

Permit Fact Sheet

General Information

Permit Number	WI-0059412-04-0
Permittee Name and Address	Larson Acres Inc 18218 W State Rd 59, Evansville, WI 53536
Permitted Facility Name and Address	Main Farm – 18218 W State Road 59, Evansville, WI 53536 Heifer Facility – 17162 W County Road B, Brodhead, WI 53520
Permit Term	November 01, 2026 to October 31, 2031
Receiving Water	Allen Creek within the Allen Creek and Middle Sugar Watershed and to unnamed tributaries to Norwegian Creek within the Lower Sugar River Watershed, and groundwaters of the state
Discharge Type	Existing source

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.)	280	0	0	0	
Milking and Dry Cows	4200	4290	0	0	
Heifers (400 lbs. to 800 lbs.)	450	750	0	0	
Heifers (800 lbs. to 1200 lbs.)	688	625	0	0	
Total	5618	4290	0	0	

Facility Description

Larson Acres Inc. is an existing Concentrated Animal Feed Operation (CAFO). Larson Acres Inc. is owned and operated by Ed Larson and Sandy Larson. The Farm currently has 5,618 animal units (3,000 milking & dry cows, 1,375 heifers, and 1,400 calves). Larson Acres Inc. has a total of 6,990.4 acres (2,429.9 owned and 4,618.1 controlled through contracts, rental agreements or leases, or under manure agreements) of which 6,947 are spreadable acres. Larson Acres Inc. has no large expansions planned during the proposed permit term. Approximately 45,130,691 gallons of manure and process wastewater and 11,409 tons of solid manure is predicted to be generated in the first year of the permit term. The farm has approximately 190 days of liquid manure storage.

Larson Acres Inc.'s Main Farm is located at 18218 W State Road 59, Evansville, WI and consists of 4 freestall barns, 2 parlors, 6 calf barns, a feed storage area with a leachate storage lagoon, 2 waste storage facilities, 2 solid stacking areas, and 2 sand separation buildings. The Heifer facility is located at 17162 W County Road B, Brodhead, WI 53520 and consists of a freestall barn, a feed storage area with a leachate storage lagoon, and an underbarn waste storage. All production areas were inspected the day of the inspection.

Substantial Compliance Determination

Enforcement During Last Permit:

During the last permit term, Larson Acres Inc. received a Notice of Noncompliance for allegedly failing to comply with their approved nutrient management plan. The facility has completed all previously required actions as part of the enforcement process.

After a desktop review of all compliance schedule items and pertinent documents, and a site visit on August 6, 2026, this facility has been found to be in substantial compliance with their current permit.

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	Sample point 001 is for liquid waste storage facility 1 (WSF 1) located at the Main Farm. WSF 1 is a concrete-lined storage referred to as the Big Lagoon. The storage is located centrally on the site and west of WSF 2. The facility has a MOL capacity of approximately 12 million gallons and was reconstructed in 2021 with department approval. This storage accepts manure and process wastewater from the solids separation systems and parlors and can direct materials to WSF 2 as well.	
002	Sample point 002 is for liquid waste storage facility 2 (WSF 2) located at the Main Farm. WSF 2 is a clay-lined storage referred to as the Small Lagoon. The storage is located centrally on the site and east of WSF 1. The facility has an approximate capacity of 5.4 million gallons and was constructed in 1997. This storage accepts manure and process wastewater from the solids separation systems, parlors, and calf barn reception tank as well as manure diverted from WSF 1. WSF 2 was last evaluated in 2020.	
003	Sample point 003 is for the solids removed from the manure treatment systems. The systems include both sand separation systems, and solids separation systems which take waste from the hospital barn, the north and south freestall barns, both milking parlors and holding areas. The system is referred to as the Solids Building. Solids are dried and are either reused as bedding or stored indoors on concrete stacking slabs.	
004	Sample point 004 is for the solid manure storage facility located at the Main Farm. The storage is located at the southeast corner of the production area and is referred to as Old Calf Barn 50. It is a concrete storage located adjacent to the calf barn. The facility was constructed in 1984. This storage accepts manure from the adjacent calf barn. This storage was last evaluated in 2016.	
007	Sample point 007 is for the Nursery Barn solids stacking pad located at the Main Farm. The stacking area is a concrete pad located on the north end of the site. The facility was constructed in 2010 with department approval. This storage accepts manure and process wastewater from the four adjacent nursery barns and calf barn.	
008	Sample point 008 is for the reception tank located at the Main Farm. This is a concrete storage located under roof adjacent to the calf barn on the north end of the site. The reception tank was constructed in 2010 with department approval. This storage accepts manure and process wastewater from the calf barn. Manure is then transferred to WSF 2. Sampling from this reception tank would be required only if contents of the tank were directly land applied.	
009	Sample point 009 is for solid manure sources that are directly land applied and not stored in a waste storage facility. This includes solid sources such as calf hutch manure, maternity pen bedpack, heifer bedpack, steer manure, etc. Representative samples shall be taken for each manure source type.	

