

Permit Fact Sheet

General Information

Permit Number:	WI-0056260-07-0
Permittee Name:	The Hanor Company of Wisconsin LLC Main Farm
Address:	E4614 Hwy 14-60
City/State/Zip:	Spring Green WI 53588
Discharge Location:	Main Farm - S11554 Dyke Road, NW ¼ of SEC 28, T9N, R3E, Spring Green, WI Main Office - E4614 Highway 14-60, SW ¼ of SEC 1, T8N, R3E, Spring Green, WI
Receiving Water:	Unnamed tributaries to Little Bear Creek in the Bear Creek Watershed, surface waters in the City of Spring Green-Wisconsin River Watershed and groundwaters of the state
Discharge Type:	Existing

Animal Units					
Animal Type	Current AU		Proposed AU (Note: If all zeroes, expansions are not expected during permit term)		
	Mixed	Individual	Mixed	Individual	Date of Proposed Expansion
Pigs (55 lbs. to market)	2240	2240	0	0	
Sows (each)	580	580	0	0	
Boars (each)	8	6	0	0	
Pigs (up to 55 lbs.)	500	500	0	0	
Total	3328	2826	0	0	

Facility Description

The Hanor Company of Wisconsin LLC is a large swine production operation composed of two sites in Sauk County. The Main Farm includes 14 swine barns with connecting hallways, connecting swine holding areas, a load out facility, an incinerator, a two-stage waste storage facility system and three groundwater monitoring wells. The Truck Wash station at the Main Office site includes two holding tanks for process wastewater from the truck washing process, as well as a roofed, solid stacking area for truck bedding. The operation houses 3,328 animal units (5,000 pigs up to 55 lbs, 5,600 pigs 55 lbs to market, 1,450 sows, and 15 boars). With a herd this size, the facility will generate approximately 10,537,323 gallons of manure and process wastewater annually. The Hanor Company of Wisconsin LLC currently has 1,751.6 acres in their conditionally approved 5-year nutrient management plan, of which 1,610.5 are spreadable acres. Currently there are no planned expansions in the next permit term, and this will be sixth WPDES permit reissuance for the operation.

Substantial Compliance Determination

Enforcement During Last Permit:

On October 11th, 2022 the Department issued a Notice of Noncompliance to the Hanor Company of Wisconsin LLC for allegedly violating Section 1.1 of their current WPDES permit, “Production Area Discharge Limitations”. The facility has completed all previously required actions as part of the enforcement process.

After a desk top review of all compliance schedule items, and a site visit on August 25th, 2022, this facility has been found to be in substantial compliance with their current permit.

Compliance determination entered by Claire O’Connell on 4/4/2024.

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) located at the Main Farm. This storage is lined with high density polyethylene (HDPE). WSF 1 is located to the west of the barns and is the northern storage. The facility has a capacity of approximately 5.5 million gallons at the maximum operating level and was constructed in 1973 and relined in 1997. This storage accepts manure and process wastewater from the hog barns via six transfer pipes. The facility was last evaluated in 2018. In 2023, the HDPE liner and transfers were inspected, and repairs were made to the liner and one transfer line.
002	Sample point 002 is for liquid waste storage facility 2 (WSF 2) located at the Main Farm. This storage is lined with high density polyethylene (HDPE). WSF 2 is located to the west of the barns and is the southern storage. The facility has a capacity of approximately 2.6 million gallons at the maximum operating level and was relined in 1997. This storage accepts manure and process wastewater from WSF1 via overflow weir and was last evaluated in 2018.
003	Sample point 003 is for liquid waste storage facility 3 (WSF 3) located at the Main Office. This storage is a concrete reception tank located within the truck wash building with the capacity for 3000 gallons. WSF 3 storage accepts manure and process wastewater from truck washing process. An overflow pipe connects WSF 3 to another 3000 gallon reception tank. Spreading does not occur from the outdoor reception tank. Spreading occurs from the indoor reception tank on a weekly basis throughout the entire year.
004	Sample point 004 is for solid waste storage facility located at the Main Office. This concrete bunker is located to the north of the office and truck wash building. The facility has a capacity of 27 tons and was constructed in 1982. This storage accepts bedding from the trucks used to transport hogs and is landspread approximately twice per year. This solid waste storage facility was upgraded to have a roof in 2018.
006	Sample point 006 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.

Sample Point Designation For Groundwater Monitoring Systems			
System	Sample Pt Number	Well Name	Comments
MANURE STORAGE FACILITY	801	MW-1	
	802	MW-2	
	803	MW-3	

1 Livestock Operations - Proposed Operation and Management

Production Area Discharge Limitations

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

Runoff Control

The permit requires control of contaminated runoff from all elements of the production area to prevent a discharge of pollutants to navigable waters in accordance with the Production Area Discharge Limitations and to comply with surface water quality standards and groundwater standards. Beginning on the effective date of this permit, (if needed) interim measures shall be implemented to prevent discharges of pollutants to navigable waters. In addition, permanent runoff control system(s) shall be designed, operated and maintained in accordance with the requirements found in USDA Natural Resources Conservation Service standards and ch. NR 243, Wis. Adm. Code. If any upgrading or modifications to runoff controls are necessary, formal engineering plans and specifications must submitted to the Department for approval.

Manure and Process Wastewater Storage

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

The permittee currently has approximately 283 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 3,328 animal units (5,000 pigs up to 55 lbs, 5,600 pigs 55 lbs to market, 1,450 sows, and 15 boars), it is estimated that approximately 10,537,323 gallons of manure and process wastewater will be produced per year. The permittee rents about 1,751.6 acres. Given the rotation commonly used by the permittee, 1,610.5 acres are available (or open) to receive manure and process wastewater on an annual basis. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

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

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

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

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; 002- WSF 2; 003- WSF 3

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

1.1.1 Changes from Previous Permit

Sample point 001 was edited to include updated information about the facility.

Sample point 002 was edited to include updated information about the facility.

1.1.2 Explanation of Operation and Management Requirements

Wastes shall be stored, and land applied according to permit and nutrient management requirements.

Sample Point Number: 004- Solid Waste Storage

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

Sample point 004 was edited to include updated information about the facility.

1.1.4 Explanation of Operation and Management Requirements

Wastes shall be stored, and land applied according to permit and nutrient management requirements.

Sample Point Number: 006- Stormwater

1.1.5 Changes from Previous Permit

Sample point 006 was added to include storm water conveyance systems.

