Permit Fact Sheet

General Information

Permit Number	WI-0061697-05-1
Permittee Name and Address	Calf Source LLC N3569 Vanden Bosch Rd, Kaukauna, WI 54130
Permitted Facility Name and Address	Calf Source LLC 3586 Cooperstown Road DePere
Permit Term	December 01, 2024 to November 30, 2029
Discharge Location	Unnamed tributaries to the Branch River Watershed, groundwaters of the state
Discharge Type	Existing

Animal Units					
	Current AU		**Proposed AU** **(Note: If all zeroes, expansions are not expected during permit term)**		
Animal Type	**Mixed**	**Individual**	**Mixed**	**Individual**	**Date of Proposed Expansion**
Dairy Calves (under 400 lbs.)	3000	0	0	0	
Total	3000	0	0	0	

Facility Description

Calf Source LLC is an existing Concentrated Animal Feeding Operation (CAFO) owned by Milk Source LLC and operated by Todd Willer. The farm raises dairy calves and other young livestock. It currently has 2,641 animal units (10,981 calves and 4,448 goat kids) and has not proposed an expansion during the proposed permit term. The operation has 189 days of storage for liquid manure and process wastewater. Calf Source has a total of 5,644.1 acres (229.1 acres owned and 5,454.3 acres rented) of which 3,795.6 are spreadable acres.

Calf Source requested a modification to its WPDES permit to accommodate changes to the groundwater monitoring plan as well as the installation of permanent runoff controls for the calf hutch area in lieu of surface water monitoring. Only aspects of the modification action are subject to the public input process

Sample Point Descriptions

Sample Point Designation For Animal Waste		
Sample Point Number	**Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**	
001	Concrete WSF - Sample point 001 is for manure and process wastewater land applied from the concrete waste storage facility (Concrete WSF). The Concrete WSF is a concrete and EPDM lined storage. The facility has a maximum operating level capacity of 447,219 gallons and was upgraded in 2015.	
002	WSF 002 - Sample point 002 is for solid waste storage facility 002 (WSF 002). WSF 002 is the northern concrete storage pad for solid manure that has a capacity of about 9,000 tons and was upgraded in 2015. This storage accepts solid manure from the calf hutches and heifer barns.	
003	WSF 003 - Sample point 003 is for solid waste storage facility 003 (WSF 003). WSF 003 is the southern two-celled concrete storage for solid manure that has a combined capacity of about 23,000 tons and was upgraded in 2015. This storage accepts solid manure from the calf hutches and heifer barns.	
004	West Slurrystore - Sample point 004 is for manure and process wastewater land applied from the West Slurrystore. It has a maximum operating level capacity of 1,960,153 gallons and was constructed in 2010. This storage accepts manure and process wastewater from the Concrete WSF and the feed storage area runoff controls.	
005	Calf Hutch Area Runoff - Sample point 005 is for monitoring and inspection of the calf hutch area and associated runoff control system. Runoff from the calf hutch area flows east to the Attenuation Basin collection system Weekly visual inspections are required and shall be recorded according to monitoring and inspection program.	
006	Feed Storage Areas - Sample point 006 is for visual monitoring and inspection of the feed storage areas. Runoff from the north feed storage area flows north to the Concrete WSF, which is pumped to the East or West Slurrystore for long term storage. Runoff from the south feed storage area flows east to the leachate storage tank which is pumped to the vegetated treatment area spreader box located west of the barns. Weekly visual inspections are required and shall be recorded according to monitoring program.	
008	East Slurrystore - Sample point 008 is for manure and process wastewater land applied from the East Slurrystore. It has a maximum operating level capacity of 1,960,153 gallons and was constructed in 2016. This storage accepts manure and process wastewater from Concrete WSF.	
009	Storm Water Runoff - Sample point 009 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes roof gutter and downspout structures, drainage tile systems, grassed waterways and other diversion systems that transport uncontaminated storm water. Proper operation and maintenance is required to keep uncontaminated runoff diverted away from manure and process wastewater handling systems. Weekly inspections are required and shall be recorded according to monitoring program.	
012	North JP Tank - Sample point 012 is for process wastewater land applied from the North JP Tank located north of the Attenuation Basin. The concrete tank has a maximum operating level of 4,988,232 gallons and will be constructed in 2026. North JP Tank accepts contaminated runoff from the calf hutch area runoff control system.	
013	South JP Tank - Sample point 013 is for process wastewater land applied from the South JP Tank located south of the Attenuation Basin. The concrete tank has a maximum operating level of 4,988,232 gallons	

Sample Point Designation For Animal Waste		
Sample Point Number	**Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**	
	and will be constructed in 2026. South JP Tank accepts contaminated runoff from the calf hutch area runoff control system.	
014	Attenuation Basin - Sample point 014 is for process wastewater directly land applied from the Attenuation Basin located east of the calf hutch area and will be constructed in 2026. The liquid-tight concrete basin has a maximum operating level of zero gallons, pumping collected runoff from the calf hutch area to the JP Tanks for long term storage.	

Sample Point Designation For Groundwater Monitoring Systems			
System	**Sample Pt Number**	**Well Name**	**Comments**
Production Site	801	MW-1 (801)	
	802	MW-2 (802)	
	803	MW-3 (803)	
	804	MW-4 (804)	

Permit Requirements

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 189 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 2,641 animal units, it is estimated that approximately 8,480,861 gallons of manure and process wastewater will be produced per year. The permittee owns *approximately* 299.1 acres of cropland and rents about 5,454.3. Given the rotation commonly used by the permittee, 3,795.6 acres are available (or open) to receive manure and process wastewater on an annual basis. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

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

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

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

Monitoring and Sampling Requirements

The permittee must submit a monitoring and inspection program that outlines how the permittee will conduct self-inspections to determine compliance with permit conditions. These self-inspections include visual inspections of water lines, diversion devices, storage and containment structures and other parts of the production area. The permit requires

periodic inspections and calibrations of landspreading equipment. The permittee must take corrective actions to problems identified inspections or otherwise notify the Department. Samples of manure, process wastewater and soils receiving land applied materials from the operation must also be collected and analyzed.

Sampling Points

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

1.1 Sample Point Number: 001- Concrete WSF; 004- West Slurrystore; 008- East Slurrystore; 012- North JP Tank; 013- South JP Tank, and 014- Attenuation Basin

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

1.1.1 Changes from Previous Permit

Sample points 012, 013, and 014 were added for the new calf hutch area runoff collection system.

1.1.2 Explanation of Operation and Management Requirements

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

1.2 Sample Point Number: 002- Northern Solid Stacking Pad; 003- Southern Solid Stacking Pad

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Nitrogen, Total		lbs/ton	Quarterly	Grab	

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

1.2.1 Changes from Previous Permit

No changes.

1.2.2 Explanation of Operation and Management Requirements

Solid manure sources must be properly stored and land applied according to the permit and nutrient management plan.

1.3 Sample Point Number: 005- Calf Hutch Area; 006- Feed Storage Area, and 009- Storm Water Runoff

1.3.1 Changes from Previous Permit

No changes.

1.3.2 Explanation of Operation and Management Requirements

The is no required nutrient sampling for the runoff control sample points. Rather, weekly or quarterly inspections are required and shall be recorded according to the monitoring plan and submitted with the Annual Report.