Sample Point Designation For Animal Waste		
Sample Point Number	Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)	
010	Sample point 010 is for visual monitoring and inspection of the feed storage area and associated runoff control system located at the Main Farm. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. Feed storage runoff and process wastewater is transferred to the Leachate Pit (sample point 016).	
011	Sample point 011 is for solid manure stacked in approved headland stacking locations. Representative samples shall be taken of this manure prior to land application. Note: Headland stacking sites are subject to production site discharge limitations; weekly visual monitoring is required during use of stacking sites to ensure discharges meet permit requirements.	
012	Sample point 012 is for liquid waste storage facility 3 (WSF 3) located at the Heifer Facility. WSF 3 is a concrete storage located beneath the heifer barn. The facility has a capacity of 4,769,608 gallons at the maximum operating level and was constructed in 2003. This storage accepts manure and process wastewater from the animals housed in the barn above the storage and the feed storage runoff collection system. WSF 3 was last evaluated in 2009.	
013	Sample point 013 is for the solid manure storage facility located at the Heifer Facility. The concrete storage is located at the east end of the heifer barn. Pack manure from the adjacent heifer housing is stored on the pad. The facility was constructed in 2010.	
015	Sample point 015 is for visual monitoring and inspection of the feed storage area and associated runoff control system located at the Heifer Facility. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. Feed storage runoff and process wastewater is collected in a concrete-lined lagoon. Contents of the lagoon are pumped to WSF 3. The system was constructed in 2017 with department approval.	
016	Sample point 016 is for the leachate waste storage (Leachate Pit) located at the Main Farm. The Leachate Pit is a concrete lined feed leachate runoff collection storage located to the north of the Feed Storage Area. The Leachate Pit is 135 ft x 225 ft x 12-14 ft deep with the approximate MOL of 1.2 million gallons. The Leachate Pit was constructed in 2021 with department approval.	
017	Sample point 017 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes roof gutters 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 the monitoring and inspection program.	

Sample Point Designation For Groundwater Monitoring Systems			
System	Sample Pt Number	Well Name	Comments
Production Area	801	801 (MW-5)	

Sample Point Designation For Groundwater Monitoring Systems			
System	Sample Pt Number	Well Name	Comments
	802	802 (MW-6)	
	803	803 (MW-7)	
	804	804 (MW-8)	
	805	805 (MW-9)	
	806	806 (MW-10)	

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 190 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 5,618 animal units (3,000 milking & dry cows, 1,375 heifers, and 1,400 calves), it is estimated that approximately 45,130,691 gallons of manure and process wastewater and 11,409 tons of solid manure is predicted to be generated in the first year of the permit term. The permittee owns *approximately* 2,429.9 acres of cropland and rents about 4,618.1 acres. Given the rotation commonly used by the permittee, 6,947 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 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. 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- WSF 1; 002- WSF 2; 008- Calf Barn Reception Tank; 012- WSF 3; 016- Leachate Pit - Main Farm

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 001-WSF 1, 002 – WSF 2, and 008 – Calf Barn Reception Tank, were edited to be more accurate descriptions of the facilities.

Sample point 016 – Leachate Pit – Main Farm, was added for the new storage construction.

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: 003- Manure Treatment System; 004- Calf Barn - Solids; 007- Nursery Barns - Solids; 009- Miscellaneous Solids; 011- Headland Stacking Sites; 013- Heifer Facility - Solids

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	

1.2.1 Changes from Previous Permit

Sample points 003 – Manure Treatment System and 007 – Nursery Barns – Solids, were edited to be more accurate descriptions of the facilities.

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: 010- Feed Storage - Main Farm; 015- Feed Storage - Heifer Farm, and 017- Storm Water Runoff Controls

1.3.1 Changes from Previous Permit

Sample point 010 – Feed Storage – Main Farm and 015 – Feed Storage – Heifer Farm, were edited to be more accurate descriptions of the facilities.

Sample point 017 – Storm Water Runoff Controls was added to account for storm water runoff controls.

1.3.2 Explanation of Operation and Management Requirements

There 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 Area

Location of Monitoring system: NWQ, T3N, R10E, Section 7, Production Area

Groundwater Monitoring Well(s) to be Sampled: 801 (MW-5), 802 (MW-6), 803 (MW-7), 804 (MW-8), 805 (MW-9), 806 (MW-10)

Groundwater Monitoring Well(s) Used to Evaluate Background Groundwater Quality: MW-6 (802)

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

N/A

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	158	N/A	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	mg/L	N/A	N/A	Quarterly

Dissolved				
Potassium Dissolved	mg/L	N/A	N/A	Quarterly
Solids, Total Dissolved	mg/L	890	N/A	Quarterly
Solids, Total Dissolved	mg/L	N/A	N/A	Quarterly
pH Lab	su	8.4	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 monitoring wells have been installed since the last permit term and PALs have been calculated.

