenue, Mondovi, WI 54755

On Site Representatives: Wendy Bautch (C Dairy LLC), Marty Wayne (C Dairy LLC), Cyndi Heath (Blacks Valley Ag), Abby Rotering (Blacks Valley Ag)

DNR Staff/Report Writer: Clare Freix, Agricultural Runoff Specialist



BACKGROUND

The C Dairy, LLC operation was previously owned by Cranberry Creek Dairy, LLC. An individual WPDES permit was first issued to Cranberry Creek Dairy, LLC on January 1, 2008. Permit coverage was reissued to Cranberry Creek Dairy, LLC under the WPDES general permit on January 1, 2015. The operation's third and current permit was reissued to Cranberry Creek Dairy, LLC under another individual WPDES permit on August 1, 2017. C Dairy, LLC purchased the operation from Cranberry Creek Dairy, LLC in December of 2017 and permit coverage was transferred to C Dairy, LLC on April 1, 2019. The current permit is set to expire on June 30, 2022.

On August 26, 2021 at approximately 10 AM Clare Freix, Jill Schoen (DNR), and Brad Johnson (DNR) met with Wendy Bautch, Marty Wayne, Cyndi Heath, Abby Rotering, Chase Cummings (Dunn County Land Conservation), and Bob Kaner (Dunn County Land Conservation) at the operation. The purpose of the site visit was to conduct a full compliance inspection for permit reissuance. Weather conditions were overcast with temperatures in the low 70s. Approximately 1.5 – 2 inches of precipitation had occurred within 72 hours prior to the inspection.

SITE OVERVIEW

(see next page)

C Dairy, LLC: 2020 Aerial Imagery Obtained From DNR Surface Water Data Viewer

Manure Transfer -----> Leachate & FSA Runoff
 Storm Water Flow -----> Flow/Transfer ----->



Unnamed Tributary to Cranberry Creek (WBIC 2117800)

Proposed Manure Digester (to be owned & operated by Brightmark Energy)

Proposed Building Expansion (Manure Dryer)

Solids Separation Building

Freestall Barn (Milking)

WSF 2

Overflow Channel

Pump Out Tank

WSF 1

Solid Stacking Pad

Storm Water / Secondary Containment Basin

Load Station

Calf Hutch Area (Abandoned)

Calf Barn (Discontinued)

Feed Bunkers (Abandoned)

Treatment/Cull Cow Barn

Sand Separation Building (Discontinued)

Parlor

Freestall Barn (Milking)

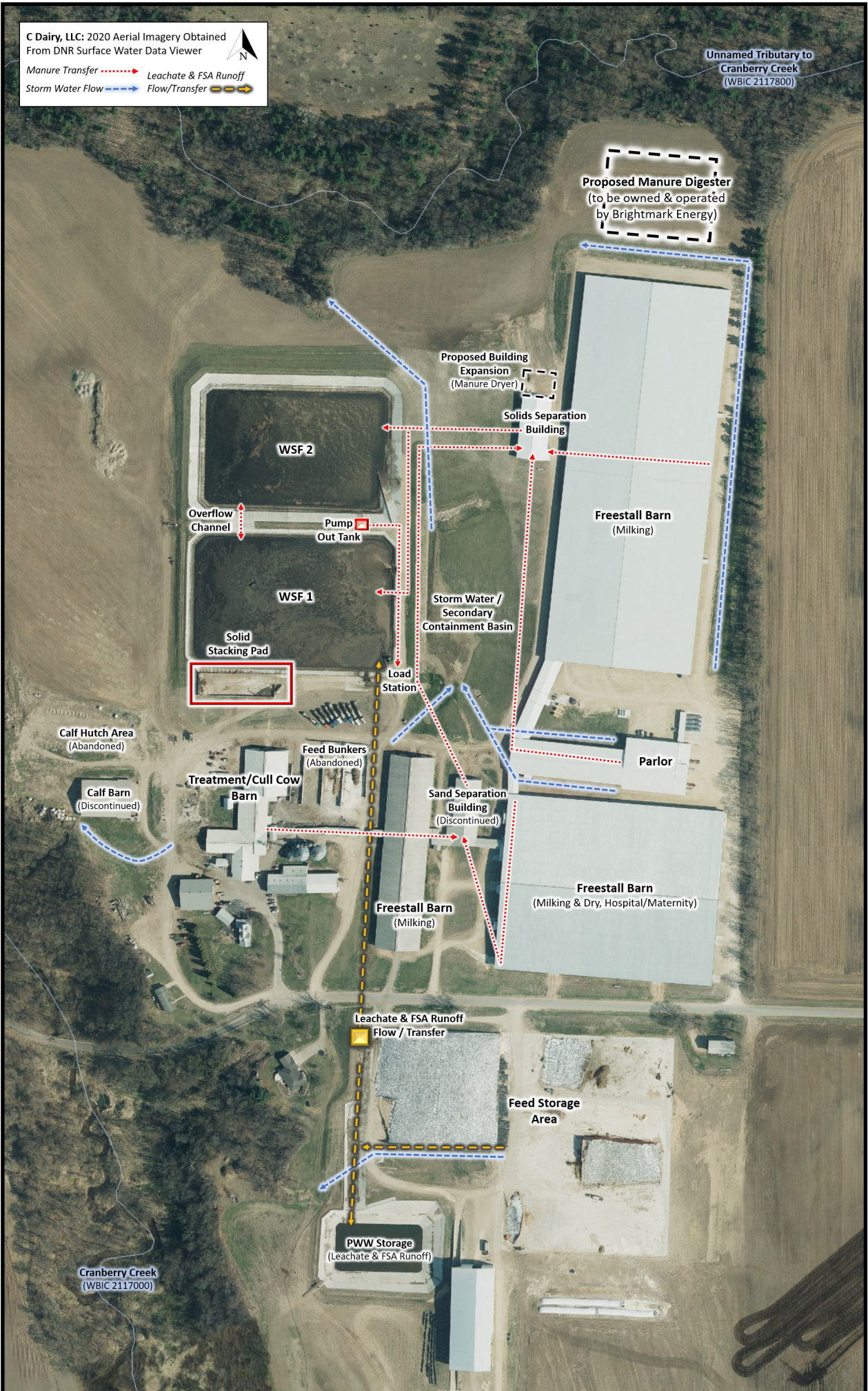
Freestall Barn (Milking & Dry, Hospital/Maternity)

Leachate & FSA Runoff Flow / Transfer

Feed Storage Area

Cranberry Creek (WBIC 2117000)

PWW Storage (Leachate & FSA Runoff)



SITE OBSERVATIONS

Feedlot Runoff

The operation once utilized an outdoor earthen feedlot located approximately 0.25 miles west of the site. All animals were removed from the lot in January of 2019 and the lot has now been converted into a cropped field. The schedule items outlined under permit section 2.10 of the current permit for the engineering evaluation of the heifer lot runoff control system have been addressed.

The operation also utilized a calf hutch area located at the western end of the site just north of a covered calf barn. All youngstock is now raised off site and the calf hutch area has been abandoned and the calf barn has been converted into storage. The schedule items outlined under permit section 2.8 of the current permit for the engineering evaluation of the calf hutch area runoff control system have been addressed.

The operation now houses all animals within covered facilities under a roof.



Photo 1 (left): Looking north west across the abandoned calf hutch area. The area has been cleared of all calf hutches and associated waste.

Waste Storage Facilities

The operation once utilized a HDPE lined waste storage facility (WSF) that was constructed in 2006, which has now been abandoned. The 2006 WSF was previously located in the area where the milking parlor has been constructed. Plans and specifications to abandon the 2006 WSF were approved by the Department on July 18, 2018 and post construction documentation was submitted on September 5, 2019.

The operation utilizes two WSFs for liquid manure. WSF 1 and WSF 2 are concrete lined storage facilities that were constructed in 2018, each having an approximate maximum operating level (MOL) capacity of 23,000,000 gallons. A storm water basin located directly east of WSF 1 and WSF 2 was also installed in 2018. Storm water runoff generated from a large portion of the site is directed into the basin which eventually discharges north toward an unnamed tributary to Cranberry Creek. A valve was installed at the point where the basin discharges, allowing the basin to function as a secondary containment in the event of an emergency with WSF 1 or WSF 2. Plans and specifications for WSF 1, WSF 2, and the storm water basin were approved by the Department on July 18, 2018 and post construction documentation was submitted on September 5, 2019. The schedule items outlined under permit sections 2.9 and 2.11 of the current permit for construction of additional liquid manure storage and the installation of permanent markers have been addressed.



Photo 2 (top left): Looking north from the south east corner of WSF 1. A safety fence was observed around the entire perimeter of the storage facility.



Photo 3 (right): Looking at the concrete ramp within WSF 1. Notches which serve as permanent markers can be seen within the concrete.



Photo 4 (bottom left): Looking west at the pump out tank between WSF 1 and WSF 2. The pump tank transfers the contents of each storage to the load station located at the south east corner of WSF 1 (pictured in photo 2) to be land applied.



Photo 5 (left): Looking north from the south east corner of WSF 2. Notches which serve as permanent markers can be seen on the concrete ramp. A safety fence was also observed around the entire perimeter of the storage facility.



Photo 6 (right): Looking north across the storm water basin that can be used as secondary containment in the event of an emergency with WSF 1 or WSF 2.

Liquid manure generated within the northern most freestall barn and wastewater from the milking parlor are pumped to the solid manure separation building. Plans and specifications for the solids separation building and associated transfer systems were approved by the

Department on July 18, 2018 and post construction documentation was submitted on September 5, 2019. A small expansion of the building was currently in progress where a dryer will be installed to further dry separated manure solids.