2 Groundwater – Monitoring and Limitations

2.1 Groundwater Monitoring System for Production Site

Location of Monitoring system: Animal Production Area

Groundwater Monitoring Well(s) to be Sampled: MW-1 (801), MW-2 (802), MW-3 (803), MW-4 (804)

Groundwater Monitoring Well(s) Used to Evaluate Background Groundwater Quality:

Groundwater Monitoring Well(s) Used for Point of Standards Application:

Parameter	**Units**	**Preventative Action Limit**	**Enforcement Standard**	**Frequency**
Depth To Groundwater	feet	N/A	N/A	Quarterly
Groundwater Elevation	feet MSL	N/A	N/A	Quarterly

Temperature	deg F	N/A	N/A	Quarterly
Carbon, Total Organic	mg/L	N/A	N/A	Quarterly
Chloride Dissolved	mg/L	125	250	Quarterly
COD, Filtered	mg/L	N/A	N/A	Quarterly
Nitrogen, Ammonia Dissolved	mg/L	0.97	9.7	Quarterly
Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	2.0	10	Quarterly
Nitrogen, Total Kjeldahl Dissolved	mg/L	N/A	N/A	Quarterly
Potassium Dissolved	mg/L	N/A	N/A	Quarterly
Solids, Total Dissolved	mg/L	N/A	N/A	Quarterly
pH Lab	su	N/A	N/A	Quarterly
E. coli	#/100 ml	0	0	Quarterly
Total Coliform General	#/100 ml	0	N/A	Quarterly

2.1.1 Changes from Previous Permit:

Groundwater limitations and monitoring requirements were evaluated for this permit term and the following changes were made from the previous permit. See additional explanation of limits under "Explanation of Limits and Monitoring Requirements" below.

Sampling requirements were changed to quarterly due to the installation of calf hutch area runoff controls.

2.1.2 Explanation of Limits and Monitoring Requirements

Groundwater limits and requirements are determined in accordance with ch. NR 140, Wis. Adm. Code. Indicator parameter Preventive Action Limit (PAL) values are established per s. NR 140.20, Wis. Adm. Code. Alternative Concentration Limits as allowed under s. NR 140.28, Wis. Adm. Code, are established on a case-by-case basis.

For more information, please refer to the attached groundwater memo.

3 Schedules

3.1 Emergency Response Plan

Required Action	Due Date
Emergency Response Plan: Update the written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	01/01/2025

Explanation of Schedules

An emergency response plan is required to be developed per s. NR 243.13(6)(a) Wis. Admin. Code.

3.2 Monitoring & Inspection Program

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 30 days of the effective date of this permit.	01/01/2025

Explanation of Schedules

A monitoring and inspection program is required to be submitted per s. NR 243.19(1) Wis. Admin. Code.

3.3 Annual Reports

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

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

Explanation of Schedules

Annual reports are required to be submitted per s. NR 243.19(3) Wis. Admin. Code.

3.4 Nutrient Management Plan

Required Action	Due Date

Management Plan Submittal: Submit any necessary updates to the Nutrient Management Plan to meet the conditions outlined in this permit (see conditions in the Livestock Operational and Sampling Requirements section).	
Management Plan Annual Update #1: Submit an Annual Update to the Nutrient Management Plan by March 31st of each year. Note: In addition to Annual Updates, submit Management Plan Amendments to the Department for written approval prior to implementation of any changes to nutrient management practices, in accordance with the Nutrient Management requirements in the Livestock Operational and Sampling Requirements section.	03/31/2025
Management Plan Annual Update #2: Submit an Annual Update to the Nutrient Management Plan.	03/31/2026
Management Plan Annual Update #3: Submit an Annual Update to the Nutrient Management Plan.	03/31/2027
Management Plan Annual Update #4: Submit an Annual Update to the Nutrient Management Plan.	03/31/2028
Management Plan Annual Update #5: Submit an Annual Update to the Nutrient Management Plan.	03/31/2029
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	

Explanation of Schedules

Nutrient management plan updates are required to be submitted per s. NR 243.19(3)Wis. Admin. Code.

3.5 Groundwater Monitoring

Required Action	Due Date
Phase 1 Plan Submittal: Submit a Phase 1 groundwater monitoring plan for Department review and approval.	02/01/2025
Phase 1 Well Installation: Complete well installation in accordance with ch. NR 141, Wis Adm. Code, within 90 days following department approval. Documentation of well construction must be submitted to the Department within 60 days of well installation.	06/01/2025
Phase 1 Continued: Continuation of groundwater monitoring in accordance with the Phase 1 Groundwater Monitoring Plan Conditional Approval letter dated June 24, 2022 and permit requirements. Quarterly sampling shall occur from June 1, 2026, to 12 months after the calf hutch area runoff control system is fully operational.	
Phase 2 Plan Submittal: Submit a Phase 2 groundwater monitoring plan for Department review and approval, for implementation of additional recommended groundwater monitoring in accordance with the requirements of ch. NR 141, Wis. Adm. Code. The department may require additional sites, wells, or sampling parameters to ensure compliance with groundwater quality standards. The Phase 2 groundwater monitoring plan shall be submitted to the department within 90 days of the date of the Department's Phase 1 Data Review Letter if further actions are required.	

Explanation of Schedules

Groundwater monitoring for the production area is required to ensure compliance with permit discharge limitations.

3.6 Calf Hutch Area Runoff Control System - Installation

Applicable to the runoff controls for the calf hutch area (sample point 005).

Required Action	Due Date
Complete Installation: Complete construction of the calf hutch area runoff control system that was reviewed by the department and approved in letter dated November 17, 2025 (R-2025-0222) . System shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.	12/31/2026

Explanation of Schedules

Installation of runoff controls for the catch hutch area is included in lieu of the previous permits surface water monitoring requirement.

3.7 Feed Storage Runoff Control System - Installation

Applicable to the south feed storage area (sample point 006).

Required Action	Due Date
Plans and Specifications: Submit plans and specifications for a permanent feed storage area runoff control system for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code. See Standard Requirements for plan content information.	03/01/2025
Complete Installation: Complete construction of runoff control system. System shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.	06/01/2026

Explanation of Schedules

Installation of feed storage area runoff control system is included to comply with production area discharge limitations per NR 243.13 Wis. Admin Code.

3.8 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	06/01/2029

Explanation of Schedules

A permit reissuance application is required per s. NR 243.12(1)(d) Wis. Admin. Code.

Other Comments

N/A

Attachments

Plan Approval Letter(s)

- Nutrient Management Plan Conditional Approval – March 27, 2024
- Days of Storage Review – November 23, 2021
- Inspection Report – August 6, 2021
- Hydrology Memo – February 10, 2026

Justification Of Any Waivers From Permit Application Requirements

No waivers requested or granted as part of this permit reissuance

Prepared By: Holly Stegemann **Agricultural Runoff Management Specialist** **Date: 03/19/2026**

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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Tony Evers, Governor
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March 27, 2024

Brown County
Approval

Todd Willer
Calf Source LLC
N3569 Vanden Bosch Rd
Kaukauna, WI 54130

SUBJECT: Conditional Approval of Calf Source LLC Nutrient Management Plan, WPDES Permit No. 0061697-05-0

Dear Mr. Willer:

After completing a review of Calf Source LLC 2023-2027 Nutrient Management Plan (NMP) the Wisconsin Department of Natural Resources (Department) is providing conditional approval that it is consistent with Nutrient Management Requirements in s. NR 243, Wis. Adm. Code. This part of your WPDES permit application is now ready for the public notice and comment process as required by Ch. 283 Stats.

