Permit Fact Sheet

General Information

Permit Number	WI-0067569-01-0
Permittee Name and Address	Gilbert Farms Ltd. 5186 Country Road T, Sturgeon Bay, WI 54235
Permitted Facility Name and Address	Gilbert Farms Ltd. 5186 Country Road T, Sturgeon Bay
Permit Term	October 01, 2025, to September 30, 2030
Discharge Location	5186 County Rd T, Sturgeon Bay, WI 54235, S ½ of the SW ¼ of S35 T28N R26E, Township of Sevastopol, Door County, WI
Receiving Water	Unnamed tributaries within the Door Peninsula-Frontal Lake Michigan 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.)	55	0	80	0	10/03/2026
Milking and Dry Cows	963	984	1610	1645	10/03/2026
Heifers (400 lbs. to 800 lbs.)	150	250	300	500	10/03/2026
Heifers (800 lbs. to 1200 lbs.)	275	250	440	400	10/03/2026
Total	1443	984	2430	1645	

Facility Description

Gilbert Farms LTD is a new Concentrated Animal Feeding Operation in Door County, WI. Gilbert Farms LTD is owned and operated by Tim Gilbert & family and Wade Gilbert & family. As of December of 2024, it had 688 milking and dry cows, 500 heifers, and 275 calves (1,443 animal units). There is a planned herd size of 1,150 milking & dry cows, 900 heifers, and 400 calves (2,430 animal units) by 2026. Gilbert Farms LTD will annually generate approximately 5,737,664 gallons of liquid manure and process wastewater and 838 tons of solid manure. As of December of 2024, Gilbert Farms LTD has approximately 94 days of storage. As of February 28, 2025, plans and specifications have been approved by the department for a new manure storage which will allow Gilbert Farms LTD to meet the required minimum of 180 days of storage. The new manure storage is required to be functional and in operation by December 31, 2026. Gilbert Farms LTD

has 2,046 acres in its approved nutrient management plan, of which 860 acres are rented or in contract agreements and 1,187 acres are owned. Gilbert Farms LTD has 1,425 acres available for land application.

Substantial Compliance Determination

Enforcement During Last Permit: This is Gilbert Farms LTD's first WPDES Permit.

After a desk top review of all WPDES application materials and a site visit on December 12, 2023, the department has decided to move forward with the permit issuance for Gilbert Farms LTD.

Sample Point Designation for Animal Waste		
Sample Point Number	**Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**	
001	WSF 1: Sample point 001 is for liquid waste storage facility 1 (WSF 1). WSF 1 is a concrete lined storage located on the northwest side of the production site. The facility has a total capacity of approximately 1.9 million gallons and a MOL capacity of approximately 1.5 million gallons. WSF 1 was constructed in 1989. This storage accepts manure and process wastewater from the freestall barns and the milking parlor. WSF 1 was last evaluated in 2025 and requires further actions. See permit schedules.	
002	WSF 2: Sample point 002 is for liquid waste storage facility 2 (WSF 2). WSF 2 is a concrete lined storage located west of WSF 1. The facility has a total capacity of approximately 1.1 million gallons and a MOL capacity of approximately 850,000 gallons. WSF 2 was constructed in 2009. This storage works as a two-stage system and accepts manure and process wastewater from WSF 1 that comes from the freestall barns and the milking parlor. WSF 2 was last evaluated in 2025 and requires further actions. See permit schedules.	
003	WSF 3: Sample point 003 is for liquid waste storage facility 3 (WSF 3). WSF 3 is a proposed concrete lined storage located on the north side of the production site. The facility will have a total capacity of approximately 8.1 million gallons and a MOL capacity of approximately 6.8 million gallons. WSF 3 will be constructed in 2025. This storage will accept manure and process wastewater from the current and proposed freestall barns and feed storage area during the winter months. Plans and Specifications for WSF 3 were approved on February 28, 2025.	
004	RCF 4: Sample point 004 is for runoff control facility 4 (RCF 4). RCF 4 is a proposed concrete storage located on the north side of the production site, south of proposed WSF 3. The facility will have a capacity of 2.5 million gallons and will be constructed by the end of 2027. This storage will accept leachate from the feed storage area. Plans and Specifications for RCF 4 were approved on February 28, 2025.	
005	Solids Stocking Pad: Sample point 005 is for waste storage facility 5 (WSF 5). WSF 5 will be a concrete storage located on the north side of the production site, north of proposed WSF 3. The facility will be constructed by the end of 2026. This storage will accept solid manure. Plans and Specifications for WSF 5 were approved on February 28, 2025.	
006	Headland Stacking: Sample point 006 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.	

Sample Point Designation for Animal Waste		
Sample Point Number	**Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**	
007	Misc. Solid Manure: Sample point 007 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.	
008	Separated Solids: Sample point 008 is for separated solids. These are typically reused as bedding and stored in existing separated solids building. Sampling is only required if separated solids are directly land applied.	
009	FSA: Sample point 009 is for visual monitoring and inspection of the feed storage area and associated runoff control system. Proper operation and maintenance are required to ensure discharges of process wastewater to waters of the state do not occur. Weekly inspections are required and shall be recorded according to monitoring program. Plans and specifications were approved by the department on February 28, 2025. See schedule items for further actions required.	
010	Storm Water Conveyance: Sample point 010 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes roof gutter and downspout structures, drainage tile systems, grassed waterways and other diversion systems that transport uncontaminated storm water. Proper operation and maintenance are required to keep uncontaminated runoff diverted away from manure and process wastewater handling systems. Weekly inspections are required and shall be recorded according to monitoring program.	

Sample Point Designation for Groundwater Monitoring Systems			
System	**Sample Pt Number**	**Well Name**	**Comments**
Production Site	801	MW -1	
Production Site	802	MW-2	
Production Site	803	MW-3	

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 3.5 months of storage for liquid manure. The permittee will be required to design and construct 180 days of liquid manure storage by December 31, 2025. Once the permittee has 180 days of liquid manure storage, it 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

As of December of 2024, it has 688 milking and dry cows, 500 heifers, and 275 calves (1,443 animal units). A planned herd size of 1,150 milking & dry cows, 900 heifers, and 400 calves (2,430 animal units) by 2026. Gilbert Farms LTD will annually generate approximately 5,737,664 gallons of liquid manure and process wastewater and 838 tons of solid manure. The permittee owns approximately 860 acres of cropland and rents about 1,187. Given the rotation commonly used by the permittee, 1, 425 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 requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

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

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

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

Monitoring and Sampling Requirements

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

Sampling Points

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

1.1 Sample Point Number: 001- WSF 1; 002- WSF 2; 003- WSF 3; 004- RCF 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

This is Gilbert Farms LTD's first permit.

1.1.2 Explanation of Operation and Management Requirements

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

1.2 Sample Point Number: 005- Solids Stacking Pad; 006- Headland Stacking; 007- Misc. Solid Manure; 008- Separated Solids

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

1.2.1 Changes from Previous Permit

This is Gilbert Farms LTD's first permit.

1.2.2 Explanation of Operation and Management Requirements

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

1.3 Sample Point Number: 009- FSA and 010- Storm Water Conveyance

1.3.1 Changes from Previous Permit

This is Gilbert Farms LTD's first permit.

1.3.2 Explanation of Operation and Management Requirements

Proper operation and maintenance are 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 Production Site

Location of Monitoring system: Production Site at Gilbert Farms LTD

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

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 Lab	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
COD, Filtered	mg/L	N/A	N/A	Monthly/Quarterly
Total Coliform General	#/ 100 ml	0	N/A	Monthly/Quarterly

2.1.1 Changes from Previous Permit:

This is Gilbert Farms LTD first permit. The department has determined that production site groundwater monitoring should be required for Gilbert Farms LTD.

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: Submit a written Emergency Response Plan within 30 days of permit coverage and submit to the department.	11/01/2025

3.2 Explanation of Schedules

Schedule 3.1 is included in the permit as a general permit requirement.

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.	12/01/2025

3.4 Explanation of Schedules

Schedule 3.3 is included in the permit as a general permit requirement.

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.	01/31/2026
Submit Annual Report #2: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2027
Submit Annual Report #3: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2028
Submit Annual Report #4: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2029
Submit Annual Report #5: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2030
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	

3.6 Explanation of Schedules

Schedule 3.5 is included in the permit as a general permit requirement.

3.7 Nutrient Management Plan

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

Required Action	Due Date
Management Plan Submittal: Submit any necessary updates to the Nutrient Management Plan to meet the conditions outlined in this permit (see conditions in the Livestock Operational and Sampling Requirements section).	
Submit NMP Update #1: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2026
Submit NMP Update #2: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2027
Submit NMP Update #3: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2028
Submit NMP Update #4: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2029
Submit NMP Update #5: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2030
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

Schedule 3.7 is included in the permit as a general permit requirement.

3.9 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	03/30/2030

3.10 Explanation of Schedules

Schedule 3.9 is included in the permit as a general permit requirement.

3.11 Runoff Control System - Interim Runoff Controls Installation

Sample Point 009

Required Action	Due Date
Complete Installation: Complete installation of interim runoff controls for the feed storage area. The facility shall be functional and in operation by the specified Date Due.	05/01/2026

3.12 Explanation of Schedules

Schedule 3.11 is included in the permit to have interim runoff controls installed on the feed storage area.

3.13 Manure Storage Facility - Installation & 180 Days of Storage

Required Action	Due Date
Complete Installation: Complete construction of WSF 3 to reach 180 days of storage. The facility shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.	12/31/2026

3.14 Explanation of Schedules

Schedule 3.13 is included in the permit to complete construction of waste storage facility (WSF) 3 in order to meet the required 180 days of storage in accordance with s. NR 243.14(9).

3.15 Manure Storage Facility - Abandonment

Required Action	Due Date
Complete Abandonment: Complete abandonment for the solid stacking pad as approved by the Department. This is referring to the solid stacking pad located at 3476 Mathey Rd, Sturgeon Bay, Door County, WI. Also referred to as "satellite stacking pad" in the December 12, 2023, inspection report.	12/31/2026

3.16 Explanation of Schedules

Schedule 3.15 is included in the permit to complete abandonment of the solid manure stacking pad.

3.17 Feed Storage & Runoff Control System - Installation

Required Action	Due Date
Complete Installation: Complete construction of feed storage area and runoff control system. System shall be functional and in operation by the specified Date Due. Post construction documentation shall be submitted within 60 days of completion of the project.	12/31/2027

3.18 Explanation of Schedules

Schedule 3.17 is included in the permit to complete construction of the feed storage area and runoff controls for the feed storage area. Plans and specifications for the feed storage area and runoff controls were approved by the department on February 28, 2025.

3.19 Groundwater Monitoring System- Plan

Submit a groundwater monitoring plan for 3 monitoring wells. The plan shall include groundwater monitoring requirements consistent with the 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.	10/01/2029
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).	

3.20 Explanation of Schedules

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

3.21 Groundwater Monitoring System- Reporting

Required Action	Due Date
Monthly/ Quarterly Reporting to the Department: Monthly/Quarterly reporting of tabulated groundwater monitoring data and water level contour maps is required. Quarterly reports shall be submitted to the department within 45 days of the last sample event for that quarter 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.	

3.22 Explanation of Schedules

This compliance schedule is included to require submittal of groundwater monitoring results for the production site.

