

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

NOTICE OF FINAL DETERMINATION TO MODIFY A WISCONSIN POLLUTANT DISCHARGE
ELIMINATION SYSTEM (WPDES) PERMIT No. WI-0059536-04-2

Permittee: Kinnard Farms Inc, E2675 County Hwy S, Casco, WI, 54205

Facility Where Discharge Occurs: Kinnard Farms Inc, E2675 County Road S Casco

Receiving Water And Location: Unnamed tributaries within the Kewaunee River Watershed, Lake Michigan
Drainage Basin, and groundwaters of the state.

Brief Facility Description: Kinnard Farms Inc. is an existing Concentrated Animal Feeding Operation in Kewaunee, WI. Kinnard Farms is owned and operated by Lee Kinnard and family. As of October 2021, Kinnard Farms has 7,950 milking and dry cows. Kinnard Farms anticipates generating 103,038,952 gallons of manure and process wastewater and 2,045 tons of solid waste in 2022. Kinnard Farms has greater than the required minimum of 180 days of manure storage and has 16,325.44 acres in its approved nutrient management plan, of which 14,337.59 acres are rented or in agreements and 1,987.85 acres are owned. This permit is being modified to include an animal unit cap and off-site groundwater monitoring.

Permit Drafter's Name, Address and Phone: Tyler Dix, DNR, 101 S Webster St PO Box 7921, Madison, WI, 53703,
(608) 220-2096

Date Permit Signed/Issued for Modification: March 25, 2022

Date of Expiration: January 31, 2023

Public Informational Hearing Held On: January 4, 2022

Following the public informational hearing, the Department has made a final determination to modify the WPDES permit for the above-named permittee for this existing discharge. The permit application information from the WPDES permit file, comments received on the proposed permit and applicable Wis. Adm. Codes were used as a basis for this final determination.

The Department has the authority to issue, modify, suspend, revoke and reissue or terminate WPDES permits and to establish effluent limitations and permit conditions under ch. 283, Stats.

Following is a summary of significant comments and any significant changes which have been made in the terms and conditions set forth in the draft permit:

Comments Received from the Applicant, Individuals or Groups and Any Permit Changes as Applicable

Summary of permit changes:

- Permit effective date was pushed back to March 25, 2022
- Permit section 1.1.1 – the animal unit cap was changed from 21,450 units to 11,369
- Permit section 2.1.2 – hourly water level, temperature, and specific conductance monitoring is required for at least one well. Specific conductance was added as a monitoring parameter for all off-site monitoring wells. Sampling of all off-site wells shall be conducted within 24 hours of a recharge event if a recharge event actually occurs. If a recharge event does not occur in a particular month, then sampling does not need to be within 24 hours of a recharge event, however sampling is still required.
- Permit section 3.10 – each plan requirement within the Schedule section requires the monitoring plan to be appropriate for the geology and hydrogeology of the site. Sites selected shall have a shallow depth to bedrock. Two sites are to be selected, one south of the Site 2 production area and one west of the Site 2 production area. The due date for the Phase 1 plan was extended to May 25, 2022. The due date for the Phase 2 plan is within 60 days of collecting the 8th monthly sample for the Phase 1 plan. The plans shall define procedures to identify recharge events.

See the attached document for a summary of significant comments and department responses.

Comments Received from EPA or Other Government Agencies and Any Permit Changes as Applicable

No comments received.

As provided by s. 283.63, Stats., and ch. 203, Wis. Adm. Code, persons desiring further adjudicative review of this final determination may request a public adjudicatory hearing. A request shall be made by filing a verified petition for review with the Secretary of the Department of Natural Resources within 60 days of the date the permit was signed (see permit signature date above). Further information regarding the conduct and nature of public

adjudicatory hearings may be found by reviewing ch. NR 203, Wis. Adm. Code, s. 283.63 Stats., and other applicable law, including s. 227.42, Stats.

Information on file for this permit action may be inspected and copied at either the above named permit drafter's address or the above named basin engineer's address, Monday through Friday (except holidays), between 9:00 a.m. and 3:30 p.m. Information on this permit action may also be obtained by calling the permit drafter at (608) 220-2096 or by writing to the Department. Reasonable costs (15 cents per page for copies and 7 cents per page for scanning) will be charged for copies of information in the file other than the public notice and fact sheet. Pursuant to the Americans with Disabilities Act, reasonable accommodation, including the provision of informational material in an alternative format, will be made to qualified individuals upon request.

The department received approximately 200 comments on the proposed permit modification. Only comments pertaining to modified aspects of the proposed permit were considered. This includes comments related to the animal unit cap, off-site groundwater monitoring requirements, and the permit modification process in general. These comments are summarized below along with the department's response.