2.1.2 Explanation of Limits and Monitoring Requirements

See attached groundwater monitoring memo.

3 Schedules

3.1 Emergency Response Plan

Required Action	Due Date
Update Emergency Response Plan: Update the written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	12/01/2026

3.2 Explanation of Schedules

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

3.3 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.	12/01/2026

3.4 Explanation of Schedules

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

3.5 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.	01/31/2027
Submit Annual Report #2: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2028
Submit Annual Report #3: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2029
Submit Annual Report #4: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2030
Submit Annual Report #5: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2031
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	

3.6 Explanation of Schedules

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

3.7 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
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).	
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.	03/31/2027
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.	03/31/2028
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.	03/31/2029
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.	03/31/2030
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.	03/31/2031

Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	
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3.8 Explanation of Schedules

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

3.9 Groundwater Monitoring NR 140 Response & Actions

Required Action	Due Date
Submit Assessment Report: The report shall assess the cause and significance of the enforcement standard exceedance of E. coli and shall propose a response to achieve compliance with the enforcement standard.	11/01/2028
Implement Response: Implement Department reviewed plan.	11/01/2029

3.10 Explanation of Schedules

Groundwater Monitoring NR 140 Response & Actions has been included per NR 140.26(1)(b) as the farm has exceeded enforcement standards for E. coli and the permittee shall assess the cause of the exceedance by 11/1/2028.

3.11 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	05/04/2031

3.12 Explanation of Schedules

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

Attachments

Nutrient Management Plan Conditional Approval

Days of Storage No Further Actions Letter

Groundwater Monitoring Memo

Justification Of Any Waivers From Permit Application Requirements

No waivers requested or granted as part of this permit reissuance

Prepared By: Josie Borgrud Agricultural Runoff Management Specialist

Date: 9/4/2026



June 11th, 2025

Rock County
Approval

Sandy Larson
Larson Acres, Inc
18218 W State Rd 59
Evansville, WI 53536

SUBJECT: Conditional Approval of Larson Acres, Inc Nutrient Management Plan, WPDES Permit
No. 0059412-04-0

Dear Sandy Larson:

After completing a review of Larson Acres, Inc 2025-2029 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 Larson Acres, Inc review the NMP with those individuals involved with manure applications to ensure all remain familiar with the approved manure spreading protocol, spreading maps, field and map verification, record keeping requirements, and all the conditions of this approval.

FINDINGS OF FACT

The Department confirms that:

1. A current dairy herd size of 5,618 animal units (3,000 milking & dry cows, 1,375 heifers, and 1,400 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 45,130,691 gallons of manure and process wastewater and 11,409 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 Larson Acres, Inc currently has 6,990.4 acres (2,429.9 owned and 4,618.1 controlled through contracts, rental agreements or leases, or under manure agreements) of which 6,947 are spreadable acres.
6. 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.
7. 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 2025-2029 Larson Acres, Inc Nutrient Management Plan subject to the following conditions and the applicable requirements of Ch. NR 243, Wis. Adm. Code:

FIELD AND MANURE MANAGEMENT

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

Field ID#:	Other Permittee Name:	Other Permittee Field ID:	DNR #:
S 1B	BYTEC RESOURCE MANAGEMENT INC MONROE	A1	74753
S 4A	BYTEC RESOURCE MANAGEMENT INC MONROE	B	74754
CC2	MADISON METROPOLITAN SEWERAGE DISTRICT WWTF	1	112046
CC1	MADISON METROPOLITAN SEWERAGE DISTRICT WWTF	2	104371
KB1	JANESVILLE WASTEWATER UTILITY	18	33325
1	JANESVILLE WASTEWATER UTILITY	GA1	75479
S 2	BYTEC RESOURCE MANAGEMENT INC MONROE	A1	74753
S 4A	BYTEC RESOURCE MANAGEMENT INC MONROE	A2	103210
F3	JANESVILLE WASTEWATER UTILITY	2	110426
CC2	MADISON METROPOLITAN SEWERAGE DISTRICT WWTF	2	112047
CC1E	MADISON METROPOLITAN SEWERAGE DISTRICT WWTF	1	78685
Coon Island	CLEAN HARBORS ES INDUSTRIAL SERVICES, INC.	B1	118615
KB4	JANESVILLE WASTEWATER UTILITY	17	101700
S 4	BYTEC RESOURCE MANAGEMENT INC MONROE	B	74754

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

3. The following fields are prohibited from receiving applications of manure or process wastewater:
 - Harvey Kopp Dunphy
(expired soil test)