3.23 Permanent Markers - Installation

WSF 1 and WSF 2

Required Action	Due Date
Complete Installation: Complete installation of permanent markers. The facility shall be functional and in operation by the specified Date Due.	05/01/2026

3.24 Explanation of Schedules

Schedule 3.23 is included in the permit to have permanent markers installed for all waste storage facilities in accordance with s. NR 243.15(3)(e).

Other Comments

NA

Attachments

December 12, 2023, Permit Application Inspection Report

December 4, 2024, Conditional Nutrient Management Plan Approval

March 5, 2025, Days of Storage/Engineering Review Letter

June 30, 2025, Groundwater Monitoring Review

Site Maps

Justification Of Any Waivers from Permit Application Requirements

No waivers were requested or granted.

Prepared By: Brittiny Mueller **Agriculture Runoff Specialist** **Date: July 8, 2025**

CAFO Compliance Report (01/26/2024)

Inspection Date: December 12, 2023

Inspection Type: WPDES Permit Issuance Inspection

Operation Name: Gilbert Farms Ltd.

Operation Address: 5186 County Road T, Sturgeon Bay, WI 54235

On-Site Representative(s): Tim and Wade Gilbert, owners of Gilbert Farms Ltd.

DNR Staff / Report Writer: James Salscheider, Agricultural Runoff Specialist

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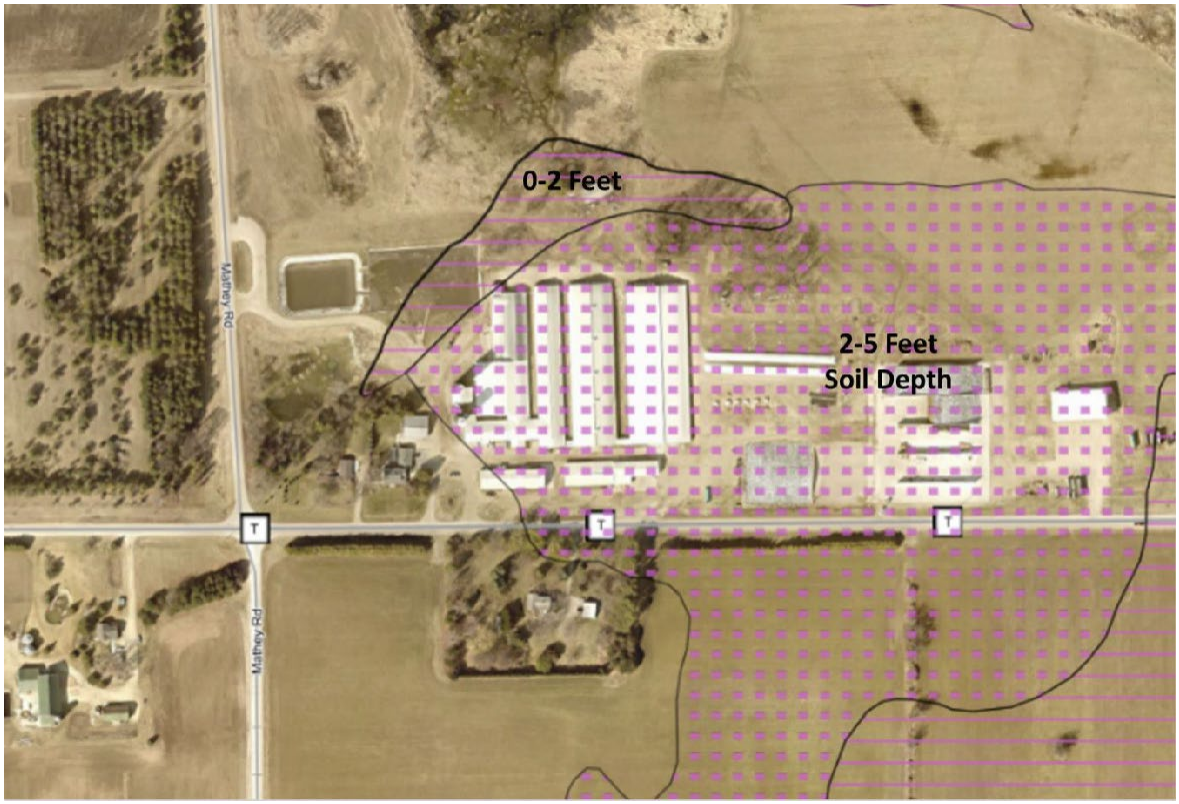
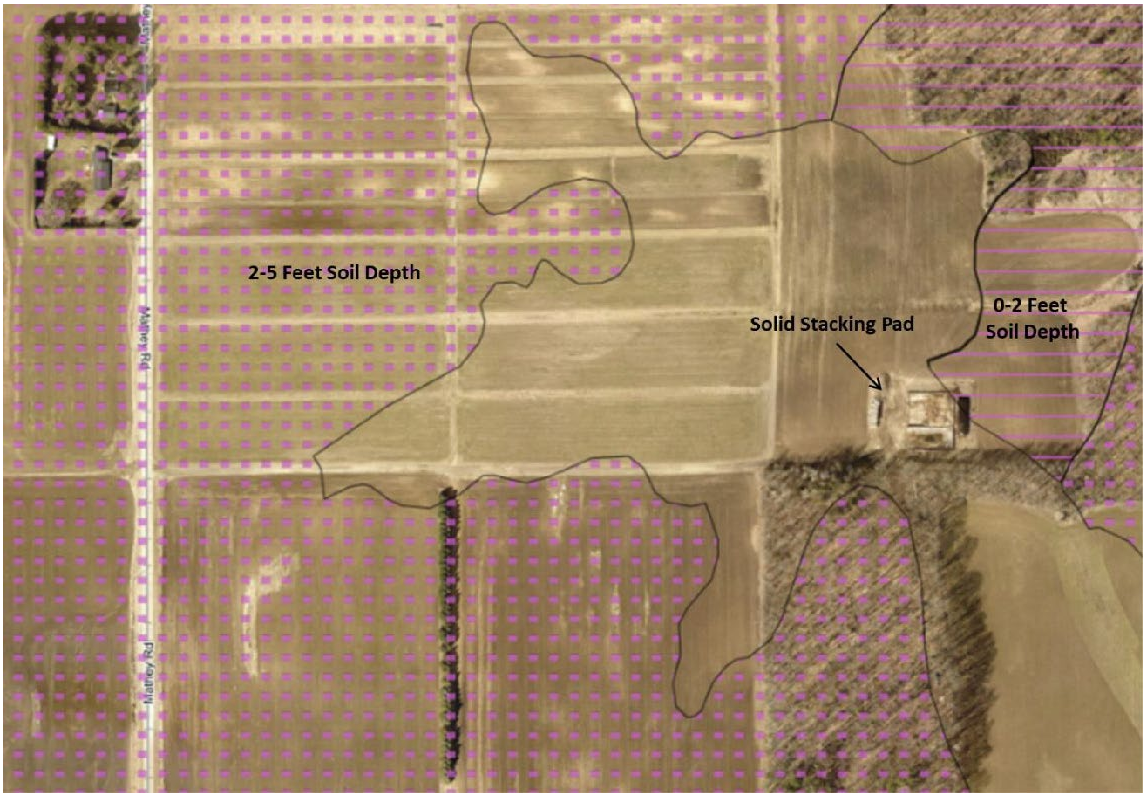
On December 12, 2023, James Salscheider, WDNR Agricultural Runoff Management Specialist, met with Tim and Wade Gilbert, owners of Gilbert Farms Ltd. to conduct a permit issuance inspection at their dairy operation as part of the WPDES permit issuance process. Salscheider was joined by Joe Baeten, NER Runoff Program Supervisor, and Erin Hanson, Nonpoint Source Coordinator. Tim and Wade were joined by Chuck Bolte, agronomist with AgSource, and Clark Fox, engineer with Outland Design. Also joining the inspection were Greg Coulthurst, Door County SWCD Conservationist, and Tim Dahl, Door County SWCD Conservation Technician. Gilbert Farms submitted a preliminary WPDES permit application on October 26, 2023. Gilbert Farms Ltd. Gilbert Farms indicated with the preliminary WPDES permit application that they intend to expand to from 987.8 animal units to 2,200 animal units. Gilbert Farms Ltd. is located at 5186 County Road T, Sturgeon Bay, WI 54235, S ½ of the SW ¼ of S35 T28N R26E, Township of Sevastopol, Door County, WI. Gilbert Farms also utilizes an off-site solid manure stacking pad located at 3476 Mathey Rd, Sturgeon Bay, WI 54235, NE ¼ of the SW ¼ S2 T27N R26E, Township of Sturgeon Bay, Door County, WI. The weather during the inspection was 26° F and sunny.

Aerial Map 1. The aerial map above illustrates the production site at Gilbert Farms Ltd. The production site at Gilbert Farms consists of several animal barns, one feed storage area, one calf hutch area, several machinery buildings, two liquid storage facilities, and a solid separation system. The yellow arrows represent the flow path of runoff from the feed storage area. The aerial image was obtained from SnapMaps.

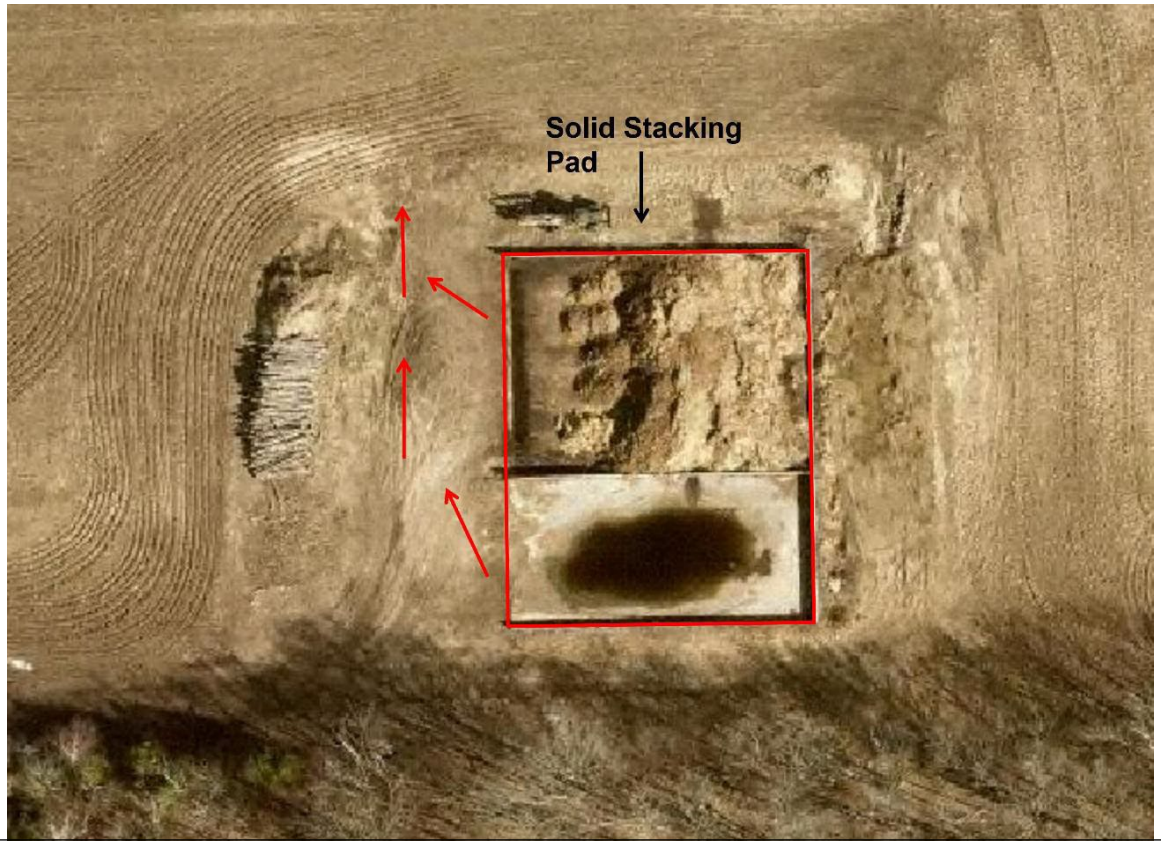
Aerial Map 2. The aerial map above illustrates surface water in relation to the production site at Gilbert Farms. Mapped wetlands are represented by the yellow shaded area. The aerial image was obtained from DNR Surface Water Data Viewer.



