Permit Fact Sheet

General Information

Permit Number	WI-0063061-04-0
Permittee Name and Address	El Na Farms LLC; 4029 Pheasant Road Algoma, WI 54201
Permitted Facility Name and Address	El Na Farms LLC; 4029 Pheasant Road Algoma, WI 54201
Permit Term	January 01, 2025 to December 31, 2029
Discharge Location	(Main Site) E4029 Pheasant Rd, Algoma, WI 54201; E ½ of the NE ¼ T25N R24E S34, Township of Lincoln (Heifer Site) E4082 County Rd S, Algoma, WI 54201; SE ¼ of the SE ¼ T25N R24E S22, Township of Lincoln
Receiving Water	Unnamed tributaries within the Ahnapee River Watershed, Lake Michigan Drainage Basin, and groundwaters of the state.

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.)	80	0	120	0	10/30/2025
Milking and Dry Cows	2450	2503	3745	3825	10/30/2025
Heifers (400 lbs. to 800 lbs.)	330	550	570	950	10/30/2025
Heifers (800 lbs. to 1200 lbs.)	495	450	605	550	10/30/2025
Total	3355	2503	5040	3825	

Facility Description

El Na Farms LLC is an existing Concentrated Animal Feeding Operation in Kewaunee County, WI. El Na Farms is owned and operated by the Lonnie Fenendael. As of January of 2024, it has 1,750 milking and dry cows, 450 large heifers, 550 small heifers, and 400 calves (3,355 animal units). El Na Farms plans to expand to 5,040 animal units by the end of 2024. El Na Farms will annually generate approximately 31,527,283 gallons of liquid manure and process wastewater and 4,300 tons of solid manure. After the expansion, El Na Farms will generate 43,288,817 gallons of manure and process wastewater and 5,400 tons of solid manure. As of December 2023, El Na Farms currently has greater than the required minimum of 180 days of storage. El Na Farms has 5,337 acres in its approved nutrient management plan, of which 4,649 acres are rented or in contract agreements and 1,123 acres are owned. El Na Farms has 5,337 acres available for land application.

Substantial Compliance Determination

Enforcement During Last Permit: During the previous permit term, El Na Farms LLC was issued several Notice of Violations for failure to adhere to permit compliance schedules and land application violations. El Na Farms LLC has completed all necessary injunctive relief to return to compliance with permit requirements.

After a desk top review of all compliance schedule items and permit application materials, and a site visit on August 11 and 25, 2021, this facility has been found to be in substantial compliance with their current permit.

Compliance determination made by James Salscheider, Compliance and Enforcement Coordinator on October 22, 2024.

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 Site. WSF 1 is a earthen storage located northwest of WSF 3. The facility has a capacity of 4,582,631 gallons and was constructed in 2000 and modified in 2009. This storage accepts manure and process wastewater from the animal barns and milking parlor at the Main Site. WSF 1 was last evaluated in 2009 at the time it was modified and met permit requirements.	
002	Sample point 002 is for liquid waste storage facility 2 (WSF 2) located at the Heifer Site. WSF 2 is a earthen and concrete floored storage. The facility has a capacity of 7,449,633 gallons and was constructed in 2014. This storage accepts manure and process wastewater from the animal barns, outdoor lots, and solid stacking pad at the Heifer Site. WSF 2 was last evaluated in 2014 at the time of construction and met permit requirements.	
003	Sample point 003 is for the solid stacking pad located at the Heifer Site. The stacking pad is a concrete composite pad located south of WSF 2. This storage accepts manure from the animal barns and outdoor lots at the Heifer Site.	
004	Sample point 004 is for solid manure sources that are directly land applied and not stored in a waste storage facility. This includes solid sources such as calf hutch manure, maternity pen bedpack, heifer bedpack, steer manure, etc. Representative samples shall be taken for each manure source type.	
005	Sample point 005 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.	
006	Feed Storage Area: This sample point includes the feed storage area and associated runoff controls for feed leachate located at the Dairy Center. Chemical monitoring is not required; however, weekly visual inspections are to be completed as part of the monitoring and inspection program in accordance with the permit conditions.	
007	Sample point 007 is for visual monitoring and inspection of the concrete feedlots and associated runoff control system located at Heifer Site. Feedlot runoff gravity flows into waste storage facility 2. Proper operation and maintenance is required to ensure discharges to waters of the state do not occur. Weekly inspections are required and shall be recorded according to monitoring program.	

Sample Point Designation For Animal Waste		
Sample Point Number	**Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**	
008	Sample point 008 is for visual monitoring and inspection of the outdoor feedlot. calf hutch area, and associated runoff control systems located at the Main Site. Feedlot runoff is pumped into waste storage facility 3. Proper operation and maintenance is required to ensure discharges to waters of the state do not occur. Weekly inspections are required and shall be recorded according to monitoring program. An engineering evaluation of the feedlot and runoff control system shall be submitted according to the Schedules section of the permit.	
009	Sample point 009 is for liquid waste storage facility 3 (WSF 3) located at the Main Site. WSF 3 is a concrete storage located southeast of WSF 1. The facility has a capacity of 8,538,418 gallons and was constructed in 2021. This storage accepts manure and process wastewater from the animal barns, milking parlor, feed storage area, and calf hutch area at the Main Site. WSF 3 was last evaluated in 2021 at the time it was constructed and met permit requirements.	
010	Sample point 010 is for proposed liquid waste storage facility 4 (WSF 4) located at the Main Site. WSF 4 will be a concrete storage located southeast of WSF 3. The facility will have a capacity of 3,554,403 gallons and will be constructed in 2024. This storage will accept manure and process wastewater from the animal barns, milking parlor, feed storage area, and calf hutch area at the Main Site.	

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

1 Livestock Operations - Proposed Operation and Management

Production Area Discharge Limitations

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

Runoff Control

The permit requires control of contaminated runoff from all elements of the production area to prevent a discharge of pollutants to navigable waters in accordance with the Production Area Discharge Limitations and to comply with surface water quality standards and groundwater standards. Beginning on the effective date of this permit, (if needed) interim

measures shall be implemented to prevent discharges of pollutants to navigable waters. In addition, permanent runoff control system(s) shall be designed, operated and maintained in accordance with the requirements found in USDA Natural Resources Conservation Service standards and ch. NR 243, Wis. Adm. Code. If any upgrading or modifications to runoff controls are necessary, formal engineering plans and specifications must submitted to the Department for approval.

Manure and Process Wastewater Storage

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

The permittee currently has approximately 7 1/2 months of storage for liquid manure. The permittee must maintain 180 days of storage, unless temporary reductions in required storage are approved by the Department.

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 1,750 milking and dry cows, 1,000 heifers, and 400 calves (3,355 animal units), it is estimated that approximately 31,527,283 gallons of manure and process wastewater and 4,300 tons of solid manure will be produced in the first year. A proposed expansion to 2,675 milking and dry cows, 1,025 heifers, and 600 calves (5,040 animal units) will happen after the first year of the permit term. El Na Farms will generate 43,288,817 gallons of manure and process wastewater and 5,400 tons of solid manure will be produced. The permittee owns *approximately* 1,123 acres of cropland and rents about 4,649 acres. Given the rotation commonly used by the permittee, 5,166 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 permitee must also implement conservation practices when applying manure near navigable waters and their conduits, referred to as the Surface Water Quality Management Area (SWQMA). These practices include a 100-foot setback from navigable waters and their conduits, a 35-foot vegetated buffer adjacent to the navigable water or conduit, or a practice that provides equivalent pollutant reductions equivalent to or better than the 100-foot setback.

In addition, the permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure (≥12% solids) on frozen or snow-covered ground during February and March. Beginning January 1, 2025, 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; 009- WSF 3, and 010- WSF 4

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 Point 009 and 010 were added to this permit to cover WSF 3 and proposed WSF 4.

1.1.2 Explanation of Operation and Management Requirements

Liquid manure sources must be properly samples, and land applied according to the permit and nutrient management plan.

1.2 Sample Point Number: 003- Manure Stacking Pad; 004- Miscellaneous Solid Manure; 005- Headland Stacking Sites

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

1.2.1 Changes from Previous Permit

There are no changes from the previous permit term.

1.2.2 Explanation of Operation and Management Requirements

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

1.3 Sample Point Number: 006- Feed Storage Area; 007- Outdoor Lot - Heifer Site, and 008- Outdoor Lots - Dairy Site

1.3.1 Changes from Previous Permit

There are no changes from the previous permit term.

1.3.2 Explanation of Operation and Management Requirements

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

2 Groundwater – Monitoring and Limitations

2.1 Groundwater Monitoring System for El Na Farms LLC Production Site

Location of Monitoring system: E4029 Pheasant Rd, Algoma, WI 54201

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

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

2.1.1 Changes from Previous Permit:

The department has determined that production site groundwater monitoring should be required for El Na Farms LLC. This is the first permit term with groundwater monitoring requirements.

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.

3 Schedules

3.1 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: Develop a written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	01/31/2025

3.2 Explanation of Schedules

This is a general WPDES permit requirement for CAFOs.

3.3 Monitoring & Inspection Program

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

Required Action	Due Date
Proposed Monitoring and Inspection Program: Consistent with the Monitoring and Sampling Requirements subsection, the permittee shall submit a proposed monitoring and inspection program within 60 days of the effective date of this permit.	02/28/2025

3.4 Explanation of Schedules

This is a general WPDES permit requirement for CAFOs.

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.	01/31/2025
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.	

3.6 Explanation of Schedules

This is a general WPDES permit requirement for CAFOs.

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).	
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.	

3.8 Explanation of Schedules

This is a general WPDES permit requirement for CAFOs.

3.9 Runoff Control System - Engineering Evaluation

Calf Hutch Area Runoff Control System

Required Action	Due Date
Complete Engineering Evaluation: Retain a qualified expert to complete an engineering evaluation for the calf hutch runoff control system and report the name of the expert to the Department.	03/31/2025
Written Description of Existing System: Submit a written description of the existing runoff control system and its adequacy to permanently meet the conditions in the Production Area Discharge Limitations and Runoff Control subsections and s. NR 243.15, Wis. Adm. Code. (See Standard Requirements for report details.)	08/31/2025
Plans and Specifications: Submit plans and specifications for Department review and approval to permanently correct any adverse runoff control conditions in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code.	04/30/2026
Corrections and Post Construction Documentation: Complete construction of runoff controls that permanently correct any adverse runoff control conditions in concurrence with and approval by the Department, by the specified Date Due. Submit post construction documentation within 60 days of completion of the project.	12/31/2026

3.10 Explanation of Schedules

This compliance schedule is included to evaluate the runoff controls for the calf hutch area at the Main Site.

3.11 Groundwater Monitoring System - Plan

Submit a groundwater monitoring plan for 3 monitoring wells. The plan shall include groundwater monitoring requirements consistent with permit requirements.

Required Action	Due Date
Plans and Specifications: Submit plans and specifications for installation of monitoring wells MW-1, MW-2, and MW-3 to be installed. The plan shall include groundwater monitoring requirements consistent with permit requirements.	03/31/2025
Installation: Complete well installation in accordance with ch. NR 141, Wis Adm. Code, within 90 days following approval by the Department of the Final Groundwater Monitoring Plan. (Note: Documentation of well construction must be submitted to the Department within 60 days of well installation).	

3.12 Explanation of Schedules

This compliance schedule is included to submit a groundwater monitoring plan for the production site at the Main Site.

3.13 Groundwater Monitoring System - Reporting

Required Action	Due Date
Quarterly Reporting to the Department: Quarterly reporting of tabulated groundwater monitoring data and water level contour maps is required. Quarterly reports shall be submitted to the regional contact via email or mail within 45 days of the last sample event for that quarter. Online reporting is also required via groundwater monitoring forms.	
Annual Reporting to the Department: An annual report that summarizes the groundwater monitoring data shall be submitted by January 31st each year. Any updates to the groundwater monitoring workplan shall also be included in this report.	

3.14 Explanation of Schedules

This compliance schedule is included to require submittal of groundwater monitoring results at the Main Site.

3.15 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	06/30/2029

3.16 Explanation of Schedules

This compliance schedule is included to submit a permit reissuance application.

