Permit Fact Sheet

General Information

Permit Number:	WI-0067385-01-0
Permittee Name:	Karcz Nation, LLC
Address:	N3035 Willow Road
City/State/Zip:	Pulaski WI 54162
Discharge Location:	Karcz Nation – N3035 Willow Road, Pulaski, WI 54162; E ½ of SE ¼ Section 28, T26N, R18E Heifer Nation – W1455 Town Hall Dr, Pulaski, WI 54162; NW ¼ of NE ¼ Section 28, T26N, R18E
Receiving Water:	unnamed tributary within the Pensaukee River Watershed, and groundwaters of the state
Stream Classification:	303(d) impaired by "total phosphorus"
Discharge Type:	Existing

Animal Units					
	Current AU		**Proposed AU** **(Note: If all zeroes, expansions are not expected during permit term)**		
Animal Type	**Mixed**	**Individual**	**Mixed**	**Individual**	**Date of Proposed Expansion**
Dairy Calves (under 400 lbs.)	6	0	20	0	11/30/2025
Milking and Dry Cows	980	1001	1960	2002	11/30/2025
Heifers (400 lbs. to 800 lbs.)	0	0	180	300	11/30/2025
Heifers (800 lbs. to 1200 lbs.)	88	80	407	370	11/30/2025
Total	1074	1001	2567	2002	

Facility Description

Karcz Nation LLC is a proposed Concentrated Animal Feeding Operation (CAFO) that is owned & operated by Dillon & Jacob Karcz. Karcz Nation LLC consists of 2 sites: The Main Dairy is located at N3035 Willow Road, Pulaski, WI and the heifer farm is located at W1455 Town Hall Drive, Pulaski, WI. Karcz Nation LLC currently consists of 1,074 animal units (700 milking & dry cows, 80 heifers, 30 calves) and is proposing to expand during the upcoming permit term to 2,570 animal units (1,400 milking & dry cows, 670 heifers, 100 calves). This expansion will include the construction of new freestall barns & waste storage facilities among other projects. Karcz Nation LLC has total of 2,655 acres available for land application of manure and process wastewater of which 2,605 are spreadable. Of this acreage, 850 acres are owned, and ,1805 acres are controlled though contracts, rental agreements, or manure agreements.

Substantial Compliance Determination

Enforcement During Last Permit: N/A, The farm is currently not covered under a WPDES Permit.

After a desk top review of all available information and a site visit on 6/22/2023, this facility has been found to be in substantial compliance with NR 151.

The farm was issued a Notice of Non-Compliance on 7/25/2023 for operating over 1,000 animal units without a permit. Issuance of this permit will bring them back into compliance.

Compliance determination entered by Brian Hanson on 10/4/2024.

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). WSF #1 is a concrete-lined impoundment located at the Karcz Nation site on the west side of the freestall barns in the southwest corner of the production area. This facility has a total volume of 4.7 million gallons and a maximum operating level capacity of 4.1 million gallons. Liquid manure and process wastewater from the freestall barns & parlor are currently stored in this facility. This facility was constructed in 2021 and has not been evaluated since the time of construction. See the permit schedules section for additional requirements.	
003	Sample point 003 is for liquid waste storage facility #3 (WSF #3). WSF #3 is a concrete-lined impoundment located at the Karcz Nation site located north of WSF #1. Leachate & feed storage area runoff are currently stored in this facility. This facility was constructed in 2023 and has not been evaluated since the time of construction. See the permit schedules section for additional requirements.	
004	Sample point 004 is for a proposed liquid waste storage facility #4 (WSF #4). WSF #4 is designed to be a concrete-lined impoundment located at the Heifer Nation site on the south side of the production area. This facility has a total volume of 5.2 million gallons and a maximum operating level capacity of 4.7 million gallons. Liquid manure and process wastewater from the proposed heifer barn & manure transferred from the main dairy are proposed to be stored in this facility. Engineering plans for this facility were approved by the department on August 2, 2024. See the permit schedules section for additional requirements.	
005	Sample point 005 is for liquid waste storage facility #5 (WSF #5). WSF #5 is an earthen-lined impoundment located at the Heifer Nation site on the southeast corner of the production area. This facility has a total volume of 0.7 million gallons and a maximum operating level capacity of 0.58 million gallons. Liquid manure and process wastewater from the heifer barn & outdoor lots are currently stored in this facility. This facility was constructed in the 1990's and has not been evaluated. See the permit schedules section for additional requirements.	
006	Sample point 006 is for manure solids removed from bottom of all liquid waste storage facilities. This includes sand laden manure, manure-laden solids, manure fiber solids, etc. Representative samples shall be taken from each waste storage facility.	
007	Sample point 007 is for solid manure land applied from approved headland stacking sites. Representative samples must be taken prior to land application. Stacks are defined as part of the production area and therefore subject to the production area discharge limitations of this permit. Weekly inspections of stack runoff controls are required and shall be recorded according to monitoring program.	
008	Sample point 008 is for solid manure sources that are directly land applied and not stored in a waste	

Sample Point Designation For Animal Waste		
Sample Point Number	**Sample Point Location, Waste Type/Sample Contents and Treatment Description (as applicable)**	
	storage facility. This includes solid sources such as calf hutch manure, maternity pen bedpack, heifer bedpack, etc. Representative samples shall be taken for each manure source type.	
009	Sample point 009 is for visual monitoring and inspection of the feed storage area #1(FSA #1) and associated runoff control system. FSA #1 is located on the north side of the Karcz Nation site & is currently about 4 acres in area. All leachate & runoff flow to a collection point on the west side of the pad and are pumped to WSF #3. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. The feed storage area & runoff controls were built in the last few years and have not yet been evaluated. See the permit schedules section for additional requirements.	
010	Sample point 010 is for visual monitoring and inspection of the feed storage area #2 (FSA #2). FSA #2 is located on the south side of the Heifer Nation site & is currently about 0.6 acres in area. FSA #2 does not have any engineered runoff controls. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. See the permit schedules section for additional requirements.	
011	Sample Point 011 is for visual monitoring & inspection of the outdoor concrete lots. Thes lots are located on the east side of the Heifer Nation site and are approximately 0.2 acres in size. Manure is scraped directly into WSF #5 and runoff from the lots flows to the north. These lots do not have engineered runoff controls. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program. See the permit schedules section for additional requirements.	
012	Sample point 012 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes roof gutter and downspout structures, drainage tile systems, grassed waterways and other diversion systems that transport uncontaminated storm water. Proper operation and maintenance is required to keep uncontaminated runoff diverted away from manure and process wastewater handling systems. Weekly inspections are required and shall be recorded according to monitoring program.	

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 204 days of storage for liquid manure. The permittee must maintain 180 days of storage, unless temporary reductions in required storage are approved by the Department.

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 1,074 animal units (700 milking & dry cows, 80 heifers, 30 calves) , it is estimated that approximately 11,709,888 gallons & 71 tons of manure and process wastewater will be produced per year. The permittee owns *approximately* 850 acres of cropland and 1,805 are controlled through contracts, rental agreements or leases, or under manure agreements . Given the rotation commonly used by the permittee, 2,605 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 ($\geq$12% solids) on frozen or snow-covered ground during February and March.

Monitoring and Sampling Requirements

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

Sampling Points

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

Sample Point Number: 001- WSF #1; 003- WSF #3; 004- WSF #4; 005- WSF#5-Specht

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

N/A, this will be the farm's initial WPDES Permit.

1.1.2 Explanation of Operation and Management Requirements

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

Sample Point Number: 006- WSF Solids; 007- Headland Stacking; 008- Misc Manure

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	

1.1.3 Changes from Previous Permit

N/A, this will be the farm's initial WPDES Permit.

1.1.4 Explanation of Operation and Management Requirements

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

Sample Point Number: 009- FSA #1; 010- FSA #2; 011- Heifer Lots, and 012- Stormwater

1.1.5 Changes from Previous Permit

N/A, this will be the farm's initial WPDES Permit.

1.1.6 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 Schedules

2.1 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: Develop a written Emergency Response Plan within 30 days of permit coverage, and submit to department	01/01/2025

2.2 Monitoring & Inspection Program

Use of the department's monitoring and inspection 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 30 days of the effective date of this permit.	02/01/2025

2.3 Annual Reports

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

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

2.4 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.	03/31/2025
Submit NMP Update #2: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2026
Submit NMP Update #3: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2027
Submit NMP Update #4: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2028
Submit NMP Update #5: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2029

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

2.5 WSF #1-Engineering Evaluation

Applicable to Sample Point 001, WSF #1

Required Action	Due Date
Written Report: Submit a written report evaluating the existing manure storage facility's ability to meet the conditions in the Production Area Discharge Limitations and Manure and Process Wastewater Storage subsections and s. NR 243.15, Wis. Adm. Code. (See Standard Requirements for report details.)	05/15/2025
Plans and Specifications: Submit plans and specifications for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code, to permanently correct any adverse manure storage conditions.	12/31/2026
Corrections and Post Construction Documentation: Complete construction on the manure storage facility that permanently corrects any adverse 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.	10/31/2027

2.6 WSF #3 - Engineering Evaluation

Applicable to Sample Point 003, WSF #3

Required Action	Due Date
Written Report: Submit a written report evaluating the existing manure storage facility's ability to meet the conditions in the Production Area Discharge Limitations and Manure and Process Wastewater Storage subsections and s. NR 243.15, Wis. Adm. Code. (See Standard Requirements for report details.)	05/15/2025
Plans and Specifications: Submit plans and specifications for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code, to permanently correct any adverse manure storage conditions.	12/31/2026
Corrections and Post Construction Documentation: Complete construction on the manure storage facility that permanently corrects any adverse 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.	10/31/2027

2.7 Waste Transfer - Engineering Evaluation

Applicable to all existing waste transfer systems on the farm.