Aerial Map 3. The aerial map above illustrates mapped depth to bedrock under the production site at Gilbert Farms. The horizontal purple lines represent 0-2 feet of soil depth to bedrock. The purple dots represent 2-5 soil depth to bedrock. The aerial image was obtained from SnapMaps.



Aerial Map 4. The aerial map above illustrates mapped depth to bedrock under the satellite stacking pad. The horizontal purple lines represent 0-2 feet of soil depth to bedrock. The purple dots represent 2-5 soil depth to bedrock. The aerial image was obtained from SnapMaps.



Aerial Map 5. The aerial map above illustrates the satellite stacking pad that is used by Gilbert Farms to store solid manure. The red arrows represent the flow path of runoff from the stacking pad, which flows west and north to the adjacent cropped field, which is owned by Gilbert Farms.

SITE OBSERVATIONS

Feedlot Runoff
Gilbert Farms Ltd. does not utilize outdoor feedlots.

Calf Hutch Areas
Calf hutch areas are not 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.

Gilbert Farms utilizes super calf hutches to house calves between the freestall barns and the feed storage area. The runoff from the calf hutch area comingles with runoff from the feed storage area and flows north off the concrete feed pad. There are no permanent runoff controls present for runoff from the calf hutch area.

Photo 1. Calf hutches within the calf barn, located on the south side of the production site, where most calves are housed.

Photo 2. Calf hutches within the calf barn, located on the south side of the production site.

Photo 3. Larger calves housed in a pen located on the east side of the calf barn.

Photo 4. Larger calves housed in a pen located on the east side of the calf barn.

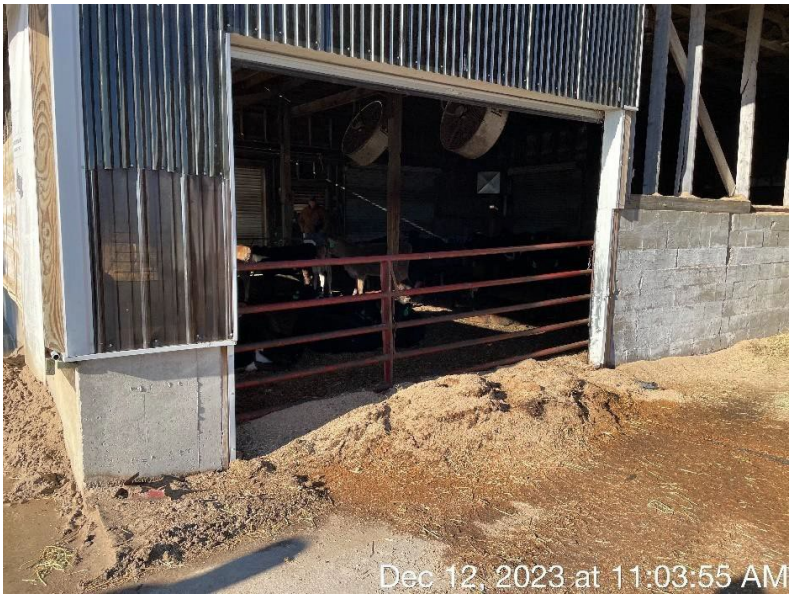


Photo 5. The east side of the pen that houses larger calves. Some manure tracking was present outside of the barn.

Photo 6. Super hutches that are used to house calves between the freestall barns and the feed storage area. This photo was taken facing north.

Photo 7. Super hutches that are used to house calves between the freestall barns and the feed storage area. This photo was taken facing north.

Photo 8. The flow path of runoff from the calf hutches towards the feed storage area. This photo was taken facing north.

Waste Storage Facilities

Solid and liquid waste storage facilities are 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 do not have permanent markers installed.

Gilbert Farms utilizes two liquid waste storage facilities to store liquid manure and process wastewater generated at the Main Site. The two liquid waste storage facilities operate as a two-stage system, located on the northwest corner of the production site. WSF 1 is a concrete-lined liquid waste storage facility that accepts manure and process wastewater from the milking parlor and freestall barns. WSF 1 was constructed in 1987 and has a useable capacity of 1,944,800 gallons. Settled solids are removed from the storage facility if they are not thoroughly agitated. Two concrete weirs are in-place to convey manure from WSF 1 to WSF 2, which is located west of WSF 1. WSF 2 is a concrete-lined liquid waste storage facility that was constructed in 2009. WSF 2 has a usable capacity of 1,132,248 gallons. No permanent markers were present in either storage facility. Fencing was present around both storage facilities. The concrete liners appeared to be in good condition, with no signs of cracking or degradation.

Solid manure generated at Gilbert Farms during winter months is stored on a satellite stacking pad located at 3476 Mathey Rd, Sturgeon Bay, WI 54235, approximately 0.75 miles south of Gilbert Farms. Tim stated that the slab was approved to store municipal solid waste in the past but is now owned by Gilbert Farms. The stacking pad does not have any runoff controls associated with the storage area. A small amount of solid manure was being stored on the pad. Runoff from the pad flows west towards the gravel driveway, and then north to an agricultural field operated by Gilbert Farms. A significant amount of solid manure was present around the outside of the concrete walls around the storage facility, spilled over when manure was either loaded or removed from the pad.

Gilbert Farms separates solids from the liquid manure generated in the freestall barns. The solid separator is located on the northwest corner of the westernmost freestall barn, where the reception tank and transfer pump are located. Biosolids are conveyed from the separator to the main storage area, located between the separator and the maternity pen. Biosolids are also stored in a bay near the calf barn. Gilbert Farms uses the biosolids for bedding within the freestall barns.

Photo 9. WSF 1 at Gilbert Farms, which accepts manure from the freestall barns. WSF 1 is located on the northwest corner of the production site. The photo was taken facing west.

Photo 10. The location where manure enters WSF 1 from the freestall barns, located on the east side of WSF 1.

Photo 11. The concrete ramp into WSF 1, located on the south side of the storage facility.

Photo 12. WSF 1 at Gilbert Farms, which accepts manure from the freestall barns. WSF 1 is located on the northwest corner of the production site. The photo was taken facing northeast.

Photo 13. The berm that separates WSF 1 and WSF 2. Two concrete weirs allow manure to flow from WSF 1 to WSF 2. This photo was taken from the south side of the storages, facing north.

Photo 14. WSF 2 at Gilbert Farms, which accepts manure from WSF 1. WSF 2 is located west of WSF 1. This photo was taken from the south side facing northeast.

Photo 15. WSF 2 at Gilbert Farms, which accepts manure from WSF 1. WSF 2 is located west of WSF 1. This photo was taken from the southeast corner facing northwest.

Photo 16. WSF 2 at Gilbert Farms, which accepts manure from WSF 1. WSF 2 is located west of WSF 1. This photo was taken from the west side facing east.

Photo 17. WSF 2 at Gilbert Farms, which accepts manure from WSF 1. WSF 2 is located west of WSF 1. This photo was taken from the north side facing southeast.

Photo 18. WSF 1 at Gilbert Farms. This photo was taken from the northwest corner facing east.

Photo 19. WSF 1 at Gilbert Farms. This photo was taken from the northwest corner facing south.

Photo 20. The satellite stacking pad that Gilbert Farms utilizes to store solid manure when it cannot be land applied.

Photo 21. The satellite stacking pad that Gilbert Farms utilizes to store solid manure when it cannot be land applied.

Photo 22. The flow path of runoff from the satellite stacking pad, represented by the red arrows. There are no runoff controls currently in-place.

Photo 23. The flow path of runoff from the satellite stacking pad, represented by the red arrows. There are no runoff controls currently in-place.

Photo 24. The flow path of runoff from the satellite stacking pad, represented by the red arrows. There are no runoff controls currently in-place.

Photo 25. The flow path of runoff from the satellite stacking pad, represented by the red arrows. There are no runoff controls currently in-place.

Photo 26. Solid manure that spilled over the concrete wall that surrounds the solid stacking pad. Several piles were located around the storage area.

Photo 27. The solid separator that removes biosolids from the liquid manure generated in the freestall barns.

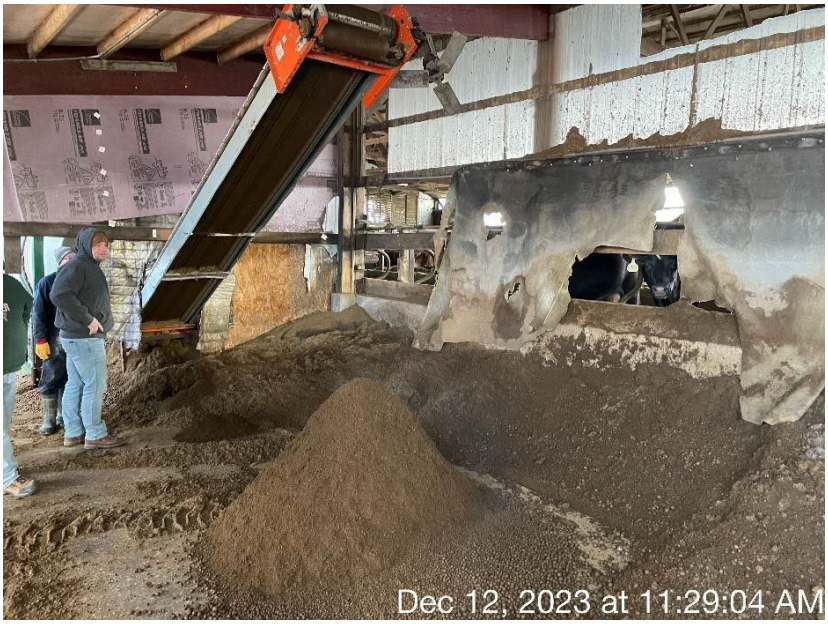


Photo 28. The location where biosolids are conveyed to storage after being removed from the liquid manure.

Photo 29. The location where biosolids are stacked after being removed from liquid manure.

Photo 30. The manure reception tank that accepts manure and process wastewater generated in the freestall barns. Manure is pumped to WSF 1 from this reception tank.

Photo 31. A location where biosolids are stored until it can be used for bedding in the freestall barns. This bay is located by the calf barn.

Photo 32. The location where manure is loaded into semi-tankers and spreading equipment to be land applied, located on the south side of the storage facilities.

<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 generated in the milking parlor gravity flows to a flume that conveys manure from the freestall barn to the manure transfer system, which conveys the process wastewater to permanent storage.