Before applying manure onto approved fields each season, the Department recommends Calf Source LLC review the NMP with those individuals involved with manure applications to ensure all remain familiar with the approved manure spreading protocol, spreading maps, field and map verification, record keeping requirements, and all the conditions of this approval. Specifically, some fields in Calf Source LLC may have:

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

Reviewing the NMP and checking fields for these features and soil conditions prior to manure applications will help Calf Source LLC maintain compliance with their WPDES permit and Ch. NR 243 requirements.

FINDINGS OF FACT

The Department confirms that:

1. A current calves and goats herd size of 2,641 animal units (10,981 calves and 4,448 goat kids). A planned herd size of 3,000 animal units (12,500 calves and 5,000 goat kids) by 2024.
2. Manure generation and spreading records indicate your herd will annually generate approximately 8,480,861 gallons of manure and process wastewater and 36,317 tons of solid manure in the first year of the permit term.
3. The use of application restriction options 1 and 5 within surface water quality management areas.
4. The use of phosphorus delivery method P Index.
5. That Calf Source LLC currently has 5,644.1 acres (229.1 owned and 5,454.3 controlled through contracts, rental agreements or leases, or under manure agreements). **Calf Source LLC currently has 1,737.1 acres**

that are not compliant with soil testing requirements and therefore are prohibited from manure and process wastewater applications. This leaves the farm at 3,795.6 total spreadable acres.

6. That some fields included in the NMP are directly adjacent to or have high potential to deliver nutrients and sediment to Branch River (listed 303(d) impaired water by 'PCBs and Total Phosphorus'), Devils River (listed 303(d) impaired water by 'Total Phosphorus'), West Twin River (listed 303(d) impaired water by 'Total Phosphorus, PCBs, and Unknown Pollutant'), Neshota River (listed 303(d) impaired water by 'Total Phosphorus'), Black Creek (listed 303(d) impaired water by 'Total Phosphorus'), 89100 (listed 303(d) impaired water by 'Total Phosphorus'), Twin Hill Creek (listed 303(d) impaired water by 'Total Phosphorus').
7. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters.
8. That the following fields included in the NMP are located within the well head protection area for the Village of Denmark: 719-35N, 719-35, 702-049 Norbs
9. That 13 fields are tiled.

- 700-005
- 700-008
- 700-010
- 700-011
- 700-014
- 700-015
- 700-016
- 700-017
- 700-018
- 700-019
- 700-020
- 700-021
- 700-024

10. That all fields will be checked for the following features prior to/during manure or process wastewater applications: soil areas with possible shallow groundwater (i.e., within 24 inches of surface) at the time of manure application; required setbacks associated with wells, navigable waters, conduits to navigable waters, grassed waterways, wetlands, possible soil erosion/flow channels.
11. That surface applications of manure will not be completed when precipitation capable of producing runoff is forecasted within 24 hours of the time of planned application.

CONDITIONAL NUTRIENT MANAGEMENT PLAN APPROVAL

The Department hereby approves the 2023-2027 Calf Source LLC Nutrient Management Plan subject to the following conditions and the applicable requirements of Ch. NR 243, Wis. Adm. Code:

FIELD AND MANURE MANAGEMENT

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

2. The following fields have also been approved to receive industrial, municipal, or septage waste:

Field Name	Other Permittee Name	Other Permittee Field Name	DNR #
719-08-8A	NLC ENERGY DENMARK LLC	1	100831
714-045	NLC ENERGY DENMARK LLC	2B	32091
719-08-8A	NLC ENERGY DENMARK LLC	21	47755
714-045	NLC ENERGY DENMARK LLC	3A	109391

719-08-8A	NLC ENERGY DENMARK LLC	2	100866
714-049	NLC ENERGY DENMARK LLC	1	117830
719-15	NLC ENERGY DENMARK LLC	1	112566
719-09	NLC ENERGY DENMARK LLC	1	100865
714-047	NLC ENERGY DENMARK LLC	3B	109392
714-043	NLC ENERGY DENMARK LLC	2B	32091
719-21B	NLC ENERGY DENMARK LLC	1	98570
719-16	NLC ENERGY DENMARK LLC	2	112567
719-21	NLC ENERGY DENMARK LLC	2	98571
719-10	NLC ENERGY DENMARK LLC	20	47754
719-40	NLC ENERGY DENMARK LLC	1	118623
714-043	NLC ENERGY DENMARK LLC	2A	109390
714-047	NLC ENERGY DENMARK LLC	3A	109391
719-21	NLC ENERGY DENMARK LLC	3	98572
714-042	NLC ENERGY DENMARK LLC	1	111538
714-049	NLC ENERGY DENMARK LLC	2	118689
714-045	NLC ENERGY DENMARK LLC	2A	109390
717-006 Crosby	BELGIOIOSO CHEESE INC DENMARK	1	116290
714-046	NLC ENERGY DENMARK LLC	2B	32091
714-044	NLC ENERGY DENMARK LLC	1	109389
719-49	NLC ENERGY DENMARK LLC	1	117828
719-21C	NLC ENERGY DENMARK LLC	1	98570
714-041	NLC ENERGY DENMARK LLC	1	111557

714-025	NLC ENERGY DENMARK LLC	1	111558
714-031	NLC ENERGY DENMARK LLC	1	111555
714-021	NLC ENERGY DENMARK LLC	1	111072

Prior to any manure applications on these fields Calf Source LLC 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 Calf Source LLC 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: Calf Source LLC 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 due to using default soil test levels or do not meet the required testing density:
   SEE APPENDIX A FOR A LIST OF PROHIBITED FIELDS

   If Calf Source LLC 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 NH_4-N, percent NO_3-N, phosphorus, potassium, and sulfur.

6. If manure sample results have a dry matter (DM) content less than 2.0% and the percent ammonium (NH_4^+) is greater than 75% of the total N, Calf Source LLC may use the following equation to adjust the first year available nitrogen when applications are injected or incorporated within 1 hour:

   $$\text{First-Year Available N} = NH_4\text{-N} + [0.25 \times (\text{Total N} - NH_4\text{-N})]$$

7. Calf Source LLC shall record daily manure applications by using form 'Spreading Logs'. These forms shall be retained at the farm and provided to the department upon request.

8. Calf Source LLC shall annually submit a spreading report that summarizes the land application activities listed under NR 243.19(3)(c)5., Wis. Adm. Code by using the SNAP+ Annual Spreading Report.

<u>WINTER SPREADING</u>

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 <u>approved</u> for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:

    - 700-002
    - 700-008
    - 700-009

- 700-010
- 700-011
- 700-013
- 700-014
- 700-016
- 700-017
- 700-018
- 700-019
- 700-020
- 700-022
- 700-023A
- 700-024
- 700-025

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

    - 700-015 (location and acreage)
    - 700-021 (location and acreage)

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.