1.1.6 Explanation of Operation and Management Requirements

There is no required sampling for the runoff controls. Rather, there is required inspection and routine maintenance that should be recorded on a monitoring and inspection form or calendar. A copy of the inspection records shall be submitted with the Annual Report.

2 Groundwater – Monitoring and Limitations

2.1 Groundwater Monitoring System for MANURE STORAGE FACILITY

Location of Monitoring system: HANOR-MAIN FARM

Wells to be Monitored: MW-1, MW-2, MW-3

Well Used To Calculate PALs: MW-1

Point of Standards Application Well(s): MW-1, MW-3, MW-2

Parameter	Units	Preventative Action Limit	Enforcement Standard	Frequency
Depth To Groundwater	feet	*****	N/A	Quarterly
Groundwater Elevation	feet MSL	*****	N/A	Quarterly
Solids, Total Dissolved	mg/L	*****	N/A	Quarterly
COD, Filtered	mg/L	*****	N/A	Quarterly
Chloride Dissolved	mg/L	125	250	Quarterly
Nitrogen, Ammonia Dissolved	mg/L	0.97	9.7	Quarterly
Nitrogen, Organic Dissolved	mg/L	*****	N/A	Quarterly
Nitrogen, Nitrite + Nitrate (as N) Dissolved	mg/L	2.0	10	Quarterly
pH Field	su	*****	N/A	Quarterly
Total Coliform General	#/100 ml	0	0	Quarterly
E. coli	#/100 ml	0	0	Quarterly

Changes from Previous Permit:

Parameters for water sampling were updated to include Total Coliform and E. coli

Explanation of Limits and Monitoring Requirements

See attached information regarding groundwater monitoring requirements.

3 Schedules

3.1 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: Update the written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	07/31/2024

3.2 Monitoring & Inspection Program

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

Required Action	Due Date
Proposed Monitoring and Inspection Program: Consistent with the monitoring and sampling requirements subsection, the permittee shall update and submit a proposed monitoring and inspection program within 60 days of the effective date of this permit	08/30/2024

3.3 Annual Reports

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

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

3.4 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).	
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
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
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
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
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.	

3.5 Submit Permit Reissuance Application

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

3.6 Explanation of Schedules

Schedules are included in the permit to ensure compliance with s. NR 243, Wis. Admin. Code, requirements. Schedules for the following items have been incorporated into the permit:

The schedules contained in 3.1, 3.2, 3.3, 3.4, and 3.5 are standard permit schedules.

Attachments:

Maps

Plan Approval Letters

Groundwater Monitoring Results Memo

Groundwater Monitoring Update Memo

Expiration Date:

June 30th, 2029

Prepared By: Claire O'Connell

Agricultural Runoff Management Specialist

Date: 4/4/2024





August 21st, 2023

Richland County
Approval

Nathan Brickl
The Hanor Company of Wisconsin LLC-- Main Farm
E4614 Hwy 14-60
Spring Green, WI 53588

SUBJECT: Conditional Approval of The Hanor Company of Wisconsin LLC-- Main Farm Nutrient Management Plan, WPDES Permit No. 005260-07

Dear Nathan Brickl,

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

Before applying manure onto approved fields each season, the Department recommends The Hanor Company of Wisconsin LLC-- Main Farm 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 The Hanor Company of Wisconsin LLC-- Main Farm 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 The Hanor Company of Wisconsin LLC-- Main Farm maintain compliance with their WPDES permit and Ch. NR 243 requirements.

FINDINGS OF FACT

The Department confirms that:

1. A current swine herd size of 3,328 animal units (5,000 pigs up to 55 lbs, 5,600 pigs 55 lbs to market, 1,450 sows, and 15 boars). Currently there are no planned expansions in the next permit term.
2. Manure generation and spreading records indicate your herd will annually generate approximately 10,537,323 gallons of manure and process wastewater and 25 tons of solid manure in the first year of the permit term. In this volume of manure approximately 155,000 gallons is truck wash liquid that may be handled separately and directly land applied.
3. The use of application restriction options 1 and 5 within surface water quality management areas.

4. The use of phosphorus delivery method P Index.
5. That The Hanor Company of Wisconsin LLC-- Main Farm currently has 1,751.6 acres (1,751.6 controlled through contracts, rental agreements or leases, or under manure agreements) of which 1,610.5 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 Bear Creek (listed 303(d) impaired water by 'total phosphorus') and Little Bear Creek (listed 303(d) impaired water by 'sediment/total suspended solids' & 'total phosphorus').
7. That no fields are directly adjacent to or have high potential to deliver nutrients and sediment to outstanding/exceptional waters.
8. That the following fields included in the NMP are located within the well head protection area for the Village of Lone Rock: GP03
9. That no fields are tiled.
10. That all fields will be checked for the following features prior to/during manure or process wastewater applications: soil areas with possible shallow groundwater (i.e., within 24 inches of surface) at the time of manure application; required setbacks associated with wells, navigable waters, conduits to navigable waters, grassed waterways, wetlands, possible soil erosion/flow channels.
11. That surface applications of manure will not be completed when precipitation capable of producing runoff is forecasted within 24 hours of the time of planned application.

CONDITIONAL NUTRIENT MANAGEMENT PLAN APPROVAL

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

FIELD AND MANURE MANAGEMENT

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

Field Name:	Other Permittee Name:	Other Permittee Field Name:	DNR #:
261	RICHLAND CENTER RENEWABLE ENERGY	NE-A	79393
GP05	RICHLAND CENTER RENEWABLE ENERGY	JR-B	89251
234	RICHLAND CENTER RENEWABLE ENERGY	NE-B	79394
GP06A	RICHLAND CENTER RENEWABLE ENERGY	GP-B	77172
KLB01	RICHLAND CENTER RENEWABLE ENERGY	KL-A	80291
231	RICHLAND CENTER RENEWABLE ENERGY	NE-B	79394
GP06A	RICHLAND CENTER RENEWABLE ENERGY	JR-D	89249
GP17	RICHLAND CENTER RENEWABLE ENERGY	GP-B	77172
GP02	RICHLAND CENTER RENEWABLE ENERGY	JR-E	106156
250	RICHLAND CENTER RENEWABLE ENERGY	KL-F	102023
235	RICHLAND CENTER RENEWABLE ENERGY	NE-B	79394
250	RICHLAND CENTER RENEWABLE ENERGY	KL-G	102024
GP05	RICHLAND CENTER RENEWABLE ENERGY	JR-A	89250
GP01B	RICHLAND CENTER RENEWABLE ENERGY	MS-F2	102738