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

4. If existing fields yield a soil test results equal to or greater than 200 ppm P, those fields would be prohibited from receiving manure or process wastewater applications, unless you obtain Department approval in accordance with NR 243.14(5)(b)2., Wis. Adm. Code.
5. All liquid manure samples collected may be analyzed, at a minimum, for percent dry matter, total nitrogen, percent $\text{NH}_4\text{-N}$, percent $\text{NO}_3\text{-N}$, 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, Larson Acres, Inc may use the following equation to adjust the first year available nitrogen when applications are injected or incorporated within 1 hour:

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

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

WINTER SPREADING

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

- Amy Davids Dons	- Balis St John	- Cooks East
- Cooks West	- Whalen South	- Gordy Miller 2 3 6
- Leos South	- Whalen North	- Harvels West – West
11. The following field(s) are denied for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:

- Home Eds West (no field with this name matches on maps)	- Harvey Kopp D1 (no field with this name matches on maps)
- Gordy Stanhope 0708 (insufficient spreadable area due to W soils)	- Coon Island (does not exist in the NMP)
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

Please note that the facility has generated manure that falls in the 16-32% solids, and some greater than 32%. It is responsibility of the farm to verify solids content to know if solid manure is able to be stacked within the parameters of NRCS 313.

15. The following headland stacking sites are rejected:

- SS1 (within SWQMA)
- SS2 (within SWQMA)
- SS4 (within SWQMA)
- SS9 (needs well verification outside field)
- SS14 (portion within SWQMA and W Soil areas)

16. The following headland stacking sites are approved for use with >32% solids with the following conditions:

- Sites can be used for 1 year out of every 2.
 - Maximum stacking period is 8 months and can not exceed 40,000 cubic feet in size.
 - Can be used for stacking only during February and March, or any other period when ground is not frozen, or snow covered.
- SS8
 - SS10
 - SS5*
 - SS11*
 - SS6*
 - SS12*
 - SS15*
 - SS13*
 - SS7

*indicates site has slope of 2-6% and would require slope verification to every have consideration to use with less than 32% solids which require slope of 0-3%.

17. The following headland stacking sites are approved for use with 16-32% solids with the following conditions:

- Sites can be used for 1 year out of every 3.
 - Maximum stacking period is 8 months and can not exceed 15,000 cubic feet in size.
 - Can be used during February and March only.
- SS8
 - SS10
 - SS7

SUBMITAL AND RECORDKEEPING REQUIREMENTS

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.

19. A final revised copy of winter maps is due to the department by July 2nd, 2025.

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 608-212-8460 or Ashley.Scheel@Wisconsin.gov.

Sincerely,



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

cc:

Scott Fleming, Rock River Laboratory (scott_fleming@rockriverlab.com)
Ben Uvaas, Acting Section Chief-Runoff Management Section (benjamin.uvaas@wisconsin.gov)
Aaron O'Rourke, WDNR Nutrient Management Program Coordinator (aaron.orourke@wisconsin.gov)
Falon French, WDNR Intake Specialist (falon.french@wisconsin.gov)
Josie Borgrud, WDNR Agricultural Runoff Specialist (josie.borgrud@wisconsin.gov)
Tabby Davis, WDNR CAFO Engineer (tabatha.davis@wisconsin.gov)
Laura Bub, WDNR Watershed Field Supervisor (laura.bub@wisconsin.gov)
Colleen Johnson, Rock County (colleen.johnson@co.rock.wi.us)
Tonya Gratz, Green County (tonya.gratz@wi.nacdnet.net)
File



March 14, 2025

FILE REF: R-2024-0089
WPDES Permit #: WI-0059412

Sandy Larson
Larson Acres Inc
18218 W State Rd 59
Evansville, WI 53536

Subject: Days of Storage Review for Larson Acres Inc SE¼ of T03N, R10E, Section 07 in Magnolia Township, Rock County – NO ADDITIONAL ACTION REQUIRED

Dear Sandy Larson:

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 Clark Fox, Outland Design/ Ruekert & Mielke on March 29, 2024 on behalf of Larson Acres Inc.

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 Larson Acres Inc has 190 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 5,618 and includes animals from both the Main Farm and Heifer Site. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values for a collection period of 365 days. All runoff from the calf barn stacking pad, main farm feed storage area, and heifer site feed storage area, up to the 25-year, 24-hour storm is collected in permanent waste storage facilities. The facility operates a sand separating system. Separated solid volumes are based on an estimate of 9% manure solids separated at 80% efficiency.