<u>HEADLAND STACKING</u>

15. No headland stacking sites are approved.

<u>MANURE & PROCESS WASTEWATER IRRIGATION</u>

16. Irrigation of manure or process wastewater is prohibited.

<u>NR243.143/151.075 SILURIAN BEDROCK PERFORMANCE STANDARDS</u>

17. Manure generated by Calf Source LLC that is mechanically applied to the following approved fields meet planning requirements under NR243.143/151.075, Silurian bedrock performance standards. The following fields are required to meet all requirements under NR243.143/151.075, Silurian bedrock performance. Any fields not on this list that are identified as <20ft to Silurian bedrock must abide by the same rules:
    SEE APPENDIX B FOR FULL LIST OF SILURIAN BEDROCK FIELDS

<u>SUBMITAL AND RECORDKEEPING REQUIREMENTS</u>

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

<u>CONSIDERATIONS:</u>

19. A large percentage of fields within this NMP are using default soil tests rather than obtaining up to date soil tests. It was communicated by Calf Source LLC that they do not intend to soil test these fields unless manure is to be applied as a contingency plan. It is recommended that the farm soil sample these fields and update the NMP with the results in order to accurately mange those fields to meet compliance with NR 243, NRCS 590,

and NR 151. If fields are planned to not be managed to meet compliance with the above codes, Calf Source LLC should consider removing those fields from the NMP.

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

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

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

Sincerely,

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

cc: Holly Stegemann, WDNR Agricultural Runoff Specialist (Holly.Stegemann@Wisconsin.gov)
Joseph Baeten, WDNR Watershed Field Supervisor (Jospeh.Baeten@Wisconsin.gov)
Chris Clayton, WDNR Ag Runoff Section Chief (Christopherr.Clayton@Wisconsin.gov)
Ashley Scheel, WDNR CAFO NMP Reviewer (Ashley.Scheel@Wisconsin.gov)
Falon French, WDNR Intake Specialist (Falon.French@Wisconsin.gov)
John Bechle, Brown County (John.Bechle@browncountywi.gov)
Todd Schaumberg, Tilth Agronomy (todd@tilthag.com)
Village of Denmark, (sherri@vi.denmark.wi.gov)
File

APPENDIX A: FIELDS PROHIBITED DUE TO DEFAULT SOIL TESTS.

700-023B	719-13	719-40B
702-016	719-14	719-41
700-007	719-15	719-44-44N
700-003	719-16	719-48
714-040	719-19	719-49
717-003 Klika	719-20	719-51

717-006 Crosby	719-21	719-55
717-007 Pit North	719-21A	719-56
717-011 Schaetz	719-21B	719-57-57A
717-013 Berney	719-21C	719-58
717-014 Schley Road	719-22	719-58A-58B
717-016 Townhall	719-23-23B	719-60
717-021 Michiels/Lor itz	719-23A	719-61
717-022 Allen Land	719-23D	725-001 W
719-01	719-23E	725-002 E
719-02-2A	719-23F	726-015
719-03	719-24	727-003
719-04	719-31	727-032
719-05	719-32	
719-07	719-35	
719-08-8A	719-35N	
719-09	719-36	
719-10	719-39	
719-11	719-40	
719-12	719-40A	

APPENDIX B: APPROVED SILURIAN BEDROCK FIELDS

700-006	700-023B	722-001 NE
700-007	700-024	722-001 NW
700-008	700-025	722-001 S
700-010	700-026	722-002
700-011	702-036	722-003
700-012	702-050 Hendricks	722-004
700-013	713-001	722-005 N
700-014	713-002	722-007 K7
700-015	713-003	722-008 K8
700-016	713-004	722-010 K10
700-017	713-005	722-011 K11
700-018	714-049	725-001 W
700-020	717-014 Schley Road	725-002 E
700-022	719-01	
700-023A	719-08-8A	

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
PO Box 7185
101 S. Webster Street
Madison WI 53707-7185

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
FAX 608-267-3579
TTY Access via relay - 711

November 23, 2021

FILE REF: R-2021-0082
WPDES Permit #: WI-0061697

Todd Willer
Calf Source LLC
N3569 Vanden Bosch Road
Kaukauna, WI 54130

Subject: Days of Storage Review for Calf Source LLC, NW¼ of NW¼ of T21N, R21E, Section 04 in Morrison Township, Brown County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Willer:

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 Jen Keuning, GHD on March 30, 2021 with revisions received on November 12, 2021 on behalf of Calf Source LLC.

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

Days of Available Liquid Waste Storage: The submitted information states that Calf Source LLC has 189 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 3,000. The liquid waste volumes are based on manure hauling logs and a collection period of 365 days. The 25yr – 24hr runoff from the solid stacking areas on site are held within the stacking area walls itself. The stacking area runoff is regularly dewatered and pumped to permanent liquid storage. Runoff in excess of the first 0.35" flush from the calf hutch area is transferred to the existing grass swale on site.

Total Liquid Waste Storage:	4,710,260 gallons
Total Solids Storage	0 gallons
Total 25-yr, 24-hr Precip. on Storage	96,109 gallons
Total 25-yr, 24-hr Collected Runoff	0 gallons
Total Freeboard Vol.	244,626 gallons
Total MOL Liquid Waste Storage:	**4,369,525 gallons**

Based on hauling log data:

Year	Gallons Applied	Avg. Yearly AUs	Gallons/AU
2020	7,512,296	2,582	2,909
2019	7,831,740	2,399	3,265
2018	6,050,000	2,351	2,573
2017	6,278,984	2,536	2,476
2016	6,550,613	2,250	2,911
Average Volume/AU			2,827
Average Annual Volume for Current AUs			**8,480,861**

Should you have any questions, please contact Tony Salituro, DNR Madison office or your regional CAFO Specialist.

NOTICE OF APPEAL RIGHTS

If you believe that you have a right to challenge this decision, you should know that the Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to WIS. STAT. §§ 227.52 and 227.53, you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review must name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to WIS. STAT. § 227.42, you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. All requests for contested case hearings must be made in accordance with WIS. ADMIN. CODE § NR 2.05(5), and served on the Secretary in accordance with WIS. ADMIN. CODE § NR 2.03. The filing of a request for a contested case hearing does not extend the 30-day period for filing a petition for judicial review.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

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

Tony Salituro, E.I.T.
Water Resource Management Specialist
Watershed Management Program

Email:
Jennifer Keuning; GHD Services Inc.
(920) 490-2884; jennifer.keuning@ghd.com

Mike Mushinski; Brown County
(920) 391-4621; michael.mushinski@browncountywi.gov

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

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

Ben Uvaas; DNR-Northeast Region
(920) 273-5543; Benjamin.Uvaas@wisconsin.gov

Christopher Clayton; DNR-Central Office
(608) 333-9265; christopherr.clayton@wisconsin.gov

Tony Salituro; DNR-Central Office
(608) 444-2869; anthony.salituro@wisconsin.gov

Holly Stegemann; DNR-Northeast Region
(920) 360-0794; Holly.Stegemann@wisconsin.gov

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September 24, 2021

WPDES Permit No. WI-0061697-04
Brown County

Todd Willer
Calf Source LLC
N3569 Vanden Bosch Rd
Kaukauna, WI 54130

Subject: August 26, 2021 Inspection Report

Dear Mr. Willer:

Enclosed is a copy of the department's report from the inspection conducted at Calf Source on August 26, 2021. Please review this report carefully.