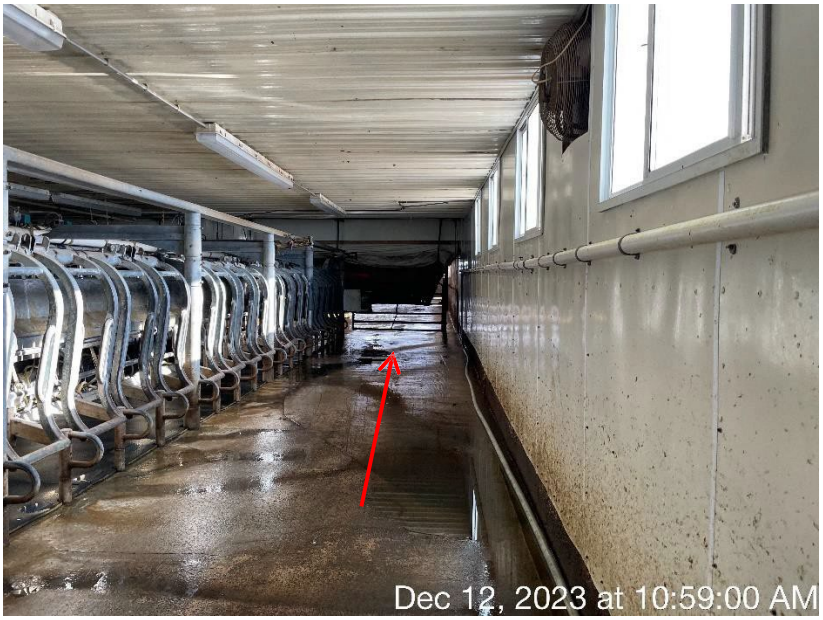


Photo 33. The milking parlor at Gilbert Farms. Process wastewater generated in the parlor is washed into the adjacent freestall barn and comingled with manure.

Photo 34. The flow path of process wastewater generated in the parlor. It is washed into the adjacent freestall barn and comingled with manure.

Feed Storage Area Runoff

Feed storage areas and associated process wastewater (leachate, runoff) are not managed to not have current or past indicators of discharges.

Feed storage areas and runoff control systems are not well-maintained, in good repair and in compliance with permit requirements.

Gilbert Farms stores all the feed for the operation on a concrete pad located on the east side of the production site, where corn silage and haylage is stored in both piles and bunkers. The east side of the feed storage area has concrete walls that form feed bunkers. The west side of the feed storage area has several feed piles, covered in plastic. Runoff from the bunkers and piles flow to the middle of the concrete pad, where runoff then flows north. There are no runoff controls currently in-place for feed storage runoff at Gilbert Farms. Runoff leaves the concrete pad on the north side of the storage area and flows northeast, towards a delineated wetland. Wetland delineation flags were present around the depression at the time of the inspection. Exposed bedrock is present directly north of the feed storage area. Based on past aerial images, it appeared that the flow path of runoff flowed between exposed bedrock before flowing towards the wetland. Gilbert Farms excavated north of the feed storage area, blasting out bedrock and placing gravel along the feed storage area.

Photo 35. The west side of the feed storage area, located on the east side of the production site. This photo was taken facing north.

Photo 36. The south side of the feed storage area, located on the east side of the production site. This photo was taken facing east.

Photo 37. The south side of the feed storage area, where feed was piled along and over the edge of the concrete apron, preventing runoff from staying on the concrete pad.

Photo 38. The middle of the feed storage area, where runoff collects and flows north. This photo was taken facing north.

Photo 39. Feed storage bunkers located on the east side of the feed storage area. Runoff flows west to the middle, where it then flows north.

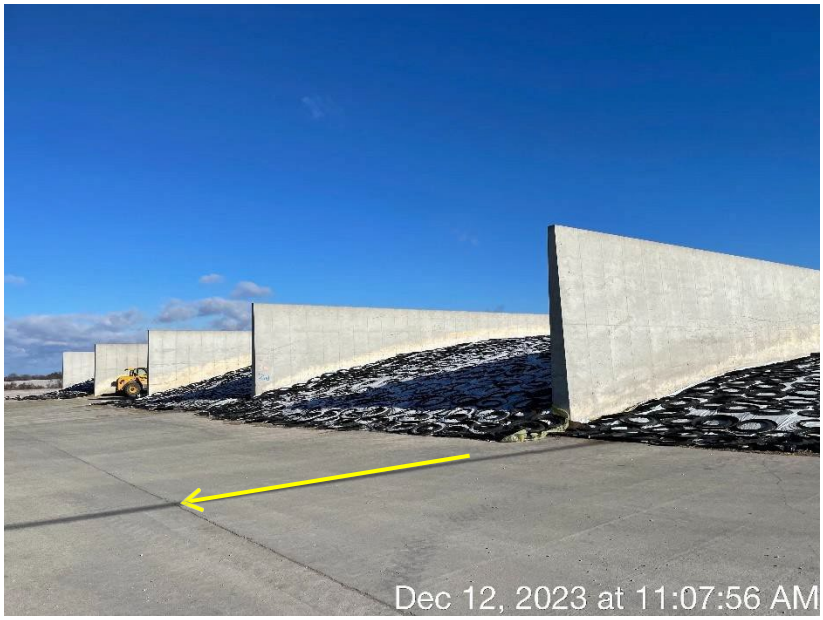


Photo 40. The east side of the feed storage area, which is sloped to convey stormwater away from the feed storage area.

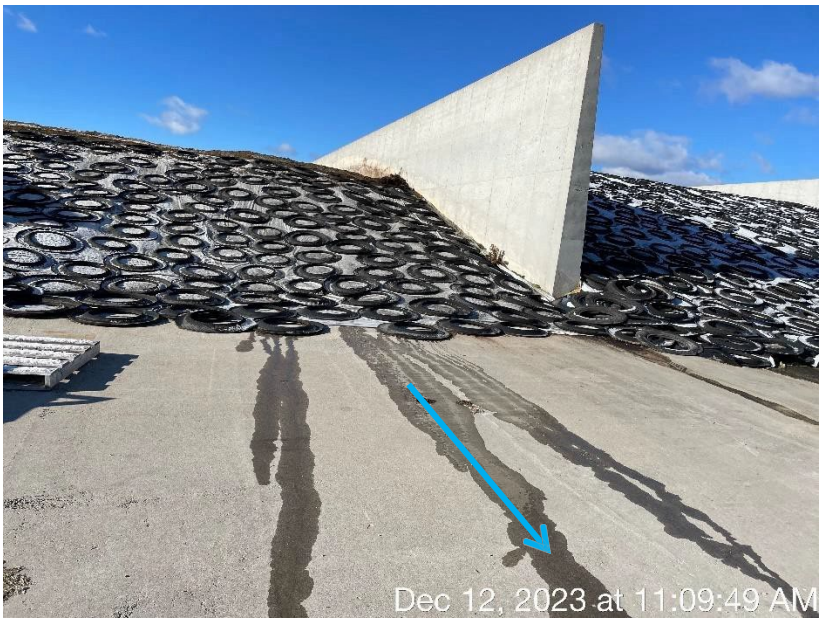


Photo 41. The east side of the feed storage area, which is sloped to convey stormwater away from the feed storage area.

Photo 42. The north side of the feed storage area, where excavation was done. Bedrock was blasted and excavated from the site. This photo was taken facing north.

Photo 43. The north side of the feed storage area, where excavation was done. Bedrock was blasted and excavated from the site. This photo was taken facing northwest.

Photo 44. The north side of the feed storage area, where excavation was done. Bedrock was blasted and excavated from the site. This photo was taken facing west.

Photo 45. The north side of the feed storage area, where excavation was done. Bedrock was blasted and excavated from the site. This photo was taken facing west.

Photo 46. The flow path of runoff from the feed storage area. Runoff concentrates in the middle of the feed pad and flows north off the feed storage area. This photo was taken facing south.

Photo 47. The northwest corner of the feed storage area. This photo was taken facing southwest.

Photo 48. The northwest corner of the feed storage area. This photo was taken facing west.

Photo 49. The north side of the feed storage area, where bedrock was blasted and excavated. This photo was taken facing east.

Photo 50. A feed bag located on the northwest corner of the feed storage area.

Photo 51. The west side of the feed storage area. This photo was taken facing south.

Photo 52. The flow path of runoff off the north side of the feed storage area. The yellow arrows represent the flow path.

Photo 53. The flow path of runoff from the north side of the feed storage area. The yellow arrows represent the flow path.

Photo 54. The flow path of runoff from the north side of the feed storage area. The yellow arrows represent the flow path.

Photo 55. The flow path of runoff from the north side of the feed storage area. The yellow arrows represent the flow path.

Photo 56. A wetland located on the north side of the production site. Runoff from the feed storage flows towards the wetland.

Photo 57. A wetland located on the north side of the production site. Runoff from the feed storage flows towards the wetland.

Photo 58. A wetland delineation flag around the wetland located north of the production site.

Animal Mortality Disposal

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

Gilbert Farms utilizes Sandy Bay Mink Ranch to handle animal mortalities. Mortalities are stored on concrete outside of the easternmost freestall barn. Several calf carcasses were present at the time of the inspection and appeared to be decayed, indicating that the carcasses were there for a long period of time. There was no evidence of runoff from this area present at the time of inspection.

Photo 59. Animal carcasses located on concrete outside of the westernmost freestall barn.

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.).

Stormwater swales and culverts are present to capture and convey stormwater around the production site at Gilbert Farms. Minimal manure tracking and debris was present on the driveways around the production site. Commodity storage was present under roof on the east side of the calf barn. Exposed bedrock was present on the north side of the freestall barns, where stormwater captured from the barn roofs is conveyed to. There was no evidence of contaminants entering any stormwater conveyance system.

Photo 60. Commodity storage bays at Gilbert Farms.

Photo 61. Commodity storage bays at Gilbert Farms.

Photo 62. A grassed swale that captures and conveys roof runoff between freestall barns and conveys the runoff north and off the production site.

Photo 63. The outlet that discharges stormwater from the grassed swale pictured in Photo 62. The outlet is covered by the concrete slabs.

Photo 64. The area north of the freestall barns, where stormwater is conveyed to. Exposed bedrock is present in this area.

Photo 65. The area where machinery is washed, on the driveway located west of the milking parlor.

Photo 66. Fuel storage at Gilbert Farms, located along the machine shop located south of the milking parlor.

Photo 67. The machine shed and parking area located east of the feed storage area.

SUMMARY

Areas of Concern

- Feed storage and calf hutch area runoff controls
    - Lack of runoff controls for the feed storage and calf hutch area allow runoff to leave the concrete pad, flow over geologically sensitive soils near exposed bedrock, and possibly discharging to waters of the State.
- Solid stacking pad runoff controls
    - Lack of runoff controls allow runoff from the manure stacking area to leave the concrete pad and flow to an adjacent cropped field.

Items for Next Permit Term

- Production Site Groundwater Monitoring
- Any upgrades deemed necessary from the engineering evaluations completed for all existing reviewable facilities.

Final Permit Application Requirements

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
- Engineering evaluations for all existing facilities

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

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

December 4, 2024

Door County
Approval

Tim Gilbert
Gilbert Farms Ltd
5186 County Road T
Sturgeon Bay, WI 54235

SUBJECT: Conditional Approval of Gilbert Farms Ltd Nutrient Management Plan, WPDES Permit No. 0063274-01-0

Dear Mr. Gilbert:

After completing a review of Gilbert Farms Ltd 2025-2029 Nutrient Management Plan (NMP) the Wisconsin Department of Natural Resources (Department) is providing conditional approval that it is consistent with Nutrient Management Requirements in s. NR 243, Wis. Adm. Code. This part of your WPDES permit application is now ready for the public notice and comment process as required by Ch. 283 Stats.