Liquid manure generated within the other barns is transferred to the sand separation building. Plans and specifications for the sand separation building and associated transfer system were approved by the Department on November 12, 2009 and post construction documentation was submitted on July 12, 2010. The operation no longer uses sand bedding and the sand separation building is only used for transferring liquid manure to the solids separation building. Separated manure solids are temporarily staged within the solids separation building where they will be dried and eventually returned to the barns to be used for bedding. The operation has the option to pump the remaining liquids from the solids separation building to either WSF 1 or WSF 2. Once WSF 1 or WSF 2 has reached capacity, a concrete connection channel allows liquid manure to overflow into the opposite storage facility.

Bautch and Wayne explained the operation may have some interest in occasionally distributing separated manure solids offsite as requested. The operation may transfer responsibility of de minimus quantities of solid manure distributed offsite without written Department approval, provided all necessary record keeping and reporting requirements are also met. A de minimus amount of solid manure distributed to another person is no more than 175 cubic feet within a 30 day period and no more than 525 cubic feet within a 12 month period.



Photo 7 (top left): Looking at the waste transfer lanes within the sand separation building. The operation no longer uses sand bedding, however, the transfer system within the building is still in use.



Photo 8 (right): Looking at a manure laden sand pile within the sand separation building. Sand is still being flushed out of the manure transfer system since the operation discontinued use of sand bedding. Manure laden sand that is flushed out is piled above the transfer lanes (pictured in photo 7) to allow liquids to drain out prior to being land applied or brought to solid manure storage.



Photo 9 (bottom left): Looking within the solid manure separation building. Separated manure solids are staged within the building and are returned to the barns to be used for bedding. A proposed expansion to the building will include the installation of dryer to further dry out manure solids prior to being brought back to the barns.



Photo 10 (left): Looking at the manure transfer lanes within the solids separation building. All liquid manure generated by the operation is transferred to the solids separation building. After manure solids are separated out, remaining liquids are transferred to WSF 1 or WSF 2.



Photo 11 (right): Looking east at the overflow channel between WSF 1 and WSF 2. The channel was clear of manure and other debris.

During the site visit, Bautch and Wayne explained future plans to lease a portion of land at the north end of the site to Brightmark Energy where a proposed digester facility will be constructed. All liquid manure generated by C Dairy, LLC would be transferred to the proposed digester facility via vac tracks for processing. Once processed, liquid manure would be transferred back to WSF 1 or WSF 2 where it would be land applied by C Dairy, LLC according to their WPDES permit and approved nutrient management plan (NMP). Bautch and Wayne further explained that the proposed digester facility would be owned and operated exclusively by Brightmark Energy and that C Dairy, LLC would not be involved in any of the operation and management of the digester. Therefore, C Dairy, LLC would like to transfer responsibility of manure within the digester system to Brightmark Energy and resume responsibility of the manure once it is returned to C Dairy's Waste Storage Facilities.

C Dairy, LLC may obtain written department approval to transfer responsibility of manure or process wastewater that is given away to another operation under a WPDES permit. Therefore, Brightmark Energy would need to obtain WPDES permit coverage for the Department to consider a written approval to transfer responsibility of C Dairy, LLC's manure to Brightmark Energy while in the digester system. If Brightmark Energy does not, or is unable to obtain WPDES permit coverage, then C Dairy, LLC would maintain responsibility of their manure while in the digester system. Furthermore, plans and specifications for the proposed digester must be submitted to the Department for approval prior to construction.



Photo 12 (left): Looking north across a grassy area at the north end of the site. The operation plans to lease this area to Brightmark Energy for the construction of a proposed digester facility. The proposed digester will be owned and operated by Brightmark Energy and will process manure generated by C Dairy, LLC.

The operation also utilizes a concrete lined solid stacking pad located off the south west corner of WSF 1. The stacking pad is used to store all sources of solid manure generated by the operation. Animal mortalities are also composted on the stacking pad. Leachate and runoff generated from the stacking pad flows directly into WSF 1. Plans and specifications for the stacking pad were approved by the Department on July 18, 2018 and post construction documentation was submitted on September 5, 2019.



Photo 13 (right): Looking east toward the solid manure stacking pad at the south west corner of WSF 1. The concrete walls around the perimeter contain material within the stacking pad boundaries. Leachate and runoff from the stacking pad flows directly into WSF 1.

The operation also utilizes a liquid waste storage facility located at the south end of the site for leachate and feed storage runoff. The process wastewater storage is a concrete lined storage facility that was constructed in 2018 with an approximate MOL capacity of 3.3 million gallons. Plans and specifications for the process wastewater storage were approved by the Department on July 13, 2017 and post construction documentation was submitted on September 5, 2019.



Photo 14 (left): Looking south east from the north west corner of the process wastewater storage that is used for leachate and feed storage runoff. A white post (pictured left) can be seen along the north wall of the storage near the outlet pipe which contains permanent markers. A safety fence was also observed around the entire perimeter of the storage.

Feed Storage Area Runoff

The operation once utilized concrete feed bunkers located toward the center of the site. Permit section 2.7 of the current permit includes a schedule to abandon the feed bunkers by December 1, 2017. During the Department's midterm compliance inspection on September 19, 2019 the feed bunkers were being used to store high moisture corn and the Department was informed the bunkers would be abandoned once the remaining feed had been fed out. While on site, Freix verified the bunkers had been cleared of all remaining feed, addressing permit section 2.7 of the current permit. Bautch and Wayne also stated that the operation plans to completely demolish the bunkers at some point in the future.



Photo 15 (right): Looking north within the abandoned concrete feed bunkers. All remaining feed has been removed and the operation plans to demolish the bunkers in the future.

The operation now utilizes a large concrete feed storage area located at the south end of the site. The feed storage was initially constructed in 2010 and was approximately 1.2 acres in size. A runoff control system was also constructed in 2012 along the western edge of the feed storage, which included a concrete tank for first flush collection and VTA. Contents of the collection tank were pumped to the 2006 WSF (now abandoned) and excess leachate and feed storage runoff overflowed through a transfer swale and then across the VTA. Plans and specifications for the original feed storage area and associated runoff control system were approved by the Department on July 9, 2012 and post construction documentation was submitted on January 14, 2013.

The feed storage area was later expanded in 2018 and is now approximately 8 acres in size. The feed storage runoff control system was also upgraded in 2018 to accommodate the expansion. All leachate and feed storage runoff flows toward a concrete transfer swale along the western edge of the feed storage where it is directed into the process wastewater storage facility.



Since upgrades to the runoff control system were completed, the VTA has been abandoned. However, the first flush collection tank at the north west corner of the feed storage is still in place. Any contents collected within the tank are now pumped to WSF 1 as needed.

Photo 16 (left): Looking at the first flush collection tank that was installed as part of the runoff control system when the feed storage area was first constructed. The contents of the tank are now pumped to WSF 1 as needed. A considerable amount of vegetation and debris was observed around the tank inlets.

Plans and specifications for the feed storage expansion and runoff control system upgrades were approved by the Department on July 13, 2017 and post construction documentation was submitted on September 5, 2019. Based on the post construction documentation, the foot print of the feed storage expansion was larger than what was approved. The Department issued a notice of noncompliance on October 14, 2019 and requested an engineering evaluation of the unapproved portion of the feed storage area. An evaluation was submitted on October 17, 2019 and the Department determined no further action was required. The schedule items outlined under permit section 2.6 of the current permit for construction of the feed storage area and associated runoff controls have been addressed.



Photo 17 (right): Looking east along the southern edge of the feed storage area. Dark liquid can be seen along this edge of the feed storage.



Photo 18 (top left): Looking south down the concrete transfer swale that directs leachate and feed storage runoff into the process wastewater storage facility.



Photo 19 (right): Looking east down the concrete transfer swale which directs leachate and feed storage runoff from the east portion of the feed storage into the transfer swale pictured in photo 18.



Photo 20 (bottom left): Looking west at the end of the concrete transfer swale pictured in photo 18 where leachate and feed storage runoff enter the process wastewater storage facility.

On August 8, 2019 the Department approved plans and specifications to construct an additional expansion to the feed storage area. Construction of the approved expansion has not commenced to date and the Department's approval has expired. During the site visit, Bautch and Wayne explained that the operation may no longer move forward with the expansion and may add walls around the existing feed storage area instead, in which case Department plan approval would no longer be necessary. However, if the operation decides to move forward with the feed storage expansion, plans and specifications must be resubmitted to the Department for approval prior to construction.

Animal Mortality Disposal

The operation once utilized an incinerator to cremate all mortalities on site. Use of the incinerator has been discontinued and the operation now composts all animal mortalities on the concrete solid stacking pad. Once mortalities have finished composting, the composted material is land applied according to the operation's WPDES permit and approved NMP.



Photo 21 (left): Looking at the incinerator previously used to cremate the operation's animal mortalities.



Photo 22 (right): Looking west across the concrete solid stacking pad where animal mortalities are composted. Mortality compost material can be seen pictured left.

Ancillary Service & Storage Areas

During the Department's midterm compliance inspection on September 19, 2019 erosion within a storm water conveyance at the western end of the site was identified as an area of concern. Storm water from the areas around the buildings and driveways directly south of WSF 1 discharge west through the conveyance toward Cranberry Creek. The operation has since taken actions to address the Department's concerns and rock has been placed within the storm water conveyance to prevent future erosion.

No discharge concerns were observed from ancillary service and storage areas.



Photo 23 (left): Looking at the storm water conveyance at the west end of the site just south of the abandoned calf hutch area and former calf barn. The operation has addressed past erosion issues in this area and have placed rock within the flow path to prevent future erosion.

RECORDS REVIEW

Based on findings during a pre-inspection file review, the operation reported a number of overapplications from manure and fertilizer that had occurred over the last several years.

Current WPDES Permit – Provided on site.

Production Area Inspection Records – Provided on site.

Emergency Response Plan – Provided on site.

Monitoring & Inspection Plan – Not provided on site.