Total Liquid Waste Storage Capacity (gallons)						
Waste Storage	Total Vol. from Settled 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.
#1	14,438,120	407,286	493,702		1,537,170	11,999,962
#2	6,990,950	417,384	285,297		888,287	5,399,982
#3	2,433,319		115,296	594,701	414,072	1,309,250
#4	5,776,056	493,680			493,680	4,788,696
#5	283,170		47,784	99,308	87,595	48,483
Total MOL Vol:						23,546,373
Days of Storage:						190

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure, Bedding, and Parlor Wastewater	33,045,614
Feed Storage Leachate	203,376
Feed Storage Runoff Collected	4,488,505
Net Precipitation on Storage Surface(s)	3,824,543
Heifer Site Manure and Bedding	5,878,706
Solids Separated	-2,379,284
Net Precipitation Calf Barn Stack Pad	69,231
TOTAL:	45,130,691

Should you have any questions, please contact Tabby Davis, 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



Tabby Davis E.I.T
CAFO Review Engineer
Watershed Management Program

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Ashley Scheel; DNR, Central Office
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Andrew Baker; Rock County LCD
(608) 289-1356; baker@co.rock.wi.us

DATE: May 13, 2026

CAFO Permit #0059412-03-0

TO: Josie Borgrud – CAFO Specialist – SCR/Fitchburg

FROM: Ian Anderson – CAFO Hydrogeologist Program Coordinator

SUBJECT: Larson Acres Inc – Groundwater Monitoring Results

Background:

The Larson Acres production area is located in Section 7, T3N R10E, Town of Magnolia, Rock County. The facility has been monitoring groundwater in accordance with their WPDES permit at the production site since October 2020. There are currently six monitoring wells at the production area (MW-5, MW-6, MW-7, MW-8, MW-9 and MW-10). MW-5, MW-6 and MW-7 are located upgradient, or mostly upgradient of the production area, on the south and west ends of the facility. MW -8 and MW-10 are located side-gradient to downgradient on the north and east end of the facility, respectively. MW-9 is located downgradient of the entire facility on the northeast end of the facility (see Figure 1 for details). All wells are currently sampled on a quarterly basis.

This memo serves to describe groundwater monitoring results to date and recommend an appropriate NR 140 response.

Groundwater Monitoring Results

Nitrate (NO₂- + NO₃-) concentrations in production area monitoring wells are quite variable, ranging from under the Preventative Action Limit (PAL) of 2.0mg/L to well over the Enforcement Standard (ES) of 10mg/L. There is, however, a clear spatial pattern as the three upgradient wells (MW-5, MW-6 and MW-7) almost always have the highest nitrate concentrations, regularly exceed the ES and rarely fall below the PAL. The monitoring wells that may be influenced by production area activities (i.e. the side-gradient and downgradient wells MW-8, MW-9 and MW-10) typically have the lowest nitrate concentrations, are often below the PAL and aside from one sample from MW-10 (3/1/2023), none have exceeded the ES.

Ammonia has been occasionally detected in all of the monitoring wells, but no sample of any of the wells over the monitoring history has detected ammonia over the ES (9.7mg/L) or PAL (0.97mg/L).

All of the monitoring wells, except for MW-8, have had occasional detects of *E. coli*. The enforcement standard for *E. coli* is 0, so all wells, except MW-8, have exceeded the enforcement standard.

Potential contaminant sources:

Animal waste is known to contain pathogens such as total coliform bacteria including *E. coli* and nitrogen in various forms. These contaminants can readily enter an aquifer system with shallow groundwater and shallow bedrock. Potential sources of contamination in groundwater in this area include the Larson Acres production area and landspreading sites. Several potential contaminant sources can be found at the Larson Acres production area, including waste storage, feed storage runoff and process wastewater runoff. Dairy operation animal waste, feed storage leachate and process wastewater are known to contain significant levels of potential nitrogen groundwater contaminants, including nitrate and ammonia, as well as bacteria such as *E. coli*.

Need to investigate and required response action:

Chapter NR 140, Wis. Adm. Code, establishes state groundwater quality standards that apply to all facilities, practices and activities which may affect groundwater quality, and which are regulated by the department under chs. 281 and 283, Stats. In accordance with s. NR 243.13(5), Wis. Adm. Code, all permitted large CAFOs are required to comply with state groundwater quality standards. Sampling of monitoring wells at the Larson Acres production area has identified that groundwater is contaminated with *E. coli*. Any presence of *E. coli* in groundwater is an exceedance of Ch. NR 140 groundwater standards. Ch. NR 140 directs the department to assess the cause and significance of contaminants in groundwater above state groundwater quality standards, and to determine appropriate response actions to minimize the concentration of contaminants in groundwater and prevent exceedances of ch. NR 140 enforcement standards.

NR 140.26(1)(b) allows the department to request additional information, if necessary to make the assessment, and to “direct the owner or operator to prepare and submit a report by a specified deadline. The report shall assess the cause and significance of the increased concentration based on a consideration of the factors identified in s. NR 140.24(1)(c) and shall propose a response to achieve compliance with the enforcement standard at the point of standards application.”