Before applying manure onto approved fields each season, the Department recommends Gilbert Farms Ltd 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 Gilbert Farms Ltd 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 Gilbert Farms Ltd 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 1,443 animal units (688 milking & dry cows, 500 heifers, and 275 calves). A planned herd size of 2,430 animal units (1,150 milking & dry cows, 900 heifers, and 400 calves) by 2026.
2. Manure generation and spreading records indicate your herd will annually generate approximately 5,737,664 gallons of manure and process wastewater and 838 tons of solid manure in the first year of the permit term. After the planned expansion and additional leachate collection, your herd will annually generate approximately 21,452,275 gallons of manure and process wastewater and 1,570 tons of solid manure.
3. The use of application restriction options 1, 2 and 5 within surface water quality management areas.
4. The use of phosphorus delivery method P Index.

5. That Gilbert Farms Ltd currently has 2,046.1 acres (859.5 owned and 1,186.6 controlled through contracts, rental agreements or leases, or under manure agreements) of which 1,425.3 are spreadable acres.
6. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to a 303(d) impaired water.
7. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters.
8. That fields included in the NMP are located within the well head protection area for the City of Sturgeon Bay.
9. That no fields are tiled.
10. That all fields will be checked for the following features prior to/during manure or process wastewater applications: soil areas with possible shallow groundwater (i.e., within 24 inches of surface) at the time of manure application; required setbacks associated with wells, navigable waters, conduits to navigable waters, grassed waterways, wetlands, possible soil erosion/flow channels.
11. That surface applications of manure will not be completed when precipitation capable of producing runoff is forecasted within 24 hours of the time of planned application.

CONDITIONAL NUTRIENT MANAGEMENT PLAN APPROVAL

The Department hereby approves the 2025-2029 Gilbert Farms Ltd 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:

    - Weber (default soil tests)

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

WINTER SPREADING

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 approved for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:

- Buzzy Tong
- Meilkes Back
- Smith

10. 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.

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

12. 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

13. No headland stacking sites are approved.

MANURE & PROCESS WASTEWATER IRRIGATION

14. Irrigation of manure or process wastewater is prohibited.

NR243.143/151.075 SILURIAN BEDROCK PERFORMANCE STANDARDS

15. Manure generated by Gilbert Farms Ltd 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:

AM 11	HEDEEN 2	PHLIEGER 1
BEHIND SCHOOL	HM	PHLIEGER 2
BUZZY TONG	INSTITUTE	PROPSON
BUZZY TONG 2	JAKES	RONS
CHALET	KEVIN	RYANS
CHARLIES	KUSTABAR	RZK-19
EG 1	LEERS	SCHAEFER
EG 2	MEILKES	SCHMIDT
EG 3	MEILKES BACK	SCHRANK N
EG 4 5	MEISNER	SCHRANK S
EG W	MILLERS 1	SCHUMACHER
FOREST	MILLERS-2	WEISS 1

FREDS	MOORE	WEISS 2
HARMANN	PASTURE	
HEDEEN 1	PETERSON	

SUBMITAL AND RECORDKEEPING REQUIREMENTS

16. 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 715-214-5503 or Aaron.Orourke@Wisconsin.gov.

Sincerely,

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

cc: Brittiny Mueller, WDNR Agricultural Runoff Specialist (Brittiny.Mueller@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)
Falon French, WDNR Intake Specialist (Falon.French@Wisconsin.gov)
Greg Coulthurst, Door County (gcoulthurst@co.door.wi.us)
Chuck Bolte, Ag Source Lab (Chuck.Bolte@Agsource.com)
File

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster Street
Box 7921
Madison WI 53707-7921

Tony Evers, Governor

Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

WISCONSIN
DEPT. OF NATURAL RESOURCES

March 5, 2025

FILE REF: R-2024-0239
WPDES Permit #: WI-0067569

Tim Gilbert
Gilbert Farms Ltd.
5186 Country Road T
Sturgeon Bay, WI 54235

Subject: Evaluation Review for Gilbert Farms Ltd T28N, R26E, Section 35 in Stevastopol Township, Door County – FURTHER ACTIONS ARE REQUIRED

Dear Mr. Gilbert:

This letter is to inform you that the Wisconsin Department of Natural Resources (Department) received on September 11, 2024 an evaluation certified by Clark Fox, Outland Design (Engineer) submitted behalf of Gilbert Farm Ltd in accordance with s. NR 243.16(1), Wis. Adm. Code.

Evaluated Facilities: The evaluation included the following reviewable facilities:

1. Waste Storage Facility 1 (WSF1)
2. Waste Storage Facility 2 (WSF2)
3. Feed Storage Area
4. Feed Storage Area Runoff Controls
5. Solid Stacking Area
6. Waste Transfer Systems

The Engineer evaluated the above referenced reviewable facilities based on applicable NRCS Standards and ch. NR 243 Wis. Adm. Code. The engineering report below summarizes the evaluation's findings, lists standards that apply, and provides a compliance analysis. The Department reviewed the evaluation and agreed with the Engineer's conclusion that reviewable facilities 1 through 5 require additional actions to meet ch. NR 243, Wis. Adm. Code requirements.

Required Actions: The following actions are required in accordance with s. NR 243.16(3), Wis. Adm. Code based on the Department's review of the submitted evaluation:

- Complete construction of the feed storage area expansion and runoff controls approved in Project R-2024-0268. After construction is completed, submit post-construction documentation through the Department's ePermitting system in accordance with NR 243.15(10), Wis. Adm. Code.
- Complete construction of the proposed WSFs approved in Project R-2024-0268 to be in compliance with permit requirements to have and maintain 180 days of liquid manure storage as required by s. NR 243.14(9), Wis. Adm. Code. After construction is completed, submit post-construction documentation through the Department's ePermitting system in accordance with NR 243.15(10), Wis. Adm. Code.
- Survey the top and bottom elevations of both WSFs to determine an accurate depth of the storages. Complete two additional soil investigations north of the WSFs to verify if any perched or regional saturation is present above the WSF bottom elevation. Provide a complete, revised evaluation through the Department's ePermitting system summarizing the observations made and the facility's ability to meet current design standards, requirements of Chapter NR 243, Wis. Adm. Code; or WPDES Permit conditions.
    - Should perched saturation be found, submit plans and specifications to install a curtain drain system to remove the perched condition and protect the WSF liner.

  - As part of the survey, install MOL markers in WSF1 and 2 and submit photo documentation of the completion.
- Complete the abandonment of the solid stacking area and submit photo documentation to the Regional CAFO Specialist of the abandonment that assesses the ability of the facility to meet s. NR 243.17(7), Wis. Adm. Code.
- Submit Groundwater Monitoring plans through the Department's ePermitting system in accordance with NR 243.15(7), Wis. Adm. Code. The proposed groundwater monitoring system shall include the ability to assess groundwater quality in the vicinity of the feed storage area.

Submittal due dates are contained in your WPDES permit Schedules section(s). The DNR CAFO Specialist will contact you to discuss next steps. Questions concerning permit requirements should be directed to the DNR CAFO Specialist. Questions concerning the review may be directed to the review engineer Tony Salituro (contact information is at the end of this letter).

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

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

Enclosures:
1. Wisconsin DNR Engineering Report

Email:
Tim Gilbert; Gilbert Farms Ltd.
(920) 493-5142; gilbertfarmsltd@gmail.com
Clark Fox; Outland Design
(608) 960-7549; cfox@outland-design.com
Matt Woodrow; DATCP
(920) 427-8505; matthew.woodrow@wisconsin.gov
Greg Coulthurst; Door County Conservation
(920) 746-2214; GCoulthurst@co.door.wi.us
Brittiny Mueller; DNR-Northeast Region
(608) 228-9184; brittiny.mueller@wisconsin.gov
Joe B Baeten; DNR-Northeast Region
(920) 366-2072; Joseph.Baeten@wisconsin.gov
Anthony Salituro; DNR-Central Office
(608) 444-2869; anthony.salituro@wisconsin.gov
James Salscheider; DNR-Northeast Region
(920) 367-3007; james.salscheider@wisconsin.gov

WISCONSIN DEPARTMENT OF NATURAL RESOURCES ENGINEERING REPORT
GENERAL INFORMATION

Farm Name: Gilbert Farms Ltd	**WPDES Permit#:** WI-0067569
Location Address: 5186 Country Road T	**DNR Project #:** R-2024-0239
Engineering Certification by: Clark Fox, P.E.	

Evaluated Facilities:

Waste Storage Facility 1 (WSF1): WSF1 is a concrete with waterstop lined storage constructed in 1989 and designed by Door County. The storage has approximate bottom dimensions of 170 ft x 70 ft x 10 ft deep. Two separate 2 ft deep sumps are located on the east and west edge of the WSF. The storage has 10 ft wide berms with 2:1 and 3:1 interior and exterior side slopes respectively. The storage bottom elevation is at 664.5 ft using a County Coordinate System conversion from the design plans. The storage has a total volume of 1,944,800 gallons and MOL volume of 1,549,586 gallons.

Four test pits from 1988 are shown in the design documents. All test pits were excavated to bedrock, with three of the test pits indicating that separation from bedrock is 5.1 ft, and a single test pit showing a separation of 2.4 ft in a single spot of the storage. No saturation conditions are indicated in the test pits, but no Munsell colors were taken to validate conditions. Nearby test pits taken for a wetland delineation completed in September 2023 indicate that saturation conditions are present at an elevation of 660 ft – 651.9 ft, which indicate sufficient separation from saturation is met for WSF1. A nearby well log on site approximately 300 ft away from the storage also indicate that static groundwater is present at an elevation of 623.0 ft.

- Assessment References: NRCS Standard 313 (12/05) and s. NR 243.15(3), Wis. Adm. Code.
- There is conflicting information about the depth of WSF1 between the design plans dated 1988 (10 ft deep) and the WSF2 documentation dated 2009 (12 ft deep). The true depth of the WSF is not known at this time. Test pits included in the 2009 WSF2 design show potential subsurface saturation indicators above the floor/sump of WSF1. Documented water elevations north of the WSFs and the surrounding landscape also indicate that open water is south of the WSFs and a large wetland complex is located to the north of the WSFs.
- Provide a complete, revised evaluation through the Department's ePermitting system summarizing the following observations made and the facility's ability to meet current design standards, requirements of Chapter NR 243, Wis. Adm. Code, and any further actions necessary to meet these requirements.
  - WSF1 shall be surveyed to verify the exact top and bottom elevations of the storage.
  - An additional two test pits shall be collected to verify the subsurface saturation elevation surrouding the WSFs. Should perched conditions be found, a curtain drain along the perimeter of the WSF shall be installed to remove the perched satuation.
- The evaluation states, "The proposed actions also include repairing the existing WSF structures like repairing any fencing and replacing MOL markers."
  - Submit photo documentation that MOL markers have been installed at the correct elevation.

Waste Storage Facility 2 (WSF2): WSF2 is a concrete with waterstop lined storage constructed in 2009 and designed by Door County. The storage has approximate bottom dimensions of 126 ft x 79 ft x 11 – 12 ft deep. Two 6 ft wide overflow channels are present between WSF1 and 2 to allow the transfer between the two. The storage has 14 ft wide berms with 2:1 and 3:1 interior and exterior side slopes respectively. The storage bottom elevation is at 663 ft using a County Coordinate System conversion from the red line plan set. The storage has a total volume of 1,132,284 gallons and MOL volume of 850,534 gallons.