Required Action	Due Date
Written Report: Submit a written report evaluating the existing waste transfer systems ability to meet the conditions in the Production Area Discharge Limitations and Manure and Process Wastewater Storage subsections and s. NR 243.15, Wis. Adm. Code. (See Standard Requirements for report details.)	05/15/2025
Plans and Specifications: Submit plans and specifications for Department review and approval in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code, to permanently	12/31/2026

correct any adverse manure storage conditions.	
Corrections and Post Construction Documentation: Complete construction on the waste transfer system that permanently corrects any adverse 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.	10/31/2027

2.8 Feed Storage - Engineering Evaluation

Applicable to Sample Point 009, FSA #1

Required Action	Due Date
Written Description of Existing System: Submit an engineering evaluation that includes a written description of the existing feed storage area and its adequacy to meet the conditions found in the Production Area Discharge Limitations subsection and NR 243.15, Wis. Adm. Code.	05/15/2025
Plans and Specifications: Submit plans and specifications for Department review and approval to permanently correct any adverse conditions identified as part of the engineering evaluation for the feed storage area in accordance with Chapter 281.41, Wis. Stats., and Chapter NR 243, Wis. Adm. Code.	12/31/2026
Corrections and Post Construction Documentation: Complete construction of improvements to permanently correct any adverse 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.	10/31/2027

2.9 Manure Storage Facility - Abandonment

Applicable to Sample Point 005, WSF #5-Specht

Required Action	Due Date
Complete Abandonment: Complete abandonment as approved by the Department.	06/01/2027

2.10 Manure Storage Facility - Installation

Applicable to Sample Point 004, WSF #4

Required Action	Due Date
Complete Installation: Complete construction of the manure storage facility. 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.	06/01/2027

2.11 Outdoor Lot- Abandonment

Applicable to Sample Point 011, Outdoor lots at Heifer Nation Site

Required Action	Due Date
Complete Abandonment: Complete abandonment as approved by the Department.	06/01/2027

2.12 FSA #2- Abandonment

Applicable to Sample Point 010, FSA #2

Required Action	Due Date
Complete Abandonment: Complete abandonment as approved by the Department.	12/01/2026

2.13 Permit Application Submittal

The permittee shall file an application for permit reissuance in accordance with NR 200, Wis. Adm. Code.

Required Action	Due Date
Permit Application Submittal: Submit a complete permit application to the Department no later than 180 days prior to permit expiration.	05/31/2029

2.14 Explanation of Schedules

Emergency Response Plan, Monitoring and Inspection Program – Schedules consistent with permit requirements.

Annual Reports, Nutrient Management Plan, Submit Permit Reissuance Application - Schedules consistent with permit requirements.

Other schedule items are required to comply with s. NR 243 and WPDES permit conditions. Specifically, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.1, 2.12 are required to assess if existing facilities meet permit requirements and discharge limits or to abandon existing facilities.

Other Comments:

None

Attachments:

Plan Approval Letter(s)

- 8/30/2024 Conditional NMP Approval Letter
- 8/19/2024 Days of Storage Review Letter
- 8/2/2024 Plans & Specs Approval Letter

7/25/2023 Pre Permit Inspection Report

Expiration Date:

11/30/2029

Justification Of Any Waivers From Permit Application Requirements

N/A

Prepared By: Brian Hanson Wastewater Specialist Date: 10/4/2024

Notice of Issuance was published in the Shawano Leader

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster St., PO Box 7921
Madison, WI 53707

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

August 30th, 2024

Shawano County
Approval

Contact Name
Karcz Nation, LLC
N3035 Willow Rd
Pulaski, WI

SUBJECT: Conditional Approval of Karcz Nation, LLC Nutrient Management Plan, WPDES Permit No. 0067385-01-0

Dear Mr.Dillon Karcz:

After completing a review of Karcz Nation, LLC 2024-2028 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 Karcz Nation, 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 Karcz Nation, 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 Karcz Nation, 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 1074 animal units (650 milking & dry cows, 130 heifers, and 30 calves). A planned herd size of 2,570 animal units (1,400 milking & dry cows, 670 heifers, and 100 calves) by 2025.
2. Manure generation and spreading records indicate your herd will annually generate approximately 11,709,888gallons of manure and process wastewater and 71 tons of solid manure in the first year of the permit term. Once the farm has reached full expansion in 2025, it is projected annually that they will generate 21,184,908 gallons of manure and process wastewater and 250 tons of solid manure.
3. The use of application restriction options 1, 2 & 5 within surface water quality management areas.
4. The use of phosphorus delivery method P Index.

5. That Karcz Nation, LLC currently has 2,655 acres (850 owned and 1,805 controlled through contracts, rental agreements or leases, or under manure agreements) of which 2,605.2 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 Pensaukee River, Little Suamico River (listed 303(d) impaired water by 'total phosphorus'). water.
7. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters.
8. That 19 fields are tiled.

- B1-2	- B3	- B4	- B5
- H1 AB	- H3	- H4-4A	- H5
- H 6-7-8	- Jim Brown	- Laney Cheese East	- MacGee
- OF 1-2	- OF 3-4	- Scott Wellner East	- Scott Wellner West
- Shearer	- Spect	- Willow 40	

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 2024-2028 Karcz Nation, 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:
   - H-1 (default soil test)
   - S1-S2 (expired soil test)

   If Karcz Nation, 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, Karcz Nation, 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. Karcz Nation, 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. Karcz Nation, 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.

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:
   - H4-4a
   - Vomastic 1-2
   - Vomastic 3-4

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.

SUBMITAL AND RECORDKEEPING REQUIREMENTS

15. 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 608-212-8460 or Ashley.Scheel@Wisconsin.gov.

Sincerely,

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

cc: Brian Hanson, WDNR Agricultural Runoff Management Specialist (Brian.Hanson@Wisconsin.gov)
Joe Baeten, WDNR Watershed Field Supervisor (Joseph.Baeten@Wisconsin.gov)
Christopher Clayton, WDNR Runoff Management Section Chief (Christopherr.Clayton@Wisconsin.gov)
Aaron O'Rourke, WDNR Nutrient Management Program Coordinator (Aaron.Orourke@Wisconsin.gov)
Falon French, WDNR Intake Specialist (Falon.French@Wisconsin.gov)
Rob Davis, WDNR CAFO Engineer (Robert.Davis@Wisconsin.gov)
Scott Frank, Shawano County (Scott.Frank@Co.Shawano.wi.us)
Ken Dolata, Oconto County (Ken.Dolata@Co.Oconto.Wi.us)
Brent Levash, Brown County (Brent.Levash@Browncountywi.gov)
Phil Stern, Stern Crop Consulting (sterncrop@gmail.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

August 19, 2024

FILE REF: R-2024-0136
WPDES Permit #: WI-0067385

Dillon Karcz
Karcz Nation
N3035 Willow Road
Pulaski, WI 54162

Subject: Days of Storage Review for Karcz Nation in T26N, R18E, Section 28, Angelica Township, Shawano County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Karcz:

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 by James Roach, P.E., Roach and Associates on April 18, 2024 on behalf of Karcz Nation.

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 Karcz Nation currently has 204 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 1074 (with 1068 AU contributing to the liquid waste). The farm is planning to expand to 2,567 animal units (with 2,547 contributing to liquid waste) and is also planning to abandon the existing WSF 1 and construct a new WSF 1 (as approved by DNR Project R-2024-0123) prior to the expansion which will bring the days of storage to 180 days. The feedlot that is accounted for in the existing condition is also proposed to be abandoned and is therefore not accounted for in the proposed condition. Both existing and proposed volumes are provided below. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values for a collection period of 365 days. The facility has full collection of leachate and contaminated runoff from the feed storage area for the 25-yr, 24-hr storm event that is provided in a standalone process wastewater storage facility. The runoff collection facility provides 70 days of storage for collection of leachate and contaminated runoff from the feed storage area. Karcz Nation collects 3,341,980 gallons of process wastewater annually in a WSF with an MOL volume of 638,725 gallons.

Existing Conditions (1,074 AU) – 204 Days of Storage

Waste Storage	Total Volume	Solids Storage	25-yr, 24-hr Precipitation on Storage	25-yr, 24-hr Collected Runoff	Freeboard Volume	Max. Operating Level (MOL) Volume
#1	703,152	0	31,795	0	87,631	583,726
#2	4,689,998	0	157,874	0	441,003	4,091,121
					Total MOL Volume:	4,674,847
					Days of Storage:	**204**

Manure and Bedding:	5,732,648	gallons
Parlor Wastewater:	1,641,405	gallons
Total Feed Storage Leachate:	0	gallons
Total Feed Storage Runoff Collected:	0	gallons
Net Precipitation on Storage Surfaces:	906,733	gallons
Feedlot Runoff Collected:	87,122	gallons
Total Liquid Waste Stored Below the MOL:	**8,367,908**	**gallons**

Proposed Conditions (2,567 AU) – 180 Days of Storage

Waste Storage	Total Volume	Solids Storage	25-yr, 24-hr Precipitation on Storage	25-yr, 24-hr Collected Runoff	Freeboard Volume	Max. Operating Level (MOL) Volume
#1	5,267,762	0	152,551	0	426,478	4,688,733
#2	4,689,998	0	157,874	0	441,003	4,091,121
					Total MOL Volume:	8,779,854
					Days of Storage:	**180**

Manure and Bedding:	13,059,879	gallons
Parlor Wastewater:	3,282,664	gallons
Total Feed Storage Leachate:	0	gallons
Total Feed Storage Runoff Collected:	0	gallons
Net Precipitation on Storage Surfaces:	1,500,385	gallons
Feedlot Runoff Collected:	0	gallons
Total Liquid Waste Stored Below the MOL:	**17,842,928**	**gallons**

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

NOTICE OF APPEAL RIGHTS

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

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

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

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

Rob Davis, P.E.
Water Resources Engineer
Watershed Management Program

Email:

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(920) 366-3302; brian.hanson@wisconsin.gov

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Ashley Scheel; DNR, Central Office
(608) 261-6419; ashley.scheel@wisconsin.gov

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August 2, 2024

FILE REF: R-2024-0123
WPDES Permit #: WI-0067385

Dillon Karcz
Karcz Nation
N3035 Willow Road
Pulaski, WI 54162

Subject: Conditional Approval of Plans & Specifications for a Proposed Waste Storage Facility, Waste Transfer System, and Abandonments at Karcz Nation in T26N, R18E, Section 28, Angelica Township, Shawano County

Dear Mr. Karcz:

This letter is to inform you that the Wisconsin Department of Natural Resources (Department) has reviewed and conditionally approves the above referenced plans and specifications, submitted under certification by James Roach, P.E., Roach and Associates and received on May 7, 2024 with revisions received on July 15, 2024. The review was conducted in accordance with s. 281.41, Wis. Stats., chs. NR 151 and NR 243, Wis. Adm. Code, and applicable NRCS Standards. The attached engineering report describes the project, lists standards that apply and provides compliance analysis. Questions may be directed to the assigned regional staff or the review engineer Rob Davis (contact information is at the end of this letter).