NMP & Land Application Records – Provided on site. (Land application records were not provided on site. Jeremy Radle maintains land application records for C Dairy, LLC and was not present during the inspection.)

Documentation of 180 Days Liquid Manure Storage – Provided on site.

PERMIT SCHEDULE (Remaining Schedules)

Permit Section 2.1 Emergency Response Plan

- Emergency Response Plan (Due 09/01/2017) – Completed

Permit Section 2.3 Annual Reports

- Annual Report #1 (Due 01/31/2018) – Completed 01/29/2018

Permit Section 2.2 Monitoring & Inspection Program

- Monitoring & Inspection (Due 09/01/2017) – Completed

Permit Section 2.4 Nutrient Management Plan

- NMP Update #1 (Due 03/31/2018) – Completed 03/09/2018

- Annual Report #2 (Due 01/31/2019) – Completed 01/30/2019
- Annual Report #3 (Due 01/31/2018) – Completed 01/28/2020
- Annual Report #4 (Due 01/31/2018) – Completed 01/26/2021
- Annual Report #5 (Due 01/31/2018) – Upcoming
- NMP Update #2 (Due 03/31/2019) – Completed 03/30/2019
- NMP Update #3 (Due 03/31/2020) – Completed 02/21/2020
- NMP Update #4 (Due 03/31/2021) – Completed 03/12/2021
- NMP Update #5 (Due 03/31/2022) – Upcoming

Permit Section 2.5 Submit Permit Reissuance Application

- Permit Reissuance Application (Due 12/30/2021) – Upcoming

Permit Section 2.6 South Feed Storage Area – Engineering Evaluation

- Corrections & Post Construction (Due 11/01/2017) – Constructed 2018, post construction submitted 09/05/2019

Permit Section 2.7 North Feed Storage Area – Abandonment

- Complete Abandonment (Due 12/01/2017) – Completed 2019

Permit Section 2.8 Main Dairy (calf hutch area) Runoff Control System – Engineering Evaluation

The calf hutch area was abandoned in 2019 and the following schedules are no longer necessary.

- Plans & Specifications (Due 10/01/2017) – N/A
- Corrections & Post Construction (Due 09/01/2018) – N/A

Permit Section 2.9 Manure Storage Facility – Installation of 180 Day Liquid Manure Storage

- Complete Installation (Due 11/30/2018) – Constructed 2018, post construction submitted 09/05/2019

Permit Section 2.10 Heifer Lot Runoff Control System – Engineering Evaluation

The heifer lot was abandoned in 2019 and the following schedules are no longer necessary.

- Interim Control Measures (Due 09/01/2017) – N/A
- Plans & Specifications (Due 02/01/2018) – N/A
- Corrections & Post Construction (Due 09/01/2018) – N/A

Permanent Markers – Installation

- Complete Installation (Due 11/30/2018) – Constructed 2018, post construction submitted 09/05/2019

SUMMARY

Areas of Concern

The operation reported a number of overapplications of nitrogen from manure and fertilizer that had occurred over the last several years.

Action Items

November 1, 2021 – Submit a written statement/letter explaining why the overapplications of nitrogen from manure and fertilizer occurred and a plan for how the operation will prevent overapplications of nitrogen in the future.

December 30, 2021 – Submit a complete permit reissuance application that contains the following components through the Department's ePermitting System:

1. 3400-025 Livestock/Poultry Operation WPDES Permit Application
2. 3400-025A Animal Unit Calculation Worksheet
3. 3400-025B Nutrient Management Plan Checklist
4. 3400-025G CAFO Reviewable Facilities and Systems for Livestock/Poultry Operation WPDES Permit

5. Aerial map labelling all the existing and proposed facilities and systems at the production area
6. Soil survey map of the production area
7. Five year nutrient management plan
8. 180 day liquid manure storage calculations & supporting documentation

December 30, 2021 – Submit plans and specifications for the proposed digester facility through the Department's ePermitting System.

Substantial Compliance

C Dairy, LLC is not currently in substantial compliance with the permit. Please refer to the notice of noncompliance dated October 15, 2021 for details.

STIPULATION OF PERMIT ACCEPTANCE

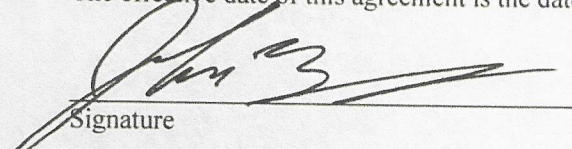
In recognition of the fact that the facility owned by

C Dairy LLC West
E7803 90th Avenue
Mondovi, WI 54755

located at E7803 90th Ave Mondovi, was purchased by **Benton Dairy LLC dba C Dairy** on 4/1/23.
This statement is made to the Department of Natural Resources by the Purchaser, **Benton Dairy LLC dba C Dairy**, who hereby acknowledges familiarity with the terms and conditions of WPDES Permit No. WI-0065790-02-0 issued by the DNR to C Dairy LLC West on July 01, 2022, pursuant to ch. 283, Stats.

The purchaser, **Benton Dairy LLC dba C Dairy**, hereby accepts the conditions, and requirements of said permit and agrees to comply with all conditions, and requirements of said permit, until such time as the Department can formally modify said permit to reflect such change of ownership and any process changes which may be made by such new owners.

The effective date of this agreement is the date of purchase.



Signature

John Boerman; Member, Benton Dairy, LLC

Name and Title [Please Print]

11/1/23

Dated



Signature

Martin Wayne; Manager, Benton Dairy, LLC dba C Dairy

Name and Title [Please Print]

11/1/23

Dated

Notice: Pursuant to ch. NR 243, Wis. Adm. Code and s. 283.53(3), Wis. Stats., this Wisconsin Pollutant Discharge Elimination System (WPDES) form is required by the Department of Natural Resources (DNR) to be submitted, along with Form 3400-025A and all other required application materials, by the owner or operator of a Concentrated Animal Feeding Operation (CAFO). The Department will not consider your application complete unless you complete and submit this application form. Penalties for failure to submit a completed application are established in ss. 283.89 and 283.91, Wis. Stats. [Section 283.91(4), Wis. Stats., provides that: Any person who knowingly makes any false statement, representation or certification in this application shall upon conviction be punished by a fine of not more than \$10,000 or by imprisonment for not more than 6 months or both.] Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's open records law [ss. 19.31-19.39, Wis. Stats.].

Form 3400-025 is being submitted for the purpose of the (check one):

- Preliminary application,
- Final application, or
- Reissuance application

This operation is (check the following that apply to your operation):

- a new facility to be constructed
- an existing facility expanding (check all that apply):
 - increasing animal numbers, constructing, no planned changes
- an existing permittee for reissuance (check all that apply):
 - increasing animal numbers, constructing, no planned changes

Read the attached instructions before filling out the contact information. Print or type the requested information, except for the signature.

Section I: Contact Information

Legal Name for Permit Issuance & Operator Contact Information

1. Legal name of the operation to which the permit will be issued or Legal Name of parent company (if different from name of operation)

Benton Dairy LLC DBA C Dairy

2. Name of Operator or Manager

Martin Wayne

Title

manager

3. Mailing Address-Street, Route or Box

E7803 90th avenue

City

Mondovi

State
WI

ZIP Code
54755

4. Phone Number (inc. area code)

Cell Phone
715-495-9794

Fax Number

E-mail Address

marty.wayne@cdairyfarm.com

Parent Company Owner Information (if applicable)

1. Name of Parent Company/Owner (if different from operator above)

Benton Dairy LLC

2. Contact Person

John Boerman

Title

member

3. Mailing Address-Street, Route or Box

8444 S 900 W

City

Ambia

State
IN

ZIP Code
47917

4. Phone Number (inc. area code)

Cell Phone
315-576-1192

Fax Number

E-mail Address

john@bentongroup.com

Crop Consultant

1. Name of Crop Consultant

Cyndi Heath

Company/Title

Blacks Valley Ag

2. Mailing Address-Street, Route or Box

City

Durand

State
WI

ZIP Code
54736

3. Phone Number (inc. area code)

Cell Phone
715-533-2679

Fax Number

E-mail Address

cyndi@blacksvalleyag.com

Design Engineer

1. Name of Design Engineer

Dave McDaniel

Company/Title

Auth and Associates

2. Mailing Address-Street, Route or Box

City

Menomonie

State
WI

ZIP Code

3. Phone Number (inc. area code)

Cell Phone
715-225-4718

Fax Number

E-mail Address

dmcdaniel@authconsulting.com

Certification & Signature (person attesting to the accuracy and completeness of WPDES application)

I certify that I am familiar with the information contained in this application and that to the best of my knowledge and belief such information is true, complete and accurate. This application must be signed by an individual who is either an owner of the operation identified above or a corporate officer if the operation is incorporated.