Four test pits from 2009 are shown in the design documents. No bedrock was found in any of the test pits. Saturation was found in two of the test pits at a limiting elevation of 659.7 ft, showing at minimum 3.4 ft

of separation to groundwater, but no Munsell colors were taken to validate conditions. Additional test pits from 2009 taken north of the WSF2 show potential saturation conditions above the floor of the WSF, but are unclear about what was found that may indicate saturation. Nearby test pits taken for a wetland delineation completed in September 2023 indicate that saturation conditions are present at an elevation of 660 ft – 651.9 ft, which indicate sufficient separation from saturation is met for WSF2. A nearby well log on site approximately 300 ft away from the storage also indicate that static groundwater is present at an elevation of 623.0 ft.

- Assessment References: NRCS Standard 313 (12/05) and s. NR 243.15(3), Wis. Adm. Code.
- Test pits taken from 2009 are unclear about if saturation conditions are present above the floor of the WSF2. Documented water elevations north of the WSF2 and the surrounding landscape indicate that open water is south of WSF2 and a large wetland complex is located to the north of WSF2.
- Provide a complete, revised evaluation through the Department's ePermitting system summarizing the following observations made and the facility's ability to meet current design standards, requirements of Chapter NR 243, Wis. Adm. Code, and any further actions necessary to meet these requirements.
    - An additional two test pits shall be collected to verify the subsurface saturation elevation surrouding WSF2. Should perched conditions be found, a curtain drain along the perimeter of the WSF shall be installed to remove the perched satuation.
- The evaluation states, "The proposed actions also include repairing the existing WSF structures like repairing any fencing and replacing MOL markers."
    - Submit photo documentation that MOL markers have been installed at the correct elevation.

Feed Storage Area and Associated Runoff Controls: The feed storage area is an approximately 155,655 sq. ft earthen lined feed storage area with an asphalt working surface on the west half and concrete working surface on the east half. A soil investigation of the soils directly beneath the feed storage area surface indicate that directly beneath the liner are 9-inches of gravel overtop 1.5 – 2 ft of imported clay materials. Silurian bedrock is located directly beneath the clay material. No drain tile is present in the gravel drainage layer and the feed storage area has no runoff controls.

- Assessment References: NRCS Standard 561 (11/22) and s. NR 243.15(2) and (9), Wis. Adm. Code.
- The feed storage area does not meet the required thickness or separation distance from bedrock in NRCS Standard 561. Due to deficiencies in the feed storage area construction, the evaluation states, "Monitoring wells will need to be installed to verify compliance with groundwater quality standards found in NR 243.15 and NR 243.16."
    - Submit a groundwater monitoring plan through the Department's ePermitting system for review and approval. The proposed groundwater monitoring system shall include the ability to assess groundwater quality in the vicinity of the feed storage area.
- The evaluation states, "FSA currently does not have a runoff control system to meet the requirements of NR 243.13 therefore a runoff control system will be installed as well as a runoff collection facility that will collect leachate and runoff from the structure." Plans and specifications to construct a feed storage expansion and runoff controls were received on November 7, 2024 (R-2024-0268). The plans and specifications were approved on February 28, 2025.
    - A further action is required to complete construction of the feed storage area runoff controls and submit post-construction documentation through the Department's ePermitting system.

Solid Stacking Area (SMSF 1): The stacking area was designed to store municipal solid waste and not solid manure storage. No runoff controls are present at the solid stacking area.

- Assessment References: NRCS Standard 313 (12/05) and s. NR 243.15(3), Wis. Adm. Code.
- The evaluation states, "SMSF 1 is proposed to be abandoned according to NRCS Code 360 and a new Solid Manure Stack Pad will be installed within the main production area along with the additional farm expansion plans." Abandonment plans were submitted through the Department's ePermitting system on November 7, 2024 (R-2024-0268).

- Complete the abandonment of the solid stacking area and submit photo documentation to the Regional CAFO Specialist of the abandonment.

Waste Transfer Systems:

- Assessment References: NRCS Standard 634 (01/14) and ss. NR 243.15(4), Wis. Adm. Code.
- Waste Transfer System 1 (WTS1): Consists of a gutter on the north side of four freestall barns, a reception tank, solid separator, and a waste transfer pipeline to permanent storage. The system was installed in 1989 and expanded in 2009 and designed by Door County. Waste from the barn is scraped into the gutters with a barn cleaner and then transferred to a 10 ft x 6 ft x 6 ft deep concrete reception tank. Waste from the reception tank is pumped through the solid separation system, and the solids are stacked in the building. All solids stacked on the floor are dry and are held there until they are reused as bedding throughout the farm. Liquid waste is then transferred through a 21-inch diameter gravity pipeline to WSF1. All observations found the structures show no significant cracking or displacement of the concrete and the system is in good working order.
- Waste Transfer System 2 (WTS2): Wash water in the calf barn is collected in an underground parlor tank and pumped through a PVC pipeline to the WTS1 gutters. The system was constructed in 2009 and designed by Door County. Due to confined space entry concerns, the floor of the underground storage tank could not be observed. All other observations of the structures indicate no significant cracking or displacement of concrete and the structure is in good working order.
- **No Further Actions Required**

Days of Available Liquid Waste Storage: The submitted information states that Gilbert Farms Ltd currently has **94 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 number of animal units provided for the calculation is **1,443 AUs**. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values for a collection period of **365 days**. The operation is proposing to add a liquid waste storage facility in the upcoming permit term. Proposed conditions following construction of the WSFs and expanded animal units will be reviewed as part of the plans and specifications (R-2024-0268).

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	1,944,800	92,632	83,328	0	219,254	1,549,586
WSF2	1,132,248	55,876	56,371	0	169,467	850,534
					Total MOL Vol:	2,400,120
					Days of Storage:	**94**

Liquids Collected/Stored	**Annual Gallons**
Manure, Bedding, and Parlor Wastewater	8,618,318
Net Precipitation on Storage Surfaces	686,343
TOTAL:	**9,304,661**

DECISION RECOMMENDATION: Based on my review completed on March 5, 2025, the reviewable facilities identified above **require further actions**.

Anthony Salituro

Tony Salituro, E.I.T.
Water Resources Engineer
Watershed Management Program

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: June 30, 2025 WPDES Permit #0067569-01-0

TO: Brittiny Mueller – CAFO Specialist, Green Bay

FROM: Ian Anderson – CAFO Hydrogeologist Program Coordinator

SUBJECT: Gilbert Farms LTD – Groundwater Monitoring Review

Background:
Gilbert Farms LTD is a farm located in Section 35 T28N R26E, Town of Sevastopol, Door County applying for initial WPDES permit coverage. An Issuance Inspection was conducted on December 12, 2023 by James Salscheider CAFO Specialist covering Door County at the time, and the ensuing Inspection Report identified Production Area Groundwater Monitoring as an item needed for the permit.

This memo describes the site-specific information used to make the recommendation that production area groundwater monitoring should be required in the upcoming permit issuance, which includes: local well construction reports, published county-scale geologic maps, and a USGS report on the geology and groundwater in Door County (Sherrill, 1978).

Geology/Hydrogeology:
Bedrock in the Town of Sevastopol is primarily Silurian dolomite (Mudrey et al., 1982). Silurian dolomite in Door County is known to be karstified as evidenced by numerous sinkholes and bedrock fractures.

Depth to bedrock is quite variable in Door County, ranging from greater than 64 feet in the Town of Clay Banks in the southeast part of the county to less than 4 feet in many areas, including where Gilbert Farms is located (Sherrill, 1978). Surficial deposits in Door County are mapped as till, lake sediment or meltwater-stream sediment, with the majority characterized as till (Carson et al., 2016). The area of the Gilbert Farms production area is described as "Areas of thin till cover on streamlined topography. Low-relief land surface with drumlins and/or flutes on bedrock. Bedrock typically within 5ft (1.5m) of the ground surface," or "Gravel and sand. Poorly to well-sorted sediment deposited at the glacier margin and in outwash plains." by Carson et al. (2016). See figures 3a and 3b for details.

Well construction reports (WCRs) are consistent with depth to bedrock mapping in Town of Sevastopol. Well construction reports from the production area and nearby show Silurian dolomite encountered at depths ranging from 0.5-26 feet. None of the WCRs I examined showed bedrock deeper than 10ft at the Gilbert Farms production area. Overburden is consistently listed as clay.

Groundwater elevation at Gilbert Farms is between 630 and 640ft MSL, based on water table elevation contours included in the Door County WebMap. This would put groundwater depth at between 40 and 50 feet, when subtracting land surface elevation which is approximately 680ft at the production area. This is also consistent with WCRs which list static water level at the time of drilling between 40 and 60ft 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 Gilbert Farms production area and manure landspreading sites. Several potential contaminant sources can be found at the Gilbert Farms

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 Gilbert Farms with only a few feet of soil depth to fractured bedrock, makes this area of the town of Sevastopol susceptible to contaminants. Groundwater monitoring is necessary to ensure that Gilbert Farms is meeting groundwater quality standards. As such, I recommend requiring groundwater monitoring at Gilbert Farms, starting with a minimum of three wells. One well should be upgradient and two wells should be downgradient of the production area. Gilbert Farms should submit a Phase 1 Groundwater Monitoring Plan by October 1, 2029.

References:
Geology and Ground Water in Door County, Wisconsin, with emphasis on contamination potential in the Silurian Dolomite. Sherrill, M.G., 1978. USGS- Water Supply Paper 2047.
https://pubs.usgs.gov/publication/wsp2047

Attachments:

Figure 1 – Aerial Photo of Gilbert Farms Production Area
Figure 2 – Topographic Map of Gilbert Farms Production Area
Figure 3a – Excerpt from Quaternary Geology of Door County, Wisconsin.
Figure 3b – Explanation of Map Units and Symbology from Quaternary Geology of Door County, Wisconsin.
Figure 4 – Depth to Bedrock Map
Figure 5 – Water Table Elevation Map
Figure 6 – Well Construction Reports

Figure 1 – Aerial Photo of Gilbert Farms production area.