Proposed Project: The proposed project includes the following facilities that are reviewable under s. NR 243.15, Wis. Adm. Code: Proposed Waste Storage Facility, Waste Transfer System, and Abandonments.

Conditions of Approval: The plans and specifications for project number R-2024-0123 are hereby approved and subject to chs. NR 151 and NR 243, Wis. Adm. Code, and the conditions listed below:

1. Revisions: If revisions are made to the approved plans and specifications, revised plans and specifications shall be submitted for approval modification, in accordance with ss. NR 108.03 and NR 108.04, Wis. Adm. Code, and s. 281.41(1)(c), Wis. Stats. Submit revised plans and specifications via the Department's e-Permitting System. Note: This includes revisions for local permitting. If a formal approval modification may not be warranted, contact the review engineer to confirm.
2. Approval Period: In accordance with ss. NR 243.15(1)(a)1., and NR 108.04(2)d., Wis. Adm. Code, if construction is not commenced within 2 years from the approval date, the approval is void, and a new approval must be obtained prior to commencing construction.
3. Notification: Prior to construction and when construction is complete, notify the Department's regional contact and county contact provided a copy of the approval (contact information is at the end of this letter).
4. Inspection: During the construction of critical components, inspection shall be performed by a Wisconsin registered professional engineer or other qualified third party (excludes the owner and construction contractor and their employees).
5. Post-Construction Documentation: In accordance with the permit, a post-construction report must be submitted to the DNR's e-Permitting website (http://dnr.wi.gov/permits/water) within 60 days of completing construction. The report must include documentation specified by s. NR 243.15(10), Wis. Adm. Code.

Limitation of Approval: The Department reserves the right to order changes or additions should conditions arise making this necessary. This approval is not to be construed as a determination on the issuance of a Wisconsin Pollutant Discharge Elimination System Permit or opinion as to the ability of the proposed system to comply with effluent limitations in such a permit, approval of an Environmental

Impact Statement that may be prepared, or approval for any activities requiring a permit under chs. 30 or 31, Wis. Stats. Where necessary, plans and specifications should be submitted to the Department of Safety and Professional Services or other state or local agencies to ensure conformance with applicable codes or regulations of such agencies.

Tax Treatment: Tangible personal property, that becomes part of a waste treatment of pollution abatement plant or equipment, may be exempt from sales tax under s. 77.45(26), Wis. Stats. Similarly, property purchased or constructed as a waste treatment facility and used for industrial waste treatment may be exempt from general property taxes under s. 70.11(21), Wis. Stats. A prerequisite to exemption is filing a statement on prescribed forms. To obtain the forms, and information about this sales tax exemption, please contact the Department of Revenue, P.O. Box 8933, Madison, WI 53708, or check their website http://www.revenue.wi.gov/.

NOTICE OF APPEAL RIGHTS

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

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

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
For the Secretary

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

Enclosures: Wisconsin DNR Engineering Report

Email:
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(715) 839-3775; aaron.orourke@wisconsin.gov

Rob Davis, P.E.; DNR, Central Office
(608) 225-2720; Robert.Davis@Wisconsin.gov

WISCONSIN DEPARTMENT OF NATURAL RESOURCES ENGINEERING REPORT

GENERAL INFORMATION

Farm Name: Karcz Nation **WPDES Permit#:** WI-0067385

Location Address: W1455 Town Hall Drive, Pulaski **DNR Project #:** R-2024-0123

Engineering Plans Certified by:	Initial Submittal:	Revised Submittal(s):
James Roach, P.E.	May 7, 2024	July 15, 2024

Site Assessment: Geographical features of the site include soils that are Solona-Ossineke complex and Onaway-Ossineke fine sandy loams. The nearest stream is approximately 500 ft to the east and is intermittent in nature. The nearest wetland is approximately 1,050 ft to the northeast of the proposed construction area. A non-navigable intermittent stream will be relocated around the proposed future barn and proposed WSF to an adjacent non-navigable intermittent stream along the east side of the property. Documentation from the DNR Waterways program stating the lack of DNR authority for the proposed relocation of the drainage swale is provided in the submittal. Clean runoff will be diverted around waste handling areas to existing waterways. No karst features are known to exist within 1,000 ft of the proposed facilities or systems. No ground water supply wells are located within 250 feet of the proposed facilities or systems.

Soil investigations were performed on January 13, 2023 and April 24, 2023 consisting of 10 test pits in the proposed project area, which found the primary subsoils consist of lean clay (CL) and lean clay with gravel or sand (CL) with a fines content in the range of 40.4 to 63.8% and plasticity index in the range of 9 to 15. Bedrock was not found. Saturation was found but is perched water with definite dry soil below the saturated layer.

Proposed Facilities:

Waste Storage (WSF 1): The proposed design was submitted to meet NRCS 313 (10/17) and NRCS 522 (06/21) Table 2, Column C and Table 2A, Column B. The design is compliant with s. NR 243.15(3), Wis. Adm. Code. The proposed WSF 1 will be located at the south end of the Heifer Nation Satellite Facility. Below is a summary of what is proposed.

- The proposed WSF 1 will be rectangular shaped with interior top dimensions of 248 ft x 235 ft x 19.93 ft deep. The embankment walls are designed with 5 inch thick steel reinforced concrete-soil composite liner and the floor and ramp are designed with 6 inch thick steel reinforced concrete-soil composite liner. Vehicle loading calculations were provided for the ramp and floor.
- The proposed storage will have a total and maximum operating level (MOL) volume of 5,267,762 and 4,688,733 gallons respectively.
- The floor elevation will be range from 809.75 ft at the southwest corner and slope at just over 1% to 807.67 ft in the northeast corner and the MOL elevation will be 826.23 ft. Interior and exterior embankment slopes will be 2.5:1 and 3:1 respectively with a berm width of 8 ft.
- The sump will be 20 ft x 30 ft with the sump being 1.07 ft deep. A 20 ft wide ramp will extend down from the northwest corner of the proposed storage pond.
- A curtain drain is proposed around the perimeter of WSF 1 to drain the perched layer that was encountered in the test pits. The curtain drain will have a 4 inch drain tile and will daylight approximately 320 ft to the north of the northeast corner of the proposed WSF 1.

Waste Transfer System: The proposed design was submitted to meet with NRCS Standard 634 (11/22). The design is compliant with s. NR 243.15(4), Wis. Adm. Code.

- The poured in-place reception tank, T2, will be 11.33 ft x 58 ft x 10 ft deep with 10 inch thick reinforced concrete walls and 10 inch thick reinforced concrete floor. T2 is sized to have an MOL volume of 46,710 gallons to provide operational flexibility for future expansions. Perched water was found at the location of the proposed T2 and will be drained with 4 inch drain tile that will connect to the drain tile at WSF 1.

- The manure transfer channel will be approximately 132.5 LF constructed of 2 ft wide x 2 ft high with 8 inch thick reinforced concrete walls and 10 inch thick reinforced concrete floor.
- Waste will be pumped from T2 to WSF 1 via a pressure pipe, P2, using a piston pump. The proposed pump is a Patz Tundra LTX Hydraulic Pump, 7.5 HP. The proposed P2 is approximately 370 LF of 8 inch diameter SDR 21 PVC pipe.

Abandonment: The proposed plan was submitted for waste transfer system WTS1, waste storage facility AB1, concrete yards Y1 and Y2. The plan is compliant with s. NR 243.17(7), Wis. Adm. Code. The abandonments are all on the Heifer Nation Satellite facility and will allow for construction of the proposed expansion of the site.

- The abandonment plan includes the following:
  - All waste will be removed from the facilities that are to be abandoned and will be applied onto cropland according the approved NMP.
  - The P1 PVC transfer pipe will be broken and the pipe sealed with concrete.
  - Manure and contaminated soil from AB1 will be removed and land applied with a minimum of 6 inches of soil surrounding the liner also being removed. The berms will be pushed in and the WSF will be backfilled with clean soil with a minimum of 3 inches of topsoil on top of the finished subgrade. The area will be graded to avoid impounding runoff. All disturbed areas will be seeded and mulched.
  - Y1 and Y2 yards will be abandoned by cleaning and removing all feed and manure. The concrete will be used to store big square bales of straw and hay.
  - The waste storage abandonment is to meet NRCS Standard 360 (06/21) and with s. NR 243.17(7), Wis. Adm. Code.

DAYS OF AVAILABLE LIQUID WASTE STORAGE: The submitted information states that Karcz Nation will have at least 180 days of liquid waste storage after construction of the proposed WSF 1 and the proposed expansion. The proposed expansion will be maximized based on the available storage available. The days of storage are currently being revised for the purpose of a WPDES permit and will be reviewed and approved under DNR Project R-2024-0136.

PURPOSE OF THIS REPORT: This report documents review of plans and specifications for each structure or practice indicated below, including findings regarding the structure or practice's compliance with applicable standards. The reviewer considered if management and site assessment were conducted, documented, and reflected in the final design, and if proper construction and related plans (operation and maintenance, inspection, erosion control if applicable) were provided, and demonstrated compliance with applicable rules standards.

DECISION RECOMMENDATION: Based on my review completed on August 1, 2024, the proposed plans and specifications meet ch. NR 243, Wis. Adm. Code, and applicable NRCS Standards. Therefore, I recommend the plans and specifications be approved.