Recommendations:

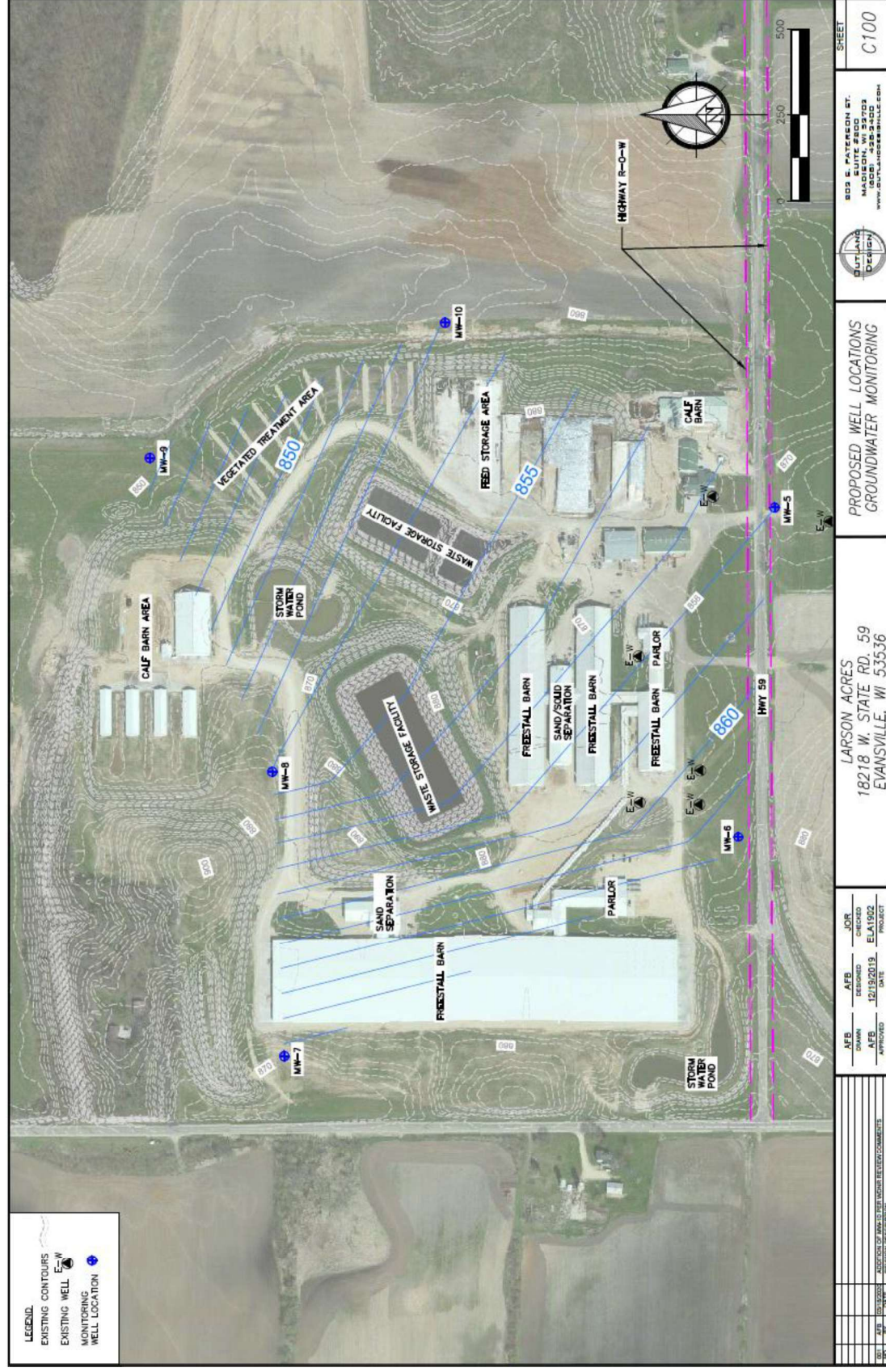
While there have been enforcement standard exceedances for nitrate, including concentrations as high as 25mg/L in MW-5, they are only found in upgradient wells that are unlikely to be influenced by production area activities. *E. coli*, however, has been occasionally detected in most of the monitoring wells, and was found in MW-9 during the last seven consecutive sampling events. Based on these results, I recommend that we direct Larson Acres Inc to continue to monitor groundwater at the existing monitoring wells for the same parameters on a quarterly basis. Additionally, they should be required to assess the cause and significance of the enforcement standard exceedance for *E. coli*, as allowed in NR 140.26(1)(b), and submit a report by a deadline specified in the schedule section of their permit.