Also enclosed is a copy of an August 10, 2021 memo from Joe Baeten titled, "Calf Source LLC – Assessment of groundwater quality, potential contaminate sources and need for groundwater monitoring at the production site." The memo will be used when drafting Calf Source's next WPDES permit. Contact me if you have initial questions regarding the memo or would like to schedule a meeting to discuss it.

Sincerely,

Ben Uvaas
CAFO Compliance/Enforcement Coordinator
Phone: (920) 273-5543
Benjamin.uvaas@wisconsin.gov

Enc: August 26, 2021 Inspection Report
August 10, 2021 Calf Source Memo

cc: Chris Clayton, Joe Baeten, Duncan Moss, Holly Stegemann - DNR
Jen Keuning - GHD
Brown County Land & Water Conservation Department

CAFO Compliance Report

Inspection Date: August 26, 2021

Operation Name: Calf Source, LLC

WPDES Permit No: WI-0061697-04-0

Operation Address: 3586 Cooperstown Rd, De Pere, WI 54115

On-Site Representative: Sarah Babcock (Milk Source)

DNR Report Author: Ben Uvaas, CAFO Program Enforcement Coordinator

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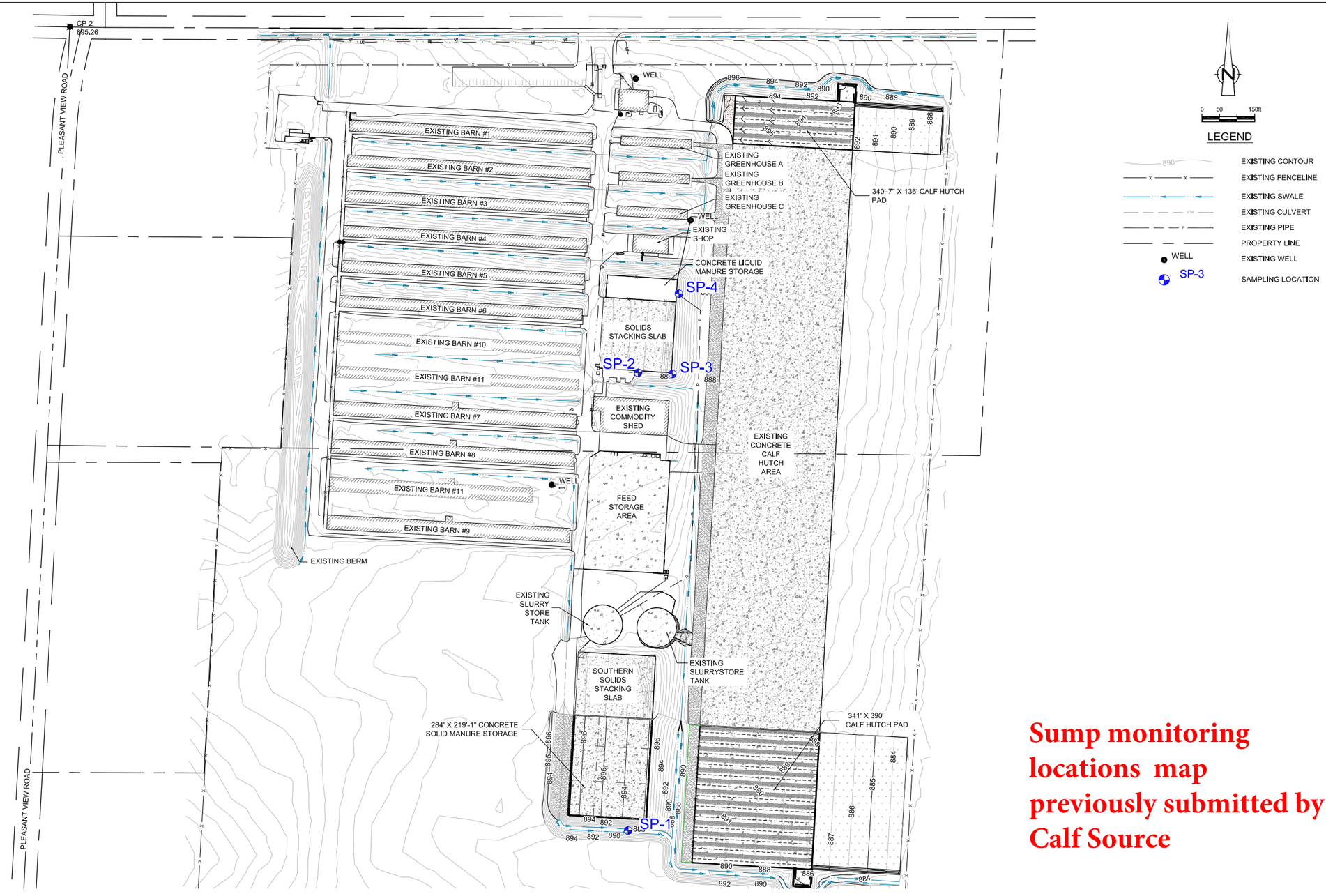
INTRODUCTION

This inspection was scheduled and conducted in as part of the permit reissuance process. Ben Uvaas and Ian Anderson (DNR Hydrogeologist) met Sarah at the site at about 9AM. Discussion and an inspection of the farm's production area followed. DNR staff left the site around 3:30PM. No precipitation fell during or immediately prior to the inspection.

A site map and site observations are included in the report narrative and a photograph log are attached. The summary section at the end describes any areas of concern or noncompliance and next steps if any.

SITE MAPS



Sump monitoring locations map previously submitted by Calf Source

FIGURE 1

SAMPLE LOCATIONS
CALF SOURCE, LLC
BROWN COUNTY, WISCONSIN

SITE OBSERVATIONS

Feedlot Runoff

There are no feedlots at Calf Source. Goats are housed in freestall barns. Calves are housed in three sided barns and hutches.

Calf Hutch Areas

Calves are housed in hutches on a large concrete pad along the site's eastern edge. Individual hutches are bedded in straw with a small area outside the hutch accessible for the calf.

Runoff from the pad flows east through a spreader bar to a vegetated treatment area (VTA). There is no runoff collection as part of this system. The VTA was densely vegetated and had recently been mowed. It didn't appear that grass clippings had been removed from the VTA after mowing, but the VTA appeared to be regularly mowed. No liquid appeared to be entering or exiting the VTA during this dry weather inspection.

Calf hutch area runoff controls were the subject of evaluations and a wet weather inspection during the current permit term. Associated issues were largely unresolved by these actions, with the department and Calf Source's consultant disagreeing on modeling and wet weather inspection outcomes.