Printed or Typed Name of Official Representative

Martin Wayne

Title

manager

Signature of Official Representative



Date Signed

11/21/2023

WPDES Permit Application Materials:

- **PERMIT REISSUANCE APPLICATION:**
<https://permits.dnr.wi.gov/water/SitePages/DocSetView.aspx?DocSet=AG-APP-WC-2021-17-X12-30T13-34-53>
- **FIVE YEAR NUTRIENT MANAGEMENT PLAN:**
<https://permits.dnr.wi.gov/water/SitePages/DocSetViewDet.aspx?DocSet=AG-NMP-WC-2021-17-X12-30T13-34-53>
- **180 DAY LIQUID MANURE STORAGE CALCULATIONS:**
<https://permits.dnr.wi.gov/water/SitePages/DocSetViewArchive.aspx?DocSet=AG-PNS-WC-2021-17-X12-30T13-34-53&Loc=cafo1&Lib=Archive>

Plans & Specifications:

- **OFFSITE WASTE STORAGE FACILITY:**
<https://permits.dnr.wi.gov/water/SitePages/DocSetViewDet.aspx?DocSet=AG-PNS-WC-2023-17-X05-15T15-24-18>
 - **POST CONSTRUCTION REPORT:**
<https://permits.dnr.wi.gov/water/SitePages/DocSetView.aspx?DocSet=AG-PNS-WC-2023-17-X12-05T10-33-13&Loc=undefined>
- **SAND SEPARATION SYSTEM:**
<https://permits.dnr.wi.gov/water/SitePages/DocSetViewDet.aspx?DocSet=AG-PNS-WC-2023-17-X07-14T20-00-56>
 - **POST CONSTRUCTION REPORT:**
<https://permits.dnr.wi.gov/water/SitePages/DocSetView.aspx?DocSet=AG-PNS-WC-2024-17-X01-10T20-50-25&Loc=undefined>
- **MANURE DIGESTER FACILITY:**
<https://permits.dnr.wi.gov/water/SitePages/DocSetViewArchive.aspx?DocSet=AG-PNS-WC-2021-17-X11-10T16-43-40&Loc=cafo1&Lib=Archive>
 - **POST CONSTRUCTION REPORT:** *TO BE SUBMITTED IN ACCORDANCE WITH THE SCHEDULES SECTION OF THE PROPOSED PERMIT.*

Nutrient Management Plan Amendments:

- **SUBSTANTIAL MODIFICATION (SEPTEMBER 21, 2023):**
<https://permits.dnr.wi.gov/water/SitePages/DocSetView.aspx?DocSet=AG-NMP-WC-2023-17-X09-21T21-04-24&Loc=undefined>



March 2, 2022

FILE REF: R-2021-0259
 WPDES Permit #: WI-0065790

Wendy Bautch
 C Dairy LLC West
 E7803 9th Ave
 Mondovi, WI 54755

Subject: Days of Storage Review for C Dairy LLC West in Dunn County – NO ADDITIONAL ACTION REQUIRED

Dear Wendy:

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 Wendy Bautch, C Dairy LLC West, received on December 30, 2021. Calculations were prepared by David McDaniel, Auth Consulting & Associates Inc. Revisions were received on March 1, 2022.

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 C Dairy LLC West has **279 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 **7,436 AU**. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values. The liquid waste volumes are based upon a collection period of **365 days**.

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding:	38,348,779
Parlor Wastewater:	11,070,815
Total Feed Storage Leachate:	374,000
Total Feed Storage Runoff Collected:	7,867,828
Total Feedlot Runoff Collected:	0
Net Precipitation on Storage Surfaces:	6,927,393
Other:	0
Total Liquid Waste Stored Below the MOL	64,588,815

Total Liquid Waste Storage (Gallons)						
Waste Storage	Total Vol. from Top to Bottom	-Solids Storage	-25-yr, 24-hr Precip on Storage	-25-yr, 24-hr Collected Runoff	-Freeboard Vol.	Max Operating Level (MOL) Vol.
#2	25,346,102	0	679,721	48,543	1,568,197	23,049,641
#3	25,386,433	0	667,734	38,708	1,552,276	23,127,715
#4	5,332,239	95,407	233,481	1,264,065	522,620	3,216,666
					Total MOL Vol.	49,394,022

Should you have any questions, please contact Ian Hansen 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



Ian Hansen, P.E.
Water Resources Engineer
Watershed Management Program

Email: Wendy Bautch; C Dairy LLC West
(715) 797-1956; Wendy.Bautch@cdairyfarm.cm

David McDaniel; Auth Consulting & Associates
(715) 232-8490; dmcDaniel@authconsulting.com

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

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

Clare E Freix; DNR, West Central Region
(715) 492-4465; Clare.Freix@wisconsin.gov

Bradley A Johnson; DNR, West Central Region
(715) 340-5281; BradleyA.Johnson@wisconsin.gov

Ian Hansen; DNR, Northern Region
(608) 400-2536; Ian.Hansen@wisconsin.gov

Chase Cummings; Dunn County
(715) 232-1496; chrcummings@co.dunn.wi.us



March 27, 2023

Dunn County
Approval

Marty Wayne
C Dairy LLC West
E7803 90th Ave
Mondovi, WI 54755

SUBJECT: Conditional Approval of C Dairy LLC West Nutrient Management Plan, WPDES Permit No. 0065790-02-0

Dear Mr. Wayne:

After completing a review of C Dairy LLC West 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 C Dairy LLC West 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 C Dairy LLC West 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 C Dairy LLC West 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 7,436 animal units (4,700 milking & dry cows, 0 heifers, and 10 calves). Currently there are no planned expansions in the next permit term.
2. Manure generation and spreading records indicate your herd will annually generate approximately 64,755,705 gallons of manure and process wastewater and 720 tons of solid manure in the first year of the permit term.
3. The use of application restriction options 1,2 and 5 within surface water quality management areas.
4. The use of phosphorus delivery method P Index.
5. That C Dairy LLC West currently has 10,316.7 acres (1,731 owned and 8,553.5 controlled through contracts, rental agreements or leases, or under manure agreements) of which 10,201 are spreadable acres.

6. That some fields included in the NMP are directly adjacent to or have high potential to deliver nutrients and sediment to Chippewa River (listed 303(d) impaired water by ‘PCBs,’), Cranberry Creek (listed 303(d) impaired water by ‘Total Phosphorus’), Duscham Creek (listed 303(d) impaired water by ‘Total Phosphorus’), Fall Creek (listed 303(d) impaired water by ‘Total Phosphorus’), and Rock Creek (listed 303(d) impaired water by ‘Total Phosphorus, Total Suspended Solids’).
7. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters.
8. That no 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 C Dairy LLC West Nutrient Management Plan subject to the following conditions and the applicable requirements of Ch. NR 243, Wis. Adm. Code:

FIELD AND MANURE MANAGEMENT

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

Field Name	Other Permittee Name	Other Permittee Field Name	DNR #
12020	EAU CLAIRE WASTEWATER TREATMENT FACILITY	4	117690
12021	EAU CLAIRE WASTEWATER TREATMENT FACILITY	3	74527
12023	EAU CLAIRE WASTEWATER TREATMENT FACILITY	1	50287
15300	CASCADES TISSUE GROUP WISCONSIN INC	2	93956
15301	CASCADES TISSUE GROUP WISCONSIN INC	2	93956
15302	CASCADES TISSUE GROUP WISCONSIN INC	2	93956

801	EAU CLAIRE WASTEWATER TREATMENT FACILITY	22	118086
802	EAU CLAIRE WASTEWATER TREATMENT FACILITY	22	118086
807	SPF NORTH AMERICA, INC.	1	113881
824	EAU CLAIRE WASTEWATER TREATMENT FACILITY	19	116020
825	EAU CLAIRE WASTEWATER TREATMENT FACILITY	19	116020
834	EAU CLAIRE WASTEWATER TREATMENT FACILITY	1	90635
835	SPF NORTH AMERICA, INC.	1	113892
838	EAU CLAIRE WASTEWATER TREATMENT FACILITY	21	116022

Prior to any manure applications on these fields C Dairy LLC West shall contact the entities listed above to obtain recent spreading records and make the necessary adjustments to the planned manure application rates. At the end of each year C Dairy LLC West shall contact each entity listed above to obtain spreading records from the previous year so that they can be properly tracked in the NMP. Please Note: C Dairy LLC West is responsible for obtaining nutrient content values for all other wastes spread on any field in their NMP.

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

- Ols1 (>200ppm P)
- Turkey (>200ppm P)

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

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

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

7. C Dairy LLC West shall record daily manure applications by using form 3200-123A. These forms shall be retained at the farm and provided to the department upon request.
8. C Dairy LLC West shall annually submit a spreading report that summarizes the land application activities listed under NR 243.19(3)(c)5., Wis. Adm. Code by using form 3200-123.

WINTER SPREADING

9. Liquid manure applications during winter conditions, as defined by NR 243.14(7), Wis. Adm. Code, are prohibited with the exception of emergency applications.
10. The following field(s) are approved for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:

- Clave Rd N	- Clave Rd S	- CP01
- Dahl	- Doane Knutson 8	- Doane-N
- Doanes4	- Dra1	- Dra2
- DT01	- F01	- GP04
- GP05	- GP06	- Harolds 07-08
- Hayden	- HR01	- Jackson
- JaJ1	- JaJ16	- JaJ18
- Jen1	- Jen2	- Jen3
- Koller 2	- L Schuh 2	- Mar1
- Mex House	- Poeschel Main	- PwrStn1
- PwrStn2	- PwrStn4	- RDO 01
- RDO 02	- RDO 03	- Ris1
- Russow S	- Schuh E	- T1439N
- T15132	- T434	- Tan3
- Tim Black	- Twe3	- Tyrone
- WE01	- Wim1	- Wim2
- Win1		

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

- Doane-S	- Equ1	- JBN
- JBS	- Mar2	- McMahon 1
- McMahon 2	- McMahon 3	- McMahon 4
- Russow N	- Schuh 01	- Seyer
- T. Burt B	- T1439S	- W01
- W05		

12. Winter spreading of solid and liquid manure may not occur during the “high risk runoff period” pursuant to s. NR 243.14(6)(c) and NR 243.14(7)(c), respectively.
13. Winter applications of liquid manure shall only occur under emergency situations, after notifying the Department and receiving verbal approval.