Figures:

Figure 1 - Site Map, Monitoring Well locations and Groundwater Elevations

Figure 2 – Nitrate Concentrations in Production Area Monitoring Wells

Figure 3 – E. Coli presence/absence in Production Area Monitoring Wells



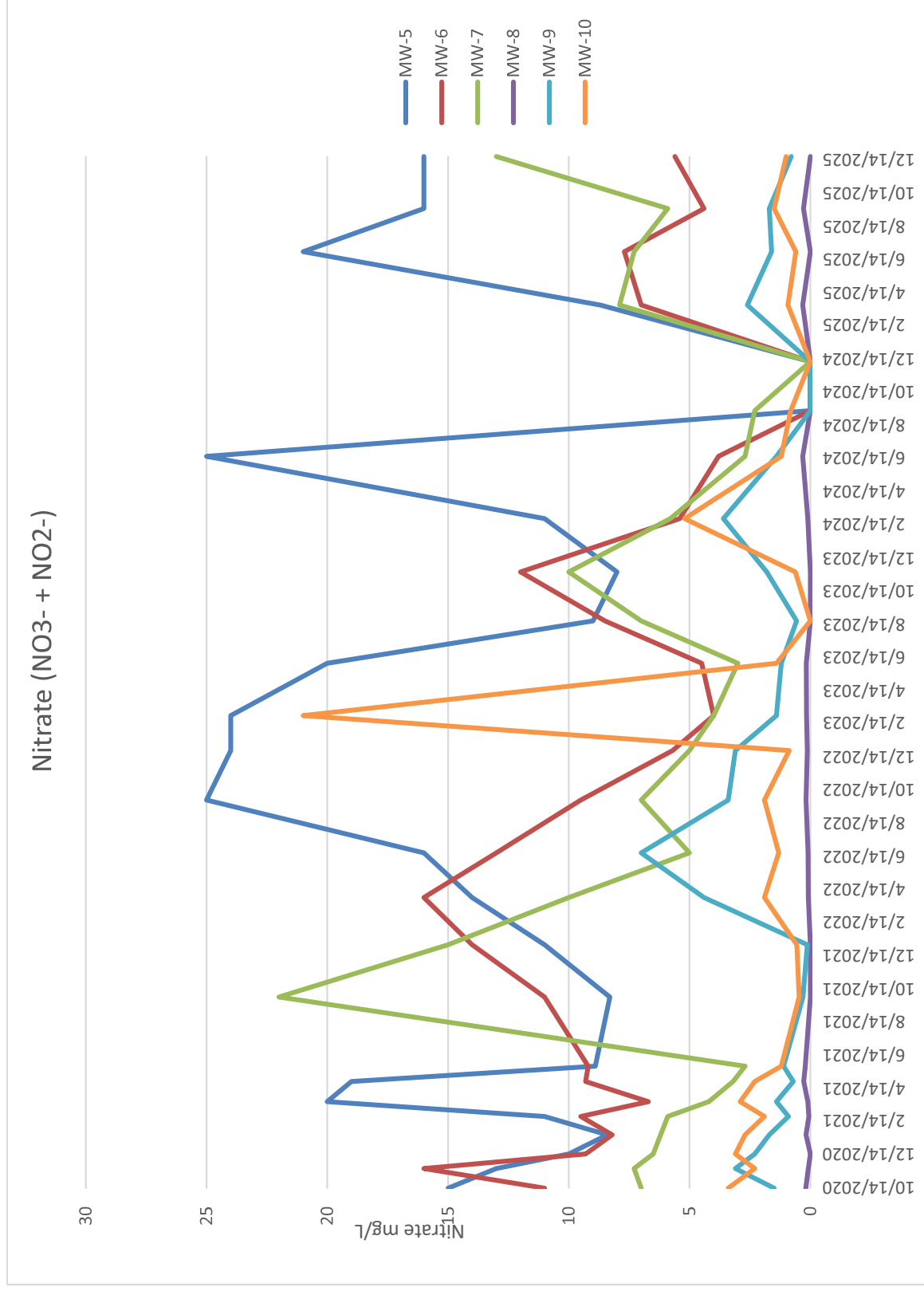


Figure 2 – Time series plot showing nitrate concentrations in production area monitoring wells.