Waste Storage Facilities

The majority of waste generated by Calf Source is solid. Prior to its land application, solid manure is stored on a stacking pad near the southern edge of the site. Sarah explained that all material on the pad is kept about a payloader's width away from stacking pad walls. She continued that the practice is used to minimize the amount of pressure put on the joint between the pad's vertical walls and floor. Runoff is collected by sumps in the pad's downgradient corners and transferred to waste storage.

The solid manure stacking pad adjacent to the concrete liquid manure storage has been repurposed to store feed exclusively. Sarah explained that feed is not stored against the vertical walls to minimize pressure on the wall/floor joint. Runoff is collected by sumps in the pad's downgradient corners and transferred to waste storage.

Liquid manure is stored in an HPDE lined concrete waste storage facility and two above ground slurry store structures. Necessary permanent markers are in place, and no storage structures had evidence of waste exceeding those markers.

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

Process wastewater from mixing calf milk replacer is transferred to the concrete waste storage facility. Mixing occurs in the building just north of former "Greenhouse" style barns.

Feed Storage Area (FSA) Runoff

Feed is stored in two areas. These include the former solid manure stacking pad (described above) and the feed storage area to its south. The south feed storage area has an engineered runoff control system. All runoff flows to the pad's southeast corner, where some runoff is collected and transferred to waste storage. Remaining runoff would overflow the system and enter the site's stormwater drainage swales. Just downgradient of the existing collection system vegetation appeared bent by flowing water bypassing the runoff collection system.

Submittal of an engineering evaluation of these runoff controls was required by the current permit. The evaluation determined that runoff control upgrades were required to meet permit terms and conditions. The department rejected plans and specifications as incomplete for those upgrades twice; September 25, 2020 and June 18, 2021. A third set of plans were received by the department August 2, 2021 and are under review.

Groundwater Monitoring Sumps

Calf Source has four groundwater monitoring sumps at the production area. They were installed during the previous permit term in response to observed poor groundwater quality. The permit requires quarterly water quality monitoring from these sumps. SP-4 has a collection system connected to power that can transfer liquid to the concrete liquid manure storage. SP-3 and SP-2 have collections systems, that when connected to power, would transfer like to the north feed storage area collection system. SP-1 does not have a dedicated pumping system.

Animal Mortality Disposal

Animal mortalities are collected by a service. Mortalities are stored in a shed near the feed storage area prior to pickup.

Ancillary Service Areas

Stormwater runoff moves across the site from west to east. It's concentrated into north and south swales that flow past the calf hutch pad and VTA. Ponded liquid in the south stormwater swale was stained dark, possibly by contact with feed storage area runoff.

SUMMARY

Areas of Concern or Noncompliance

1. Calf hutch area runoff controls are a discharge concern, as described above.
2. Feed storage area runoff controls are a discharge concern. Prior wet weather inspections observed from the south stormwater swale (which receives the uncollected portion of feed storage area runoff) reaching navigable waters. The engineering evaluation agreed that upgrades are necessary. The permit contains a schedule to permanently address this, however, Calf Source is far behind permit due dates. Next steps will be determined by the department's review of the plan and specification package in-house.
3. Sump water quality monitoring results raise groundwater quality concerns. An explanation of the department's concerns and proposed next steps are contained in a memo dated August 10, 2021 by Joe Baeten.

Photo #:	5756
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: Calf Barn 1, a three-sided barn with an open face for drive by feeding. Note, roof extends over feed lane.

Photo #:	5768
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: Overview of calf hutch area, facing east

Photo #:	5795
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: Calf hutch area, facing east

Photo #:	5798
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: Overview of calf hutch area, facing west

Photo #:	5800
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: Calf hutch area runoff controls and VTA at its spreader bar

Photo #:	5803
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: VTA near its southeast corner

Photo #:	5807
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: Solid manure storage, facing south

Photo #:	5808
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: Solid manure storage, facing west

Photo #:	5781
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: West Slurrystore structure

Photo #:	5760
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: HPDE lined concrete waste storage structure, markers at red arrow

Photo #:	5759
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: North feed storage area (photo background)

Photo #:	5767
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: North feed storage area runoff collection, red arrow at its southeast collection sump

Photo #:	5765
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: North feed storage area northeast runoff collection sump utilizing portable pump and transfer line

Photo #:	5766
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: Close-up transfer line in Photo 5765 and its outlet to the concrete liquid manure storage

Photo #:	5776
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: South feed storage area and upright bins

Photo #:	5810
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: South feed storage area

Photo #:	5811
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: South feed storage area from its southeast corner and runoff control system

Photo #:	5813
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: South feed storage area runoff control system, stormwater swale at blue arrows

Photo #:	5823
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: SP-4 and its transfer system

Photo Description: SP-3 (foreground) and SP-2 at red arrow.

Photo #:	5769
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo #:	5771
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: View inside SP-3

Photo #:	5789
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: View inside SP-1

Photo #:	5805
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: South stormwater swale near calf hutch pad's southern border

Photo #:	5806
Date/Time of Photo:	8-26-21 / AM
Photo Location:	Calf Source
Photo By:	Uvaas

Photo Description: Close-up of liquid in photo 5805

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: February 10, 2026 FILE REF: WI-0061697-05-0

TO: Holly Stegemann, DNR Wastewater Specialist

FROM: Ian Anderson, DNR CAFO Hydrogeologist

SUBJECT: Calf Source LLC – Request to Discontinue Groundwater Monitoring

Background

Calf Source LLC operates a facility located in T21N R21E Section 4, Town of Morrison, Brown County. As the facility name implies, the operation is focused on raising young stock. Their current permit was effective as of December 1, 2024, and included a requirement to install four groundwater monitoring wells and conduct production area groundwater monitoring. The farm has conducted twelve monthly groundwater sampling events, as required by sections 2.1.1 and 3.5 of their WPDES permit. Upon submission of their first twelve monthly sampling results, the farm has requested to discontinue groundwater monitoring rather than submitting a Phase 2 groundwater monitoring plan.

Justification for Groundwater Monitoring

The memo authored by Joe Baeten dated August 10, 2021, which recommended that a permanent NR 141 compliant groundwater monitoring system be required and added to the WPDES permit largely relied on documented groundwater quality impacts. This included observations of manure laden water flowing upward out of bedrock and laterally along bedding planes in April 2015 and sampling of groundwater sumps installed to investigate groundwater impacts that indicated nearly continuous exceedances of ammonia and fecal coliform bacteria from 2015 through 2021. The memo also cited the replacement of two onsite water supply wells (WI869 and SX684) due to poor water quality, including *E. coli*, as further evidence of groundwater quality impacts. Mr. Baeten interpreted the groundwater quality information taken together to indicate a possible continuous release of manure to groundwater.

While not explicitly revisited in the Conclusions or Recommendations sections of the memo, Mr. Baeten describes a hydrogeological setting that is susceptible to groundwater impacts. Bedrock is mapped as Silurian-aged Burnt Bluff Group dolomite which is described as "heavily fractured and tends to be karstic" (Luczaj, 2011). Fractured Silurian dolomite is found at depths of 5-11ft based on onsite well construction reports (WCRs). Inspection of the field south of the Calf Source production area revealed exposed bedrock and artesian springs, confirming the presence of very shallow bedrock and upwelling of groundwater.