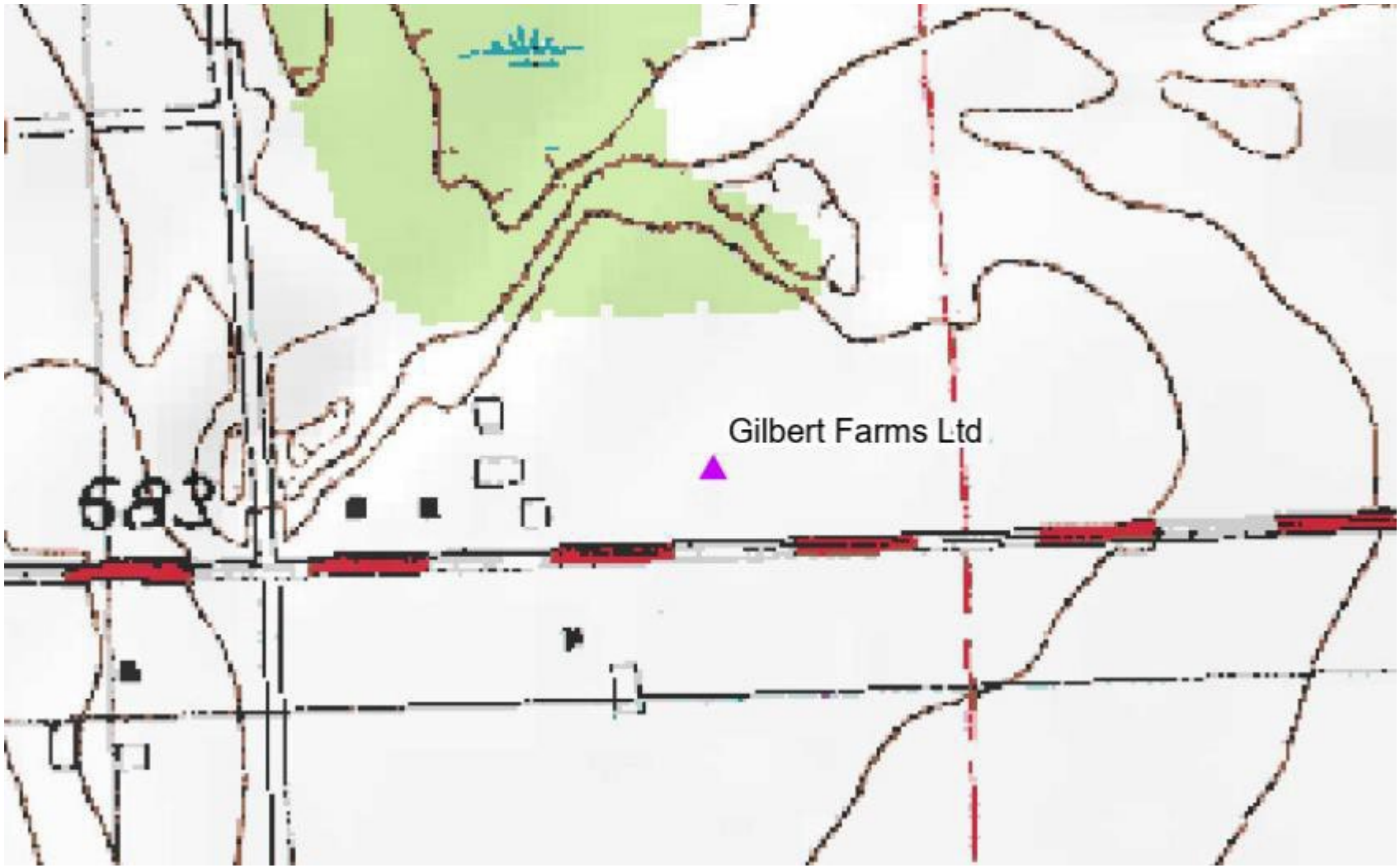


Figure 2 – Topographic Map of Gilbert Farms production area.

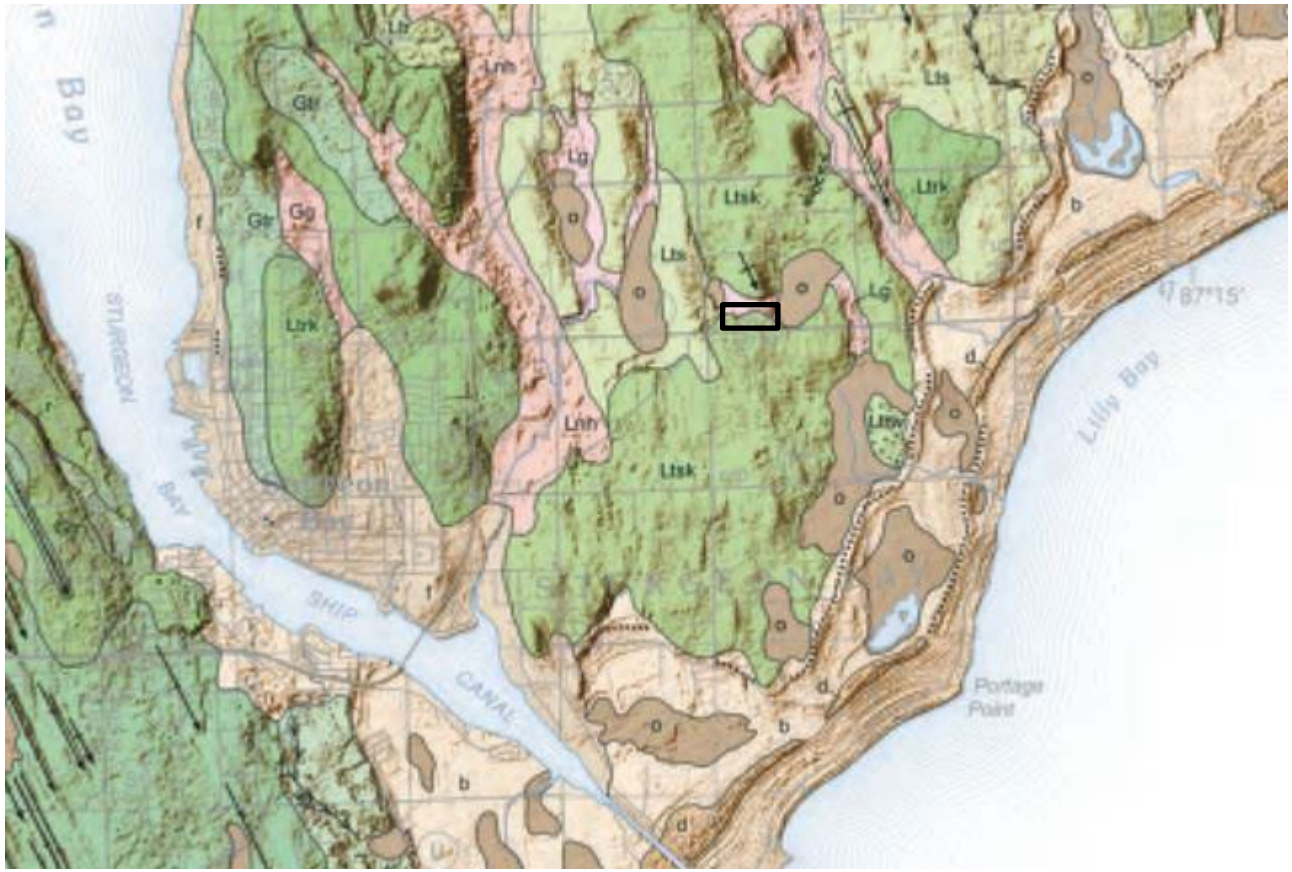
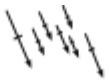


Figure 3a – Excerpt from Quaternary Geology of Door County County, Wisconsin. Carson, E., Brown, S., Mickelson, D., and Schneider, A. 2016. WGNHS Bulletin 109 Plate 1. Black rectangle indicates approximate location of Gilbert Farms production area.

Postglacial organic sediment. Peat and muck; thickness ranges from less than 3 ft (1 m) to about 15 ft (5 m); underlain by deposits of streams, glaciers, or lakes; generally found in low parts of the landscape on flat to gently sloping surfaces.

Gravel and sand. Poorly to well-sorted sediment deposited at the glacier margin and in outwash plains.

Areas of thin till cover on streamlined topography. Low-relief land surface with drumlins and/or flutes on bedrock. Bedrock typically within 5 ft (1.5 m) of the ground surface. In many places sediment has been completely altered by soil-forming processes making identification of parent material difficult.



Drumlin
Length of arrow on symbol proportional to length of drumlin axes; arrow points in the direction of ice flow; cross-line on symbol proportional to drumlin width.

Figure 3b - Explanation of Map Units and Symbology, excerpted from Quaternary Geology of Door County County, Wisconsin. 2016.

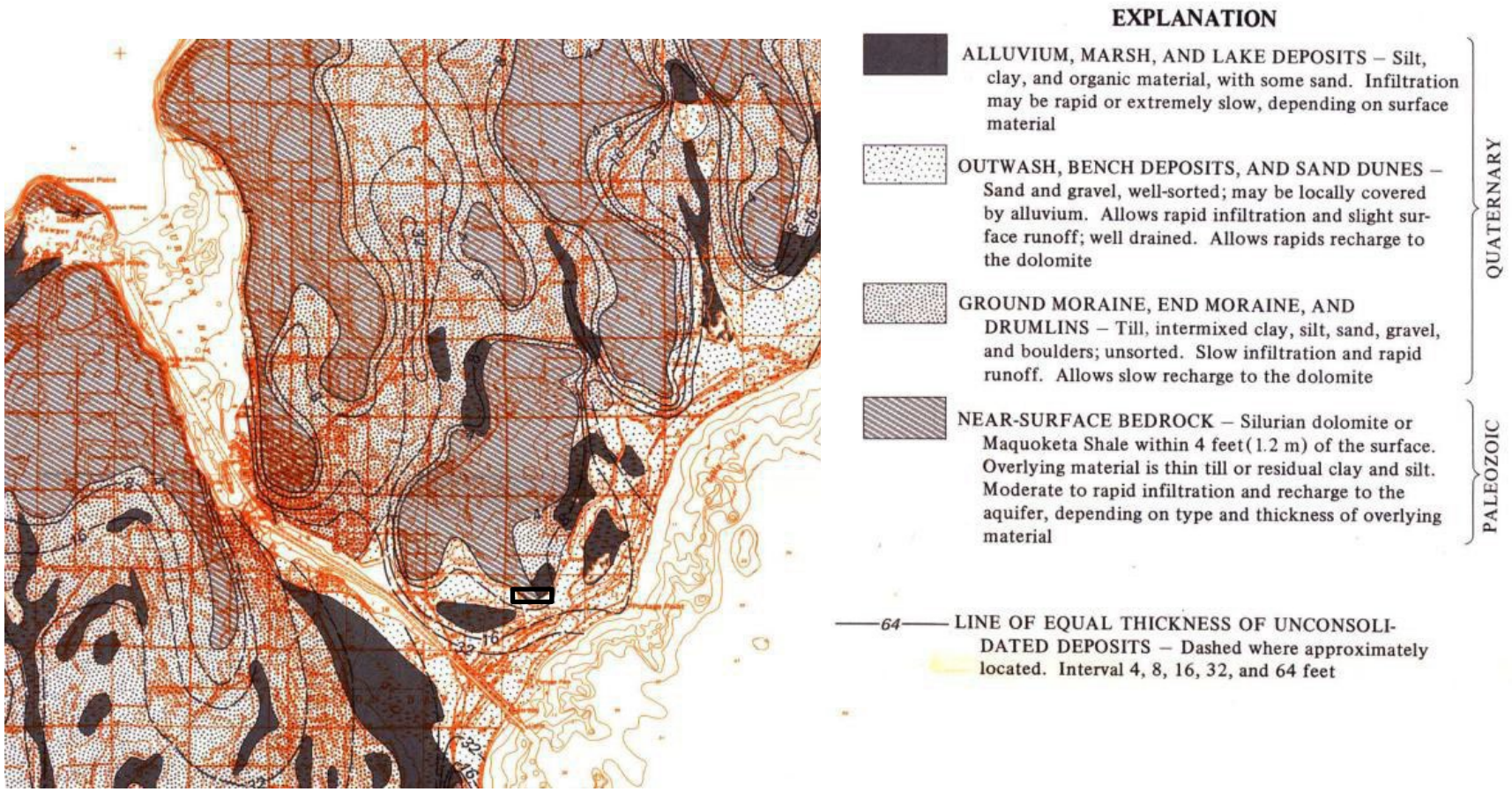


Figure 4 – Depth to Bedrock, excerpted from Geology and Ground Water in Door Cty, WI, with Emphasis on Contamination Potential in the Silurian Dolomite, 1978. Sherrill, M.G. U.S. Geological Survey Water-Supply Paper 2047. Plate 1. Black rectangle indicates the approximate location of Gilbert Farms.