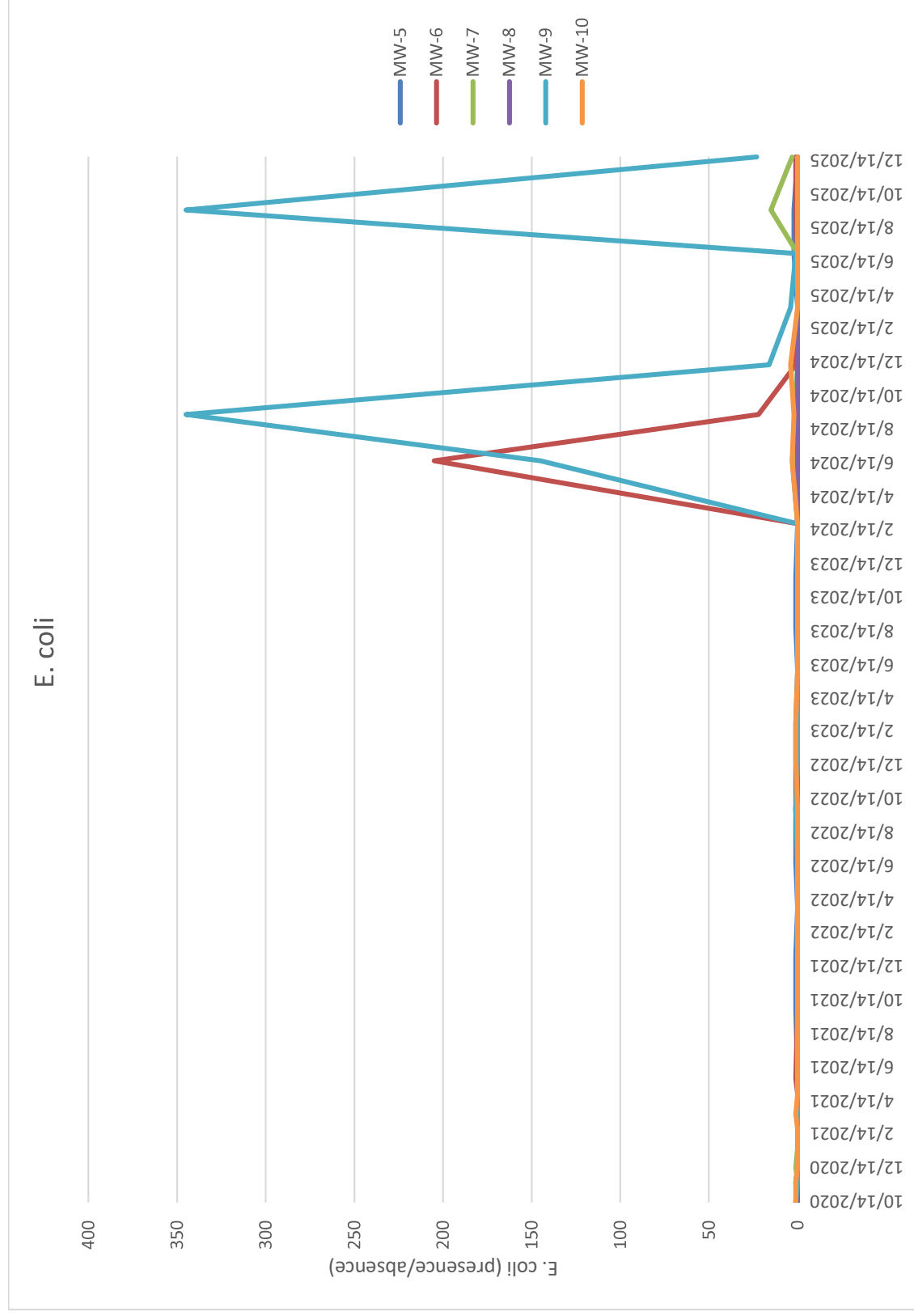


Figure 3 - Time series plot showing *E. coli*, expressed in MPN/100ml in production area monitoring wells.

Below are the sampling data from the last 16 quarters from MW-6 at Larson Acres. MW-6 is upgradient from the production area and represents background groundwater quality. The calculations at the bottom of the sheet are to determine PALs for indicator parameters, which is standard practice during re-issuance. Methods are described in detail in NR 140.20(2)(c).

Date	Chloride	TDS	TKN	NH3-N	NO3+NO2	COD	pH
9/30/21	*	720	0.35	<0.10	8.3	56	7.6
1/4/22	310	670	0.54	<0.10	11	31	7.4
4/1/22	160	520	<0.19	0.11	14	12	6
6/22/22	230	540	0.79	<0.10	16	<6.0	5
9/27/22	120	470	<0.19	0.11	25	13	5.8
12/27/22	87	410	<0.19	<0.10	24	18	7.9
3/1/23	62	390	<0.19	0.1	24	180	7.1
6/5/23	120	450	0.62	<0.10	20	11	5.5
8/22/23	260	790	0.55	<0.10	9	54	N/A
11/20/23	260	650	0.57	<0.10	8	13	6.1
2/26/24	150	510	0.64	<0.10	11	24	7.3
6/19/24	51	490	0.3	<0.10	25	11	8.3
9/11/24	130	500	<0.19	<0.10	<0.041	17	8.7
12/10/24	200	680	<0.19	<0.10	<0.041	29	9.1
3/24/25	180	530	<0.23	<0.10	8.7	16	9.6
6/30/25	130	580	<0.23	<0.10	21.00	12	9.2
Mean	163.3333	556.25	0.545	0.106667	16.07143	33.13333	7.373333
STD Dev	73.55149	111.4605	0.147224	0.004714	6.603617	41.71309	1.400698
3*STD Dev	220.6545	334.3814	0.441673	0.014142	19.81085	125.1393	4.202095
BACK+3STD	383.9878	890.6314	0.986673	0.120809	35.88228	158.2726	11.57543
BACK+TBL3		756.25		2.106667		58.13333	
PAL	125	890	1	0.97	2	158	6.4-8.4
ES	250			9.7	10		