GP08	RICHLAND CENTER RENEWABLE ENERGY	GP-B	77172
227-230	RICHLAND CENTER RENEWABLE ENERGY	NE-B	79394
260	RICHLAND CENTER RENEWABLE ENERGY	NE-A	79393
GP10	RICHLAND CENTER RENEWABLE ENERGY	MS-B1	76737
270	RICHLAND CENTER RENEWABLE ENERGY	GS-C	84142
262	RICHLAND CENTER RENEWABLE ENERGY	NE-A	79393
249	RICHLAND CENTER RENEWABLE ENERGY	KL-B	83516
GP01A	RICHLAND CENTER RENEWABLE ENERGY	MS-F2	102738

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

3. The following fields are prohibited from receiving applications of manure or process wastewater:
- 226 (>200 ppm P)
 - 251 (>200 ppm P)
 - 270 (>200 ppm P)

If The Hanor Company of Wisconsin LLC-- Main Farm wishes to use these fields for applications of manure or process wastewater all necessary information shall be submitted to the Department prior to application to demonstrate compliance with NR 243 and other applicable codes. Written Department approval amending this condition approval must be received prior to application.

4. If existing fields yield a soil test results equal to or greater than 200 ppm P, those fields would be prohibited from receiving manure or process wastewater applications, unless you obtain Department approval in accordance with NR 243.14(5)(b)2., Wis. Adm. Code.
5. All liquid manure samples collected may be analyzed, at a minimum, for percent dry matter, total nitrogen, percent NH₄-N, percent NO₃-N, phosphorus, potassium, and sulfur.
6. If manure sample results have a dry matter (DM) content less than 2.0% and the percent ammonium (NH₄⁺) is greater than 75% of the total N, The Hanor Company of Wisconsin LLC-- Main Farm may use the following equation to adjust the first-year available nitrogen when applications are injected or incorporated within 1 hour:

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

7. The Hanor Company of Wisconsin LLC-- Main Farm shall record daily manure applications by using 'The Daily Log' as generated by Snap Plus. These forms shall be retained at the farm and provided to the department upon request.
8. The Hanor Company of Wisconsin LLC-- Main Farm 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 'CAFO Annual Spreading Report' as generated by Snap Plus.

WINTER SPREADING

9. Liquid manure applications during winter conditions, as defined by NR 243.14(7), Wis. Adm. Code, are prohibited with the exception of emergency applications.
10. The following field(s) are approved for winter spreading solid manure, emergency applications of liquid manure and frozen liquid manure:
- | | | |
|-------|-------|-------|
| - 136 | - 246 | - 247 |
| - 249 | - 250 | - 251 |
11. The following field is approved for applications in the winter of process wastewater, otherwise referred to as ‘truck wash’. The rate which can be applied to this field should not exceed 1,500 gallons per acre in a 24-hour period.
- KLH01
12. Winter spreading of solid and liquid manure may not occur during the “high risk runoff period” pursuant to s. NR 243.14(6)(c) and NR 243.14(7)(c), respectively.
13. Winter applications of liquid manure shall only occur under emergency situations, after notifying the Department and receiving verbal approval.
14. Liquid applications shall be limited to 3,500 gallons per acre or 30 lbs. P per acre, whichever is less, on slopes 2-6% and 7,000 gallons per acre or 60 lbs. P per acre, whichever is less, on slopes 0-2%. Winter applications of solid manure shall be limited to 60 lbs. P per acre.

HEADLAND STACKING

15. No headland stacking sites are approved.

MANURE & PROCESS WASTEWATER IRRIGATION

16. Irrigation of manure or process wastewater is prohibited.

SUBMITAL AND RECORDKEEPING REQUIREMENTS

17. 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 local permits, zoning and regulatory requirements.

If you have any questions regarding this approval, I can be reached at 608-212-8460 or Ashley.Scheel@Wisconsin.gov.

Sincerely,

Handwritten signature of Ashley Scheel in black ink.

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

cc: Claire O'Connell, WDNR Agricultural Runoff Management Specialist (Claire.OConnell@Wisconsin.gov)
Laura Bub, WDNR Watershed Field Supervisor (Laura.Bub@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)
Tony Salituro, WDNR CAFO Engineer (Anthony.Salituro@Wisconsin.gov)
Rob Davis, WDNR CAFO Engineer (Robert.Davis@Wisconsin.gov)
Melissa Schlupp, Sauk County (Melissa.Schlupp@Saukcountwi.gov)
Cathy Cooper, Richland County (Cathy.Cooper@Co.Richland.Wi.Us)
Nikki Wanger, Rock River Laboratory, Inc (Nikki_Wagner@Rockriverlab.com)
File



August 22, 2023

FILE REF: R-2023-0092
 WPDES Permit #: WI-0056260

Nathan Brickl
 The Hanor Company of Wisconsin LLC Main Farm
 E4614 Hwy 14-60
 Spring Green, WI 53588

Subject: Days of Storage Review for The Hanor Company of Wisconsin LLC Main Farm NW¼ of T09N, R03E, Section 28 in Spring Green Township, Sauk County – NO ADDITIONAL ACTION REQUIRED

Dear Mr. Brickl:

This letter is to inform you that the Wisconsin Department of Natural Resources (Department) has completed its review of the calculation of days of storage submitted under certification by Kaesey Glaess, MSA Professional Services, Inc. on March 30, 2023 on behalf of The Hanor Company of Wisconsin LLC Main Farm.

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 The Hanor Company of Wisconsin LLC Main Farm has **283 days** of liquid waste storage based on the volumes listed in the table below with respect to s. NR 243.15(3)(i) to (k), Wis. Adm. Code. The current number of animal units provided for the calculation is **3,328 AU**. The liquid waste volumes are based on the NRCS spreadsheet and other estimated or calculated values from a collection period of 365 days. These calculations utilize direct precipitation of the 24-yr, 24-hr storm event on the holding ponds rather than the 100-yr storm because The Hanor Company Main farm is classified as an Existing Source CAFO. The truck wash station is not included in these calculations as it is treated as process wastewater and is stored and directly land spread.