Other Comments

N/A

Attachments

August 11, 2021 Reissuance Inspection Report

December 19, 2023 Conditional NMP Approval Letter

December 19, 2023 Days of Storage Review Letter

Hydrogeologic Review Memo

Site Maps

Justification Of Any Waivers From Permit Application Requirements

N/A

Prepared By: James Salscheider Agricultural Runoff Management Specialist Date: 11/11/2024

CAFO Compliance Report (10/12/2021)

Inspection Date: August 11 and August 25, 2021

Inspection Type: Permit Reissuance Inspection

Operation Name: El Na Farms LLC

WPDES Permit No. 0063061-03-0

Operation Address: E4029 Pheasant Rd, Algoma, WI 54201 and E4082 County Rd S, Algoma, WI 54201

On-Site Representative(s): Lonnie Fenendael (owner) and Craig Harmann (Farm Employee)

DNR Staff / Report Writer: James Salscheider, Maddy Hoekstra, and Nicole Beauchaine

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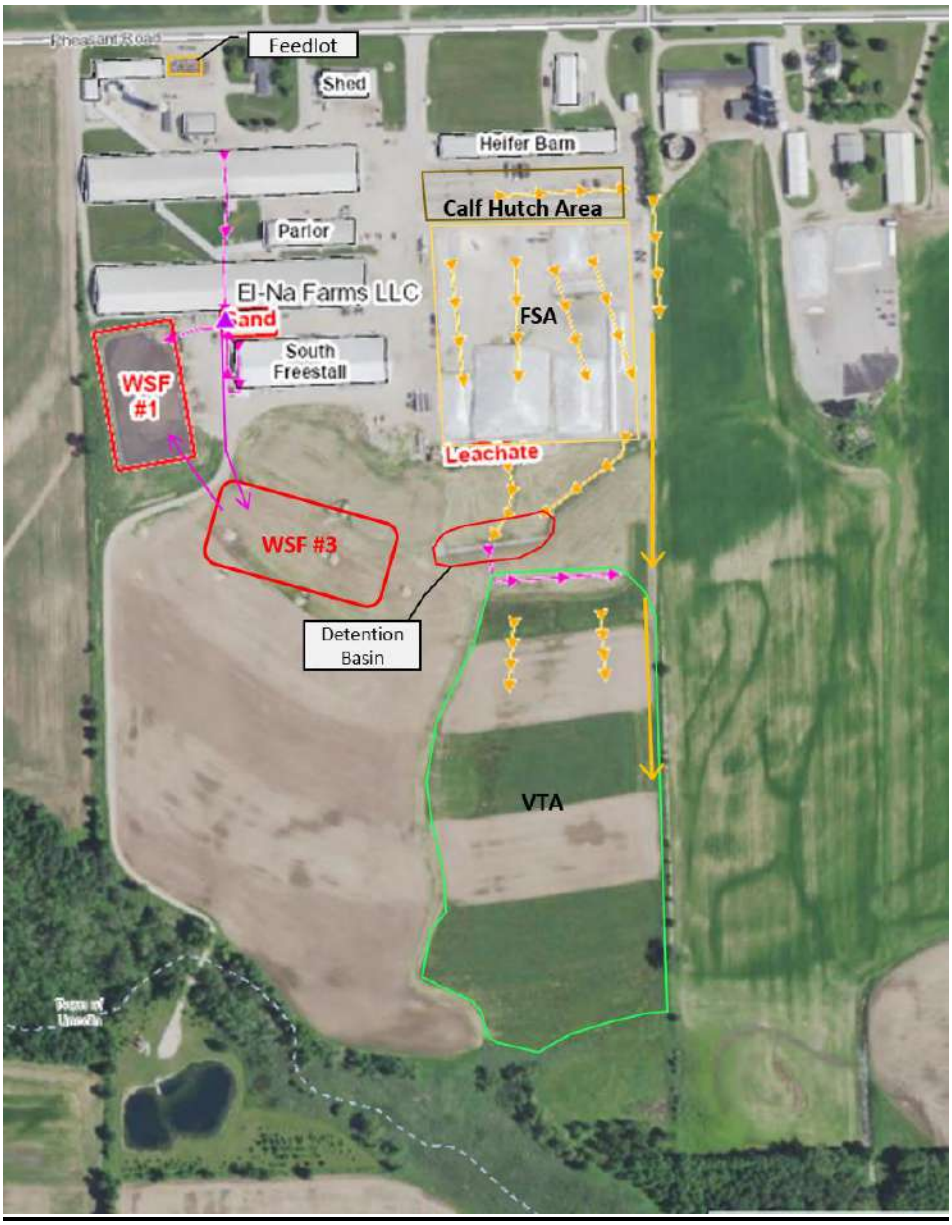
Summary
At approximately 1:00 p.m. on August 11, 2021, James Salscheider, DNR Agricultural Runoff Management Specialist, Maddy Hoekstra and Nicole Beauchaine, DNR Water Supply Specialists, met with Lonnie Fenendael, owner of El Na Farms, and Craig Harmann, El Na Farms' employee. They were also joined by John Roach, engineer from Roach and Associates, and Nathen Nysse, agronomist from Tilth Agronomy. El Na Farms is a large permitted Concentrated Animal Feed Operation (CAFO) located in the township of Lincoln, Kewaunee County. El Na Farms consists of two sites, the Main Site and the Heifer Site. The Main Site is located at E4029 Pheasant Rd, Algoma, WI 54201; E ½ of the NE ¼ T25N R24E S34, Township of Lincoln. The Heifer Site is located at E4082 County Rd S, Algoma, WI 54201; SE ¼ of the SE ¼ T25N R24E S22, Township of Lincoln. The weather during the majority of the inspection was dry and approximately 75°F. Approximately 0.85 inches of rain fell the days leading up to the inspection. Inclement weather arrived during the inspection, causing the inspection to be completed at a later date.

At approximately 10:30 a.m. on August 25, 2021, Salscheider met Fenendael at the Heifer Site to finish the reissuance inspection. Salscheider needed to inspect the entirety of the Heifer Site and the runoff controls for the Calf Hutch Area at the Main Site to complete the reissuance inspection. The weather during the second inspection was dry and approximately 79°F. The area received approximately .25 inches of rain the day prior.



Aerial Map 1. The aerial map to the left illustrates the production site at the Main Site for El Na Farms, LLC. The Main Site is comprised of two liquid waste storage facilities, three freestall barns, one outdoor feedlot, one calf hutch area, one heifer barn, one feed storage area, a sand separation building, and a vegetated treatment area to handle runoff from the feed storage area and calf hutch area. The pink arrows represent the manure transfer system. The yellow arrows represent the flow path of process wastewater from the calf hutch area and feed storage area to the vegetated treatment area.

Aerial Map 2. The aerial map above illustrates the production site at the Heifer Site for El Na Farms, LLC. The Heifer Site consists of one liquid waste storage facility, one solid stacking area, one outdoor feedlot, and two heifer barns. The yellow arrows represent the flow path of process wastewater from the feedlots and manure scraping alley.

Aerial Map 3. The aerial map above illustrates Main Site and nearby surface waters. An unnamed tributary (WBIC 5015658) to Rio Creek is directly south of the production site, flowing west to east, eventually discharging to Rio Creek. The aerial image was obtained from WDNR Surface Water Data Viewer.

SITE OBSERVATIONS

Feedlot Runoff

Feedlot areas are managed to not have current or past indicators of discharges.
Feedlot runoff control systems are well-maintained, in good repair and in compliance with permit requirements.

El Na Farms utilizes feedlots at both the Main Site and the Heifer Site. The feedlot at the Main Site is located on the north side of the production site. Animals housed in the northmost barn have access to the feedlot. Runoff from the feedlot gravity flows to a depression located in the center of the lot where an auger pumps the runoff to a manure tanker.

At the Heifer Site, there is one feedlot located on the east side of the production site. Runoff from the feedlot gravity flows through concrete channels and directly into the onsite waste storage facility (WSF 2). Animals housed in the easternmost barn have access to the feedlot. Solid waste from the feedlot is either scrapped directly into the liquid waste storage facility or stacked on the solid manure stacking pad, adjacent to the liquid waste storage facility.

Photo 1. The outdoor concrete feedlot located at the Main Site. The feedlot is located on the north side of the production site. Runoff from the feedlot gravity flows to the center, where it collected until it is augured into equipment to transfer the waste. This photo was taken facing northwest.

Photo 2. The outdoor concrete feedlot located at the Main Site. The feedlot is located on the north side of the production site. Runoff from the feedlot gravity flows to the center, where it collected until it is augured into equipment to transfer the waste. This photo was taken facing west.

Photo 3. The outdoor concrete feedlot located at the Main Site. The feedlot is located on the north side of the production site. Runoff from the feedlot gravity flows to the center, where it collected until it is augured into equipment to transfer the waste. This photo was taken facing west.

Photo 4. Drainage from the driveway adjacent to the concrete outdoor feedlot at the Main Site. The blue arrows represent the flow path of stormwater from the driveway. This photo was taken facing east.

Photo 5. An abandoned outdoor feedlot located on the northwest corner of the production site at the Main Site. This photo was taken facing north. The only animals that have access to this lot are fair animals for a short period of time.

Photo 6. An abandoned outdoor feedlot located on the northwest corner of the production site at the Main Site. This photo was taken facing north. The only animals that have access to this lot are fair animals for a short period of time.

Photo 7. The outdoor feedlot at the Heifer Site. Runoff from the feedlot gravity flows through a series of concrete swales and into the onsite liquid waste storage facility. This photo was taken facing east.

Photo 8. A concrete swale located north of the outdoor feedlot at the Heifer Site. Runoff from the feedlot gravity flows through the swale and into the onsite liquid waste storage facility. This photo was taken facing east.

Photo 9. The outdoor concrete feedlot at the Heifer Site. Feed was scattered on the ground, east of the feedlot. This photo was taken facing west.

Photo 10. The outdoor concrete feedlot at the Heifer Site. Runoff from the feedlot flows northwest through a series of concrete swales that gravity flow to the onsite liquid waste storage facility. This photo was taken facing west.

Photo 11. Scattered feed on the ground east of the outdoor feedlot at the Heifer Site. Better housekeeping and feeding practices will prevent discharges of pollutants. This photo was taken facing south.

Photo 12. The outdoor feedlot and bedding storage at the Heifer Site. Clean sand that will be used for bedding is stored east of the outdoor feedlot. This photo was taken facing north.

Photo 13. The outdoor feedlot at the Heifer Site. Runoff flows north towards the runoff control system, represented by the yellow arrows. This photo was taken facing north.

Photo 14. The south side of the outdoor feedlot at the Heifer Site. Runoff from this area flows east and then north towards the runoff control system. This photo was taken facing west.

Photo 15. The south side of the outdoor feedlot at the Heifer Site. Runoff from this area flows east and then north towards the runoff control system, represented by the yellow arrows. This photo was taken facing east.

Photo 16. The southeast corner of the outdoor feedlot at the Heifer Site. Runoff from this area flows east and then north towards the runoff control system, represented by the yellow arrows. This photo was taken facing west.

Calf Hutch Areas

Calf hutch areas are managed to not have current or past indicators of discharges.
Runoff control systems are not well-maintained, in good repair and in compliance with permit requirements.

El Na Farms utilizes an outdoor calf hutch area at the Main Site. The calf hutch area is located north of the feed storage area, on the east side of the production site. The calf hutch area is sits on a gravel pad which is on a compact clay liner. The gravel pad was in good condition. Runoff from the calf hutch area flows from northwest to south east, where it enters a concrete swale. The swale conveys runoff south to the vegetated treatment area (VTA). Once runoff leaves the concrete swale, it follows a concentrated flow path on the east edge of the VTA. The flow path caused gully erosion and prevented runoff from evenly distributing over the VTA. The flow path dissipates as it flows south down the VTA.

Photo 17. The outdoor calf hutch area located north of the feed storage area at the Main Site. Runoff from the calf hutch area flows east and south towards the runoff collection system. This photo was taken facing west.

Photo 18. The outdoor calf hutch area located north of the feed storage area at the Main Site. Runoff from the calf hutch area flows east and south towards the runoff collection system. This photo was taken facing east.

Photo 19. The outdoor calf hutch area located north of the feed storage area at the Main Site. Runoff from the calf hutch area flows east and south towards the runoff collection system. This photo was taken facing west. The yellow arrow represents the flow path of runoff towards the runoff control system. The ponded area in the foreground allows sediment to settle out prior to entering the concrete swale.

Photo 20. The concrete swale that conveys runoff from the calf hutch area to the vegetated treatment area. Runoff flows south on the swale towards the VTA. This photo was taken facing south.

Photo 21. The concrete swale that conveys runoff from the calf hutch area to the vegetated treatment area. A concrete bar allows solids to settle out and liquid to continue south towards the VTA. This photo was taken facing south.

Photo 22. The concrete swale that conveys runoff from the calf hutch area to the vegetated treatment area. Runoff flows south on the swale towards the VTA. A concrete berm separates the feed storage area and the concrete swale. This photo was taken facing north.

Photo 23. Bedding/feed solids present outside the concrete swale that conveys runoff from the calf hutch area towards the VTA.

Photo 24. A concrete bar that settles out solids and allows liquids to continue to the VTA. This photo was taken facing south.

Photo 25. The end of the concrete swale where runoff from the calf hutch area enters the VTA.

Photo 26. Runoff from the calf hutch area in a concentrated flow channel on the east side of the VTA.

Photo 27. Runoff from the calf hutch area in a concentrated flow channel on the east side of the VTA.

Photo 28. The east side of the VTA, where runoff from the calf hutch area created a concentrated flow channel with erosion. This photo was taken facing south.

Photo 29. Gully erosion on the east side of the VTA created by runoff from the calf hutch area.

Photo 30. Gully erosion on the east side of the VTA created by runoff from the calf hutch area. A note pad is used to scale the depth of the erosion.

Photo 31. Erosion on the east side of the VTA created by runoff from the calf hutch area. This photo was taken facing south.

Photo 32. The east side of the VTA where runoff from the calf hutch area follows a concentrated flow channel. This photo was taken facing south.

Photo 33. Gully erosion on the east side of the VTA created by runoff from the calf hutch area.

Waste Storage Facilities

Solid and liquid waste storage facilities are not managed to not have current or past indicators of discharges (includes headland stacking sites).
Solid and liquid waste storage structures are well-maintained, in good repair, and in compliance with permit requirements.
Liquid waste storage facilities have permanent markers installed.