Rob Davis, P.E.
Water Resources Engineer

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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Shawano WI 54166

Tony Evers, Governor
Adam N. Payne, Secretary
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7/25/2023

Karcz Nation, LLC
Attn: Jacob Karcz, Registered Agent
N3035 Willow Road
Oconto Falls, WI 54154

Shawano County

Subject: 6/22/2023 Pre-Permit Compliance Inspection &
Notice of Noncompliance-Action Requested by 11/15/2023

Dear Mr. Karcz:

The Department of Natural Resources has reason to believe that your farm operation, Karcz Nation LLC located at N3035 Willow Road Pulaski, WI 54162 & Heifer Nation LLC located at W1455 Town Hall Drive Pulaski, WI 54162 is in noncompliance with Chapter NR 243, Wisconsin Administrative Code. Based on records received & onsite inspections by the Department, the facility is not in compliance with the following requirements:

1. **Section 283.31(1), Wisconsin Statutes:** The discharge of any pollutant into any waters of the state by any person is unlawful unless such discharge or disposal is done under a permit issued by the department under this section or s. 283.33, Wis. Stats.

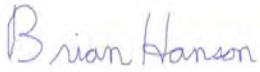
2. **S. NR 243.11(3), Wis. Admin. Code:** "…any person owning or operating a large CAFO that stores manure or process wastewater in a structure that is at or below grade or that land applies manure or process wastewater shall have a WPDES permit. A discharge of pollutants from manure or process wastewater to waters of the state by an unpermitted animal feeding operation with 1,000 animal units or more is prohibited."

A large CAFO is defined as an animal feeding operation that has 1,000 animal units or more at any time. Your operation reported a herd of 982 animal units on an Animal Unit Verification Form received by the Department as part of a preliminary application that was submitted on 2/16/2023. This application only covered the Karcz Nation LLC site. Since that time, the department has determined that the Karcz Nation LLC site & Heifer Nation LLC site are considered a single animal feeding operation under s. NR 243.03(4), Wis. Adm. Code, with a combined animal unit calculation of 1,006. In order to return to compliance, ***please submit a final WPDES application no later than November 15th, 2023.*** Information regarding permit application materials and the online submittal process can be found at the following links:

- https://dnr.wisconsin.gov/topic/CAFO/PermitForms.html
- http://dnr.wi.gov/permits/water/

Please understand that you are in noncompliance and will remain in noncompliance until you take all necessary actions to address noncompliance issues listed above. Failure to respond in a timely manner may result in escalated enforcement actions. If you have any questions regarding this letter or permit requirements, please contact me at (920) 366-3302 or brian.hanson@wisconsin.gov.

Sincerely,



Brian Hanson
Agricultural Runoff Management Specialist

Enclosure: 6/22/2023 Inspection Report
6/22/2023 Water Sample Inspection Report
Water Sample Results Report

Electronic copy: Scott Frank - Shawano County LCD
Erin Hanson, Casey Jones, Ben Uvaas, Joe Baeten, Falon French – DNR
Pat Roach, John Roach – Roach & Associates
Phil Stern – Stern Crop Consulting

CAFO Compliance Inspection Report

Inspection Date: 6/22/2023

Report Final Date: 7/25/2023

Operation Name: Karcz Nation LLC ; Heifer Nation LLC

WPDES Permit #: N/A

Farm Address: **Karcz Nation LLC** - N3035 Willow Road Pulaski, WI ; SE 1/4 Sec 28 T26N R18E

Heifer Nation LLC - W1455 Town Hall Drive Pulaski, WI ; NW 1/4 of NE 1/4 Sec 28 T26N R18E

On-Site Representative(s): Dillon Karcz

Report Author: Brian Hanson: DNR Agricultural Runoff Specialist

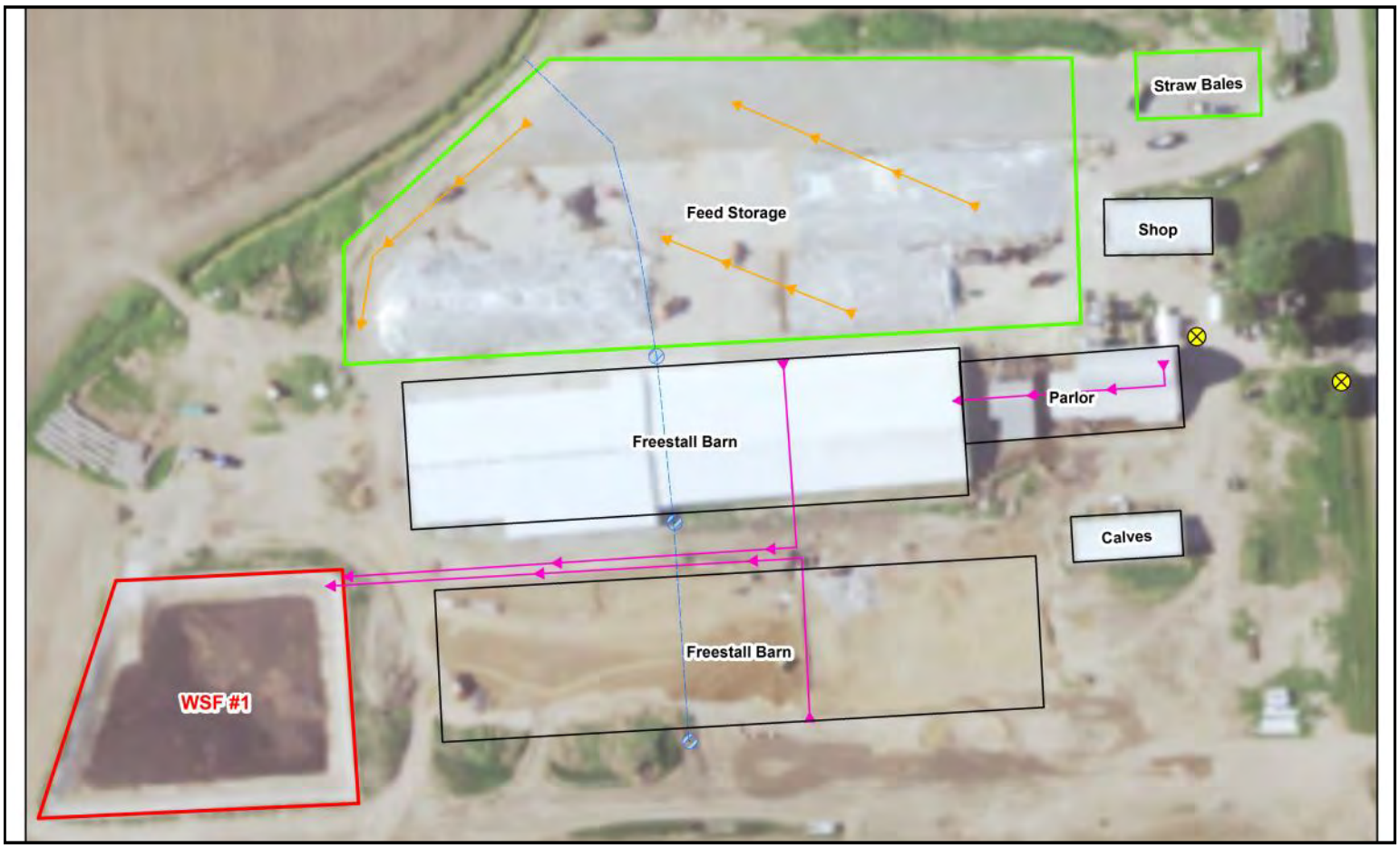
Other Participating Agencies: Erin Hanson, Brittiny Mueller—DNR ; Pat Roach– Roach & Assoc.

Introduction

On Thursday June 22, 2022 B. Hanson, E. Hanson, and Mueller met with Karcz & Roach at 10:00 at Karcz Nation LLC site to conduct a pre-permit walkover inspection. Both the Karcz Nation LLC site & Heifer Nation LLC site were inspected. No liquid precipitation had fallen recently and the temperature was in the 80's and sunny. Multiple NR 151 violations were observed and following the inspection, 4 water samples were collected from the stream at Karcz Nation LLC. Hanson, Hanson & Mueller departed at approximately 13:00.

Site Overview Diagram (Karcz Nation LLC & Heifer Nation LLC)

Site Overview Diagram (Karcz Nation: orange lines =potential contaminated runoff, blue lines = stormwater flow, pink lines = waste transfer system , yellow circles = water supply well locations)



Site Overview Diagram (Heifer Nation LLC: orange lines =potential contaminated runoff, blue lines= stormwater flow, pink lines= waste transfer system, yellow circles = water supply well locations)

SITE OBSERVATIONS :

Animal Feeding Operation Determination & Animal Units

There are 2 sites that were inspected. They are Karcz Nation LLC & Heifer Nation LLC. The department has made the determination that under NR243.03 (4), that the 2 sites are considered a single operation. The 2 sites are under common ownership, common management, and are considered adjacent. During the inspection Karcz was asked about animal units at each facility. Karcz was shown the animal unit calculation sheet which identified 982 animal units that was submitted with the preliminary CAFO application. Karcz stated that this was accurate for Karcz Nation LLC. Karcz was then asked about the Heifer Nation LLC site. Karcz stated that there were about 40-50 heifers on that site which were between 400-800 lbs. At 40 heifers of this size that calculates to an additional 24 animal units. The total for both sites combined is1,006 animal units.

Feedlot Runoff (Photos on pages 5-7)

There is 1 feedlot runoff system located on the farm. This site is located at the Heifer Nation site north of WSF #2. There are 2 outdoor feedlots on either side of a center drive by feeding alley. The lots are relatively flat but do slope to the north slightly. A curb has been installed on the north end of the lots to keep most manure & runoff on the lots, however this was not an engineered system so it is unknown at what point the curb overtops. Manure from the lots is scraped to the south end of the lot directly into WSF #2. At the time of the inspection there were no animals on the west lot. Feedlot areas are managed & do not have current or past indicators of discharges.