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

HEADLAND STACKING

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

- | | | |
|------|------|------|
| - S4 | - S5 | - S6 |
| - S7 | - S8 | - S9 |

MANURE & PROCESS WASTEWATER IRRIGATION

16. The following fields are approved for process wastewater applications using travel irrigation guns:

- | | | |
|------------|----------|-------------|
| - T15132 | - Koller | - Schneider |
| - MexHouse | | |

17. Irrigation application rates shall be limited to 10,000 gallons per acre (may be less in SWQMAs), per application event or 10,000 gallons per acre over a 5 day period if split applications are used.
18. C Dairy LLC West shall allow a rest period of 5 days or more between each application event, or no less than every 2 days if soil conditions are permissible.
19. Irrigation applications during daytime hours shall not occur if sustained wind speeds of 10 miles per hour or more are documented. Sustained wind shall be defined as the average wind speed over a 15 minute period.
20. Irrigation applications during night time shall not occur if sustained wind speeds of 10 miles per hours or more are document. Sustained wind shall be defined as the average wind speed over a 15 minute period.
21. Irrigation applications shall not occur when wind gusts exceed 20 miles per hour.
22. C Dairy LLC West shall visually monitor fields receiving manure irrigation applications every 1 hour or more frequently. Visual monitoring results shall be documented using the "Irrigation Application Record Sheet" form. Copies of these forms shall be submitted to the department annually with the NMP Update and provided to the department upon request.
23. If C Dairy LLC West receives approval from an adjacent dwelling resident to apply within 250 feet, the reduced setback does not become effective until a copy of the agreement is submitted to the department.
24. If additional fields are selected by C Dairy LLC West for irrigation applications, those fields cannot be used for that purpose until department review and written approval is obtained.

SUBMITAL AND RECORDKEEPING REQUIREMENTS

25. 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 local permits, zoning and regulatory requirements.

If you have any questions regarding this approval I can be reached at 715-839-3775 or Aaron.Orourke@Wisconsin.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'AOR', is positioned above the typed name and title.

Aaron O'Rourke
WDNR Nutrient Management Program Coordinator
Wisconsin Department of Natural Resources

cc: Clare Freix, WDNR Agricultural Runoff Specialist (Clare.Freix@Wisconsin.gov)
Brad Johnson, WDNR Watershed Field Supervisor (BradleyA.Johnson@Wisconsin.gov)
Chris Clayton, WDNR Ag Runoff Section Chief (Christopherr.Clayton@Wisconsin.gov)
Ashley Scheel, WDNR CAFO NMP Reviewer (Ashley.Scheel@Wisconsin.gov)
Tony Salituro, WDNR Intake Specialist (Anthony.Salituro@Wisconsin.gov)
Chase Cummings, Dunn County (chrcummings@co.dunn.wi.us)
Abby Rotering, Blacks Valley Ag (abby.blacksag@nelson-tel.net)
File

DATE: November 17, 2023

WPDES Permit #0065790-01-1

TO: Clare Freix – Wastewater Specialist, Eau Claire

FROM: Ian Anderson – CAFO Hydrogeologist, Madison

SUBJECT: C Dairy LLC West – Groundwater Review

Background:

C Dairy LLC West (C Dairy) is a dairy operation located in the Town of Rock Creek, Dunn County with a production area located in section 19 T26N R11W housing approximately 7600 animal units. The production area sits just outside of the Chippewa River floodplain, on an upland terrace adjacent to Cranberry Creek and an unnamed tributary. I was asked to review the site and determine whether groundwater monitoring at the production site or landspreading fields is necessary and warranted.

Site Geology/hydrogeology:

Bedrock geology in the area around C Dairy is mapped as Mt. Simon sandstone (Brown, 1988), incised by the Chippewa River valley. The Mt. Simon is a thick (70m in the far west) coarse to fine-grained quartz sandstone with a basal conglomerate and interbedded shale in the upper horizons. Hills surrounding the valley have Eau Claire formation at the base and are largely composed of Wonewoc formation and are often capped with Tunnel City or Jordan sandstones or Prairie du Chien dolomite.

Although Pleistocene geology has not been mapped at the county scale for Dunn County, an examination of several well construction reports (WCR) in the Town of Rock Creek show unconsolidated deposits of various thickness composed of sand, silt and clay of varying percentages, suggesting glacial till deposits. A depth to bedrock map of Dunn County (Lippelt and Fekete, 1988) suggests depth to bedrock at the C Dairy production area between 50-100 feet. The four WCRs found on the production area show bedrock depth ranging from 35-116ft. Three of the four show clay, or sandy clay overlying sandstone bedrock. Static water levels in these four wells ranged from 37-45ft, at the time of drilling. Offsite WCRs showed similar geology, with six of eleven showing clay, depth to bedrock ranging from 10-190ft and static water levels ranging from 19-85ft at the time of drilling.

A Water-Table Elevation map of Dunn County (Lippelt, 1988) shows groundwater flowing locally toward Cranberry Creek, and regionally toward the Chippewa River.

Discussion:

To summarize the hydrogeologic setting described above, C Dairy sits on sand and clay till overlying sandstone bedrock and has moderate depth

to groundwater and moderate depth to bedrock. This information can be incorporated into a groundwater contamination susceptibility map (GCSM). A GCSM has been prepared for Dunn County using five data sources: depth to bedrock, bedrock type, soil characteristics, surficial deposits and depth to water table. The Dunn County GCSM indicates that the C Dairy production area is located on moderate-lower groundwater contaminant susceptibility.

The farm has recently undertaken several construction upgrades, including new waste storage, and feed storage facilities including runoff collection up to the 25-year storm. All animals are now under roof and facilities meet construction standards. A recently approved offsite waste storage facility was considered for potential monitoring, as were offsite landspreading fields.

Recommendations:

Because the site sits on an area of moderate-low susceptibility and the farm has recently undertaken several upgrades to facilities that decrease the risk of contaminant release, I am not recommending that groundwater monitoring be required at this time.

References:

Bedrock Geology of Wisconsin: West-Central Sheet. Brown, B.A., 1988. Wisconsin Geologic and Natural History Survey publication series M104.

<https://wgnhs.wisc.edu/catalog/publication/000416/resource/m104>

Lippelt, I.D., 1988, Generalized Water-Table Elevation of Dunn County, Wisconsin. Wisconsin Geologic and Natural History Survey Map 88-2.

<https://wgnhs.wisc.edu/catalog/dataset/000409/resource/m097>

Lippelt, I.D., and Fekete, T.E., 1988, Depth to Bedrock of Dunn County, Wisconsin. Wisconsin Geologic and Natural History Survey Miscellaneous Map 23.

<https://wgnhs.wisc.edu/catalog/publication/000411/resource/m099>

Figures:

Figure 1 – Aerial Photo.

Figure 2 – Topographic Map

Figure 3 – Bedrock Map

Figure 4 – Depth to Bedrock Map

Figure 5 - Water Table Elevation Map

Figure 6 – Groundwater Contamination Susceptibility Map



Figure 1 - Aerial photo of C Dairy West Production Area



Figure 2 – Topographic Map of C Dairy West Production Area

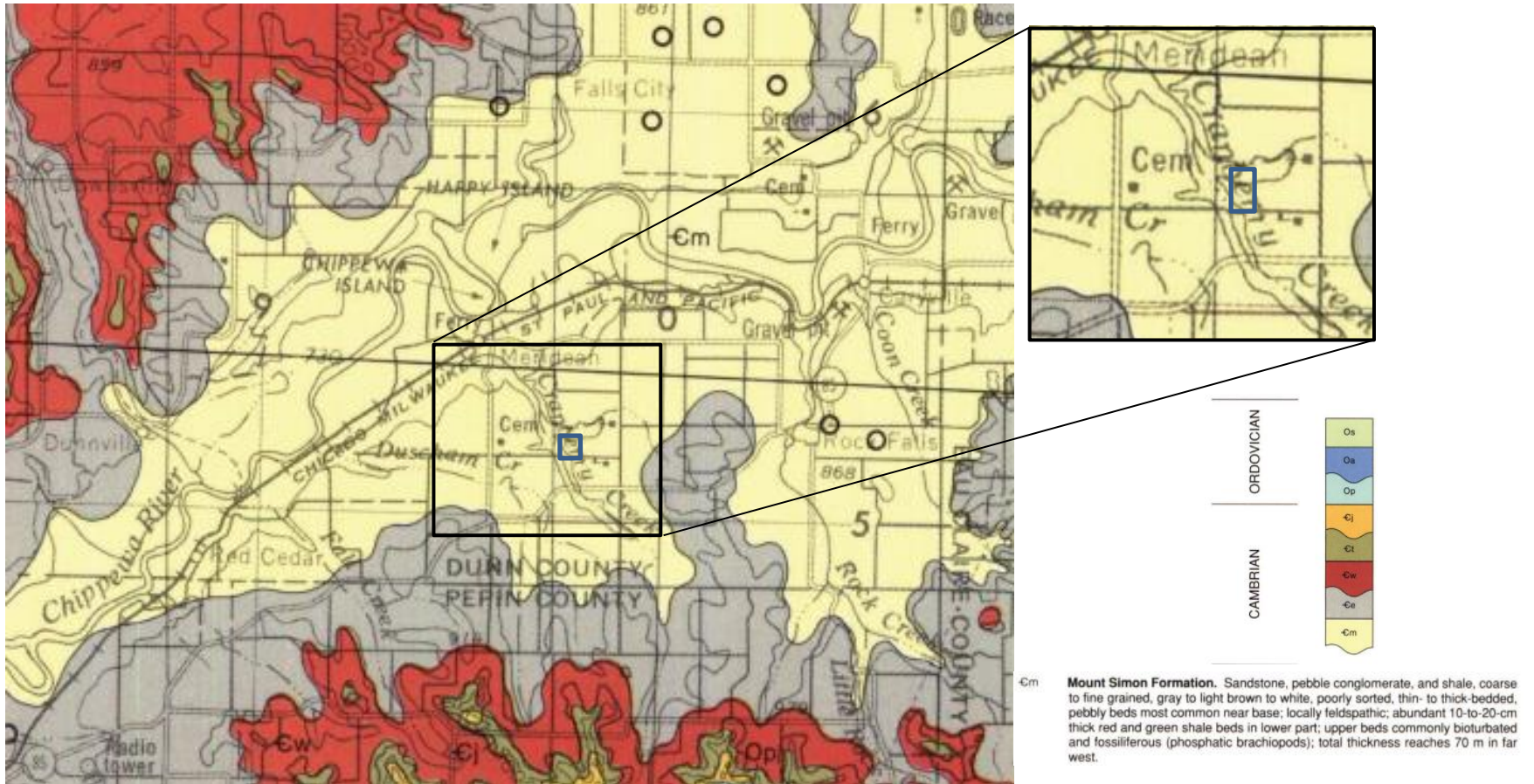


Figure 3 – Excerpt from Bedrock Geology of Wisconsin, West-Central Sheet. Blue rectangle indicates approximate location of C Dairy Production Area.