At the Main Site, El Na Farms utilizes two liquid waste storage facilities (WSF). WSF 1 is located southwest of the freestall barns, on the west side of the production site. WSF 1 is a compacted clay WSF that was constructed in 2000 and modified in 2009. WSF 1 has a usable capacity of 5,184,443 gallons and accepts manure and process wastewater from WSF 3. The berms around WSF 1 were in good repair and had no signs of erosion. Permanent markers were present within WSF 1. An overflow transfer pipe is located in the southeast corner of WSF 1. If the waste levels get above the Maximum Operating Level (MOL), waste enters the transfer pipe and gravity flows to WSF 3. WSF 3 is the second liquid WSF at the Main Site, located southeast of WSF 1. WSF 3 accepts manure from the sand separation building, after sand has been separated from the manure. WSF 3 is a reduced seepage concrete WSF that was constructed in 2020. The structure was in good repair, with no signs of cracking or degradation. Permanent markers were present in WSF 3.

El Na Farms does treat their manure at the Main Site to remove sand. The sand separation building is located east of WSF 1, between the two southernmost freestall barns. Here, sand is removed from the liquid manure. Sand is cleaned and conveyed into a storage area within the sand separation building. The sand is then reused for bedding in the animal housing buildings. Liquid manure is then transferred to WSF 3 after sand separation.

At the Heifer Site, El Na Farms utilizes one liquid WSF and one solid manure stacking pad. WSF 2 is located on the north side of the production site and accepts manure and process wastewater from the outdoor feedlots, animal barns, and solid manure stacking pad. WSF 3 is an earthen WSF with a concrete bottom. The earthen berms were in good repair, with no signs of erosion. Sand bedding was being removed from the WSF using heavy machinery and land applied during the inspection. The solid manure stacking pad is located adjacent to WSF 2, on the south side of the storage. Runoff from the stacking pad flows south, directly into WSF 2. Manure solids and runoff from the storage pad were observed outside of the storage area. Fenendael informed Salscheider that because they stacked the solid manure so high, leachate discharged from the stacking area. The location that leachate discharged to drains through a grassed swale that terminates in a nearby cropped field. There was no active discharge occurring during the inspection. Better management of the solid stacking area will prevent unpermitted discharges in the future.

Photo 34. WSF 1 at the Main Site, located on the west side of the production site. WSF 1 is a clay WSF built in 2000. This photo was taken facing northwest.

Photo 35. WSF 1 at the Main Site, located on the west side of the production site. WSF 1 is a clay WSF built in 2000. This photo was taken facing south.

Photo 36. WSF 1 at the Main Site, located on the west side of the production site. WSF 1 is a clay WSF built in 2000. This photo was taken facing north.

Photo 37. WSF 1 at the Main Site, located on the west side of the production site. WSF 1 is a clay WSF built in 2000. This photo was taken facing north.

Photo 38. The maximum operating level (MOL) marker present within WSF 1 at the Main Site. The marker is present within the western berm.

Photo 39. The overflow pipe from WSF 1 to WSF 3. Once levels get to the MOL, waste enters the pipe and gravity flows to WSF 3. This photo was taken facing southwest.

Photo 40. WSF 3 at the Main Site, located on the south side of the production site. WSF 3 is a concrete structure built in 2020. This photo was taken facing east.

Photo 41. WSF 3 at the Main Site, located on the south side of the production site. WSF 3 is a concrete structure built in 2020. This photo was taken facing north.

Photo 42. WSF 3 at the Main Site, located on the south side of the production site. WSF 3 is a concrete structure built in 2020. This photo was taken facing east.

Photo 43. WSF 3 at the Main Site, located on the south side of the production site. WSF 3 is a concrete structure built in 2020. This photo was taken facing west.

Photo 44. WSF 3 at the Main Site, located on the south side of the production site. WSF 3 is a concrete structure built in 2020. This photo was taken facing west.

Photo 45. Outlets that discharge waste into WSF 3.

Photo 46. The outlet of the overflow transfer pipe from WSF 1.

Photo 47. The outlet that discharges manure that is transferred from the sand separation building.

Photo 48. Permanent markers present with WSF 3. The top marker represents the MOS. The bottom marker represents the MOL.

Photo 49. The concrete swale that manure is scraped from the animal barn at the Heifer Site. Manure is scraped from the barn and into WSF 2.

Photo 50. WSF 2 at the Heifer Site, located on the north side of the production site. Sand was being removed from the WSF at the time of the inspection. This photo was taken from the southeast corner of the storage facing west.

Photo 51. WSF 2 at the Heifer Site, located on the north side of the production site. Sand was being removed from the WSF at the time of the inspection. This photo was taken from the southeast corner of the storage facing north.

Photo 52. WSF 2 at the Heifer Site, located on the north side of the production site. This photo was taken from the east side of the storage facing northwest.

Photo 53. WSF 2 at the Heifer Site, located on the north side of the production site. Sand was being removed from the structure at the time of the inspection. This photo was taken from the north side of the storage facing south.

Photo 54. WSF 2 at the Heifer Site, located on the north side of the production site. This photo was taken from the north side of the storage facing west.

Photo 55. WSF 2 at the Heifer Site, located on the north side of the production site. This photo was taken from the west side of the storage facing east.

Photo 56. WSF 2 at the Heifer Site, located on the north side of the production site. This photo was taken from the west side of the storage facing east.

Photo 57. The agitation area in WSF 2 at the Heifer Site. This photo was taken facing north.

Photo 58. WSF 2 at the Heifer Site, located on the north side of the production site. This photo was taken from the south side of the storage facing northeast.

Photo 59. The manure loading area at the Heifer Site, where semitrucks are loaded with liquid manure during land application practices.

Photo 60. Permanent markers present within WSF 2 at the Heifer Site.

Photo 61. The west side of the solid manure stacking pad located south of WSF 2. Runoff from the stacking pad flows north directly into WSF 2. This photo was taken facing east.

Photo 62. The west side of the solid manure stacking pad located south of WSF 2. Runoff from the stacking pad flows north directly into WSF 2. This photo was taken facing southeast.

Photo 63. The south side of the solid manure stacking pad located south of WSF 2. Runoff from the stacking pad flows north directly into WSF 2. This photo was taken facing east.

Photo 64. The solid manure stacking pad located south of WSF 2. Runoff from the stacking pad flows north directly into WSF 2. This photo was taken facing north.

Photo 65. The south side of the solid manure stacking pad located south of WSF 2. Runoff and solids were present outside of the stacking area. This photo was taken facing north.

Photo 66. The south side of the solid manure stacking pad located south of WSF 2. Runoff and solids were present outside of the stacking area. The blue arrow represents the flow path of stormwater in the grassed swale. This photo was taken facing west.

Photo 67. The location where runoff from the solid stacking area discharges into WSF 2 at the Heifer Site.

Photo 68. The location where runoff from the solid stacking area discharges into WSF 2 at the Heifer Site. The yellow arrows represent the flow path of runoff towards WSF 2.

Photo 69. The sand separation building, where sand is removed from the manure, cleaned, and stored until it is reused for animal bedding. Leachate from the sand gravity flows back to a reception basin located behind the removal equipment.

Photo 70. Runoff from the separated sand piles gravity flowing towards a reception basin to be comingled with the manure transfer system and transferred to the on-site waste storage facilities.

Photo 71. The reception basin for the sand separation building can be seen in the background of the photo, identified by the black arrow.

Photo 72. A manure transfer line located on the northwest corner of the production site that can transfer manure from the Main Site to the Heifer Site. This photo was taken facing north.

Photo 73. A reception basin at the east end of the heifer barn at the Main Site. Runoff enters the basin and is pumped directly to a manure tanker.

<u>Process Wastewater (other than feed storage area leachate/runoff)</u>
Process wastewater sources (milking center, wash water, etc.) are managed to not have current or past indicators of discharges.

Process wastewater from the milking center is comingled with manure in the manure transfer system and stored in WSFs until it can be land applied. Process wastewater from machine washing is managed to not discharge from the production site.

<u>Feed Storage Area Runoff</u>
Feed storage areas and associated process wastewater (leachate, runoff) are managed to not have current or past indicators of discharges.
Feed storage areas and runoff control systems are well-maintained, in good repair and in compliance with permit requirements.

El Na Farms utilizes one feed storage area FSA, located at the Main Site. The FSA is located south of the calf hutch area and east of the freestall barns. The FSA consists of several covered feed piles and feed silage bags

stored on a concrete pad that was last expanded in 2016. Runoff on the west side of the FSA flows from north to south where it enters a leachate management basin. The basin has a capacity of 39,015 gallons. A VAC truck is used to transfer leachate and first flush to the onsite WSFs. Excess runoff overflows the basin and flows to a detention basin located south of the leachate basin. Runoff from the east side of the feed storage area flows north to south, where the runoff enters a grassed swale that conveys the runoff directly to the detention basin. From the detention basin, runoff is transferred to the vegetated treatment area (VTA), where the process wastewater is distributed across the VTA through a bubbler system. The bubbler system was designed so that each bubbler outlet was at the same elevation, allowing for wastewater to be evenly distributed. One bubbler was at a lower elevation than the rest, resulting in excess runoff being discharged from that bubbler. Maintenance should be conducted to raise the bubbler to allow runoff to be evenly distributed across the VTA.

Photo 74. The feed storage area at the Main Site. Runoff flows from north to south and enters one of two runoff control systems. The yellow arrows represent the flow path of runoff. This photo was taken facing east.

Photo 75. The feed storage area at the Main Site. Runoff flows from north to south and enters one of two runoff control systems. The yellow arrows represent the flow path of runoff. This photo was taken facing north.

Photo 76. The feed storage area at the Main Site. Concrete curbing on the south side of the FSA prevents runoff from discharging and conveys runoff to the runoff control system.

Photo 77. The feed storage area at the Main Site. The concrete pad was in good condition with no signs of degradation.

Photo 78. The feed storage area at the Main Site. Concrete curbing on the west side of the FSA prevents runoff from discharging and conveys the runoff to the runoff control system. This photo was taken facing north.

Photo 79. The feed storage area at the Main Site. Concrete curbing on the west side of the FSA prevents runoff from discharging and conveys the runoff to the runoff control system. This photo was taken facing south.

Photo 80. The feed storage area at the Main Site. The concrete pad was in good condition with no signs of degradation.

Photo 81. The east side of the feed storage area at the Main Site. The concrete pad was in good condition with no signs of degradation.

Photo 82. The east edge of the feed storage area at the Main Site. The concrete pad is sloped west to prevent runoff from leaving the east side of the feed pad. This photo was taken facing south.

Photo 83. The east side of the feed storage area at the Main Site. The concrete pad was in good condition with no signs of degradation.

Photo 84. The east side of the feed storage area at the Main Site, where runoff flows from north to south and enters a grassed swale that conveys runoff to the detention basin, located south of the FSA.

Photo 85. The grassed swale that conveys runoff from the east side of the feed storage area to the detention basin, located south of the FSA. The yellow arrow represents the flow path of runoff. This photo was taken facing south.

Photo 86. The grassed swale that conveys runoff from the east side of the feed storage area to the detention basin, located south of the FSA. The yellow arrows represent the flow path of runoff. This photo was taken facing southwest.

Photo 87. Runoff within the grassed swale that conveys wastewater to the detention basin.

Photo 88. The leachate basin that is located on the south side of the feed storage area. The leachate basin accepts leachate and first flush from the west side of the FSA. Runoff overflows via the toe drain on the southeast corner of the basin and flows to the detention basin. This photo was taken facing west.

Photo 89. The leachate basin that is located on the south side of the feed storage area. The leachate basin accepts leachate and first flush from the west side of the FSA. Runoff overflows via the toe drain on the southeast corner of the basin and flows to the detention basin. The VAC truck that transfers waste to the onsite WSFs can be seen in the photo. This photo was taken facing west.

Photo 90. The toe drain where runoff overflows from the leachate basin and gravity flows to the detention basin. The yellow arrows represent the flow path of runoff. This photo was taken facing south.

Photo 91. The flow path of runoff from the leachate basin to the detention basin. The yellow arrows represent the flow path. This photo was taken facing south.

Photo 92. The detention basin located south of the leachate basin and feed storage area. The detention basin accepts overflow from the leachate basin and runoff from the east side of the feed storage area. This photo was taken facing east.

Photo 93. The detention basin located south of the leachate basin and feed storage area. The detention basin accepts overflow from the leachate basin and runoff from the east side of the feed storage area. This photo was taken facing east.

Photo 94. The detention basin located south of the leachate basin and feed storage area. The detention basin accepts overflow from the leachate basin and runoff from the east side of the feed storage area. This photo was taken facing west.

Photo 95. One of five bubblers that are used to evenly distribute runoff across the vegetate treatment area.

Photo 96. One of five bubblers that are used to evenly distribute runoff across the vegetate treatment area.

Photo 97. The vegetated treatment area located south of the detention basin. One concentrated flow channel was present from one of the bubblers, as its elevation is lower than the rest resulting in more runoff being discharged from the bubbler. This photo was taken facing south.

Photo 98. The vegetated treatment area located south of the detention basin. One concentrated flow channel was present from one of the bubblers, as its elevation is lower than the rest resulting in more runoff being discharged from the bubbler. This photo was taken facing south.

Photo 99. The vegetated treatment area located south of the detention basin. Pictured dead vegetation was killed from excess runoff from one of the bubblers. This photo was taken facing north.

Photo 100. The vegetated treatment area located south of the detention basin. This photo was taken facing north.