Calf Hutch Areas (Photos on page 8)

There are no outdoor calf hutches located on the farm at this time. Calf hutches are located under roof in a building south of the parlor at the Karcz Nation site. There is a shallow trench drain in front of each row of hutches that appeared to flow out the west end of the building. Staining on the concrete outside the building indicated that any liquid coming from these trenches flowed west towards the corner of the freestall barn and into the gravel stormwater drain system.

Waste Storage Facilities (photos on pages 9-12)

There are 2 liquid waste storage facilities located on the farm. One is located at the Karcz Nation site at the southwest corner of the freestall barns and 1 at the Heifer Nation site located east of the feed storage area.

WSF #1 is a concrete lined impoundment that was constructed in 2021. This facility accepts manure & process wastewater from the 2 main freestall barns at the Karcz Nation site. This facility also is currently collecting feed storage area runoff from the interim runoff controls via lagoon pump & temporary above ground hose. This facility has a concrete access ramp located in the northwest corner to aid in the removal of sand laden manure & other solids from the bottom of the pit. Karcz stated the facility did have MOL marker when it was first built, but it had been broken off by manure hauling equipment since.

WSF #2 is an earthen lined impoundment that was constructed sometime during the 1990's. Manure and feedlot runoff is scraped directly into this facility from the adjacent outdoor lots. There is most likely a transfer system from the nearby barn as well, but details on this system were not discussed during the inspection.

Long term plans are to abandon or upgrade WSF #2 when a new heifer barn is built onsite. There is also a need to address manure storage for future expansions & long term storage of feed storage runoff. An additional waste storage facility will likely need to be built at one or both of the sites to accommodate these planned changes.

Liquid waste storage structures are well-maintained & in good repair.. Liquid waste storage facilities do not have permanent markers installed. Engineering evaluations of these facilities will be required either at time of final application or during the permit term. See photo log for further details.

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

Milking parlor washwater at the Karcz Nation site is collected and pumped to the interior oft the north freestall barn. Here it is mixed with the manure from the dairy barn and pumped to WSF #1 for long term storage.

Feed Storage Area Runoff (Photos on pages 12-22)

There are 2 feed storage areas (FSA) located on the farm. The main feed storage area is located at the Karcz Nation site & is located north of the freestall barns. This FSA is concrete lined and was built over the last 15 years with large expansions in 2020-2021. This FSA is approximately 170,000 sq ft in size and generally flows to the west and north. This facility does not have engineered runoff controls. At the time of inspection, some interim runoff controls were present, but not fully functional. An earthen collection sump had been dug at the southwest corner of the FSA and a tractor with lagoon pump was present to pump runoff to WSF #1 as needed. A concrete speed bump had been poured along the west and northwest perimeter of the FSA and was containing some of the runoff. Residual material accumulated on the top and outside of the concrete speed bump indicates that runoff from the feed storage pad bypasses the interim runoff controls. Black stains originating from under this concrete and along the edge of the concrete feedpad indicates that some leachate & runoff is flowing under the speed bump as well. Portions of the northern edge of the FSA had an earthen berm installed as part of the interim controls, but not as identified in the interim system plan prepared by Roach & Associates. The east berm shown in the interim plan that was intended to divert clean water away from the interim runoff controls was also not installed. In areas where the earthen berm was located it appeared to be containing from on the Feedpad. In areas were an earthen berm was not present, staining showed flow paths of leachate & runoff flowing of the edge of the FSA. Evidence of feed solids & ponded runoff were found along these areas north of the FSA. In the southwest corner of FSA there was a gap in the earthen berm used to direct runoff into the collection sump. This allowed runoff from the south edge of the FSA to flow around the collection sump & into the stream. Ponded runoff was visible under the tractor, to the west of the collection sump, and in a drainage swale leading all the way to the stream. Given the condition & performance of the interim controls at the time of inspection, it is likely that the Feed Storage is discharging to the stream during most rain events.

A second & smaller FSA is located at the Heifer Nation site south of the barn & west of WSF #2. This FSA is approximately 26,000 sq ft in area and was constructed sometime between 2010-2020. The slope of the facility is relatively flat and runoff flow direction was not obvious. There was a small grassed waterway off the east side of teh FSA that ran along the south side of WSF #2. It is assumed some of the runoff flows this direction but exact watershed boundaries will not be known until an engineering evaluation is completed..

In addition to the permanent FSAs there is also a small straw/dry hay bale pile located north of the shop at the Karcz Nation site. These bales are set on a gravel pad and covered with a plastic tarp. No sign of current or past discharges were visible.

The feed storage areas are well-maintained & in good repair. However, there are no engineered runoff control system on either feed storage area.

Animal Mortality Disposal

Mortalities are moved to central location and picked up daily as needed by OJ Krull.

Ancillary Service Areas (Photos on pages 23-25)

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.). At the time of the inspection, all stormwater channels were well vegetated and other areas were free of manure & feed solids. Farm should continue to manage these areas to minimize the chance of runoff from the production area.

The farm does not have any CAFO outdoor vegetated areas as part of their operation.

Photo #:	6514
Date/Time of Photo:	6/22/2023 11:47
Photo By:	Brian Hanson
Photo Location:	Heifer Nation Outdoor Lot

Photo Description:

Standing at the northeast corner of lot looking south: View of east outdoor lot. No animals on lot at time of inspection. North end had a small curb which was ponding water on the lot.

Photo #:	6519
Date/Time of Photo:	6/22/2023 11:49
Photo By:	Brian Hanson
Photo Location:	Heifer Nation Outdoor Lot

Photo Description:

Standing at the northwest corner of lot looking south: View of west outdoor lot. 50-60 heifers have access to this lot from barn. North edge had a small curb to keep most runoff on lot.

Photo #:	6525
Date/Time of Photo:	6/22/2023 11:51
Photo By:	Brian Hanson
Photo Location:	Heifer Nation Outdoor Lot

Photo Description:

Standing on the south side of lot looking north: View of entire lot & drive by feeding area.

Photo #:	6520
Date/Time of Photo:	6/22/2023 11:50
Photo By:	Brian Hanson
Photo Location:	Heifer Nation Outdoor Lot

Photo Description:

Standing at southeast corner of lot looking south: View of concrete ramp used to push manure from outdoor lots into WSF #2.

Photo #:	6521
Date/Time of Photo:	6/22/2023 11:50
Photo By:	Brian Hanson
Photo Location:	Heifer Nation Outdoor Lot

Photo Description:

Standing at northeast corner of WSF #2 looking east: View of south end of concrete ramp used to push manure into WSF #2. No scour protection visible off end of ramp

Photo #:	6512
Date/Time of Photo:	6/22/2023 11:46
Photo By:	Brian Hanson
Photo Location:	Heifer Nation Outdoor Lot

Photo Description:

Standing at north end of lot looking east: View of area northeast of outdoor lot. Area was previously used as a pasture/earthen lot, but has now been converted to crop production.

Photo #:	6507
Date/Time of Photo:	6/22/2023 11:37
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Calf Barn

Photo Description:

Standing on the west side of the calf barn looking east: View of calf hutches housed inside of calf barn. Notice gutter in front of hutches. Gutter flows west out of barn door.

Photo #:	6508
Date/Time of Photo:	6/22/2023 11:39
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Calf Barn

Photo Description:

Standing on the west side of calf barn looking south: View of concrete area between calf barn at freestall barn. Runoff from calf barn flows west towards corner of freestall. Staining on concrete appears to shows runoff entering gravel along north wall of freestall barn which is also a French drain for roof water.

Photo #:	6474
Date/Time of Photo:	6/22/2023 11:13
Photo By:	Brian Hanson
Photo Location:	Karcz Nation WSF #1

Photo Description:

Standing at the northeast corner of WSF #1 looking southwest: View o of the northeast corner of WSF #1.

Photo #:	6476
Date/Time of Photo:	6/22/2023 11:15
Photo By:	Brian Hanson
Photo Location:	Karcz Nation WSF #1

Photo Description:

Standing on the north side of WSF #1 looking west: View of north edge of WSF #1. Notice access ramp in northwest corner.

Photo #:	6481
Date/Time of Photo:	6/22/2023 11:15
Photo By:	Brian Hanson
Photo Location:	Karcz Nation WSF #1

Photo Description:

Standing at the northwest corner of WSF #1 looking south" View of northwest corner of WSF #1 at access ramp location.

Photo #:	6495
Date/Time of Photo:	6/22/2023 11:27
Photo By:	Brian Hanson
Photo Location:	Karcz Nation WSF #1

Photo Description:

Standing at southeast corner of WSF #1 looking west: View of south edge of WSF #1.

Photo #:	6522
Date/Time of Photo:	6/22/2023 11:50
Photo By:	Brian Hanson
Photo Location:	Heifer Nation WSF #2

Photo Description:

Standing on north side of WSF #2 looking southeast: View of east half of WSF #2.

Photo #:	6523
Date/Time of Photo:	6/22/2023 11:50
Photo By:	Brian Hanson
Photo Location:	Heifer Nation WSF #2

Photo Description:

Standing on north side of WSF #2 looking southwest: View of west half of WSF #2.

Photo #:	6524
Date/Time of Photo:	6/22/2023 11:50
Photo By:	Brian Hanson
Photo Location:	Heifer Nation WSF #2

Photo Description:

Standing on the west side of WSF #2 looking south: View of the west berm of WSF #2.

Photo #:	6413
Date/Time of Photo:	6/22/2023 10:43
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing on the east side of FSA looking west: View of the southeast corner of FSA.

Photo #:	6417
Date/Time of Photo:	6/22/2023 10:44
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing on the east side of FSA looking northwest: View of the east end of FSA.

Photo #:	6423
Date/Time of Photo:	6/22/2023 10:46
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing on the north side of FSA looking west: View of north edge of FSA. Notice lack of containment berm at edge of concret. Also notice & evidence of runoff & feed solids have left the concrete pad.

Photo #:	6426
Date/Time of Photo:	6/22/2023 10:47
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing in the middle of FSA looking south: View of center of FSA.

Photo #:	6428
Date/Time of Photo:	6/22/2023 10:47
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing on north side of FSA looking west: View of northwest corner of FSA. Notice an earthen berm has been installed along a portion of FSA. Also notice leachate stains flowing off of concrete.