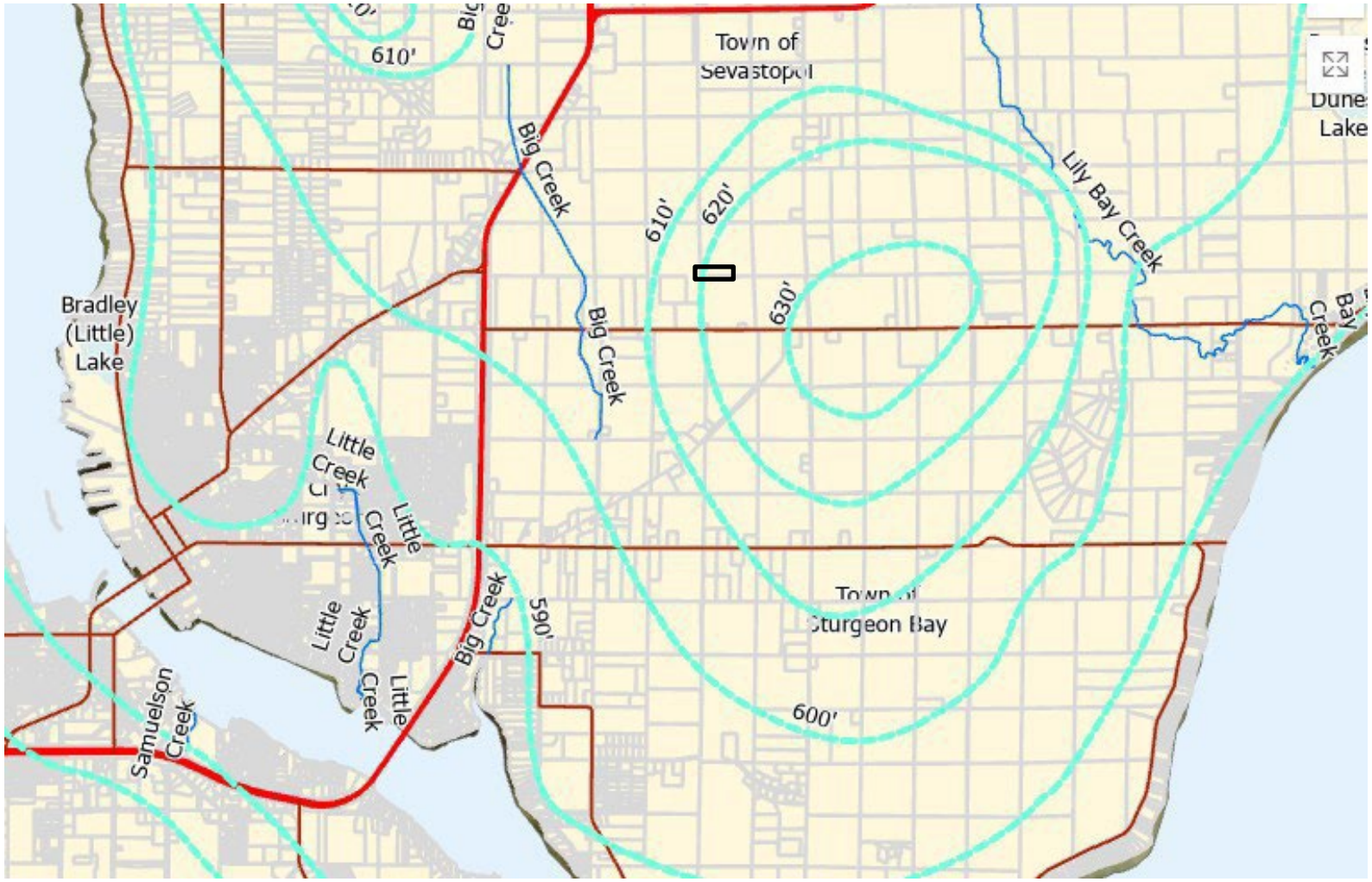


Figure 5 – Water Table Elevation Map Excerpt from Door County Web Mapping Application. Black rectangle indicates approximate location of Gilbert Farms production area.

Well Construction Report — *WISCONSIN UNIQUE WELL NUMBER* **RY363**

Drinking Water and Groundwater - DG/5 Form 3300-077A
Department of Natural Resources, Box 7921
Madison WI 53707

Property Owner: GILBERT FARMS			Phone #: (920)388-2834
Mailing Address: 5190 CTY T			
City: STURGEON BAY	State: WI	Zip Code: 54235	
County: Door	Co. Permit #:	Notification #:	Completed: 09-06-2002
Well Constructor (Business Name): JORNS HARVEY & DAVID WELL DRLG INC	Lic. #: 68	Facility ID # (Public Wells):	
Address: 5235 BLUFF CT STURGEON BAY WI 54235-9790		Well Plan Approval #:	
Hicap Permanent Well #:	Common Well #:	Specific Capacity: 0.1	

1. Well Location: Town of SEVASTOPOL — Fire # (if avail.): 5170
Street Address or Road Name and Number: CTY. T
Subdivision Name: — Lot #: — Block #:
Latitude / Longitude in Decimal Degree (DD): °N °W — Method Code: GPS008
SE SW — Section: 35 — Township: 28 N — Range: 26 E
or Govt Lot #:

2. Well Type: New Well
of previous unique well #: constructed in
Reason for replaced or reconstructed well ?

3. Well serves: 2 # of HOMES
Private,potable
Heat Exchange____# of drillholes
Hicap Well ? No
Hicap Property ? No
Hicap Potable ?
Construction Type: Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
10	Surface	7
8	7	171
6	171	221

Upper Enlarged Drillhole — Lower Open Bedrock
No Rotary - Mud Circulation ..... No
Yes Rotary - Air ..... Yes
No Rotary - Air & Foam ..... No
No Drill-Through Casing Hammer
No Reverse Rotary
No Cable-tool Bit ____in. dia... No
Dual Rotary .....
Yes Temp. Outer Casing 8in. dia
Yes Removed? 7depth ft. (If NO explain on back side)

8. Geology

Geology Codes	Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
- - P -	Hardpan	Surface	4
- - L -	Limestone/Dolomite	4	221

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	STANDARD WEIGHT BLACK STEEL CASING. NEW PLAIN END. SAWHILL STEEL CO. WT. PER FT. 18.97 ASTM-A-53	Surface	171
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level: 46 ft. below ground surface

10. Pump Test: Pumping level 185 ft. below surface
Pumping at 18 GP M for 1 Hrs.
Pumping Method ?

11. Well Is: 12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

12. Notified Owner of need to fill & seal ?
Filled & Sealed Well(s) as needed? Yes

7. Grout or Other Sealing Material
Method: Bradenhead

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
Neat cement grout & bentonite	Surface	171	47 S

Well Construction Report — *WISCONSIN UNIQUE WELL NUMBER* **ZY051**

Drinking Water and Groundwater - DG/5 Form 3300-077A
Department of Natural Resources, Box 7921
Madison WI 53707

Property Owner: PESCH, FRED			Phone #: (920)256-0136
Mailing Address: 3848 MATHEY RD.			
City: SEVASTOPOL	State: WI	Zip Code: 54235	
County: Door	Co. Permit #:	Notification #: 7787827704	Completed: 11-20-2019
Well Constructor (Business Name): VAN DE YACHT LEO WELL DRILLING INC	Lic. #: 6097	Facility ID # (Public Wells):	
Address: 1267 LAKEVIEW DR GREEN BAY WI 54313		Well Plan Approval #:	
Hicap Permanent Well #:	Common Well #:	Specific Capacity: 0.3	

1. Well Location: Town of SEVASTOPOL — Fire # (if avail.): 3848
Street Address or Road Name and Number: MATHEY RD.
Subdivision Name: — Lot #: — Block #:
Latitude / Longitude in Decimal Degree (DD): 44.8566 °N -87.3156 °W — Method Code: GPS008
NE SE — Section: 34 — Township: 28 N — Range: 26 E
or Govt Lot #:

2. Well Type: New Well
of previous unique well #: constructed in
Reason for replaced or reconstructed well ?

3. Well serves: 1 # of HOME
Private,potable
Heat Exchange____# of drillholes
Hicap Well ? No
Hicap Property ? No
Hicap Potable ? No
Construction Type: Drilled

4. Potential Contamination Sources - ON REVERSE SIDE

5. Drillhole Dimensions and Construction Method

Dia. (in.)	From (ft.)	To (ft.)
10	Surface	26
8	26	170
6	170	242

Upper Enlarged Drillhole — Lower Open Bedrock
No Rotary - Mud Circulation ..... No
Yes Rotary - Air ..... Yes
No Rotary - Air & Foam ..... No
No Drill-Through Casing Hammer
No Reverse Rotary
No Cable-tool Bit ____in. dia... No
No Dual Rotary ..... No
Yes Temp. Outer Casing 8in. dia
Yes Removed? 26depth ft. (If NO explain on back side)

8. Geology

Geology Codes	Type, Caving/Noncaving, Color, Hardness, etc...	From (ft.)	To (ft.)
C	C-CLAY	Surface	15
Z	Z-CLAY & GRAVEL	15	26
L	L-LIMESTONE/DOLOMITE	26	242

6. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Manufacturer & Method of Assembly	From (ft.)	To (ft.)
6	NEW BLACK STEEL PLAIN END WELDED ASTM A 53B 18 97# PER FT IPSCO PIPE	Surface	171
Dia. (in.)	Screen type, material & slot size	From (ft.)	To (ft.)

9. Static Water Level: 80 ft. below ground surface

10. Pump Test: Pumping level 160 ft. below surface
Pumping at 25 GP M for 2 Hrs.
Pumping Method ? Airlift

11. Well Is: 12 in. above grade
Developed ? Yes
Disinfected ? Yes
Capped ? Yes

12. Notified Owner of need to fill & seal ? No
Filled & Sealed Well(s) as needed? No

7. Grout or Other Sealing Material
Method: BRADENHEAD

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
NEAT CEMENT GROUT	Surface	171	45 S

N

Figure 6 - Well Construction Reports from water supply wells at Gilbert Farms production area.

THE ACCURACY OF THE INFORMATION REPRESENTED BY THESE DOCUMENTS MAY BE AFFECTED BY A VARIETY OF FACTORS INCLUDING CHANGING FIELD CONDITIONS, SURVEYING LIMITATIONS AND/OR UNKNOWN INFRASTRUCTURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL DIMENSIONS, ELEVATIONS, LOCATIONS, AND OTHER SITE DETAILS PRIOR TO CONSTRUCTION.

REVISION 1 2 3 4 5 6 7 8 9

OUTLAND DESIGN
A DIVISION OF RUEKERT & MIELKE, INC.

WPDES PERMIT & FARM EXPANSION
EXISTING CONDITIONS
GILBERT FARMS
E5186 COUNTY ROAD T
STURGEON BAY, WISCONSIN 54235
DOOR COUNTY

DESIGNED BY: JB
DRAFTED BY: JTK
CHECKED BY: JOR
APPROVED BY: AWH
DATE: AUGUST 2023
FILE NO. 8539-10000

SHEET NO. C101

www.outland-design.com

Aug 28, 2023 3:48pm PLOTTED BY: jKlieve SAVED BY: jKlieve
IMAGES: 20230621 Gilbert Farms_LOW RES_7601; OD RM Logo 2021 (1);
XREFS: OD 22x34 Sheet Border; Existing Site - 853910000
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