Photo 101. Ponded process wastewater within the vegetated treatment area. Ruts within the VTA has prevented runoff from smoothly distributing across the VTA.

Photo 102. The vegetated treatment area located south of the detention basin. This photo was taken facing north.

Photo 103. A grassed waterway present west of the vegetated treatment area. The blue arrow represents the flow path of runoff down the waterway. This photo was taken facing north.

Photo 104. Ponded stormwater on the south end of the vegetated treatment area. There was no evidence of process wastewater on the south end of the VTA. This photo was taken facing west.

Photo 105. Ponded stormwater on the south end of the vegetated treatment area. There was no evidence of process wastewater on the south end of the VTA.

Animal Mortality Disposal

Animal mortalities are managed to not have current or past indicators of discharges.

Animal mortalities are handled by Sandy Bay Mink Ranch.

Ancillary Service Areas

Preventative maintenance actions and visual inspections are occurring to minimize pollutant discharges from ancillary service and storage areas (i.e. storm water conveyance systems, driveways, etc.).

El Na Farms utilizes a series of surface inlets and buried culverts to divert clean storm water off-site. The majority of the clean water is diverted west of the production site. Two grassed waterways accept clean water from culverts and conveys the stormwater off-site. One grassed waterway is located between the freestall barns. The grassed waterway was scrapped so no vegetation was present in the grassed swale during the inspection. Salscheider recommended reestablishing vegetation as soon as possible. A surface inlet is located on the west side of the northern freestall barn. The inlet accepts runoff from the concrete drive outside the freestall barn, including manure tracking. Good housekeeping will prevent discharges from this stormwater inlet. No discharges were observed from the clean water diversion system.

At the Heifer Site, a grassed swale between the large barn and the waste storage facilities conveys stormwater off-site, to the cropped field west of the production site. Manure solids and leachate from the solid stacking area were present in the grassed swale. Better management of the solid stacking area will prevent discharges in the future.

El Na Farms does not utilize outdoor vegetated areas.

Photo 106. A stormwater inlet that accepts clean water from a driveway at the Main Site and diverts the water off-site.

Photo 107. A stormwater inlet that accepts clean water from a driveway at the Main Site and diverts the water off-site. This photo was taken facing west.

Photo 108. A stormwater inlet that accepts clean water from a driveway at the Main Site and diverts the water off-site. A tile line discharges roof runoff to the inlet.

Photo 109. A driveway located on the west side of a freestall barn. Manure tracking was present from equipment leaving the barn. This photo was taken facing north.

Photo 110. A stormwater inlet located on the south side of the driveway pictured in Photo 104. The inlet accepts stormwater from the concrete driveway and diverts it off-site.

Photo 111. A stormwater channel located between the larger freestall barns at the Main Site. El Na Farms had recently cleaned the vegetated channel and is going to reestablish vegetation. The blue arrow represents the flow path of stormwater through the channel.

Photo 112. A stormwater culvert that discharge clean water to the grassed channel pictured in Photo 106. The blue arrow represents the flow path of stormwater.

Photo 113. A stormwater channel located between the larger freestall barns. El Na Farms had recently cleaned the vegetated channel and is going to reestablish vegetation. The blue arrow represents the flow path of stormwater through the channel.

Photo 114. A grassed stormwater swale at the Heifer Site that conveys clean water off-site. The blue arrow represents the flow path of stormwater through the swale. This photo was taken facing west.

Photo 115. A grassed stormwater swale at the Heifer Site that conveys clean water off-site. The blue arrow represents the flow path of stormwater through the swale. This photo was taken facing east.

Photo 116. A grassed stormwater swale at the Heifer Site that conveys clean water off-site. The blue arrow represents the flow path of stormwater through the swale. This photo was taken facing east.

Photo 117. A grassed stormwater swale at the Heifer Site that conveys clean water off-site. The blue arrow represents the flow path of stormwater through the swale. This photo was taken facing west.

Photo 118. Feed commodity storage at the Main Site.

Photo 119. Commodity storage at the Main Site, located in the shed located south of feedlot.

Photo 120. Bedding storage at the Main Site, located in the shed south of the feedlot.

Photo 121. Bedding storage at the Main Site, located at the northeast corner of the production site.

RECORDS REVIEW

The permittee has current WPDES Permit and Nutrient Management Plan onsite.
The permittee provided complete production site inspection records that are required to be retained.
The permittee did provide adequate documentation that the facility has a minimum of 180 days of liquid manure storage capacity.
The permittee provided provide land application records to demonstrate compliance with nutrient management plan requirements.
The permittee has copies of their emergency response and monitoring and inspection plans onsite.
The permittee is up to date on required reporting and actions as specified in the Schedules section of permit.

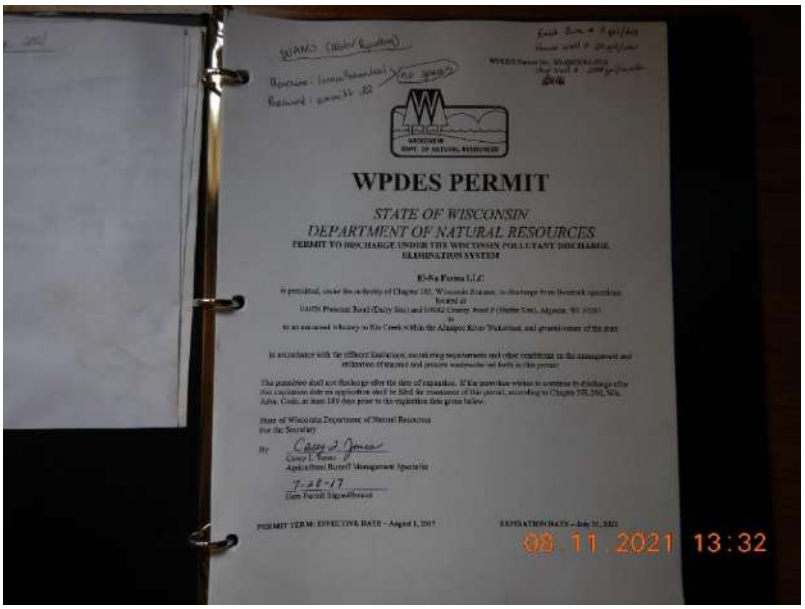
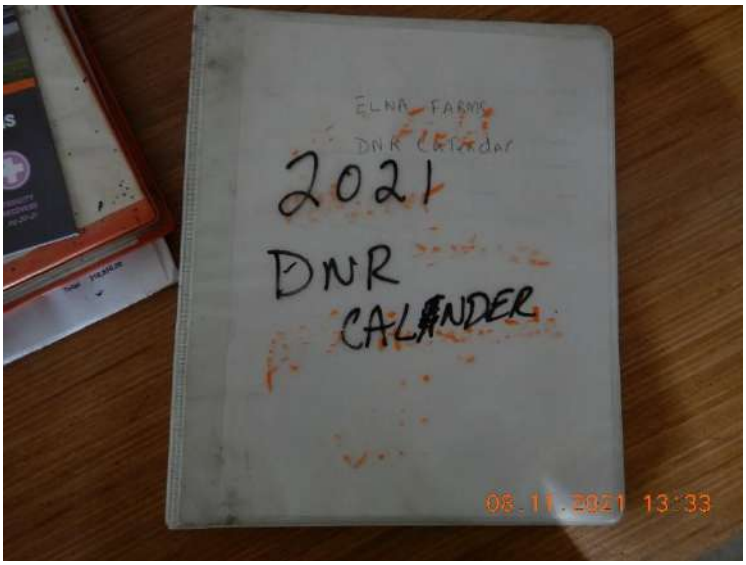


Photo 122. El Na Farms' current WPDES Permit, which was readily available during the inspection.

Photo 123. El Na Farms' current CAFO Calendar, which was readily available during the inspection.



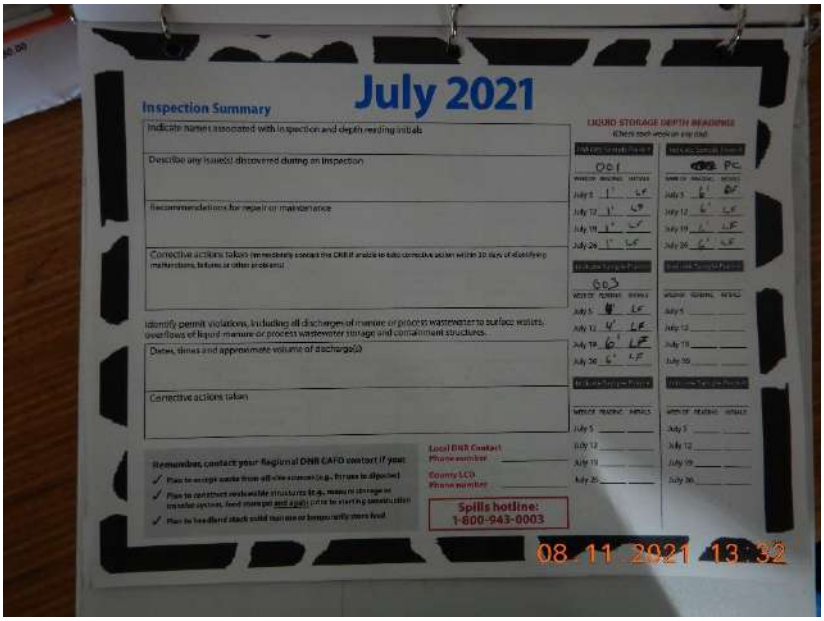


Photo 124. El Na Farms' current CAFO Calendar, which was filled out and up to date at the time of the inspection.

Photo 125. El Na Farms' manure hauling log, which was readily available at the time of the inspection.

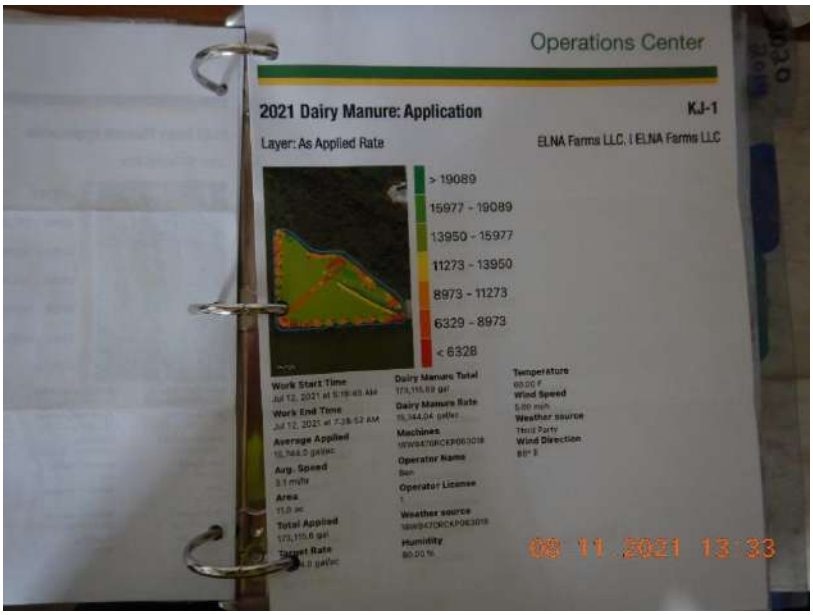


Photo 126. El Na Farms' manure application reports from previous land applications.

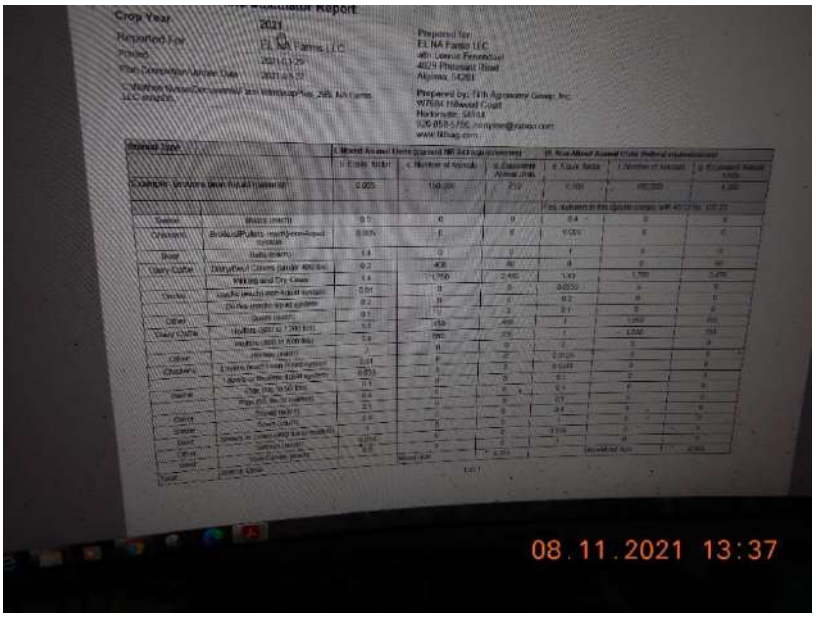


Photo 127. El Na Farms' animal unit calculation worksheet.

SUMMARY

Substantial Compliance
The permittee is currently not in substantial compliance with the permit.