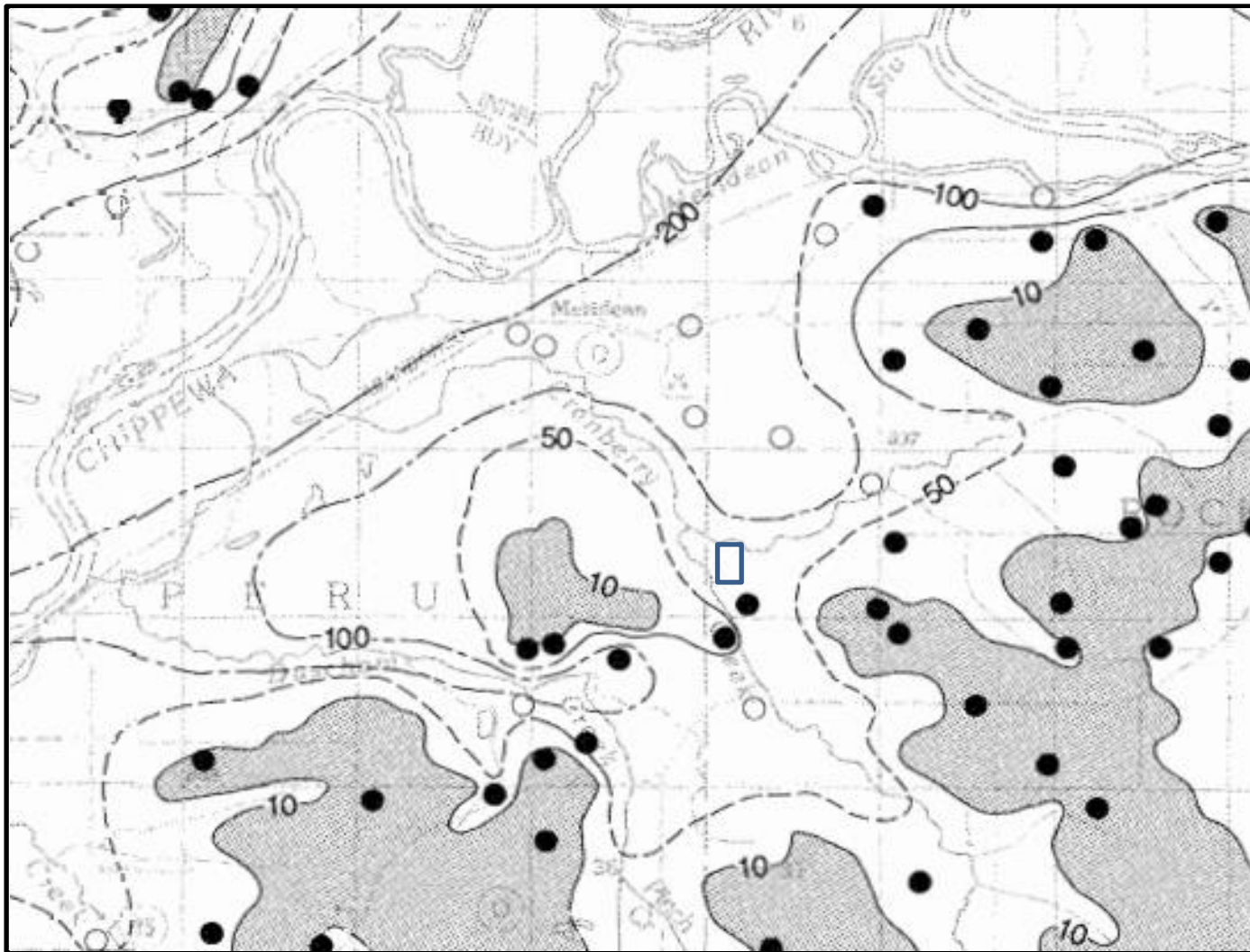


Figure 4 – Excerpt from Depth to Bedrock Map of Dunn County, Wisconsin. Blue rectangle indicates approximate location of C Dairy Production Area.

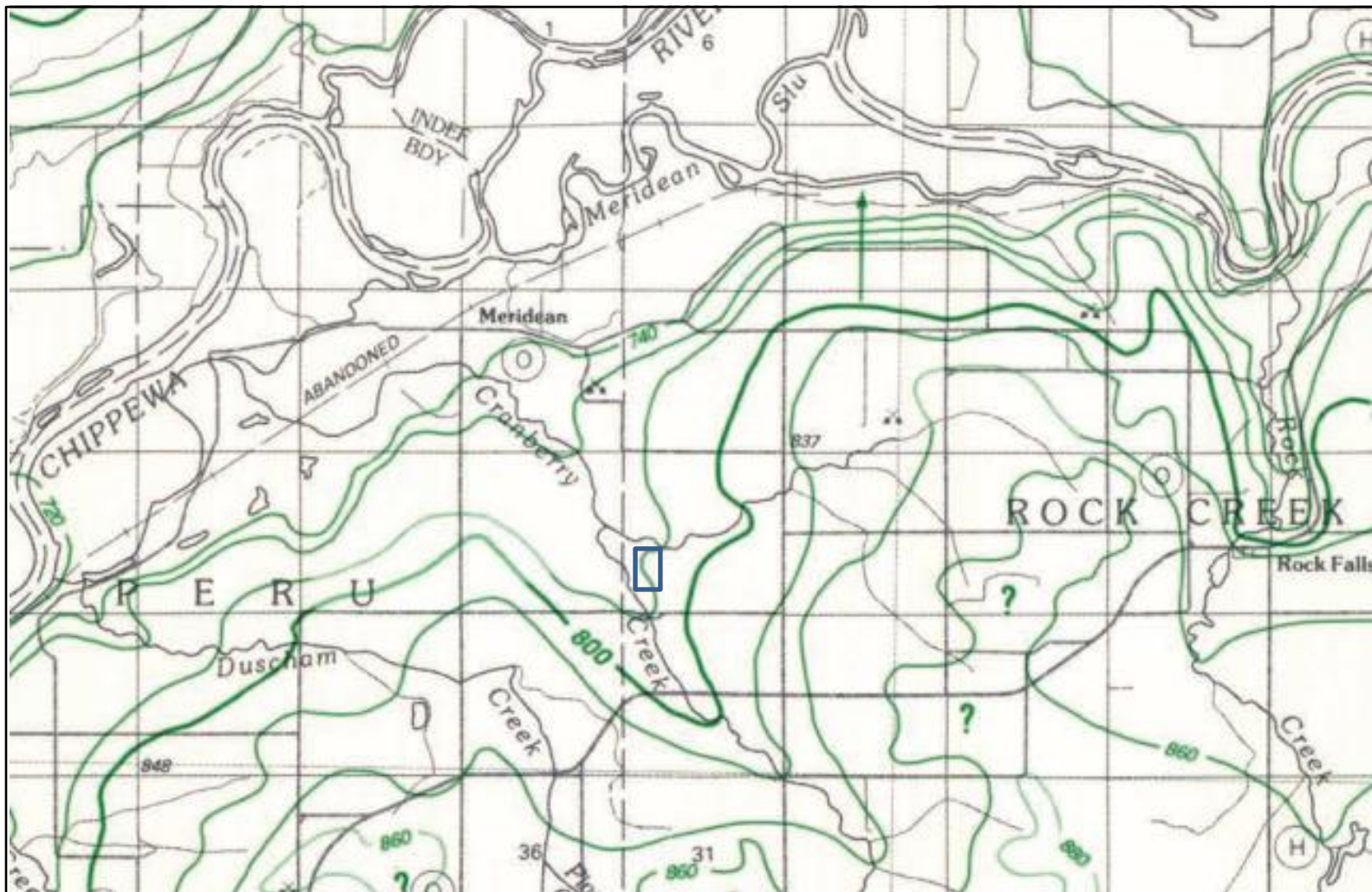


Figure 5 – Excerpt from Water-Table Elevation Map of Dunn County. Blue rectangle indicates approximate location of C Dairy Production Area.