Photo #:	6434
Date/Time of Photo:	6/22/2023 10:55
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standin off the north side of FSA looking southeast: View of ponded runoff on north side of FSA. Water was opaque, blackish in color, and had an odor consistent with feed leachate.

Photo #:	6442
Date/Time of Photo:	6/22/2023 11:01
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing on the west side of FSA looking southwest: View of west edge of FSA. Notice concrete berm installed along west side of FSA.

Photo #:	6445
Date/Time of Photo:	6/22/2023 11:02
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing on the west side of FSA looking east & down: Close up view of concrete berm installed along west side of FSA. Notice concrete berm is not a monolithic pour with concrete slab. Evidence of leachate flowing under the berm present.

Photo #:	6447
Date/Time of Photo:	6/22/2023 11:03
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing on the west side of FSA looking south: View of southwest corner of FSA. Arrows indicate direction of runoff flow.

Photo #:	6453
Date/Time of Photo:	6/22/2023 11:03
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing at southwest corner of FSA looking east: View of southwest corner of FSA. Arrow indicates direction of runoff flow.

Photo #:	6454
Date/Time of Photo:	6/22/2023 11:03
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing at southwest corner of FS looking west. View of southwest corner of FSA. Notice ponded runoff in front of tractor. Water was opaque, blackish in color, and had an odor consistent with feed leachate.

Photo #:	6456
Date/Time of Photo:	6/22/2023 11:05
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing on west edge of FSA looking south: Alternate view of ponded runoff off the southwest corner of FSA.

Photo #:	6465
Date/Time of Photo:	6/22/2023 11:06
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing on the west side of FSA looking north: View of interim collection basin used to collect runoff from FSA. Lagoon pump is used to transfer runoff to WSF #1 or load into tankers. Water was opaque, black in color, and had an odor consistent with feed leachate.

Photo #:	6469
Date/Time of Photo:	6/22/2023 11:12
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing southwest of feed storage area looking north: View of interim runoff collection pond. Notice ponded runoff on south & west sides that is not being collected. This runoff flows northwest straight into stream. Arrows indicate direction of runoff flow.

Photo #:	6539
Date/Time of Photo:	6/22/2023 12:32
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing in stream directly downstream of ponded runoff in photo 6469, looking down: View of ponded runoff in bottom of stream adjacent to main flow channel. Water was opaque, blackish in color, and had an odor consistent with feed leachate.

Photo #:	6527
Date/Time of Photo:	6/22/2023 11:52
Photo By:	Brian Hanson
Photo Location:	Heifer Nation Feed Storage

Photo Description:

Standing on east side of FSA looking northwest: View of northeast corner of FSA.

Photo #:	6530
Date/Time of Photo:	6/22/2023 11:53
Photo By:	Brian Hanson
Photo Location:	Heifer Nation Feed Storage

Photo Description:

Standing at southeast corner of FSA looking north: View of east edge of FSA.

Photo #:	6533
Date/Time of Photo:	6/22/2023 12:13
Photo By:	Brian Hanson
Photo Location:	Heifer Nation Feed Storage

Photo Description:

Standing on the north side of FSA looking west: View of north edge of FSA.

Photo #:	6529
Date/Time of Photo:	6/22/2023 11:53
Photo By:	Brian Hanson
Photo Location:	Heifer Nation Feed Storage

Photo Description:

Standing at southwest corner of FSA looking north: View of west edge of FSA.

Photo #:	6419
Date/Time of Photo:	6/22/2023 10:44
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing on north side of shop looking north: View of straw & hay storage area. Bales are placed on a gravel pad & covered with plastic tarp.

Photo #:	6420
Date/Time of Photo:	6/22/2023 10:45
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Feed Storage

Photo Description:

Standing on north side of bale storage area looking east: View of area adjacent to baled feed. No signs of current or past discharges from this area.

Photo #:	6501
Date/Time of Photo:	6/22/2023 11:29
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Stormwater

Photo Description:

Standing in between the freestall barns looking east: View of gravel stormwater drain along south freestall barn. Gravel drain contains tile line to take clean stormwater away from area.

Photo #:	6503
Date/Time of Photo:	6/22/2023 11:29
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Stormwater

Photo Description:

Standing in between the freestall barns looking north: View of surface inlet for stormwater.

Photo #:	6506
Date/Time of Photo:	6/22/2023 11:34
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Stormwater

Photo Description:

Standing on the south side of freestall barns looking north: View of stormwater inlet on south side of south barn.

Photo #:	6431
Date/Time of Photo:	6/22/2023 10:50
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Stormwater

Photo Description:

Standing north of Feedpad looking east: View of recently fixed tile blowout area in filed north of FSA. Ponded water in this area was clear and showed no signs of pollutants.

Photo #:	6435
Date/Time of Photo:	6/22/2023 10:55
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Stormwater

Photo Description:

Standing north of FSA near tile blowout area looking west: View of trench dug by farm to drain the water from the tile blowout area to the stream.

Photo #:	6509
Date/Time of Photo:	6/22/2023 11:40
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Well Locations

Photo Description:

Standing east of the parlor looking east: View of water supply well location just south of the driveway. Identified as:

Hi Cap #93841

Unique Well Id: ZL844

Photo #:	6510
Date/Time of Photo:	6/22/2023 11:40
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Well Locations

Photo Description:

Standing on the east side of the parlor looking northwest: View of water supply well location. According to farm, well is located inside white shed on east end of parlor. Identified as:

Hi Cap # 93840

Photo #:	6535
Date/Time of Photo:	6/22/2023 12:15
Photo By:	Brian Hanson
Photo Location:	Heifer Nation Well Locations

Photo Description:

Standing east of shed looking east: View of water supply well location at heifer farm. Well located on west side of house in bushes. Believed to be Unique well ID: GW265

Photo #:	6539
Date/Time of Photo:	6/22/2023 12:32
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Stream

Photo Description:

Standing on bank of stream west of Feed Storage area looking west & down: View of ponded runoff in bottom of ditch adjacent to active flow channel. Water was opaque, blackish in color, and had an odor consistent with feed leachate.

Photo #:	6543
Date/Time of Photo:	6/22/2023 12:40
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Stream

Photo Description:

Standing northwest of WSF #1 looking west: View of manure & straw pile located on top of stream ditch bank. Straw appeared to be placed as a dam which was then covered in manure.

Photo #:	6544
Date/Time of Photo:	6/22/2023 12:32
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Stream

Photo Description:

Standing in stream northwest of WSF #1 looking south: View of manure flow path entering stream. Notice tall vegetation matted down in direction of channel indicating large volume or high velocity. Manure solids apparent all the way to bottom of channel

Photo #:	6545
Date/Time of Photo:	6/22/2023 12:40
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Stream

Photo Description:

Standing in stream northwest of WSF #1 looking south: Alternate view of stream near manure flow path. Dashed line indicated location of actively flow water channel.

Photo #:	6439
Date/Time of Photo:	6/22/2023 10:58
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Stream

Photo Description:

Standing on bank of stream northwest of Feed Storage area looking west & down: View of pipe outlet discharging into stream. Water appeared clear, but algal growth directly below pipe indicates some type of nutrient loading. Farm did not know where this pipe leads to or what it is connected to.

SUMMARY:

Substantial Compliance

- Karcz Nation LLC is not currently covered by a WPDES permit, therefore a substantial compliance determination was not completed.

Areas of Concern

- Feed storage area does not have engineered runoff controls installed. Interim controls were partially installed, but there was evidence of feed solids & contaminated runoff leaving the feedpad and not being collected by interim measures.
- A pipe outlet was found in the stream located northwest of the feed storage area that had algae growth consistent with water discharging high nutrient loads. The farm did not know the location or origin of this pipe.
- Unconfined manure and straw were located on the adjacent to and in the channel of the stream. The farm explained that they were unaware of this unconfined manure pile.

NR 243 & NR 151 Violations

- NR 243.11(3), Wis. Admin. Code: "…any person owning or operating a large CAFO that stores manure or process wastewater in a structure that is at or below grade or that land applies manure or process wastewater shall have a WPDES permit. A discharge of pollutants from manure or process wastewater to waters of the state by an unpermitted animal feeding operation with 1,000 animal units or more is prohibited."

- NR 151.055 Process wastewater handling performance standard.

  (2) There may be no significant discharge of process wastewater to waters of the state.

- NR 151.08 Manure management prohibitions.

  (3) A livestock operation shall have no unconfined manure pile in a water quality management area.

  (4) A livestock operation shall have no direct runoff from a feedlot or stored manure into the waters of the state.

Action Items

- Finish installing interim feed storage runoff collection system. Continue to monitor the system to ensure no further discharges are occurring.
- Investigate the origin of the white pipe that it discharging into the stream. Based on the results of the investigation, take appropriate measures to ensure that discharge of pollutants is not occurring.
- Clean up any unconfined manure pile near the stream. Continue to monitor the area to ensure that no future discharges of manure occur.
- Submit a complete final WPDES permit application by 11/15/2023. See additional details below.

Items Required during 1st Permit Term

- Evaluation of all existing reviewable facilities.

SUMMARY:

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 landspreading or treatment systems (proposed or active)

• Plans and specifications for any proposed facilities

Inspection Report (July 21, 2023)

Inspection Date:	June 22, 2023
Inspection Type:	Compliance
Name:	Karcz Nation Dairy Farm
Site Address:	Dillon & Jacob Karcz
	N3035 Willow Road, Pulaski, WI 54162
	Town of Angelica, Shawano County
Prepared by:	Erin Hanson, DNR Nonpoint Source Coordinator

On June 22, 2023 Hanson collected water samples to document manure and feed storage runoff into an intermittent stream, WBIC 416400. Four sets of water samples were collected for analysis at the WI State Lab of Hygiene at the locations generally indicated on the site overview photo on page 2. Sample "MS" was collected from the stream where manure residue was visible on the vegetation adjacent to, and in, the stream. Sample "Swale" was collected from the stream where runoff from the feed storage pad bypassed interim runoff controls and accumulated immediately adjacent to, and in, the stream. There was little-no visible surface flow of the discolored water from the swale into the stream at the time samples were collected. However, accumulated runoff in the swale has a direct connection to the stream and can flow into it with each precipitation event.