Areas of Concern
Manure Tracking present outside of northern freestall barn and runoff flows towards clean water surface inlet
Unvegetated stormwater swale located between the freestall barn
One bubbler within the vegetated treatment area discharges more than the other bubblers, causing burnt vegetation and concentrated flow
Calf Hutch Area runoff controls cause gully erosion and does not evenly distribute across the VTA
Evidence of discharges from the solid stacking area at the Heifer Site was present
Spilled feed solids were present around the production site at the Heifer Site.

Permit Violations
Permit Section 1.3 – Manure and Process Wastewater Storage

- All permittees shall have and maintain adequate storage for al manure and process wastewater generated at the operation to ensure that wastes can be properly stored and land applied in compliance with the conditions and timing restrictions to the permit, a department approved nutrient management plan, and s. NR 243.14(9)

Permit Section 3.1.15 Reporting Requirements – Noncompliance – 24 Hour Reporting

- The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time of the permittee becomes aware of the circumstances. This includes an upset which exceeds any effluent limitation in the permit, or violations of the discharge limitations listed in this permit.

Action Items
Conduct maintenance on feed storage runoff control system to allow runoff to be evenly distributed across the VTA

- Submit documentation of actions completed by **January 31, 2022**

Clean up spilled manure solids and process wastewater from the discharge from the solid manure stacking area at the Heifer Site.

Clean up spilled feed at the Heifer Site
Re-establish vegetation in stormwater swale to prevent erosion.

Items for Next Permit Term
Conduct a complete engineering evaluation of the calf hutch runoff controls in concurrence with NR 243.16 to demonstrate compliance with permit requirements.

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

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

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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Madison WI 53707-7921

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Adam N. Payne, Secretary
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December 19, 2023

FILE REF: R-2023-0159
WPDES Permit #: WI-0063061

Lonnie Fenendael
El Na Farms LLC
E4029 Pheasant Rd
Algoma, WI 54201

Subject: Days of Storage Review for El Na Farms LLC NE¼ of T25N, R24E, Section 34 in Lincoln Township, Kewaunee County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Fenendael:

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 James Roach, P.E., Roach and Associates, LLC on July 30, 2023 with revisions received on December 7, 2023 on behalf of El Na Farms LLC.

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

Days of Available Liquid Waste Storage: The submitted information states that El Na Farms LLC will have 228 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 3,244. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values for a collection period of 365 days. Without construction of WSF4, feed storage area runoff will be comingled with manure. All runoff, up to the 25yr – 24hr storm, from the feed storage area will be transferred to WSF3. All runoff, up to the 25yr – 24hr storm, from the feedlot is transferred to WSF1.

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.
WSF1	5,786,463	0	146,214	49,651	397,555	5,193,043
WSF2	8,894,371	0	289,751	0	800,463	7,804,157
WSF3	9,618,563	0	288,727	733,574	791,418	7,804,844
					Total MOL Vol:	20,802,044
					Days of Storage:	**228**

Liquids Collected/Stored	Annual Gallons
Manure and Bedding	19,090,377
Parlor Wastewater	4,647,200
Feed Storage Leachate	149,600
Feed Storage Runoff Collected	5,568,330
Feedlot Runoff	376,889
Net Precipitation on Storage Surfaces	3,421,219
TOTAL:	**33,253,615**

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, EIT
CAFO Review Engineer
Watershed Management Program

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

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

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
1300 W. Clairemont Ave.
Eau Claire WI 54701

Tony Evers, Governor
Adam N. Payne, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

December 19, 2023

Kewaunee County
Approval

Lonnie Fennendael
El Na Farms LLC
E4029 Pheasant Rd
Algoma, WI 54201

SUBJECT: Conditional Approval of El Na Farms LLC Nutrient Management Plan, WPDES Permit No. 0063061-04-0

Dear Mr. Fennendael:

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

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

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

FINDINGS OF FACT

The Department confirms that:

1. A current dairy herd size of 3,355 animal units (1,750 milking & dry cows, 1,000 heifers, and 400 calves). A planned herd size of 5,040 animal units (2,675 milking & dry cows, 1,025 heifers, and 600 calves) by 2024.
2. Manure generation and spreading records indicate your herd will annually generate approximately 31,527,283 gallons of manure and process wastewater and 4,300 tons of solid manure in the first year of the permit term. After the planned expansion your herd will annually generate approximately 43,288,817 gallons of manure and process wastewater and 5,400 tons of solid manure.
3. The use of application restriction options 1 and 5 within surface water quality management areas.
4. The use of phosphorus delivery method P Index.

5. That El Na Farms LLC currently has 5,337.1 acres (1,123.4 owned and 4,649.1 controlled through contracts, rental agreements or leases, or under manure agreements) of which 5,166.3 are spreadable acres.
6. That some fields included in the NMP are directly adjacent to or have high potential to deliver nutrients and sediment to Kewaunee River (listed 303(d) impaired water by 'PCB's, Total Phosphorus, and unspecified metals'), Red River (listed 303(d) impaired water by 'Total Phosphorus'), Luxemburg Creek (listed 303(d) impaired water by 'Total Phosphorus'), Rio Creek (listed 303(d) impaired water by 'Total Phosphorus'), Silver Creek (listed 303(d) impaired water by 'Total Phosphorus'), and Ahnapee River (listed 303(d) impaired water by 'Total Phosphorus, PCB's, and Unknown Pollutant').
7. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters.
8. That 28 fields are tiled.

- 07
- 08
- 09
- 11
- 12
- 18
- A-1
- HV-1
- HV-3
- HV-7
- JB-1
- JE-1
- JE-2
- JS-5
- K-3
- K-4
- M-3
- M-7
- M-8
- M-9
- ML-1
- P-02
- PH-3
- R-1
- R-2
- R-3
- SH-1
- T-6

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

CONDITIONAL NUTRIENT MANAGEMENT PLAN APPROVAL

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

FIELD AND MANURE MANAGEMENT

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

2. The following fields are prohibited from receiving applications of manure or process wastewater due to missing or outdated soil tests:

- AM-1
- AM-3
- BG-2
- GH-1
- GH-2E
- GH-2W
- GH-3E
- GH-3W
- GH-4
- JN-1
- MW-1
- MW-2
- PW-1
- PW-2
- PW-3
- PW-4
- PW-6
- R-3
- SCH-1
- SCH-2
- T-4

- TH-1
- TH-2
- TH-3
- TH-4
- TH-5
- TH-6
- TH-8
- Z-2
- Z-3

If El Na Farms 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.

3. If existing fields yield a soil test results equal to or greater than 200 ppm P, those fields would be prohibited from receiving manure or process wastewater applications, unless you obtain Department approval in accordance with NR 243.14(5)(b)2., Wis. Adm. Code.

4. All liquid manure samples collected may be analyzed, at a minimum, for percent dry matter, total nitrogen, percent NH_4-N, percent NO_3-N, phosphorus, potassium, and sulfur.

5. 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, El Na Farms LLC may use the following equation to adjust the first year available nitrogen when applications are injected or incorporated within 1 hour:

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

6. El Na Farms LLC shall record daily manure applications by using form 3200-123A. These forms shall be retained at the farm and provided to the department upon request.

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

<u>WINTER SPREADING</u>

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

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

- A-1
- CR-1
- H-3
- H-4
- H-8
- M-7
- P-06
- R-1
- R-2
- R-3
- RB-1
- RB-2
- RB-3
- RB-4
- RB-5
- RB-6
- RB-7
- SH-1
- SH-2
- AW-1

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

- 18 (inadequate acres)
- AW-4 (no map)
- H-1 (inadequate acres)
- H-2 (inadequate acres)
- H-5 (inadequate acres)
- KJ-5 (inadequate acres)
- PH-1 (inadequate acres)
- PH-2 (inadequate acres)

11. 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.

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

13. 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

14. The following sites are approved for non-winter and winter headland stacking in February and March with manure >32% solids:

    - KJ-4
    - HV-1
    - HV-7

15. The following sites are denied for headland stacking.

    - AW-3 (depth to saturation)
    - S-2 (depth to saturation)

MANURE & PROCESS WASTEWATER IRRIGATION

16. Irrigation of manure or process wastewater is prohibited.

NR243.143/151.075 SILURIAN BEDROCK PERFORMANCE STANDARDS

17. Manure generated by El Na Farms 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 A for full listing of all Silurian Fields

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.

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: James Salscheider, WDNR Agricultural Runoff Specialist (James.Salscheider@Wisconsin.gov)
Joe Baeten, WDNR Watershed Field Supervisor (Joseph.Baeten@Wisconsin.gov)
Chris Clayton, WDNR Ag Runoff Section Chief (Christopherr.Clayton@Wisconsin.gov)
Ashley Scheel, WDNR CAFO NMP Reviewer (Ashley.Scheel@Wisconsin.gov)
Tony Salituro, WDNR Intake Specialist (Anthony.Salituro@Wisconsin.gov)
Davina Bonness, Kewaunee County (bonness.davina@kewaunee.org)
Nathan Nysse, Tilth Agronomy Group (nathen@tilthag.com)
File

Appendix A
El Na Farms LLC Silurian Bedrock Fields:

01, 05, 06, 07, 08, 09, 11, 12, 13, 16, 17, 18, 19, 20, AM-3, AW-1, AW-2, AW-3, AW-4, B-1, B-3, BG-4, F-1, F-2, F-3, HV-1, HV-3, HV-4, HV-5, HV-7, J-1, J-2, J-5, JB-1, JK-1, JN-1, KJ-3, KJ-4, KJ-5, KJ-6, KJ-7, LA-1, LA-2, LA-3, LA-4, MA-1, MA-2, MA-3, MA-4, MA-5, P-02, P-06, P-07, P-08E, P-08W, P-12, PD-1-2, PD-3, PD-4, PD-5, PD-6, PD-11, PD-12, PD-13, PD-14, PH-1, PH-2, PH-3, PW-1, PW-2, PW-3, PW-4, PW-5, PW-6, RF-1, RM-1, RM-3, RM-4, RM-5, RM-6, RM-7, RM-8, S-1, S-2, SA-1, SCH-1, SCH-2, SCH-3, SCH-7, ST-2, T-1, T-4, TH-1, TH-2, TH-3, TH-4, TH-5, TH-6, TH-7, TH-8, TH-9, V-2, W-1, Y-

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: October 25, 2024 WPDES Permit #0063061-03-0

TO: James Salscheider – CAFO Compliance and Enforcement Coordinator, Green Bay

FROM: Ian Anderson – CAFO Hydrogeologist Program Coordinator

SUBJECT: El Na Farms LLC – Groundwater Monitoring Review

Background:
The El Na Farms Main Site production area (El Na) is located in Section 34, T25N R24E, Town of Lincoln, Kewaunee County. The WPDES permit for El Na (Permit #0063061-03-0) expired on July 31, 2022. I was asked to consider the potential for groundwater monitoring due to the geologic setting in the Town of Lincoln. This memo describes the site-specific information used to make the recommendation that production area groundwater monitoring should be required in the upcoming permit reissuance, which includes: local well construction reports, published county-scale geologic maps, and a report on the hydrogeological characterization of the Town of Lincoln published by the Wisconsin Geological and Natural History Survey (Parsen et al. 2017).

Geology/Hydrogeology:
Bedrock in the Town of Lincoln is entirely Silurian dolomite, and is known to be karstified as evidenced by numerous sinkholes and bedrock fractures (Parsen et al., 2017).

Depth to bedrock is quite variable in Kewaunee County, ranging from less than 5 feet in parts of the Towns of Lincoln and Red River to greater than 100 feet in the Towns of Carlton, Kewaunee and Pierce to the south and southwest, respectively. Surficial deposits in Kewaunee County are mapped as till, offshore sediment or stream sediment, with the vast majority characterized as "thin till" (Clayton, 2013). The area of the El Na production area is described as "Pleistocene sediment, generally till, no more than a few meters thick, on Silurian limestone," or "Silurian dolomite at the ground surface or covered with thin soil" by Clayton (2013). See figures 3a and 3b for details.

Soil test pits and well construction reports are consistent with depth to bedrock mapping in Town of Lincoln. The 2023 Design Report for feed storage modification and leachate collection system included information from 18 soil test pits. Of these, 11 encountered bedrock at 6 feet or less. Well construction reports from the production area and nearby show Silurian dolomite encountered at depths ranging from 2-18 feet. Overburden is consistently red clay.

Groundwater elevation at El Na is between 720 and 730ft MSL, based on a water table elevation map included in the Hydrogeological Characterization of the Town of Lincoln. This would put groundwater depth at between 10 and 60 feet, when subtracting land surface elevation which ranges from approximately 740ft to 780ft across the production area. This is also consistent with WCRs which list static water level at the time of drilling between 20 and 50ft depth.

Potential production area contaminant sources:
Animal waste is known to contain nitrogen in various forms, and pathogens such as total coliform bacteria including *E. coli*. The fractured karst Silurian dolomite has high secondary porosity, meaning that contaminants can quickly flow into and through the aquifer where there is shallow bedrock. Potential sources of the contamination in groundwater in this area include the El Na production area and manure landspreading sites. Several potential contaminant sources can be found at the El Na production area, including raw material storage facilities, runoff control systems, waste storage and transfer systems, and

animal housing areas. Manure and process wastewater from dairy operations are known to contain significant levels of potential nitrogen groundwater contaminants, including nitrate and ammonia.