Dunn County, Wisconsin

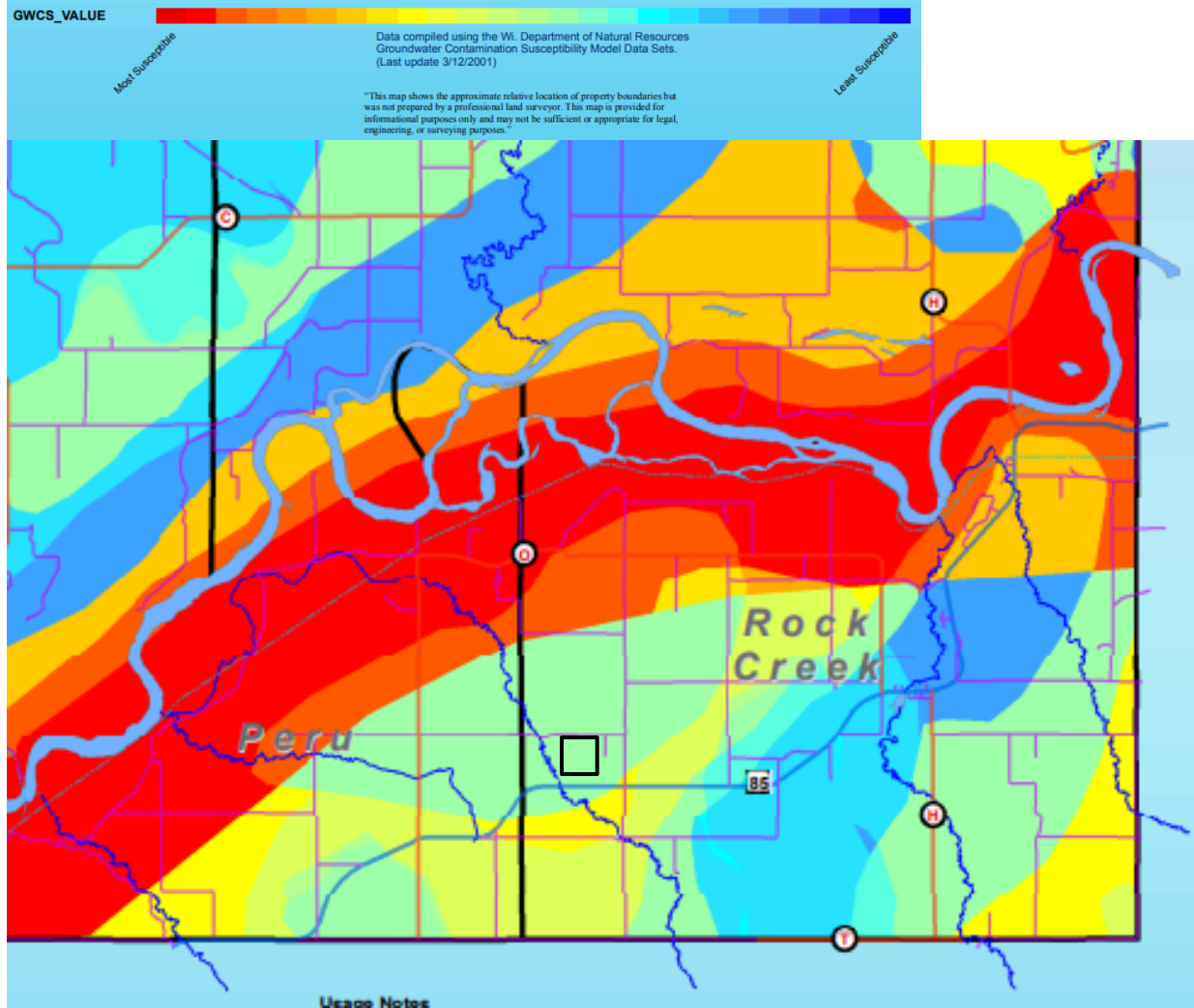


Figure 6 – Excerpt from Groundwater Contamination Susceptibility Map of Dunn County. Black rectangle indicates approximate location of C Dairy West Production Area.



July 28, 2023

FILE REF: R-2023-0142
WPDES Permit #: WI-0065790

Marty Wayne
C Dairy LLC West
E7803 90th Avenue
Mondovi, WI 54755

Subject: Conditional Approval of Plans & Specifications for a Stjernholm sand separation system conversion at, C Dairy LLC West at NE¼ SW¼ of T26N, R11W, Section 19 in Rock Creek Township, Dunn County

Dear Mr. Wayne:

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 Andy Skwor, MSA Professional Services and received on July 14, 2023. The review was conducted in accordance with s. 281.41, Wis. Stats., chs. NR 151 and NR 243, Wis. Adm. Code, and applicable NRCS Standards. The attached engineering report describes the project, lists standards that apply and provides compliance analysis. Questions may be directed to the assigned regional staff or the review engineer 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: The existing sand separation system is being converted to a Stjernholm sand separation system. The additions required of the system include a new reception tank and various additional transfer pipelines.

Conditions of Approval: The plans and specifications for project number R-2023-0142 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/>.

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

<p>email: Marty Wayne; C-Dairy, LLC - West (715) 495-9794; Marty.Wayne@cdairyfarm.com</p> <p>Andy Skwor; MSA Professional Services (608) 355-8936; askwor@msa-ps.com</p> <p>Chase Cummings; Dunn County (715) 232-1496; chrcummings@co.dunn.wi.us</p> <p>Matt Woodrow; DATCP (920) 427-8505; matthew.woodrow@wisconsin.gov</p>	<p>Clare E Freix; DNR-West Central Region (715) 492-4465; Clare.Freix@wisconsin.gov</p> <p>Bradley A Johnson; DNR-West Central Region (715) 340-5281; BradleyA.Johnson@wisconsin.gov</p> <p>Anthony Salituro; DNR-Central Office (608) 444-2869; anthony.salituro@wisconsin.gov</p>
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WISCONSIN DEPARTMENT OF NATURAL RESOURCES ENGINEERING REPORT

GENERAL INFORMATION

Farm Name: C Dairy LLC West

WPDES Permit#: WI-0065790

Location Address: E7803 90th Ave, Mondovi, WI 54755

DNR Project #: R-2023-0142

Engineering Plans Certified by:

Initial Submittal:

Revised Submittal(s):

Andy Skwor, P.E.

July 14, 2023

NA

Site Assessment: Geographical features of the site include soils that are loamy sand. The nearest stream is an unnamed stream approximately 700 ft to the north and the nearest wetland is approximately 2,000 ft to the west of the proposed construction area. Clean runoff will be diverted around waste handling areas to existing waterways. No karst features are known to exist within 1,000 ft of the proposed facilities or systems. No ground water supply wells are located within 250 feet of the proposed facilities or systems.

Soil investigations were performed in May 2016 and April 2018 consisting of eight test pits in the proposed project area, which found the primary subsoils consist of fine to med sand (SP). Bedrock was found in two test pits at a limiting elevation of 825.3 ft. Saturation was not found in any test pits.

PROJECT SUMMARY

Proposed Facilities:

Sand Separation Improvement: The proposed design was submitted to meet with 634 (11/22). The design is compliant with NR s. 243.15(4), Wis. Adm. Code. The proposed reception tank and pipelines are located in between the northmost existing freestall barn and sand separation building. Below is a summary of what is proposed.

- The reception tank is a cast-in-place “pill shaped” concrete structure with an approximate length and width of 34 ft x 16 ft and 16 ft deep. The reception tank walls and floor are 1 ft – 2 inch and 1 ft thick steel reinforced concrete respectively. Waterstop is placed in all concrete joints to create a liquid tight connection. There will be a total of seven pipe penetrations for the reception tank, made liquid tight with a link-seal or engineer approved equivalent. Manure will enter the reception tank via vacuum trucks.
- Four 8-inch HDPE DR11 suction lines will transfer manure from the proposed reception tank to the Stjernholm sand separation system. The transfer lines will utilize the existing piston pumps in place at the sand separation building.
- Four 4-inch HDPE DR11 gravity pipelines will transfer overflow or reject manure from the sand separators back to the proposed reception tank. Two of the pipelines will have a pipe penetration and the other two will be above ground overhead pipes.
- A 6-inch HDPE DR11 suction pipeline will transfer flush water from the existing above ground overflow tank in the sand separation building back to the proposed reception tank.

DAYS OF AVAILABLE LIQUID WASTE STORAGE: The addition of the reception tank and waste transfer pipelines will have no impact on waste generation or storage at C Dairy West LLC.

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 31, 2023, 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.

Anthony Salituro

Tony Salituro, EIT
Water Resources Engineer



February 9, 2022

FILE REF: R-2021-0228
WPDES Permit #: WI-0065790

Marty Wayne
C Dairy LLC West
E7803 90th Ave
Mondovi, WI 54755

Subject: Conditional Approval of Plans & Specifications for Digester and Transfer System at C Dairy LLC West in Dunn County

Dear Mr. Wayne:

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 David McDaniel, Auth Consulting & Associates Inc, and received on November 11, 2021 with revisions received on February 8, 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: Digester, Waste Transfer Pipe

Conditions of Approval: The plans and specifications for project number R-2021-0228 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/>.

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

<p>email: Marty Wayne; C-Dairy, LLC - West (715) 797-1956; Marty.Wayne@cdairyfarm.com</p> <p>David McDaniel; Auth Consulting & Associates (715) 232-8490; dmcdaniel@authconsulting.com</p> <p>Matt Woodrow; DATCP (920) 427-8505; matthew.woodrow@wisconsin.gov</p> <p>Aaron O'Rourke; DNR, Eau Claire (715) 839-3775; aaron.orourke@wisconsin.gov</p>	<p>Clare E Freix; DNR, West Central Region (715) 492-4465; Clare.Freix@wisconsin.gov</p> <p>Bradley A Johnson; DNR, West Central Region (715) 340-5281; BradleyA.Johnson@wisconsin.gov</p> <p>Chase Cummings; Dunn County (715) 232-1496; chrcummings@co.dunn.wi.us</p> <p>Ian Hansen; DNR, Northern Region (608) 400-2536; Ian.Hansen@wisconsin.gov</p>
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WISCONSIN DEPARTMENT OF NATURAL RESOURCES ENGINEERING REPORT**GENERAL INFORMATION****Farm Name:** C Dairy LLC - West**WPDES Permit#:** WI-0065790**Location Address:** E7803 90th Ave, Mondovi, WI**DNR Project #:** R-2021-0228**Engineering Plans Certified by:****Initial Submittal:****Revised Submittal(s):**

David McDaniel, P.E.