Groundwater Monitoring Results

Sumps

Sampling of groundwater from the sumps that were installed in 2015 showed enforcement standard exceedances for ammonia, fecal coliform and nitrate, and elevated levels of BOD, COD and phosphorus.

Ammonia ranged from non-detect to 80.8mg/L in SP-1 between 6/15/15 and 5/12/21. In SP-2, ammonia ranged between 5.6mg/L to 687mg/L during the same time period, and never fell below the PAL of 0.97mg/L. Ammonia in SP-3 ranged from 5.3mg/L to 1500mg/L, never falling below the PAL. SP-4 had ammonia ranging from 68.4mg/L to 442mg/L and never fell below the enforcement standard. The PAL for ammonia is 0.97mg/L and the ES is 9.7mg/L.

Almost all the samples taken from all four sumps indicated the presence of fecal coliform between 6/15/15 and 5/12/21, meaning that very few of the samples met the enforcement standard of 0.

Monitoring Wells

Ammonia was non-detect in all 12 samples collected from MW-1, MW-2 and MW-3 between 5/7/24 and 4/3/25, and ranged from non-detect to 0.62mg/L in MW-4. Ten out of twelve samples of MW-4 had ammonia detects.

E. coli was non-detect in all samples in all monitoring wells from 5/7/24 to 4/3/25.

Nitrate in MW-1 ranged from 1.8mg/L to 4.4mg/L, exceeding the PAL in 8 of 12 samples. Nitrate in MW-2 ranged from 0.16mg/L to 1.3mg/L and did not exceed the PAL for any of the 12 samples. Nitrate in MW-3 ranged from 2.4mg/L to 5.2mg/L and never fell below the PAL between 5/7/24 and 4/3/25. MW-4 had nitrate between 2.0mg/L and 4.3mg/L and never fell below the PAL during the sampling period. The PAL for nitrate is2.0mg/L and the ES is 10mg/L.

Chloride in MW-2 ranges from 113mg/L to 222mg/L. In MW-3, chloride ranges from 209mg/L to 261mg/L between 5/7/24 and 4/3/25. The PAL for chloride is 125mg/L and the ES is 250mg/L. Chloride did not test above the PAL in either MW-1 or MW-4 during the sampling period.

NR 140 Response

Chapter NR 140 Wis. Adm. Code contains applicable groundwater standards that CAFOs must meet under s. NR 243.13. NR 140 also contains actions that a permittee and/or the department may take in the event of a PAL (NR 140.24) or ES (NR 140.26) exceedance. One of the response actions provided for in NR 140.24 is No Action (NR 140.24 Table 5 no.1). No Action is not a response provided for in NR 140.26. The department is not basing this decision on ES exceedance for chloride,[1] but rather the PAL exceedance of nitrate in MW-3. In essence, Calf Source is requesting that the department take a No Action response under NR 140.24.

For the department to take a No Action response, one of two conditions must be met under NR 140.24(5). Either:

a) The concentration of a substance within a design management zone is detected above the preventive action limit, the enforcement standard has not been attained or exceeded within the design management zone, and the department determines that there is no indication that the preventive action limit will be attained or exceeded at any point outside the design management zone, or

b) The background concentration of a substance is greater than the preventive action limit, the anticipated or detected incremental increase in the concentration of a substance which results from a specific facility, practice or activity is not greater than the preventive action limit, and the anticipated or detected concentration is not greater than the enforcement standard either within or outside of the design management zone.

The exceedance of the PAL at MW-3 provides an indication that the PAL may be exceeded outside the design management zone. The most recent samples at the upgradient well MW-1 are below the PAL of

[1] The department is choosing not to pursue an NR 140.26 response based on the exceedance of the enforcement standard (ES) for chloride in MW-3. This is due to the fact that chloride has numerous non-farm sources including road salt and water softener discharge, as well as the fact that MW-3 has barely exceeded the ES (within 5% of attainment).

2mg/L nitrate and therefore do not indicate a potential upgradient source. Since neither of the conditions for the department to take a No Action are met, the department may not take a No Action response, and therefore we must choose a different NR 140.24 response action.

Recommendation

In light of the past observations indicating significant groundwater quality issues at Calf Source LLC (i.e. manure-laden water bubbling out of the ground, ammonia concentrations 8-150 times the enforcement standard), the fact that the site is located in an area of high groundwater contamination susceptibility, the ongoing PAL exceedances for nitrate and chloride at the facility boundary, and the ongoing detection of ammonia I recommend continued groundwater monitoring at Calf Source.