Conclusions and Recommendations:
The site-specific geologic setting at El Na with only a few feet of soil depth to fractured bedrock, and static water level as shallow as 20ft makes this area of the town of Lincoln susceptible to contaminants. Groundwater monitoring is necessary to ensure that El Na is meeting groundwater quality standards. As such, I recommend requiring groundwater monitoring at El Na, starting with a minimum of three wells. One well should be upgradient (northwest) and two wells should be downgradient (south and east) of the production area. El Na should submit a Phase 1 Groundwater Monitoring Plan within 90 days of permit reissuance.

References:
Hydrogeological Characterization of the Town of Lincoln, Kewaunee County, Wisconsin. Parsen, M., Mauel, S. and Streiff, C., 2017. WGNHS Open-File Report 2017-05.

Attachments:

Figure 1 – Aerial Photo of El Na Farms Production Area
Figure 2 – Topographic Map of El Na Farms Production Area
Figure 3a – Excerpt from Pleistocene Geology of Kewaunee County, Wisconsin.
Figure 3b – Map Legend from Pleistocene Geology of Kewaunee County, Wisconsin.
Figure 4 – Depth to Bedrock Map
Figure 5 – Water Table Elevation Map
Figure 6 – Depth to Water Table Map
Figure 7 – Groundwater Contaminant Susceptibility Map
Figure 8 - Well Construction Reports

Figure 1 – Aerial Photo of El Na Farms production area.

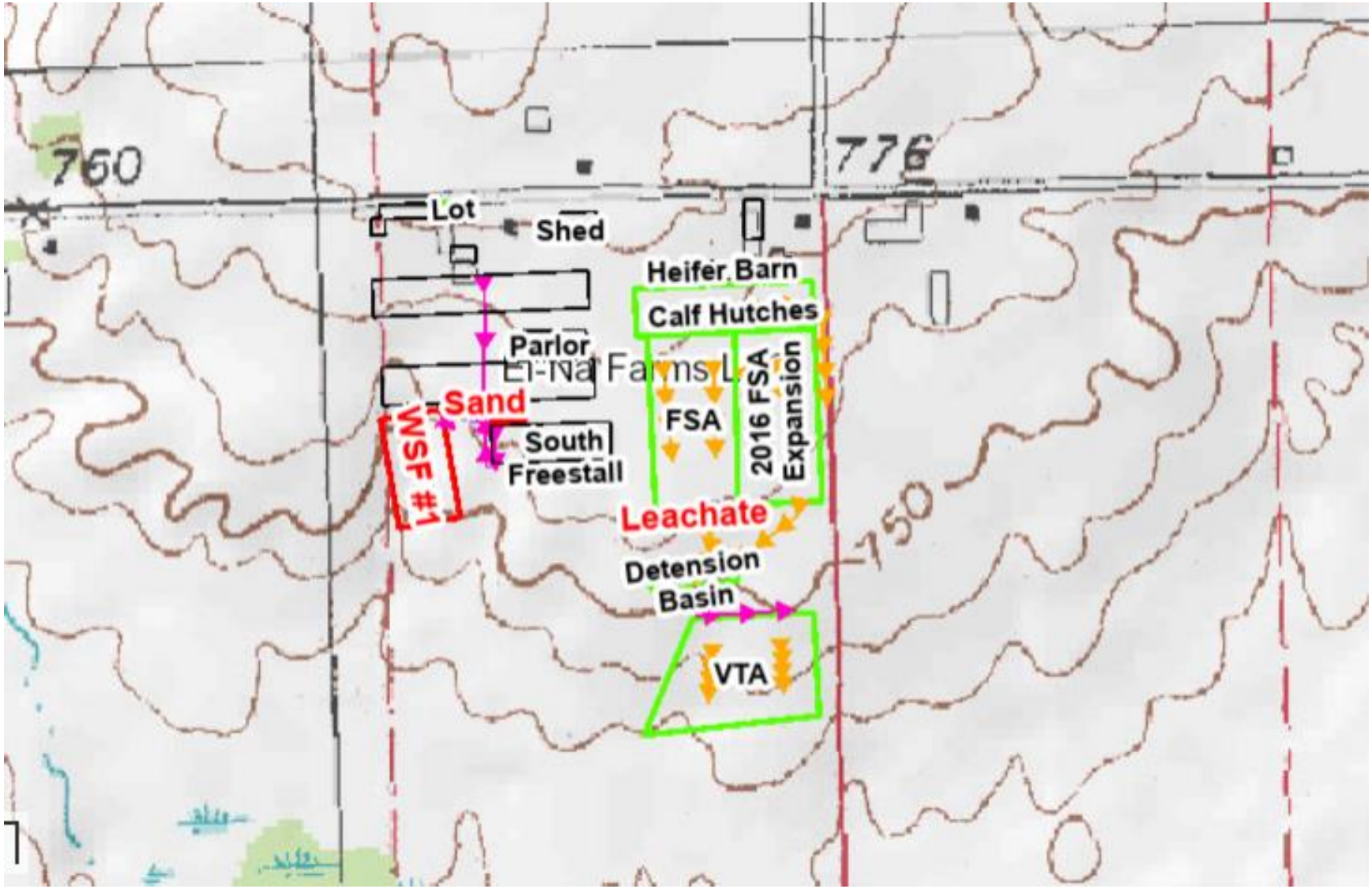


Figure 2 – Topographic Map of El Na Farms production area, with farm infrastructure labels.

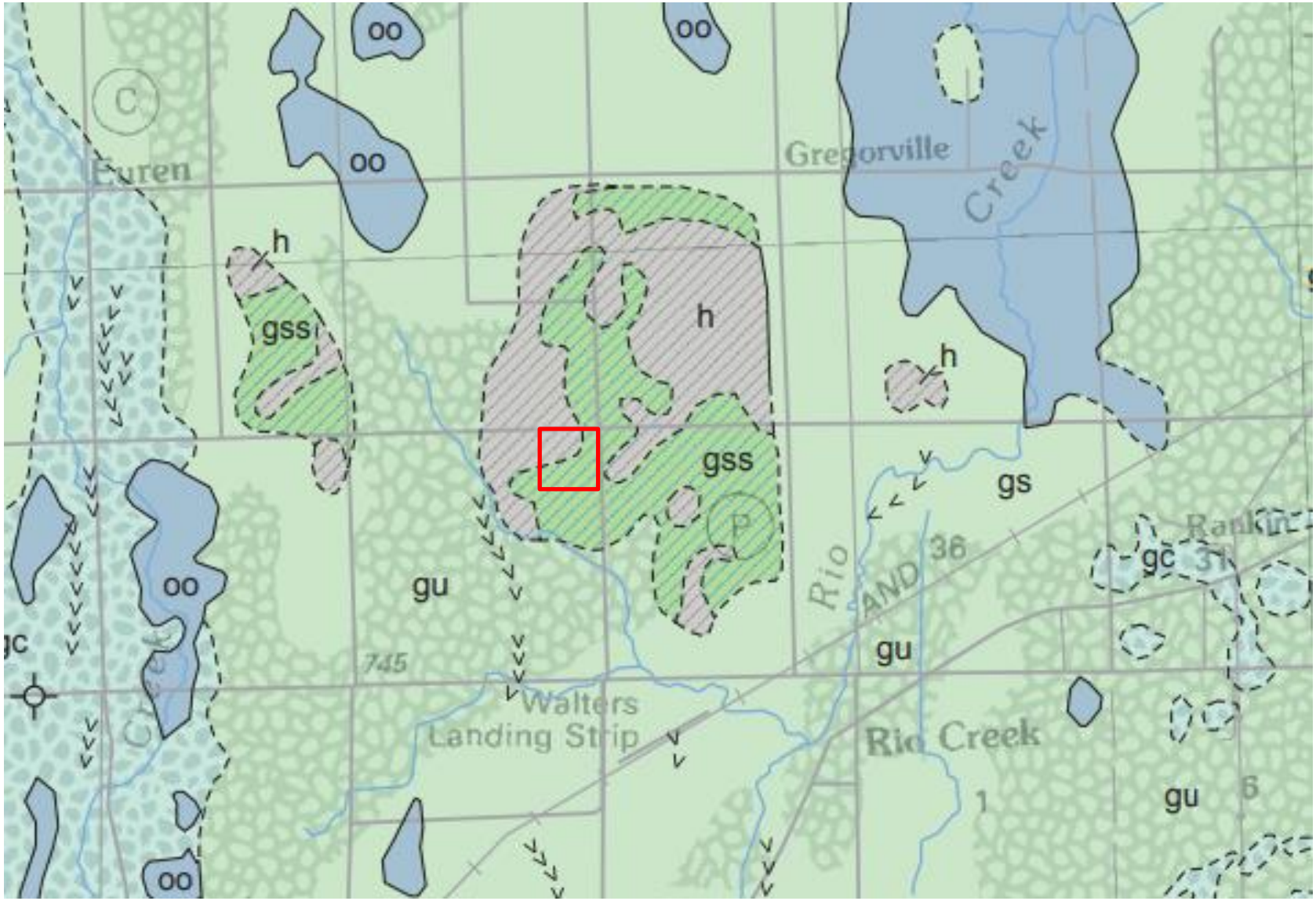
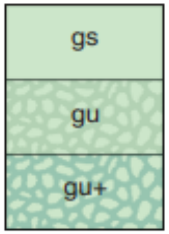


Figure 3a – Excerpt from Pleistocene Geology of Kewaunee County, Wisconsin. Clayton, L., 2013. WGNHS Bulletin 104 Plate 1.
Red square indicates approximate location of El Na Farms production area.

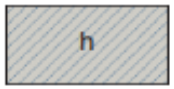
Glacial sediment

Pleistocene sediment, generally till, no more than a few meters thick, on Silurian limestone.



Thin till of last advance, up to several meters thick, generally overlying older till or, in some places, outwash. Unit **gs:** Typically no more than a few meters thick, overlying older till. Smooth, fairly nondescript glacial topography, lacking collapse hummocks or with inconspicuous hummocks no more than a few meters high, draped over preexisting older glacial and nonglacial topography, somewhat modified by postglacial erosion that tended to re-establish the drainage pattern existing before the last glacial advance. Unit **gu:** Typically only a few meters thick. Collapse hummocks typically no more than a few meters high. Unit **gu+:** Typically several meters thick. Collapse hummocks typically several meters high.

Bedrock



Silurian dolomite at the ground surface or covered with thin soil.

Eskers

Figure 3b - Explanation of Map Units and Symbology, excerpted from Pleistocene Geology of Kewaunee County, Wisconsin. 2013.

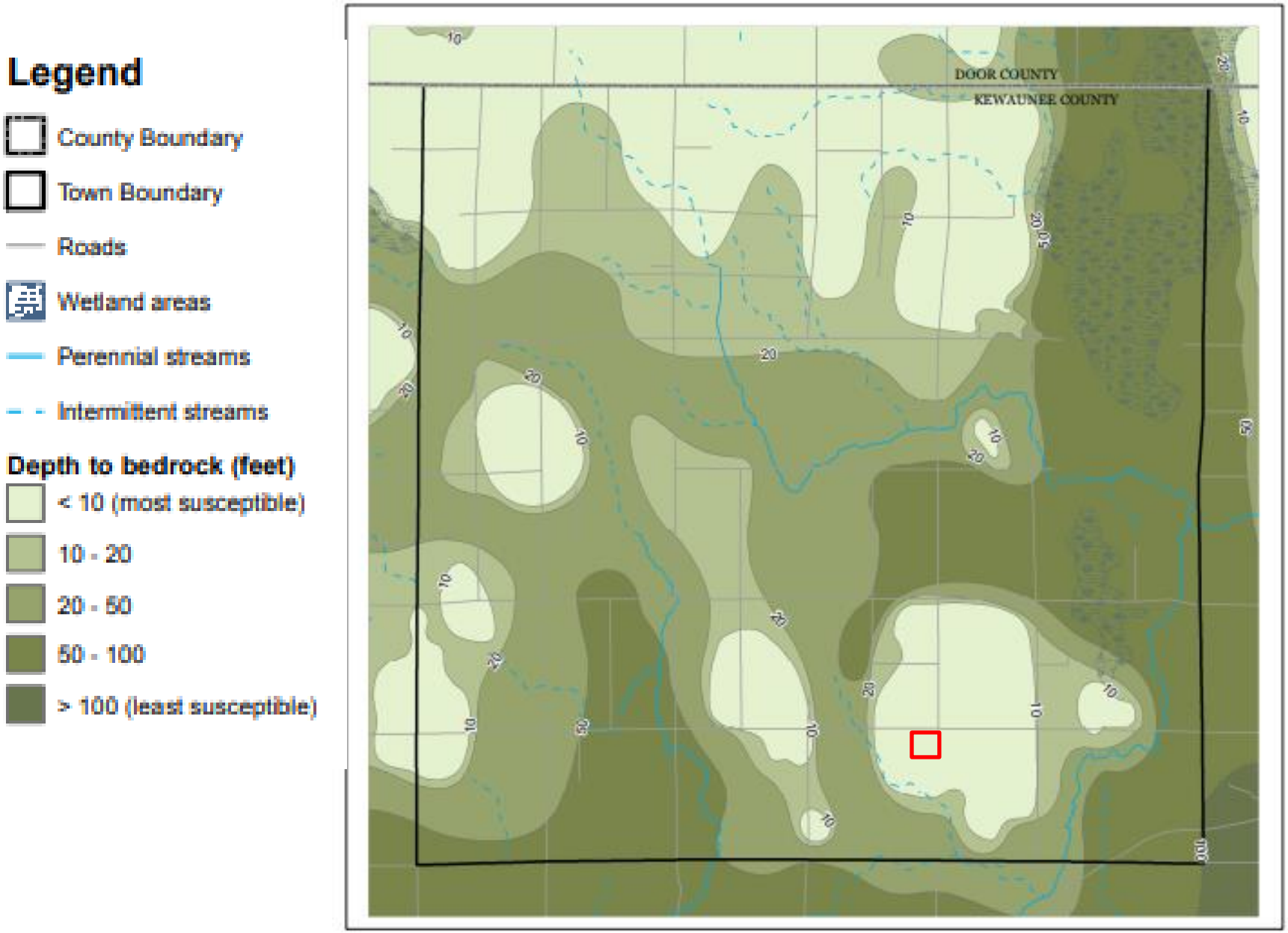


Figure 4 – Depth to Bedrock Map Excerpt from Hydrogeological Characterization of the Town of Lincoln, Kewaunee County, Wisconsin. 2017. Red square indicates approximate location of El Na Farms production area.