Total Annual Liquid Waste Volume (NRCS Table Values)	
Liquids Collected/Stored	Annual Gallons
Manure and Bedding:	6,421,415
Wash water and other Wastewater:	1,781,200
Net Precipitation on Storage Surfaces (91,648 SF + 57,671 SF):	2,179,707
Total Liquid Waste Stored Below the MOL	10,382,322

Total Liquid Waste Storage (Gallons)						
Waste Storage	Total Vol. from Top to Bottom	-Solids Storage	-25-yr, 24-hr Precip on Storage	-25-yr, 24-hr Collected Runoff	-Freeboard Vol.	Max Operating Level (MOL) Vol.
HP#1	7,913,734	1,459,036 ⁽¹⁾	319,910	0	669,985	5,464,804
HP#2	4,245,536	1,038,680 ⁽²⁾	202,666	0	420,821	2,583,368
Total MOL Vol.						8,048,172

⁽¹⁾ 6 ft of solids

⁽²⁾ 5 ft of solids

Should you have any questions, please contact Bernie Michaud, 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



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DATE: October 11, 2022

WPDES Permit No. WI-0056260-06

TO: Claire O'Connell – Regional CAFO Specialist

FROM: Ian Anderson – CAFO Hydrogeologist

SUBJECT: The Hanor Company – Groundwater Monitoring Results

Background

The Hanor Company LLC Main Farm is located in southwest Sauk County, Township 9N, Range 3E, Section 28 in the Town of Spring Green. It is a swine operation that has been operating since the 1970's, and is found in an isolated valley, which promotes biosecurity. The main farm consists of 14 swine barns with slatted floors and underbarn basins that utilize pull-plug systems to transfer waste to a two-cell waste storage system. As I understand it, the waste storage system was an earthen lagoon constructed in the 1970's, which was converted to an HDPE lined storage in the 1990's. Groundwater monitoring has occurred at the site since at least 1987, according to file review.

Site Geology and Hydrogeology

According to Geology of Sauk County, Wisconsin (Clayton and Attig, 1990), the hills surrounding the Hanor Company main farm are composed of sedimentary rocks of the late Cambrian in sequence from the Wonewoc, Tunnel City, St. Lawrence and Jordan formations. Ridgetops are capped with the Ordovician-aged Oneota dolomite and the associated Rountree formation. The valley in which the facility sits is mapped as premodern nonglacial stream sediment with some coarse offshore sediment.

The valley in which The Hanor Company is located is also hydrologically isolated. Because it is surrounded by bedrock ridges, is above the Wisconsin River floodplain, and groundwater to the north flows north toward Little Bear Creek, groundwater found in this valley is influenced only by the very local geology and land use. See Water-Table Map of Sauk County, Wisconsin (Gotkowitz and Zeiler, 2002) for details.

Groundwater Monitoring Results

I have reviewed the analytical data from the three production area monitoring wells going back to 2009. As stated above the monitoring system dates to the late 1980's, but the entire historical record was not readily available, and this time period is sufficient to delineate trends and draw conclusions.

Trends in these data are quite clear. There were no exceedances for any analyte other than nitrate¹ (NO₂⁻ + NO₃⁻) in any of the wells. Nitrate concentrations in MW-1 (upgradient of the waste storage facilities) occasionally exceeds the preventative action limit (PAL) of 2mg/L, but never the enforcement standard (ES) of 10mg/L. By contrast, concentrations of nitrate in MW-2 and MW-3, which are both downgradient of the waste storage facilities, regularly exceed the ES and were never below the PAL from 2009 to present (see Figures 1-3).

Conclusions

The drastic difference between nitrate concentrations sampled upgradient from the waste storage facilities (WSF) compared to those downgradient of the waste storage very strongly suggests that the WSFs are the source of nitrate. It is certainly possible that the waste transfer system, or underbarn basins could be the

¹ Note that wells were not sampled for *E. coli* bacteria during the time period analyzed.

nitrate source, but since multiple repairs in the HDPE liner of the WSF were visible during the inspection it is the most likely source. Furthermore, as described above given the topographic and hydrologic isolation of the valley in which The Hanor Company main farm sits (as described above), it is unlikely that the nitrate originates offsite.

The data are clear. It seems that additional work to isolate the specific contaminant source or simply repair/replace the HDPE liner is reasonable and warranted.

References

Geology of Sauk County, Wisconsin. WGNHS Information Circular 67. Clayton, L. and Attig, J., 1990.
<https://wgnhs.wisc.edu/catalog/dataset/000317/resource/ic67plate01/view/7831878c-702d-465a-a54e-617d94b2fa62>

Water-Table Elevation Map of Sauk County, Wisconsin. WGNHS Miscellaneous Map 55. Gotkowitz, M. and Zeiler, K., 2002.
<https://wgnhs.wisc.edu/catalog/publication/000457/resource/m145>