Water samples indicate elevated levels of *E. coli* bacteria, Total Phosphorus, and Ammonia-N in samples collected downstream from the two discharge points (MS and Swale) compared to samples collected upstream.

E. coli bacteria is commonly found in the lower intestine of warm-blooded organisms. For *E. coli*, Wisconsin follows the lead of the US EPA which recommends beach advisories be posted at a threshold of 235 MPN/100 ml and beach closure at 1000 MPN/100 ml. (United States Env. Protection Agency, Office of Water; Recreational Water Quality Criteria, 2012. Doc. No. 820-F-12-058). The MS and Swale samples had significantly greater amounts of *E. coli* bacteria compared to the upstream sample, indicating inputs from the farm site into the stream.

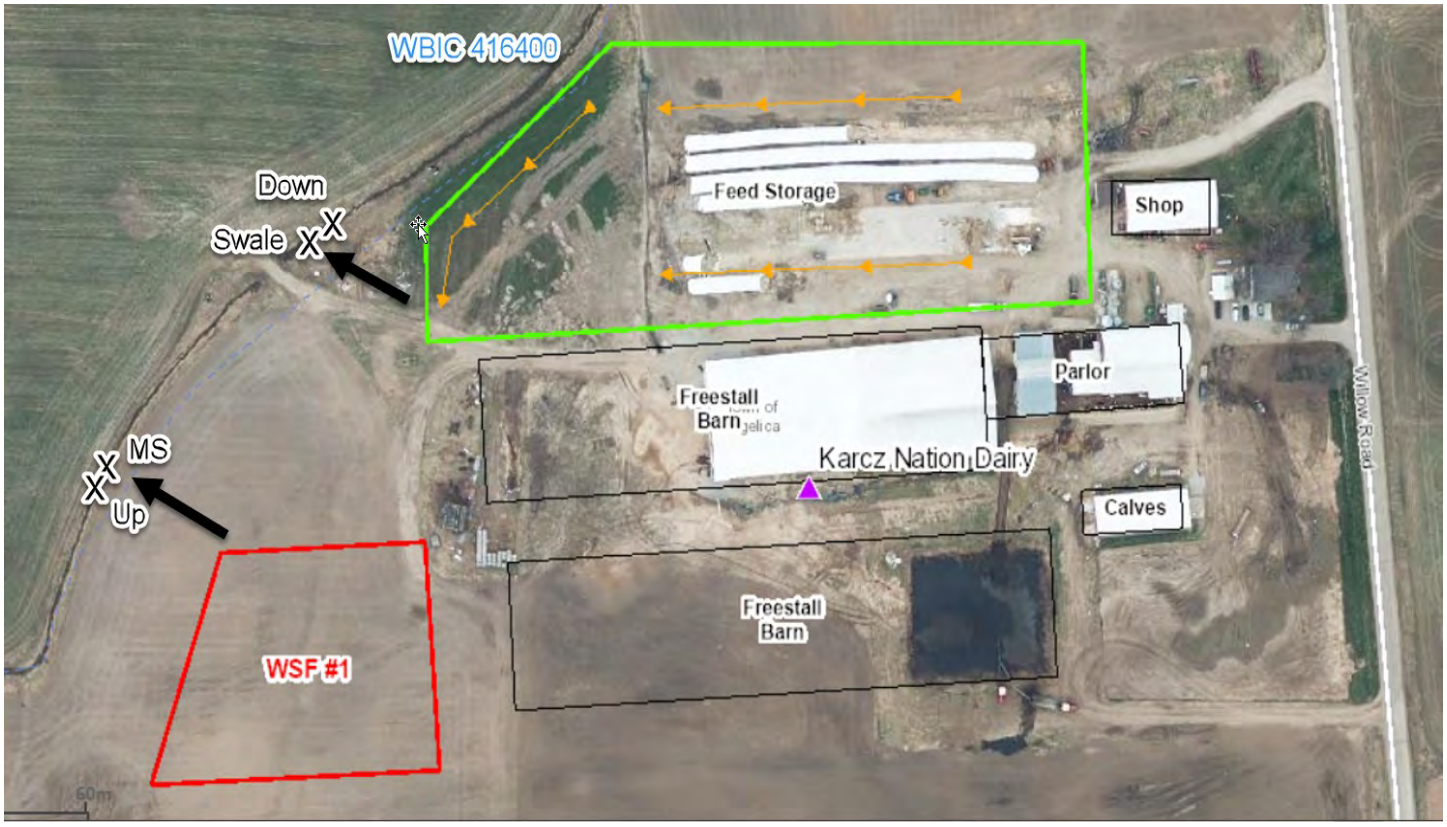
Total phosphorus concentrations in the Swale sample also exceeded Wisconsin's water quality standard for streams of 0.075 mg/l. Biochemical oxygen (BOD) demand and Ammonia-N were also elevated in the Swale sample relative to the others collected. Each precipitation event that flushes water through the swale contributes additional Phosphorus, BOD, and Ammonia-N into the stream.

Wisconsin does not have water quality standards for surface water for the other parameters analyzed.

Parameter	UP	MS	SWALE	DOWN
E. coli (MPN/100 ml)	109	1,120	1,733	276
Enterococci (MPN/100 ml)	365	1,300	12,997	345
BOD5 Total (mg/L)	ND*	ND*	56.9*	ND*
Tot-Phos. (mg/L)	0.0269	0.0330	4.29	0.0531
Ammonia - N (mg/L)	ND	0.0120	7.53	0.0339
NO2+NO3 (mg/L)	8.64	8.60	ND	8.04

*See Appendix A lab reports for comments

Site overview showing waterbodies in vicinity of farm. Intermittent streams with WBIC Code & wetlands mapped. From DNR Surface Water Data Viewer.



Site overview showing generalized locations, runoff paths (black arrows) from the feed storage and manure storage areas to the intermittent stream (WBIC 416400), and water sample locations (black Xs). 2020 aerial photo from DNR GIS viewer.

Photo #:	6536
Date/Time of Photo:	6/22/2023 12:26
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Water Samples

Photo Description:

Standing on east side of stream looking west & down: View of stream location at water sample ID: Down. Flowing water was clear with no visible signs impairment.

Photo #:	6537
Date/Time of Photo:	6/22/2023 12:26
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Water Samples

Photo Description:

Standing on east side of stream looking south & down: View of stream location at sample ID: Swale. Flowing water was clear with no visible signs impairment. Arrow points to location of next photo, #6539.

Photo #:	6539
Date/Time of Photo:	6/22/2023 12:32
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Water Samples

Photo Description:

Standing on east side of stream looking west & down: View of ponded feed storage area runoff in bottom of stream channel adjacent to water sample ID: Swale. Water is opaque, blackish in color, and had an odor consistent with feed leachate.

Photo #:	6545
Date/Time of Photo:	6/22/2023 12:41
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Water Samples

Photo Description:

Standing in stream channel northwest of WSF #1 looking south: View of stream near manure flow path at water sample location ID: MS. Dashed line indicated location of actively flow water channel.

Photo #:	6547
Date/Time of Photo:	6/22/2023 12:47
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Water Samples

Photo Description:

Standing on east side of stream looking west & down: Close up view of stream location at water sample ID: MS. Flowing water was clear with no visible signs impairment.

Photo #:	6549
Date/Time of Photo:	6/22/2023 12:50
Photo By:	Brian Hanson
Photo Location:	Karcz Nation Water Samples

Photo Description:

Standing on east side of stream looking west & down: Close up view of stream location at water sample ID: UP. Flowing water was clear with no visible signs impairment.

Wisconsin Department of Natural Resources
Laboratory Report

7/6/2023 Lab FID: 113133790 Sample ID: 685410001

Laboratory: Wisconsin State Laboratory of Hygiene
PO Box 7996
2601 Agriculture Dr
Madison WI 53718
Phone: 608-224-6203 *Fax:* 608-224-6213

DNR ID: 113133790

Sample:

Field #:	DOWN	*Sample #:*	685410001
Collection Start:	6/22/2023 12:31:00 PM	*Collection End:*	6/22/2023 12:31:00 PM
Collected By:	ERIN HANSON		
ID #:		*Waterbody/Outfall Id:*	
County:	Shawano	*ID Point #:*	
Sample Location:	DOWNSTREAM OF KARCZ FARM DISCHARGES	**Account #:**	WW019
Sample Description:		*Site Description:*	
Sample Source:	Surface Water	*Sample Depth:*	0F
Date Reported:	7/5/2023	*Sample Status:*	CORRECTED
Project No:		*Sample Reason:*	

Comment: Analyzed past the 8 hours holding time: Method Federal Register July 2003 analyzed on 06/23/23 1113 Analyzed past the 8 hours holding time: Method SM9223BMPN analyzed on 06/23/23 1124 Analyzed past the 15 minutes holding time: Method SM4500-H+B analyzed on 06/23/23 1400

Analyses and Results:

Sample ID: 685410001

Analysis Method	*Analysis Date*	*Lab Comment*
EPA 350.1	**6/29/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
608	**NITROGEN NH3-N DISS**	**0.0339**	MG/L	0.0120		0.0390

Sample ID: 685410001

Analysis Method	*Analysis Date*	*Lab Comment*
EPA 353.2	**6/29/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
631	**NITROGEN NO3+NO2 DISS (AS N)**	**8.04**	MG/L	0.275		0.920

Wisconsin Department of Natural Resources
Laboratory Report

Sample ID: 685410001

Analysis Method	*Analysis Date*	*Lab Comment*
SM5210B	**6/28/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
310	**BOD 5 DAY**	**ND**	MG/L	2.00		2.00

Comment: Incubator temperature exceeded on day 5 D.O. reading. Result approximate. All QC passes.