November 11, 2021

February 8, 2022

Site Assessment:

The project is located in the SW ¼ of Sec. 19, T26N, R11W, Town of Rock Creek, Dunn County, Wisconsin. The project is not located in a 100-yr floodplain or flood prone area. There are no wetland indicators located in the vicinity of the project site. Surface water drains to the North-Northwest toward Cranberry Creek. Clean water runoff will be diverted to existing waterways. No karst features are known to exist within 1,000 ft of the proposed facilities or systems. No groundwater supply wells are located within 250 ft of the proposed facilities or systems.

Soils are USDA classified as Prissel Loamy Sand based on NRCS Websoil Survey data. A geotechnical investigation was performed on February 15, 2021 for the proposed project. Two soil borings were completed to depths of 50 ft bgs. Eight soil borings were completed to depths of 30 ft bgs. Borings B1-B4 were performed in the vicinity of a proposed driveway. Borings B5-B10 were performed in vicinity of the digester and associated processing facilities, with borings B8-B10 located within the digester footprint. The general soil profile in vicinity of the digesters can be described as 0-17" of topsoil underlain by ~45 ft of sand (SP) underlain by sandstone bedrock. No P200 or PI tests were performed because the digester floor will be using ACI 350 design criteria. The highest static groundwater level was encountered in borehole B5 at a depth of 38 ft or elevation of 803.1 ft. Bedrock was encountered in borehole B9 at a depth of 47 ft bgs or elevation of 796.1 ft. Well construction logs indicate sandstone bedrock 60 ft bgs and static water 40 ft bgs. The geotechnical investigation indicated a max allowable foundation bearing pressure of 3,250 psf. A ringwall foundation is proposed. Six additional soil logs from projects in May 2016 were included in the submittal.

PROJECT SUMMARY

C-Dairy will use vacuum trucks to remove manure from barn floors and transport to proposed reception tank near the digester. Digested manure will then be pumped to the existing separation building.

Proposed Facilities:

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

- One, circular, 100' diameter x 50' high bolted steel tank manufactured by Tank Connections, which is a NRCS-WI one-at-a-time approved design compliant with NRCS 313 Standards.
- The tank will be covered with a flexible membrane roof, supported by a center column in the tank's foundation.
- The total storage capacity of the digester is 3,600,850 gallons at elevation 888.95 ft. The digester is proposed to have a 3' freeboard and therefore has a usable capacity of 3,384,555 gallons at elevation 885.95 ft. The floor starts at elevation 839.0 ft and slopes to the center with a low point of 834.5 ft.
- The foundation floor generally consists of 12" thick ACI 350 designed concrete reinforced with #6 bars spaced 12" each way. The center column support foundation is 18" thick concrete reinforced with 6 bars spaced 12" each way.
- The floor is sloped to the center at 12:1 ratio and is intended to be self-cleaning. Nozzles inside the provide mixing and limit the amount of solids accumulation along the tank bottom. A pump in the center of the digester removes digestate from the vessel.

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.

- Digester feed pipe: 120 ft of 6" diameter DR 11 HDPE pipe with 15 HP Moyno centrifugal pump. Pipe is rated for 160 psi. Designed to operate at 200 gpm at 20 psi.
- Digester discharge pipe: 480 ft of 6" diameter DR 11 HDPE with 15 HP Moyno centrifugal pump. Pipe is rated for 160 psi. Designed to operate at 201 gpm at 18 psi.

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.

- 25,000 Gallon Wieser tank: This concrete tank is 13' tall x 30' long x 12' wide. This prefabricated reception structure was structurally evaluated by a registered professional engineer in Wisconsin and determined to meet or exceed standards in NRCS Standard 313 (10/17). Bottom of tank is 830.5 ft MSL and top of tank is 843.5 ft MSL.
- A 6 inch thick 9'x13' reduced seepage concrete sump (reinforced with #4 bars spaced 18" O.C.) will be constructed at the building floor grade, which will funnel manure discharged from the vacuum trucks to a 24" AASHTO M294 N-12 gravity pipe that discharges to the W25000 Wieser tank.

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 February 8, 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 21, 2023

FILE REF: R-2023-0097
WPDES Permit #: WI-0065790

Marty Wayne
C Dairy LLC West
E7803 90th Ave
Mondovi, WI 54755

Subject: Conditional Approval of Plans & Specifications for Waste Storage Facility at C Dairy LLC
West in Dunn County

Dear Mr. Wayne:

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 David McDaniel, P.E., Auth Consulting & Associates and received on May 15, 2023 with revisions received on June 21, 2023. 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

Conditions of Approval: The plans and specifications for project number R-2023-0097 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/>.

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:

1. Wisconsin DNR Engineering Report

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Clare E Freix; DNR-West Central Region
(715) 492-4465; Clare.Freix@wisconsin.gov

Bradley A Johnson; DNR, West Central Region
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Chase Cummings; Dunn County
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Ian Hansen; DNR, Northern Region
(608) 400-2536; Ian.Hansen@wisconsin.gov

WISCONSIN DEPARTMENT OF NATURAL RESOURCES ENGINEERING REPORT**GENERAL INFORMATION**

<u>Farm Name:</u> C Dairy LLC West		<u>WPDES Permit#:</u> WI-0065790
<u>Location Address:</u> E7803 90 th Ave, Mondovi, WI		<u>DNR Project #:</u> R-2023-0097
<u>Engineering Plans Certified by:</u> David McDaniel, P.E.	<u>Initial Submittal:</u> May 15, 2023	<u>Revised Submittal(s):</u> June 21, 2023

Site Assessment:

The project is located in the NE ¼, SW ¼, Sec. 29, T26N, R11W, Town of Rock Creek, Dunn County, Wisconsin. The proposed WSF is 1.25 miles southeast of the home farm, on the south side of State Highway 85. Surface water generally drains west through agricultural field ditches. There are wetland indicators outside of the project area bordering the field ditches. The project is not located in a 100-year floodplain. Clean runoff will be diverted around waste handling areas to existing waterways. No karst features are known to exist within 1,000 feet of the proposed facilities or systems. No ground water supply wells are located within 250 feet of the proposed facilities or systems.

Soils:

Soils are USDA classified as Prissel loamy sand (546B) according to NRCS Websoil Survey. Soils investigations were performed on April 12, 2022 and consisted of 14 test pits ranging 12-22 ft bgs. The general soil profile consisted of 1 ft of sandy silt topsoil (SM) underlain by SP sands with a 1 ft thick seam of finer material, underlain by SP sands, then sandstone bedrock. The site is considered a NRCS 313 Sensitive Environmental Setting (SES). Groundwater was not encountered. Bedrock was encountered in 12 of the 14 test pits. No soil samples were required to be taken due to the selected WSF designs.

PROJECT SUMMARY**Proposed Facilities:**

Waste Storage Facility 5: The proposed design was submitted to meet NRCS Standard 313 (10/17) and NRCS Standard 521 (10/17) and/or NRCS Standard 522 (6/21). The design is compliant with s. NR 243.15(3), Wis. Adm. Code.

- The WSF will have one of two proposed liner options based on the Sensitive Environmental Settings (SES) at the site.
- The first option is a 5 inch thick liquid tight concrete with waterstop in accordance with NRCS Standard 522 (6/21) Table 3, Column A.
- The second liner option is a 5 inch thick reduced seepage concrete with waterstop and geosynthetic clay (GCL) secondary liner in accordance with NRCS Standard 522 (6/21) Table 3, Column C. A drainage layer around the perimeter, above the GCL, would drain to a pump out/observation port.
- The proposed WSF is irregular shaped. The largest dimensions are 575 ft x 390 ft x 25 ft with a top area of 183,100 SF. The interior embankments are sloped 3:1. The exterior embankments range in slope from 3:1 to 5:1. Berm widths are a minimum of 12 ft wide.

- The floor elevation slopes southwest with elevations ranging 865.0-870.0 ft. MOL elevation is 888.55 ft. The top of berm elevation is 890 ft.
- Total storage capacity: 21,562,783 gallons. Maximum operating level (MOL) volume: 19,555,413 gallons
- The northwestern corner, western, and southern berms will be core trenched. The highest effective height of the embankment is 18 ft, so no emergency spillway is required.

DAYS OF AVAILABLE LIQUID WASTE STORAGE: The submitted information states that C Dairy LLC West has **376 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 **7,436 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**.

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding:	38,348,779
Parlor Wastewater:	11,070,815
Total Feed Storage Leachate ⁽¹⁾ :	374,000
Total Feed Storage Runoff Collected ⁽²⁾ :	7,867,828
Net Precipitation on Storage Surfaces ⁽³⁾ :	9,237,079
Other:	0
Total Liquid Waste Stored Below the MOL	66,898,501

⁽¹⁾ 100,000 tons of stored feed

⁽²⁾ 396,000 SF feedpad area, RCN: 98, 6.5 inches of runoff collection to WSF4.

⁽³⁾ WSF2 Top Area: 214,236 SF + 15,300 SF Misc Area, WSF3 Top Area: 210,458 SF + 12,200 SF Misc Area, WSF4: 72,661 SF + 2,411 SF Misc Area, WSF5: 183,100 SF

Total Liquid Waste Storage (Gallons)						
Waste Storage	Total Vol. from Top to Bottom	-Solids Storage	-25-yr, 24-hr Precip on Storage ⁽¹⁾	-25-yr, 24-hr Collected Runoff	-Freeboard Vol.	Max Operating Level (MOL) Vol.
#2	25,346,102	0	728,264	0	1,548,988	23,068,849
#3	25,386,433	0	706,442	0	1,536,122	23,143,869
#4	5,332,239	95,407	238,186	1,256,416	522,620	3,219,610
#5	21,562,783	134,266	580,934	0	1,292,170	19,555,413
					Total MOL Vol.	68,987,742

⁽¹⁾ Dunn County 25-yr, 24-hr storm: 5.09 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 June 21, 2023, 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

Benton Dairy LLC DBA C Dairy - Sample Points: 2022 Aerial Imagery Obtained From Surface Water Data Viewer