Figures

Figure 1 – Time Series of Nitrate Concentrations in MW-1

Figure 2 – Time Series of Nitrate Concentrations in MW-2

Figure 3 – Time Series of Nitrate Concentrations in MW-3

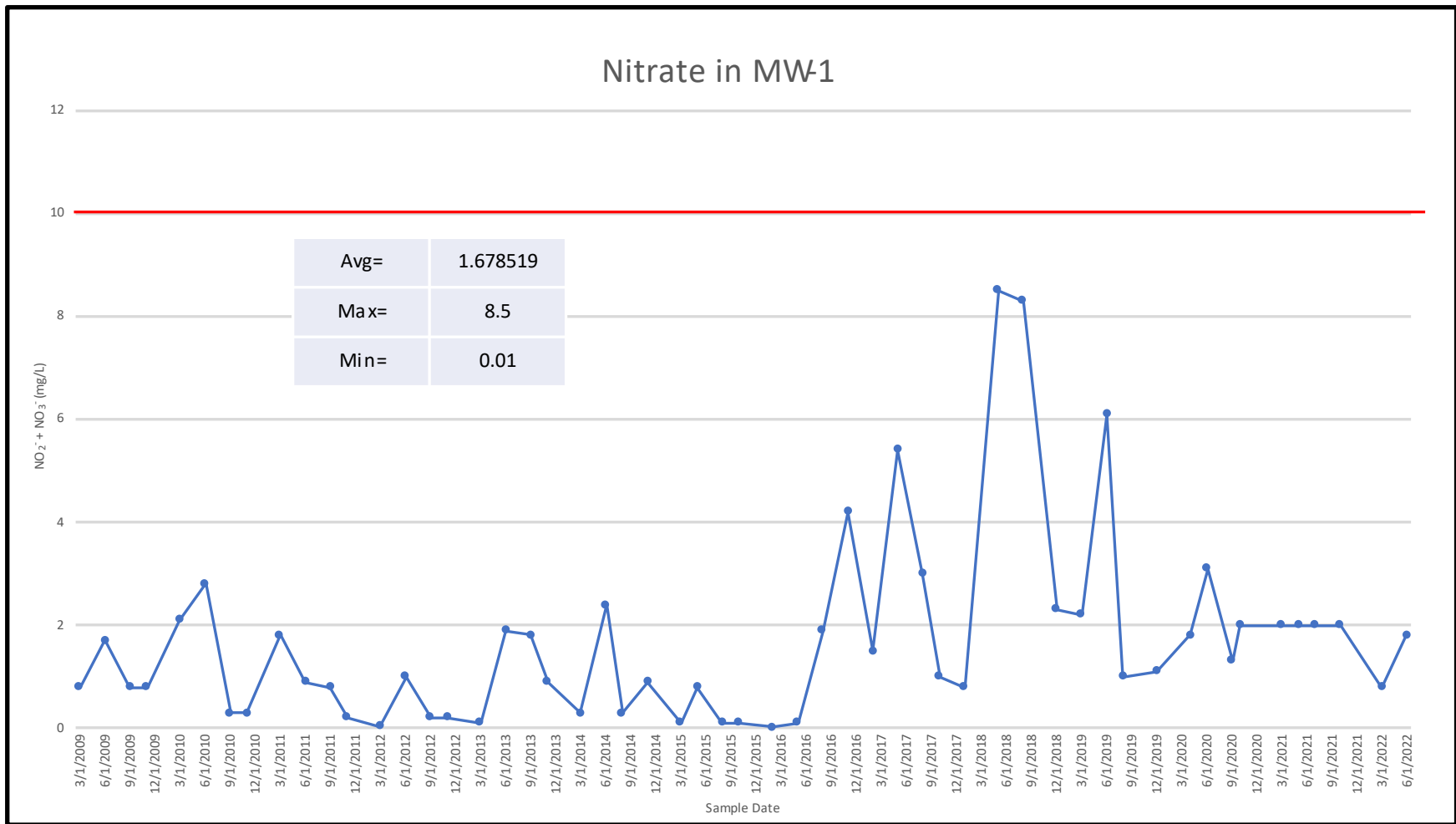


Figure 1 – Time series and summary statistics of nitrate ($\text{NO}_2^- + \text{NO}_3^-$) concentrations in MW-1 at The Hanor Company. MW-1 is upgradient of the waste storage facility. Note the red horizontal line that indicates the enforcement standard of 10mg/L.

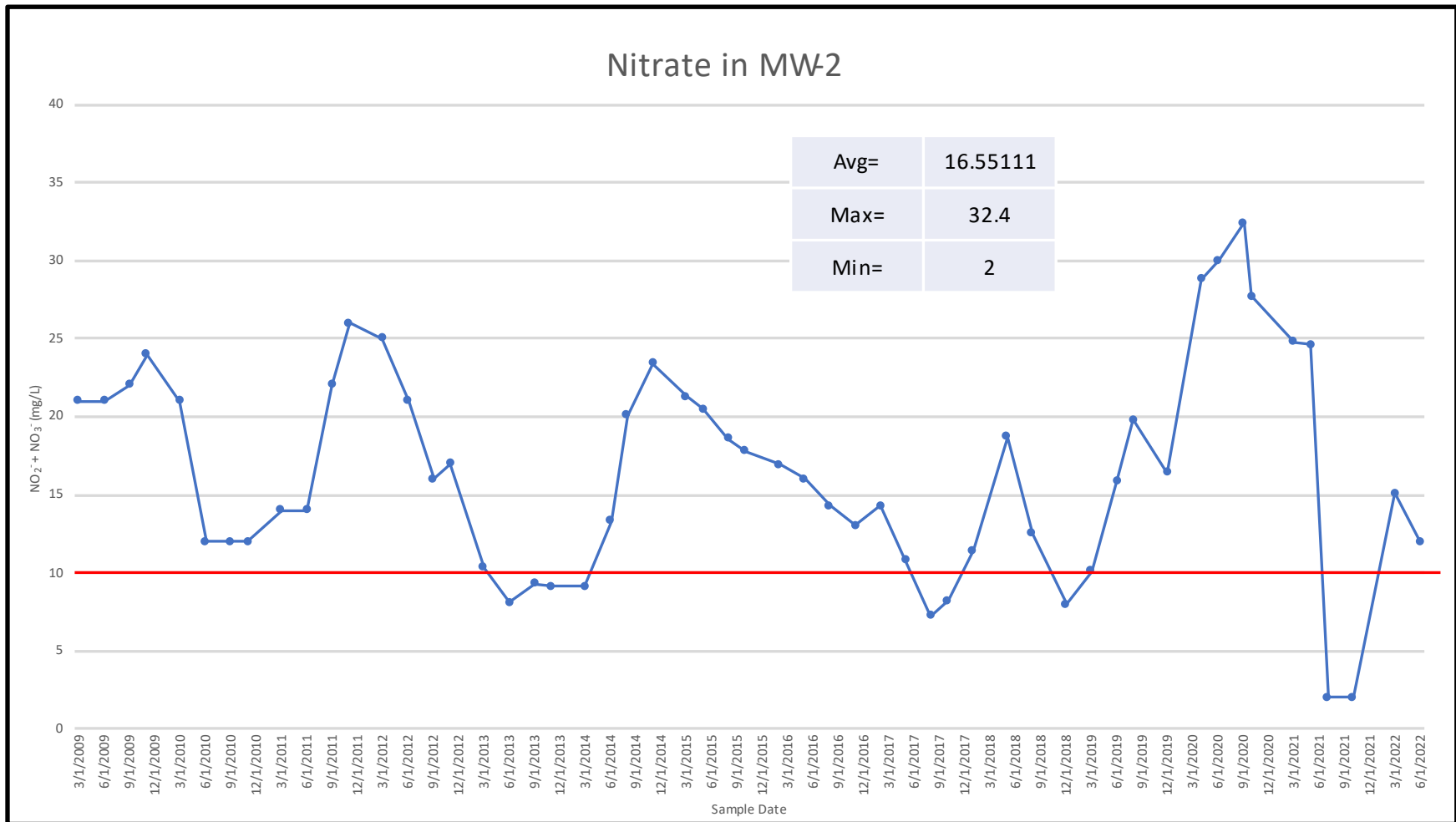


Figure 2 - Time series and summary statistics of nitrate ($\text{NO}_2^- + \text{NO}_3^-$) concentrations in MW-2 at The Hanor Company. MW-2 is downgradient of the waste storage facility. Note the red horizontal line that indicates the enforcement standard of 10mg/L.