Sample ID: 685410001

Analysis Method	*Analysis Date*	*Lab Comment*
SM4500-H+B	**6/23/2023**	**Analyzed past the 15 minutes holding time.**

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
403	**PH LAB**	**8.20**	SU	1.00		1.00

Sample ID: 685410001

Analysis Method	*Analysis Date*	*Lab Comment*
SM9223BMPN	**6/24/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
99188	**E COLI COLILERT QUANTITRAY MPN**	**276**	/100 ML			1

Sample ID: 685410001

Analysis Method	*Analysis Date*	*Lab Comment*
Federal Register July 2003	**6/24/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
99119	**ENTEROCOCCI ENTEROLERT**	**345**	/100 ML	1		1

Sample ID: 685410001

Analysis Method	*Analysis Date*	*Lab Comment*
EPA 365.1	**6/30/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
665	**PHOSPHORUS TOTAL**	**0.0531**	MG/L	0.00900		0.0300

Wisconsin Department of Natural Resources
Laboratory Report

7/6/2023 Lab FID: 113133790 Sample ID: 685410002

Laboratory: Wisconsin State Laboratory of Hygiene
PO Box 7996
2601 Agriculture Dr
Madison WI 53718
Phone: 608-224-6203 *Fax:* 608-224-6213

DNR ID: 113133790

Sample:

Field #:	SWALE	*Sample #:*	685410002
Collection Start:	6/22/2023 12:35:00 PM	*Collection End:*	6/22/2023 12:35:00 PM
Collected By:	ERIN HANSON		
ID #:		*Waterbody/Outfall Id:*	
County:	Shawano	*ID Point #:*	
Sample Location:	SWALE FROM FEED STORAGE AT KARCZ FARM	**Account #:**	WW019
Sample Description:		*Site Description:*	
Sample Source:	Surface Water	*Sample Depth:*	0F
Date Reported:	7/5/2023	*Sample Status:*	CORRECTED
Project No:		*Sample Reason:*	

Comment: Analyzed past the 8 hours holding time: Method Federal Register July 2003 analyzed on 06/23/23 1113 Analyzed past the 8 hours holding time: Method SM9223BMPN analyzed on 06/23/23 1124 Analyzed past the 15 minutes holding time: Method SM4500-H+B analyzed on 06/23/23 1400

Analyses and Results:

Sample ID: 685410002

Analysis Method	*Analysis Date*	*Lab Comment*
EPA 350.1	**6/29/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
608	**NITROGEN NH3-N DISS**	**7.53**	MG/L	0.120		0.390

Sample ID: 685410002

Analysis Method	*Analysis Date*	*Lab Comment*
EPA 353.2	**6/29/2023**	**Matrix Spike QC exceeded.**

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
631	**NITROGEN NO3+NO2 DISS (AS N)**	**ND**	MG/L	0.0550		0.184

Sample ID: 685410002

Analysis Method	*Analysis Date*	*Lab Comment*
SM5210B	**6/28/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
310	**BOD 5 DAY**	**56.9**	MG/L	2.00		2.00

Comment: Incubator temperature exceeded on day 5 D.O. reading. Result approximate. All QC passes. | 5 Day BOD, Total: Only 1 dilution met DO depletion criteria.

Sample ID: 685410002

Analysis Method	*Analysis Date*	*Lab Comment*
SM4500-H+B	**6/23/2023**	**Analyzed past the 15 minutes holding time.**

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
403	**PH LAB**	**7.83**	SU	1.00		1.00

Sample ID: 685410002

Analysis Method	*Analysis Date*	*Lab Comment*
SM9223BMPN	**6/24/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
99188	**E COLI COLILERT QUANTITRAY MPN**	**1733**	/100 ML			1

Sample ID: 685410002

Analysis Method	*Analysis Date*	*Lab Comment*
Federal Register July 2003	**6/24/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
99119	**ENTEROCOCCI ENTEROLERT**	**12997**	/100 ML	10		10

Sample ID: 685410002

Analysis Method	*Analysis Date*	*Lab Comment*
EPA 365.1	**7/5/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
665	**PHOSPHORUS TOTAL**	**4.29**	MG/L	0.0450		0.150

Wisconsin Department of Natural Resources
Laboratory Report

7/6/2023 Lab FID: 113133790 Sample ID: 685410003

Laboratory: Wisconsin State Laboratory of Hygiene
PO Box 7996
2601 Agriculture Dr
Madison WI 53718
Phone: 608-224-6203 *Fax:* 608-224-6213

DNR ID: 113133790

Sample:

Field #:	MS	*Sample #:*	685410003
Collection Start:	6/22/2023 12:42:00 PM	*Collection End:*	6/22/2023 12:42:00 PM
Collected By:	ERIN HANSON		
ID #:		*Waterbody/Outfall Id:*	
County:		*ID Point #:*	
Sample Location:	DISCHARGE BY MANURE STORAGE	**Account #:**	WW019
Sample Description:		*Site Description:*	
Sample Source:	Surface Water	*Sample Depth:*	0F
Date Reported:	7/5/2023	*Sample Status:*	CORRECTED
Project No:		*Sample Reason:*	

Comment: Analyzed past the 8 hours holding time: Method Federal Register July 2003 analyzed on 06/23/23 1113 Analyzed past the 8 hours holding time: Method SM9223BMPN analyzed on 06/23/23 1124 Analyzed past the 15 minutes holding time: Method SM4500-H+B analyzed on 06/23/23 1400

Analyses and Results:

Sample ID: 685410003

Analysis Method	*Analysis Date*	*Lab Comment*
EPA 365.1	**6/30/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
665	**PHOSPHORUS TOTAL**	**0.0330**	MG/L	0.00900		0.0300

Sample ID: 685410003

Analysis Method	*Analysis Date*	*Lab Comment*
EPA 350.1	**6/29/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
608	**NITROGEN NH3-N DISS**	**0.0120**	MG/L	0.0120		0.0390

Wisconsin Department of Natural Resources
Laboratory Report

Sample ID: 685410003

Analysis Method	*Analysis Date*	*Lab Comment*
EPA 353.2	**6/29/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
631	**NITROGEN NO3+NO2 DISS (AS N)**	**8.60**	MG/L	0.275		0.920

Sample ID: 685410003

Analysis Method	*Analysis Date*	*Lab Comment*
SM5210B	**6/28/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
310	**BOD 5 DAY**	**ND**	MG/L	2.00		2.00

Comment: Incubator temperature exceeded on day 5 D.O. reading. Result approximate. All QC passes.

Sample ID: 685410003

Analysis Method	*Analysis Date*	*Lab Comment*
SM4500-H+B	**6/23/2023**	**Analyzed past the 15 minutes holding time.**

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
403	**PH LAB**	**8.19**	SU	1.00		1.00

Sample ID: 685410003

Analysis Method	*Analysis Date*	*Lab Comment*
SM9223BMPN	**6/24/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
99188	**E COLI COLILERT QUANTITRAY MPN**	**1120**	/100 ML			1

Sample ID: 685410003

Analysis Method	*Analysis Date*	*Lab Comment*
Federal Register July 2003	**6/24/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
99119	**ENTEROCOCCI ENTEROLERT**	**1300**	/100 ML	1		1

Wisconsin Department of Natural Resources
Laboratory Report

7/6/2023 Lab FID: 113133790 Sample ID: 685410004

Laboratory: Wisconsin State Laboratory of Hygiene
PO Box 7996
2601 Agriculture Dr
Madison WI 53718
Phone: 608-224-6203 *Fax:* 608-224-6213

DNR ID: 113133790

Sample:

Field #:	UP	*Sample #:*	685410004
Collection Start:	6/22/2023 12:50:00 PM	*Collection End:*	6/22/2023 12:50:00 PM
Collected By:	ERIN HANSON		
ID #:		*Waterbody/Outfall Id:*	
County:	Shawano	*ID Point #:*	
Sample Location:	UPSTREAM OF KARCZ FARM DISCHARGES	**Account #:**	WW019
Sample Description:		*Site Description:*	
Sample Source:	Surface Water	*Sample Depth:*	0F
Date Reported:	7/5/2023	*Sample Status:*	CORRECTED
Project No:		*Sample Reason:*	

Comment: Analyzed past the 8 hours holding time: Method Federal Register July 2003 analyzed on 06/23/23 1113 Analyzed past the 8 hours holding time: Method SM9223BMPN analyzed on 06/23/23 1124 Analyzed past the 15 minutes holding time: Method SM4500-H+B analyzed on 06/23/23 1400

Analyses and Results:

Sample ID: 685410004

Analysis Method	*Analysis Date*	*Lab Comment*
EPA 365.1	**6/30/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
665	**PHOSPHORUS TOTAL**	**0.0269**	MG/L	0.00900		0.0300

Sample ID: 685410004

Analysis Method	*Analysis Date*	*Lab Comment*
EPA 350.1	**6/29/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
608	**NITROGEN NH3-N DISS**	**ND**	MG/L	0.0120		0.0390

Wisconsin Department of Natural Resources
Laboratory Report

Sample ID: 685410004

Analysis Method	*Analysis Date*	*Lab Comment*
EPA 353.2	**6/29/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
631	**NITROGEN NO3+NO2 DISS (AS N)**	**8.64**	MG/L	0.275		0.920

Sample ID: 685410004

Analysis Method	*Analysis Date*	*Lab Comment*
SM5210B	**6/28/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
310	**BOD 5 DAY**	**ND**	MG/L	2.00		2.00

Comment: Incubator temperature exceeded on day 5 D.O. reading. Result approximate. All QC passes.

Sample ID: 685410004

Analysis Method	*Analysis Date*	*Lab Comment*
SM4500-H+B	**6/23/2023**	**Analyzed past the 15 minutes holding time.**

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
403	**PH LAB**	**8.22**	SU	1.00		1.00

Sample ID: 685410004

Analysis Method	*Analysis Date*	*Lab Comment*
SM9223BMPN	**6/24/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
99188	**E COLI COLILERT QUANTITRAY MPN**	**109**	/100 ML			1

Sample ID: 685410004

Analysis Method	*Analysis Date*	*Lab Comment*
Federal Register July 2003	**6/24/2023**	

Code	*Description*	*Result*	*Units*	*LOD*	*Report Limit*	*LOQ*
99119	**ENTEROCOCCI ENTEROLERT**	**365**	/100 ML	1		1