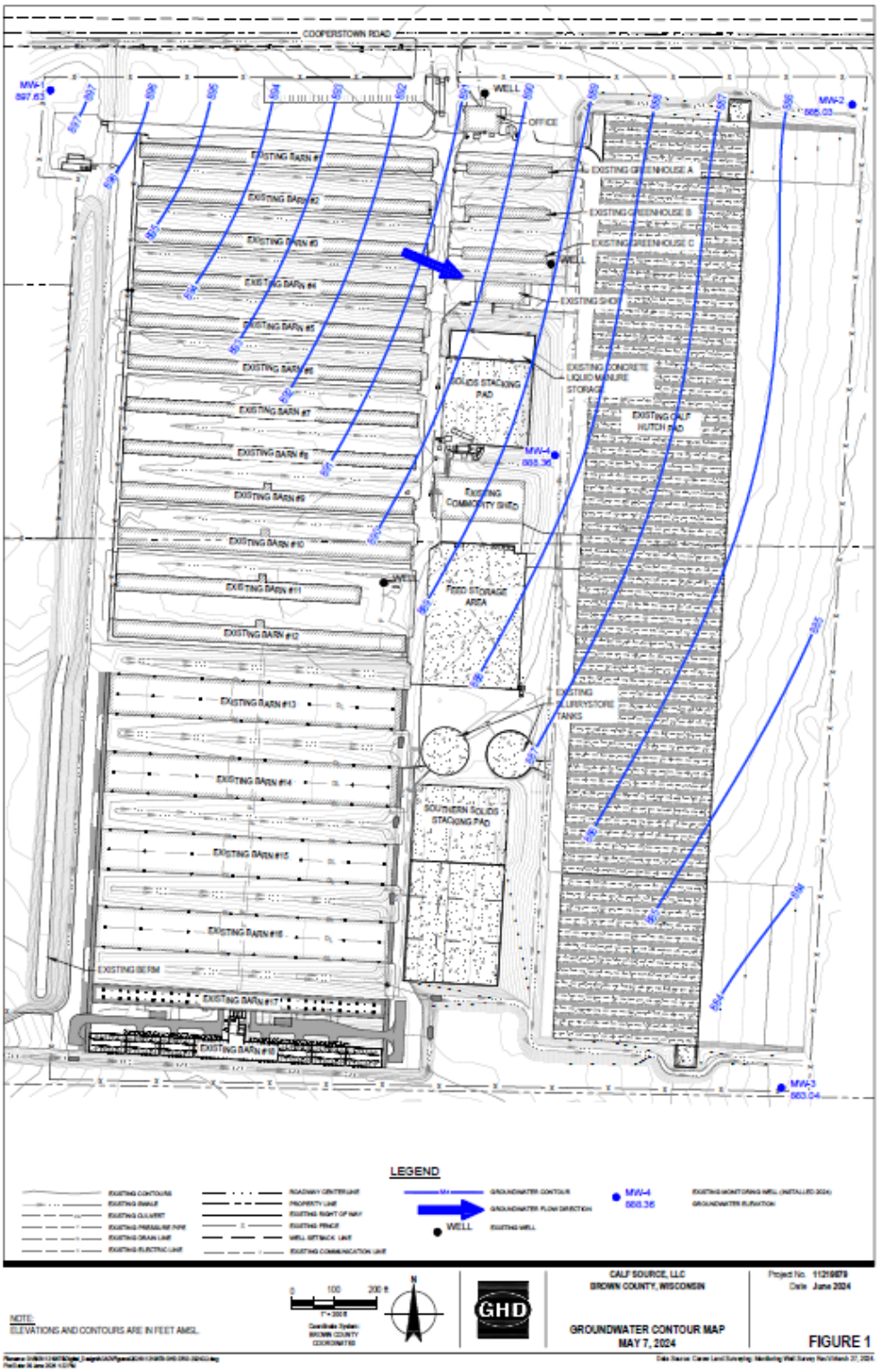


Figure 1 – Map depicting the location of monitoring wells at Calf Source production area, groundwater elevations at the 4 monitoring wells and an interpolation of the resulting equipotential lines illustrating groundwater flow direction. Figure provided by GHD accompanying initial groundwater monitoring results in June 2024.

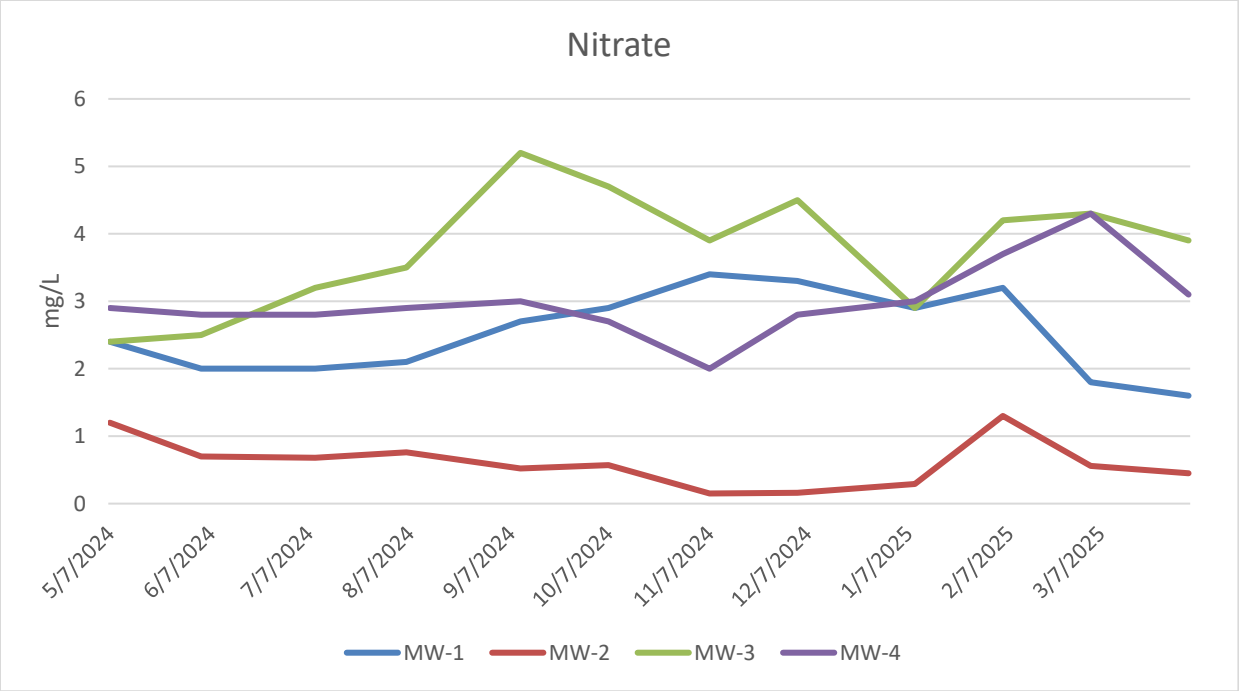


Figure 2 – Time series plot of nitrate (NO2- and NO3-) from the first twelve monthly samples of the four monitoring wells at the Calf Source production area. Note that the PAL for nitrate is 2.0mg/L

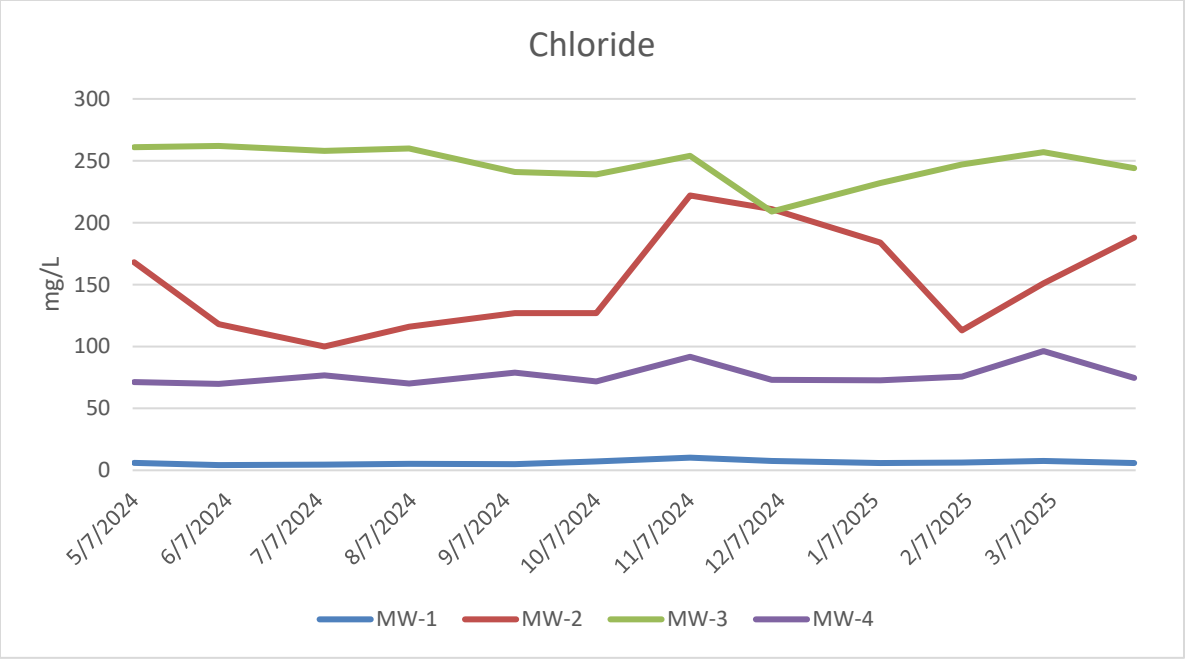


Figure 3– Time series plot of chloride from the first twelve monthly samples of the four monitoring wells at the Calf Source production area. Note that the ES for chloride is 250mg/L.