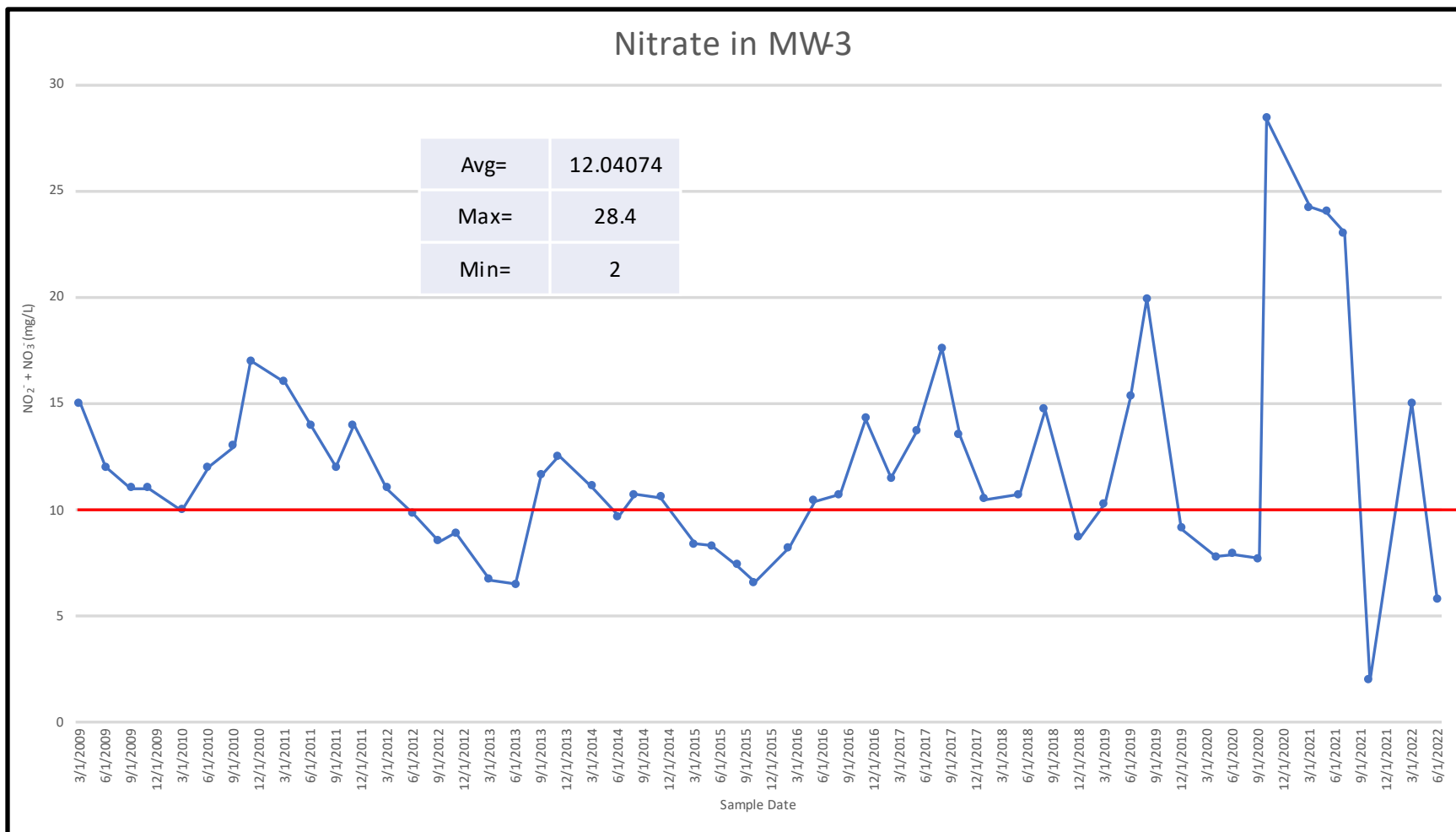


Figure 3 - Time series and summary statistics of nitrate ($\text{NO}_2^- + \text{NO}_3^-$) concentrations in MW-3 at The Hanor Company. MW-3 is downgradient of the waste storage facility. Note the red horizontal line that indicates the enforcement standard of 10mg/L.

DATE: March 14, 2024

WPDES Permit No. WI-0056260-06

TO: Claire O'Connell – Regional CAFO Specialist

FROM: Ian Anderson – CAFO Hydrogeologist

SUBJECT: The Hanor Company – Groundwater Monitoring Update

Background

A prior memo dated October 11, 2022 described a review of groundwater monitoring up to that point in time. Upgradient well MW-1 had relatively low nitrate concentrations (mean=1.7mg/L), and downgradient wells MW-2 and MW-3 had higher concentrations (mean of 16.5 and 12mg/L, respectively).

See the previous memo for more background, site layout and geology.

Following a site inspection on August 25, 2022 we discussed maintenance needs of the HDPE liner with the farm, and they subsequently patched the waste storage liner, as well as identified and repaired a break in a waste transfer pipe. The broken pipeline was apparently repaired in July 2023.

Groundwater Monitoring Results

I have reviewed the most recent groundwater monitoring results from The Hanor Company, including five quarters of sampling since my last review. The most recently submitted monitoring data was from the October 16, 2023 sampling date.

The overall site trends remain similar: nitrate concentrations in MW-1 are lower than those in MW-2 and MW-3, and no analytes other than nitrate had exceedances, although samples were not tested for bacteria. Looking closer at more recent trends shows that nitrate in MW-2 and MW-3 has come down from historical highs of 2020 but remain elevated.

Nitrate in MW-2 has been hovering near the enforcement standard of 10mg/L, and was increasing over the last three samples, including 9.9mg/L on October 16, 2023. MW-3 increased slowly but steadily from 6.1mg/L on October 17, 2022 to 9.0mg/L on October 16, 2023. See Figures 1, 2 and 3 for details.

Conclusions

The farm identified two possible sources of nitrate contamination, as required by NR 140, and took steps to mitigate them. To date, the resulting groundwater quality sampling has had mixed results. Nitrate concentrations are trending down over the long term, but recent results are ticking back up.