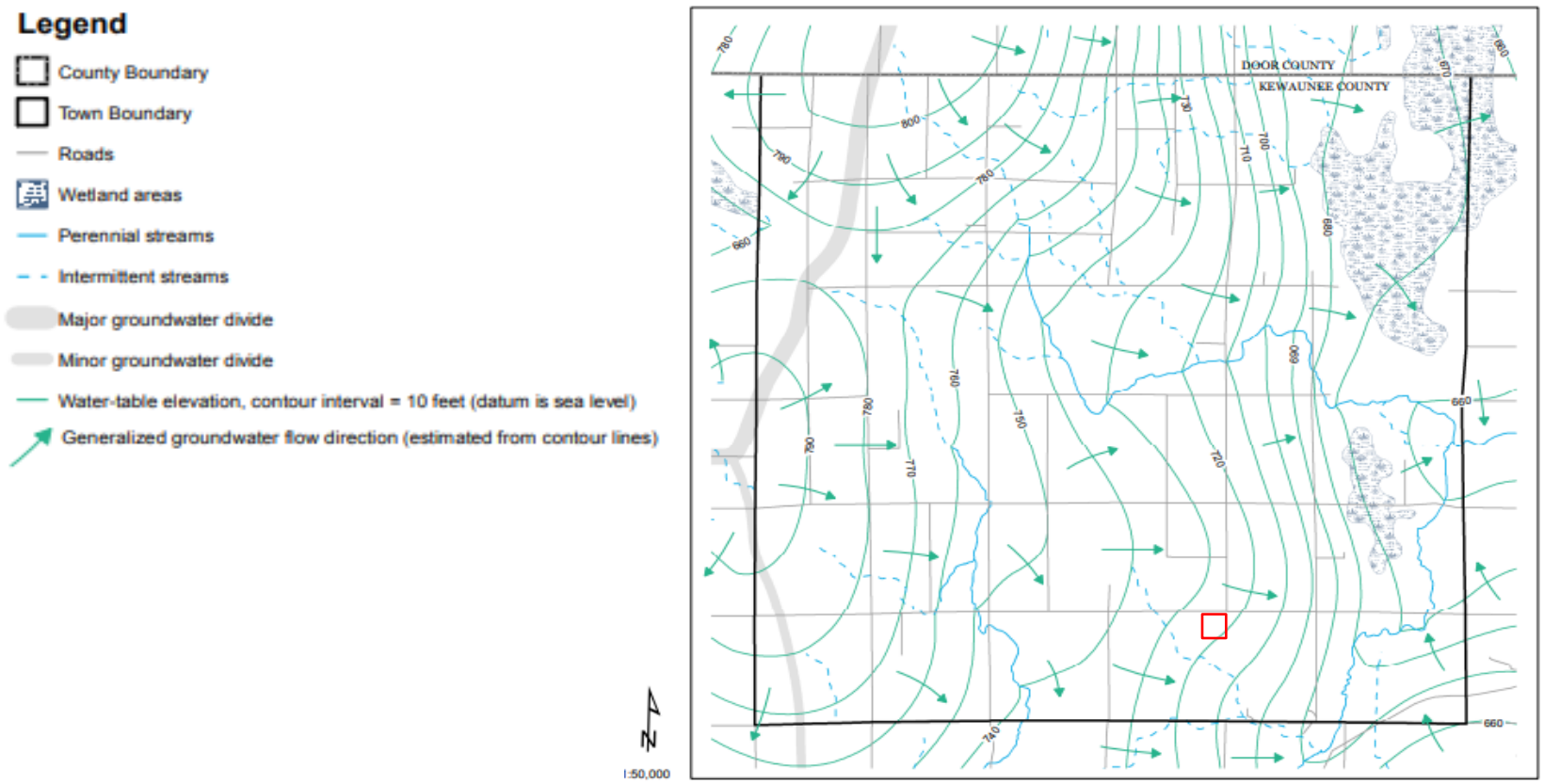


Figure 5 – Water Table Elevation Map Excerpt from Hydrogeological Characterization of the Town of Lincoln, Kewaunee County, Wisconsin. 2017. Red square indicates approximate location of El Na Farms production area.

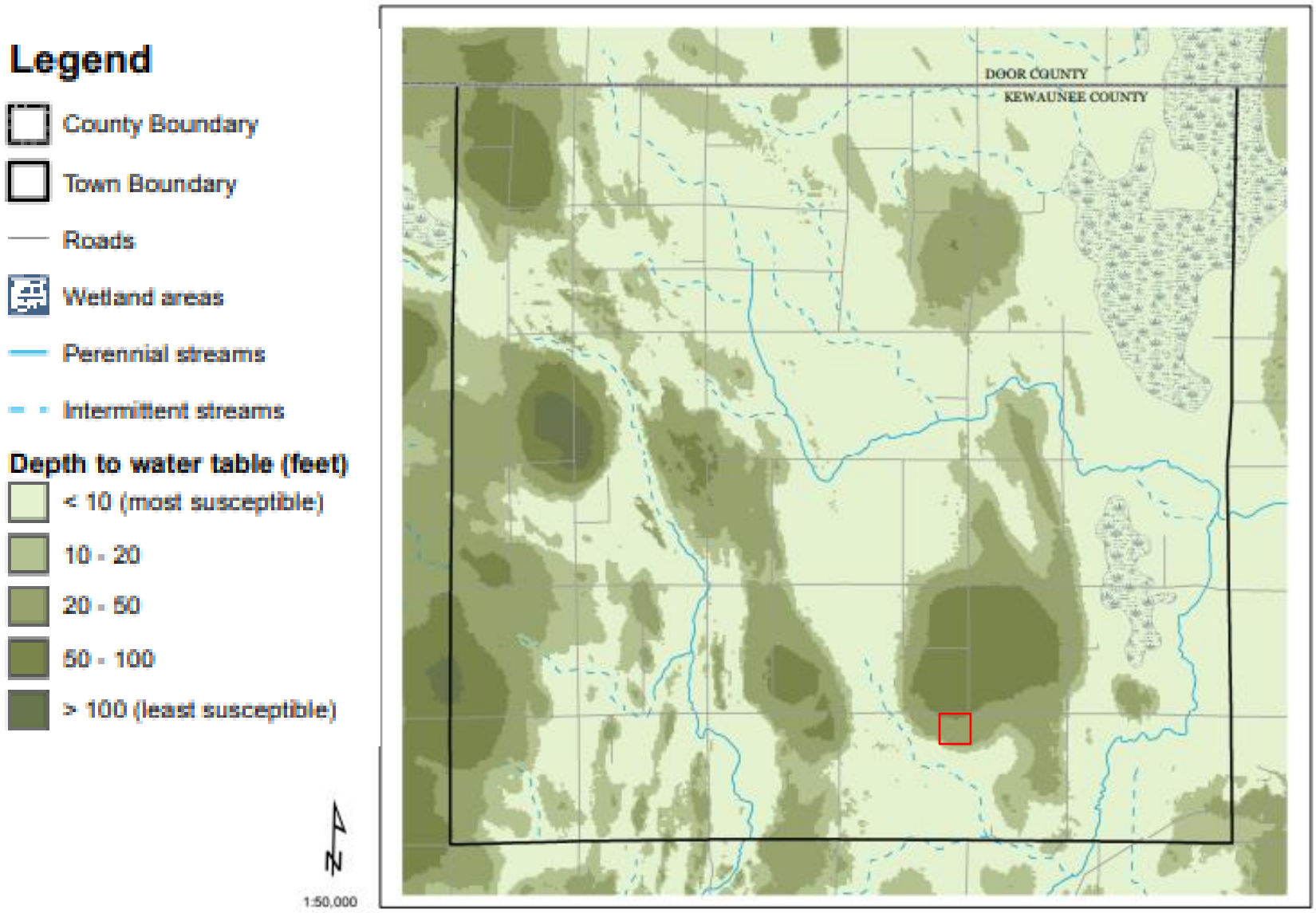


Figure 6 – Depth to Water Table Map Excerpt from Hydrogeological Characterization of the Town of Lincoln, Kewaunee County, Wisconsin. 2017. Red square indicates approximate location of El Na Farms production area.

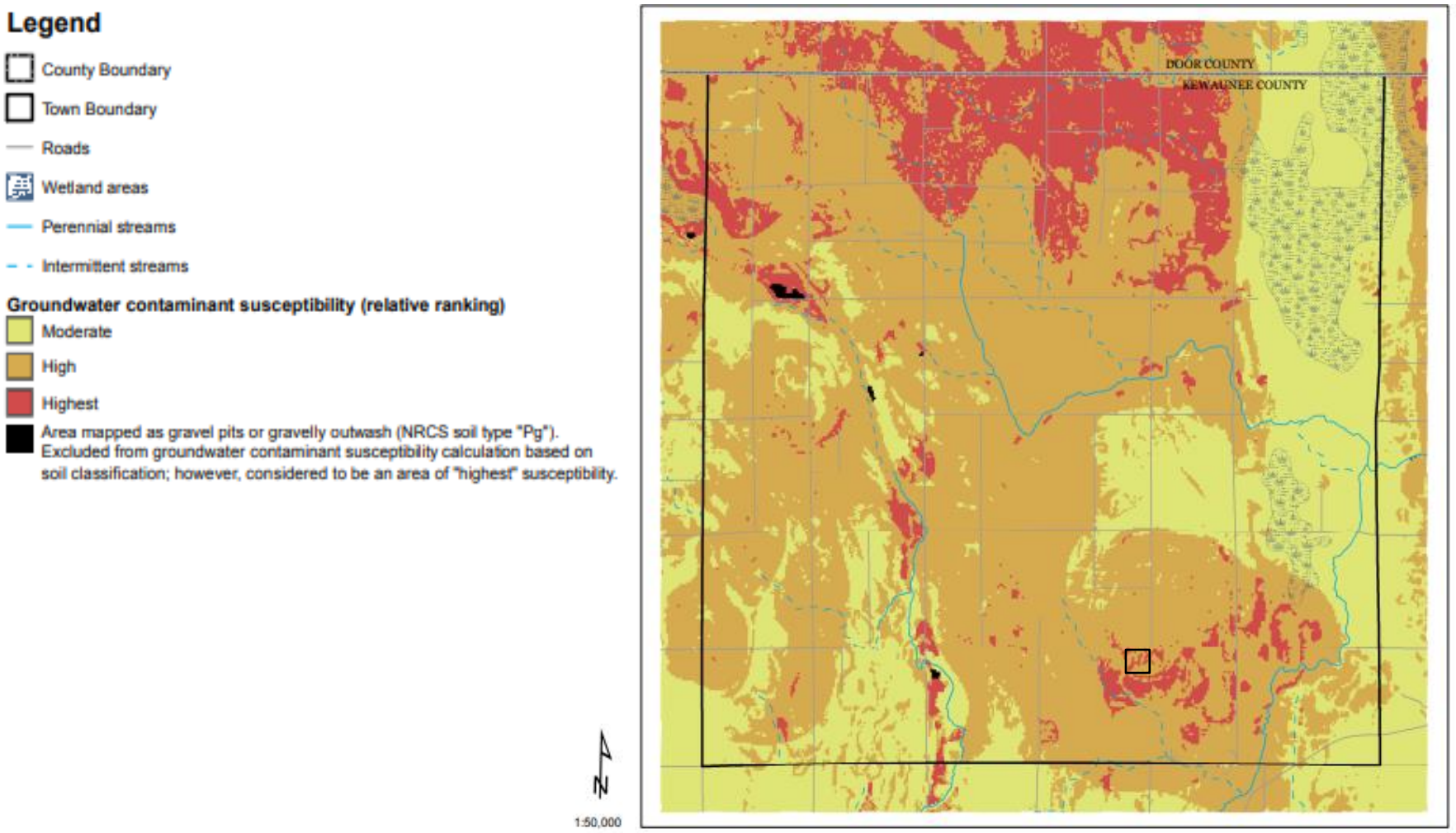
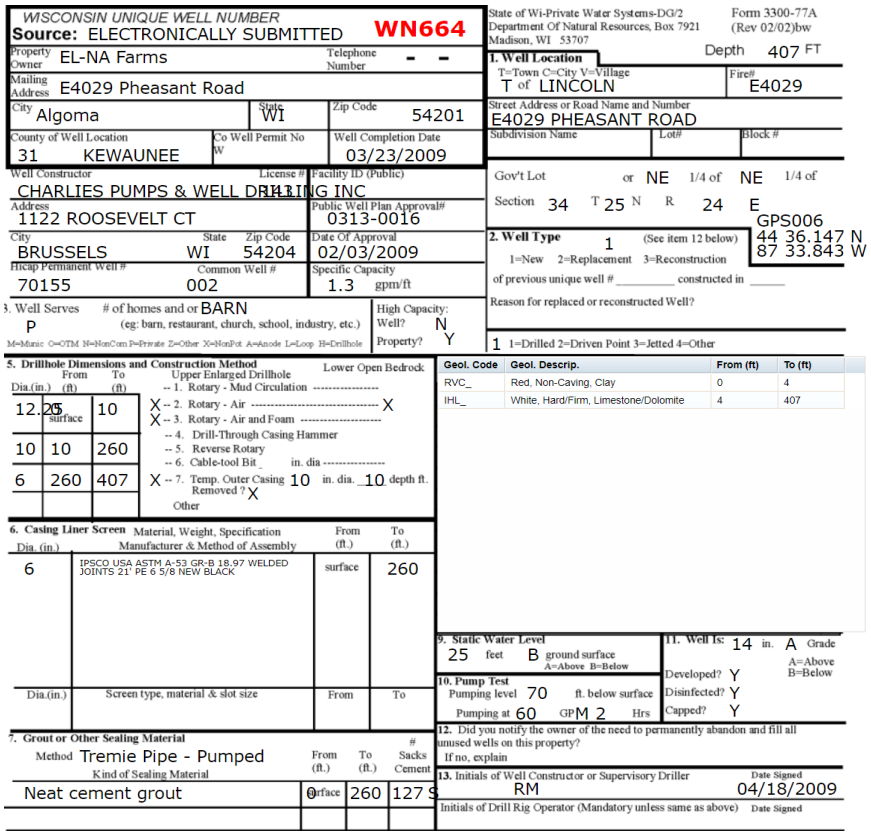