I recommend that we require continued quarterly groundwater monitoring over the next permitting term, and add total coliform and E. coli as parameters. Sampling for bacteria may help to discern whether the nitrate source is manure or not. If nitrate concentrations do not substantially decrease, the farm may need to conduct further investigation into alternate contaminant sources.

Figures

Figure 1 – Time Series of Nitrate Concentrations in MW-1

Figure 2 – Time Series of Nitrate Concentrations in MW-2

Figure 3 – Time Series of Nitrate Concentrations in MW-3

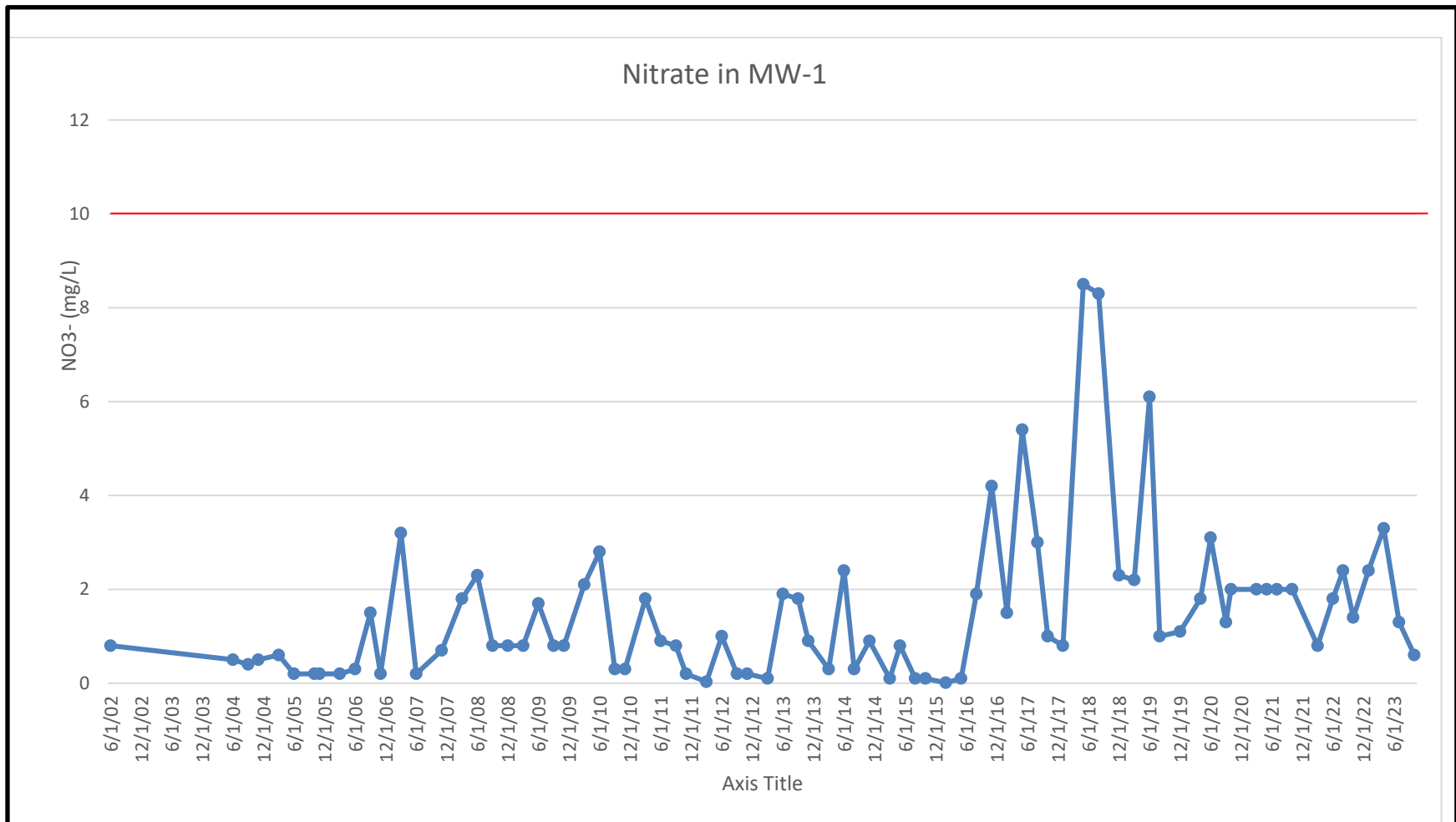


Figure 1 – Time series and summary statistics of nitrate (NO₂⁻ + NO₃⁻) concentrations in MW-1 at The Hanor Company. MW-1 is upgradient of the waste storage facility. Note the red horizontal line that indicates the enforcement standard of 10mg/L.