Figure 7 – Groundwater Contaminant Susceptibility Map Excerpt from Hydrogeological Characterization of the Town of Lincoln, Kewaunee County, Wisconsin. 2017. Black square indicates approximate location of El Na Farms production area.



WISCONSIN UNIQUE WELL NUMBER WN664
Source: ELECTRONICALLY SUBMITTED
State of Wi-Private Water Systems-DG/2, Department Of Natural Resources, Box 7921, Madison, WI 53707 — Form 3300-77A (Rev 02/02)bw
Property Owner: EL-NA Farms — Telephone Number: - -
Mailing Address: E4029 Pheasant Road
City: Algoma — State: WI — Zip Code: 54201
County of Well Location: 31 KEWAUNEE — Co Well Permit No W — Well Completion Date: 03/23/2009
Well Constructor: CHARLIES PUMPS & WELL DRILLING INC — License # — Facility ID (Public)
Address: 1122 ROOSEVELT CT — Public Well Plan Approval#: 0313-0016
City: BRUSSELS — State: WI — Zip Code: 54204 — Date Of Approval: 02/03/2009
Hrcap Permanent Well #: 70155 — Common Well #: 002 — Specific Capacity: 1.3 gpm/ft
3. Well Serves: P (eg: barn, restaurant, church, school, industry, etc.) — # of homes and or BARN — High Capacity: Well? N, Property? Y
M=Munic O=OTM N=NonCom P=Private Z=Other X=NonPot A=Anode L=Loop H=Drillhole
1. Well Location — T=Town C=City V=Village: T of LINCOLN — Fire#: E4029
Street Address or Road Name and Number: E4029 PHEASANT ROAD
Subdivision Name — Lot# — Block #
Gov't Lot — or NE 1/4 of NE 1/4 of
Section 34 T 25 N R 24 E
GPS006
44 36.147 N
87 33.843 W
2. Well Type: 1 (See item 12 below) — 1=New 2=Replacement 3=Reconstruction
of previous unique well # _____ constructed in _____
Reason for replaced or reconstructed Well?
1 1=Drilled 2=Driven Point 3=Jetted 4=Other
Depth 407 FT
5. Drillhole Dimensions and Construction Method — Upper Enlarged Drillhole / Lower Open Bedrock

Dia.(in.)	From (ft)	To (ft)
12.25	surface	10
10	10	260
6	260	407

X -- 2. Rotary - Air X
X -- 3. Rotary - Air and Foam
-- 4. Drill-Through Casing Hammer
-- 5. Reverse Rotary
-- 6. Cable-tool Bit _ in. dia
X -- 7. Temp. Outer Casing Removed? X — 10 in. dia. 10 depth ft.
Other

Geol. Code	Geol. Descrip.	From (ft)	To (ft)
RVC_	Red, Non-Caving, Clay	0	4
IHL_	White, Hard/Firm, Limestone/Dolomite	4	407

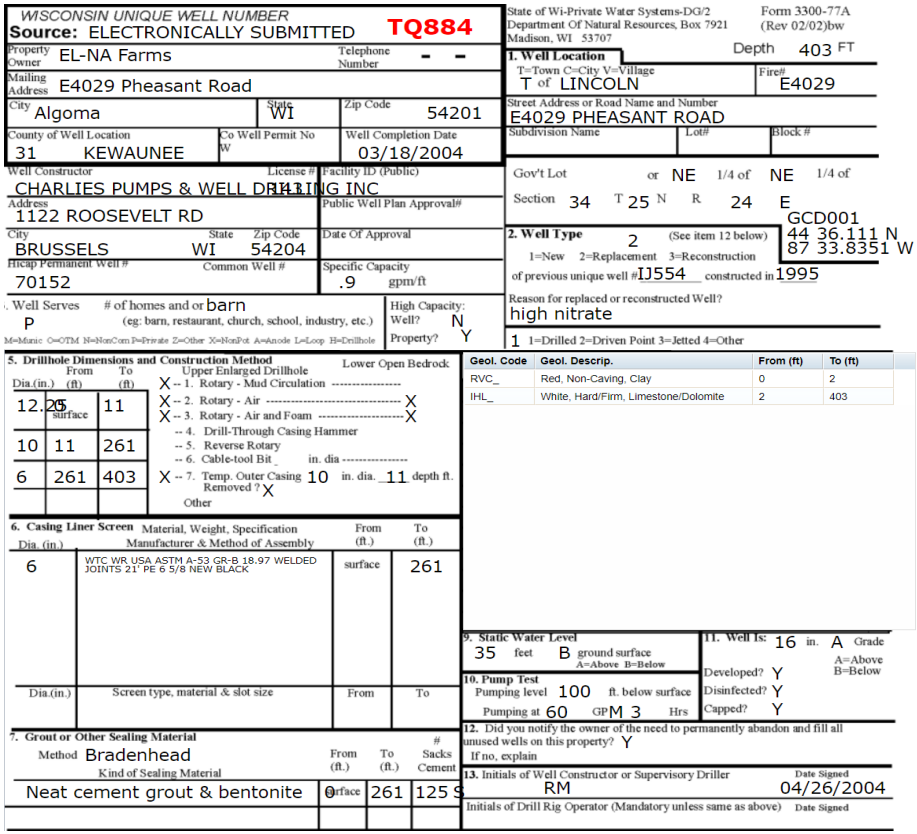
6. Casing Liner Screen — Material, Weight, Specification / Manufacturer & Method of Assembly

Dia. (in.)	Material	From (ft.)	To (ft.)
6	IPSCO USA ASTM A-53 GR-B 18.97 WELDED JOINTS 21' PE 6 5/8 NEW BLACK	surface	260

Dia.(in.) — Screen type, material & slot size — From — To
9. Static Water Level: 25 feet B ground surface (A=Above B=Below)
10. Pump Test: Pumping level 70 ft. below surface — Pumping at 60 GPM 2 Hrs
11. Well Is: 14 in. A Grade (A=Above B=Below) — Developed? Y — Disinfected? Y — Capped? Y
12. Did you notify the owner of the need to permanently abandon and fill all unused wells on this property?
If no, explain
7. Grout or Other Sealing Material — Method: Tremie Pipe - Pumped

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
Neat cement grout	0 surface	260	127 S

13. Initials of Well Constructor or Supervisory Driller: RM — Date Signed: 04/18/2009
Initials of Drill Rig Operator (Mandatory unless same as above) — Date Signed



WISCONSIN UNIQUE WELL NUMBER TQ884
Source: ELECTRONICALLY SUBMITTED
State of Wi-Private Water Systems-DG/2, Department Of Natural Resources, Box 7921, Madison, WI 53707 — Form 3300-77A (Rev 02/02)bw
Property Owner: EL-NA Farms — Telephone Number: - -
Mailing Address: E4029 Pheasant Road
City: Algoma — State: WI — Zip Code: 54201
County of Well Location: 31 KEWAUNEE — Co Well Permit No W — Well Completion Date: 03/18/2004
Well Constructor: CHARLIES PUMPS & WELL DRILLING INC — License # — Facility ID (Public)
Address: 1122 ROOSEVELT RD — Public Well Plan Approval#
City: BRUSSELS — State: WI — Zip Code: 54204 — Date Of Approval
Hrcap Permanent Well #: 70152 — Common Well #: — Specific Capacity: .9 gpm/ft
3. Well Serves: P (eg: barn, restaurant, church, school, industry, etc.) — # of homes and or barn — High Capacity: Well? N, Property? Y
M=Munic O=OTM N=NonCom P=Private Z=Other X=NonPot A=Anode L=Loop H=Drillhole
1. Well Location — T=Town C=City V=Village: T of LINCOLN — Fire#: E4029
Street Address or Road Name and Number: E4029 PHEASANT ROAD
Subdivision Name — Lot# — Block #
Gov't Lot — or NE 1/4 of NE 1/4 of
Section 34 T 25 N R 24 E
GCD001
44 36.111 N
87 33.8351 W
2. Well Type: 2 (See item 12 below) — 1=New 2=Replacement 3=Reconstruction
of previous unique well # IJ554 constructed in 1995
Reason for replaced or reconstructed Well? high nitrate
1 1=Drilled 2=Driven Point 3=Jetted 4=Other
Depth 403 FT
5. Drillhole Dimensions and Construction Method — Upper Enlarged Drillhole / Lower Open Bedrock

Dia.(in.)	From (ft)	To (ft)
12.25	surface	11
10	11	261
6	261	403

X -- 1. Rotary - Mud Circulation
X -- 2. Rotary - Air X
X -- 3. Rotary - Air and Foam X
-- 4. Drill-Through Casing Hammer
-- 5. Reverse Rotary
-- 6. Cable-tool Bit _ in. dia
X -- 7. Temp. Outer Casing Removed? X — 10 in. dia. 11 depth ft.
Other

Geol. Code	Geol. Descrip.	From (ft)	To (ft)
RVC_	Red, Non-Caving, Clay	0	2
IHL_	White, Hard/Firm, Limestone/Dolomite	2	403

6. Casing Liner Screen — Material, Weight, Specification / Manufacturer & Method of Assembly

Dia. (in.)	Material	From (ft.)	To (ft.)
6	WTC WR USA ASTM A-53 GR-B 18.97 WELDED JOINTS 21' PE 6 5/8 NEW BLACK	surface	261

Dia.(in.) — Screen type, material & slot size — From — To
9. Static Water Level: 35 feet B ground surface (A=Above B=Below)
10. Pump Test: Pumping level 100 ft. below surface — Pumping at 60 GPM 3 Hrs
11. Well Is: 16 in. A Grade (A=Above B=Below) — Developed? Y — Disinfected? Y — Capped? Y
12. Did you notify the owner of the need to permanently abandon and fill all unused wells on this property? Y
If no, explain
7. Grout or Other Sealing Material — Method: Bradenhead

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
Neat cement grout & bentonite	0 surface	261	125 S

13. Initials of Well Constructor or Supervisory Driller: RM — Date Signed: 04/26/2004
Initials of Drill Rig Operator (Mandatory unless same as above) — Date Signed

Figure 8 – Well Construction Reports from water supply wells at El Na production area.
Note 4 feet and 2 feet depth to bedrock.

Agricultural Runoff Viewer

Legend

- CAFO Facilities
  - Dairy
  - Beef
  - Swine
  - Chickens
  - Turkeys
  - Ducks
  - Other
- CAFO Satellite Facilities
- Buildings
- Runoff Flow
- Waste Transfer
- Waste Storage
- Other Production Areas
- Storm Water Inlets
  - Storm Water Inlet
  - Tile Inlet
  - Tile Outlet
- Storm Water Flow
  - Surface
  - Tile Drainage
  - Underground
- Municipality
- State Boundaries
- County Boundaries
- Major Roads
  - Interstate Highway
  - State Highway
  - US Highway
- County and Local Roads
  - County HWY
  - Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams

Notes

0.1 0 0.06 0.1 Miles

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1: 3,960

Agricultural Runoff Viewer

Legend

- CAFO Facilities
  - Dairy
  - Beef
  - Swine
  - Chickens
  - Turkeys
  - Ducks
  - Other
- Buildings
- Runoff Flow
- Waste Transfer
- Waste Storage
- Other Production Areas
- Storm Water Inlets
  - Storm Water Inlet
  - Tile Inlet
  - Tile Outlet
- Storm Water Flow
  - Surface
  - Tile Drainage
  - Underground

Notes

0.1 0 0.03 0.1 Miles

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