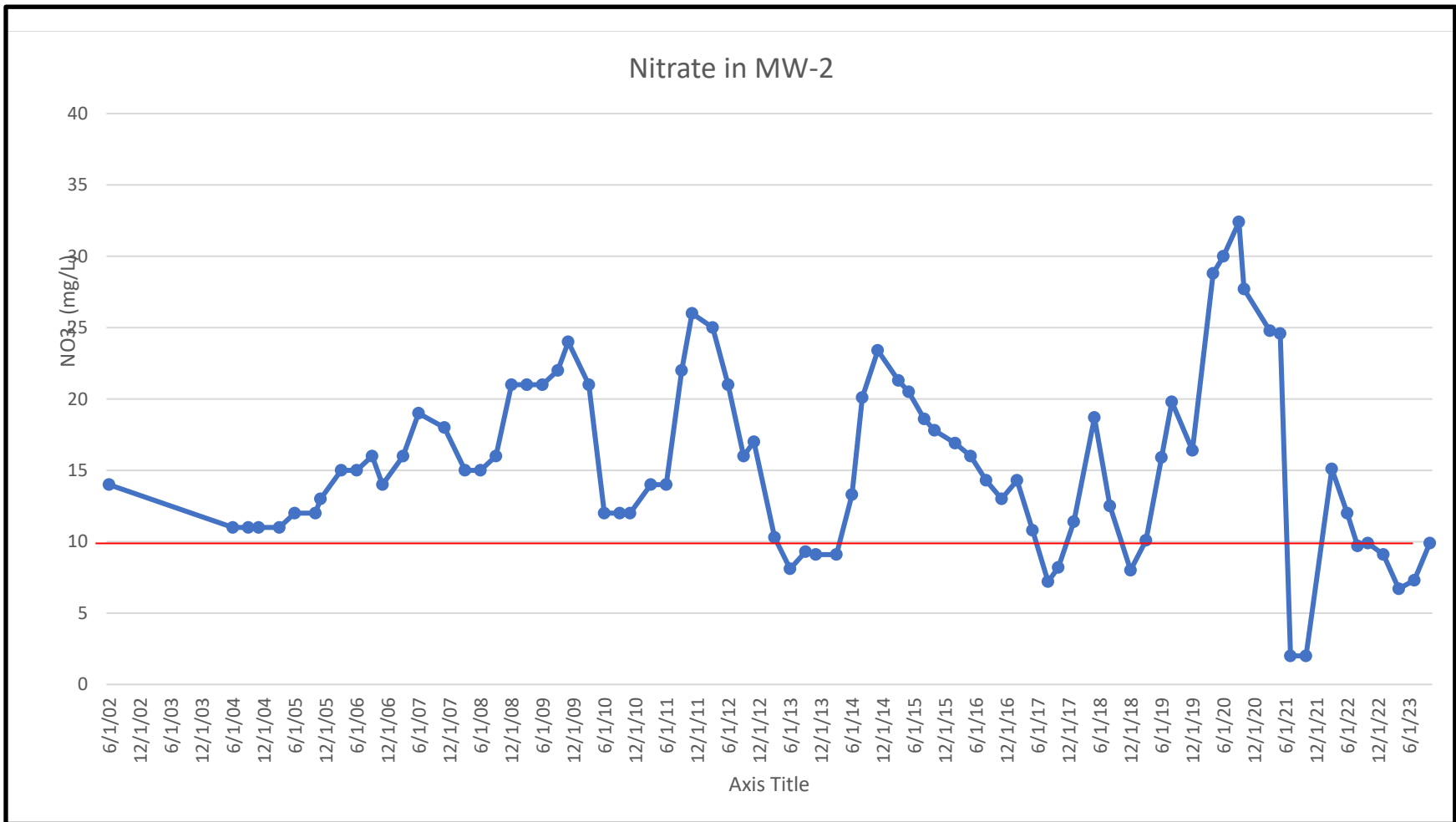


Figure 2 - Time series and summary statistics of nitrate ($\text{NO}_2^- + \text{NO}_3^-$) concentrations in MW-2 at The Hanor Company. MW-2 is downgradient of the waste storage facility. Note the red horizontal line that indicates the enforcement standard of 10mg/L.

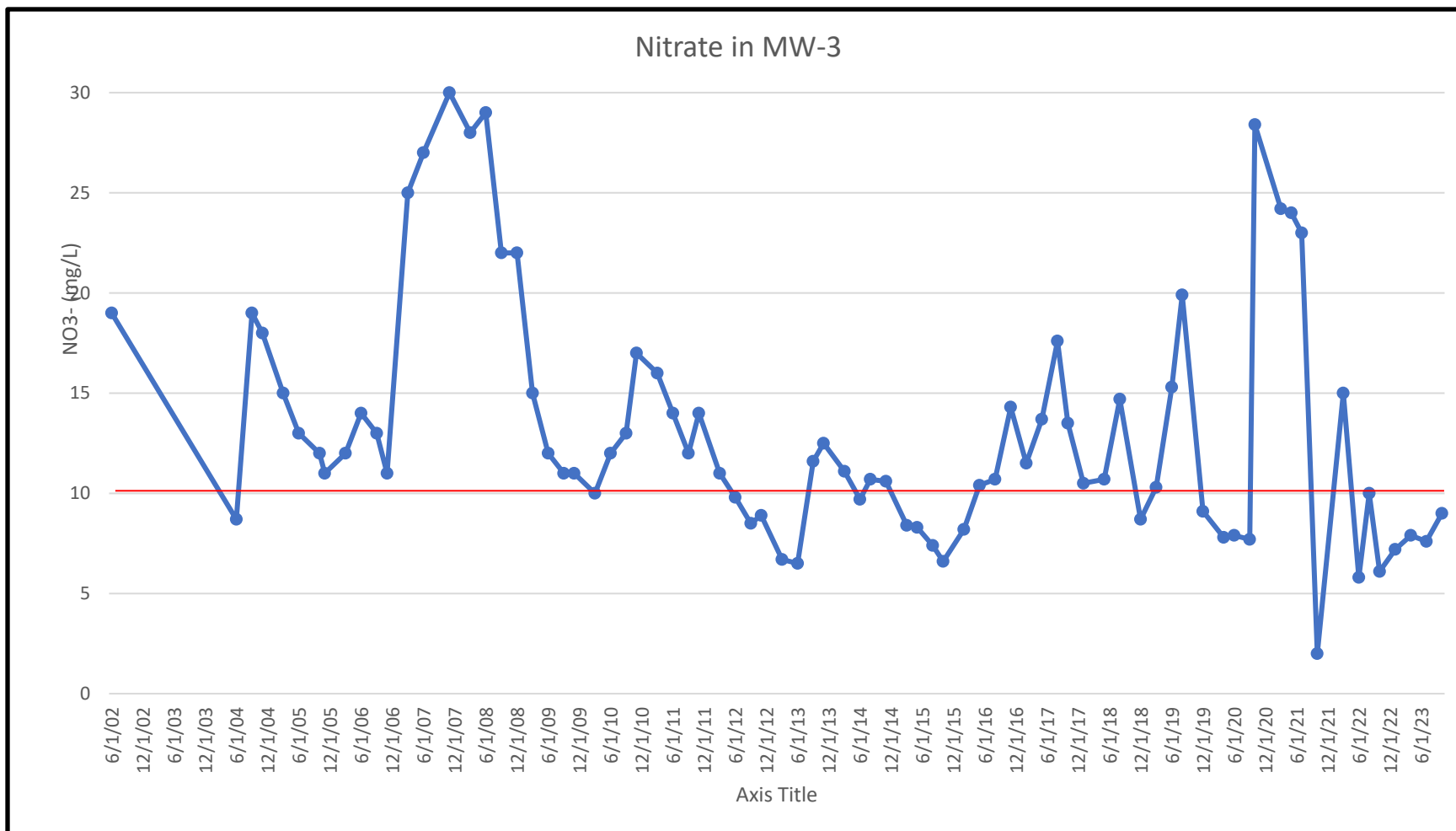


Figure 3 - Time series and summary statistics of nitrate (NO₂⁻ + NO₃⁻) concentrations in MW-3 at The Hanor Company. MW-3 is downgradient of the waste storage facility. Note the red horizontal line that indicates the enforcement standard of 10mg/L.