Animal Unit Cap Comments

Comments: 21,450 animal units is not a reasonable animal unit cap and is inconsistent with the department's mission statement. This cap was based on storage capacity of liquid manure. The cap needs to also consider Kinnard Farm's ability to land apply manure and prevent exceedances of groundwater quality standards. There are no additional spreadable acres available in Kewaunee County. The farm's current size already does not assure compliance with groundwater quality standards. The animal unit cap needs to be representative of Kinnard Farm's future intentions. Since Kinnard Farms has no plans to expand during the permit term, which expires January 31, 2023, the cap should be set at current animal unit levels. Another comment stated that Kinnard Farms does not have the liquid manure storage capacity for 21,450 animal units since the farm failed to maintain storage capacity for 11,369 animal units. Another comment stated that the 21,450 animal unit cap was appropriate.

Response: On October 18, 2021, Kinnard Farms provided to the department, by letter, that 21,450 animal units was the facility's reasonably foreseeable projection of the maximum level of discharge from production increases available given the existing facilities at the farm in accordance with § 283.31(5), Wis. Stats. Since then, the department has obtained additional information indicating Kinnard Farms has no intent to expand during the current permit term which expires in January 31, 2023. Therefore, the animal unit cap will be set at the current level of 11,369 animal units.

Regarding storage capacity, Kinnard Farm's 2022 annual report states that the farm has 353 days of liquid storage capacity while maintaining 11,369 animal units. In 2011, Kinnard Farms did not appropriately maintain storage facilities due to lacking permanent markers. Since then permanent markers have been installed. The farm also submitted storage calculations showing it would have 181 days of liquid storage capacity with 21,450 animal units. If Kinnard Farms were to actually expand, then they would be required to demonstrate compliance with nutrient management plan requirements by amending the nutrient management plan with additional spreadable acreage through the substantial revision process prior to expanding. This process requires a 14-day public notice period to provide the public an opportunity for input.

Comment: The animal unit cap needs to be based on animal unit density. This is calculated by dividing the number of spreadable acres by the number of animal units.

Response: Nutrient management planning considers nutrient values of land applied materials, soil test values, soil type, distance to water resources, slope, nutrient needs of the grown crop and other factors when determining if a land base is suitable to manage manure/process wastewater generated by the operation. Animal unit density is an indirect and less accurate representation of these factors that are already considered when reviewing nutrient management plans.

Off-site Groundwater Monitoring Comments

Comment: Comprehensive monitoring should be required prior to allowing any sort of expansion. Kinnard Farms is located in an area of karst geology which increases the risk for groundwater contamination.

Response: Baseline groundwater monitoring is not a prerequisite for expansion of a CAFO. Kinnard Farms does not plan to expand. The groundwater monitoring plan shall be site-specific and will consider the geology of the site.

Comment: The department should decide the representative fields to be monitored. Monitoring a single field will not produce data that is representative of Kinnard Farm's entire land base. One field per 2000 acres should be required. The department should pick a pool of 10 fields for Kinnard Farms to choose several. The phase 1 plan should consider existing contamination at the production area and near land spreading sites. At least 3 wells per field is necessary. Fields selected should have depth to bedrock ranging from 2 to 20 feet and contain well drained soils. Location relative to shallow groundwater flow and other sites of manure/process wastewater application should also be considered. Fields should also be large and in the Town of Lincoln.

Response: The permittee is required to develop the phased groundwater monitoring plan and select fields to be monitored. The department agrees that additional criteria for fields to be monitored need to be defined. The upgradient production area monitoring well has detected enforcement standard exceedances. Upgradient groundwater flow to the production area could be from the south or the west. The department is requiring at least two fields to be included within the monitoring plan. One shall be west of the production area and the other south of the production area. Fields selected shall have shallow depth to bedrock. Three wells per site are necessary to determine groundwater flow.

Comment: Monthly and then quarterly frequencies for monitoring groundwater are not sufficient. Daily monitoring should be required. Continuous monitoring for fluid temp and conductivity is necessary to detect recharge events. Monitoring should occur when land application and recharge events actually happen.

Response: The department agrees that continuous monitoring to detect recharge events is important to properly monitor groundwater impacts from land spreading activities. At least one monitoring system will require an automatic data logger that detects water level, temperature and conductivity. Monthly sampling shall occur in conjunction with recharge events, when possible.

Comment: The groundwater monitoring plan should require public notice.

Response: Groundwater monitoring plans do not require a public input process in accordance with NR 203, Wis. Adm. Code. The groundwater monitoring plan and the results of the department review of the plan will be records available to the public.

Comment: The timeline for the Phase 2 monitoring plan should be modified so that the plan can consider data from phase 1 monitoring, production area monitoring, and data from other agencies.

Response: The department agrees the Phase 2 plan needs to consider data from the Phase 1 monitoring requirements. Details of the phase 2 plan should be driven by initial monitoring data from the phase 1 sampling. The Phase 2 plan will be required after Phase 1 monitoring data has been collected.

Comment: Require a NR 140 response action due to contamination near land spreading sites. Monitoring a single field does not allow for a successful NR 140 response action. How many wells need to become contaminate before “enough is enough”.

Response: The goal of the off-site groundwater monitoring system is to determine to what extent Kinnard Farm’s permitted land spreading activities can be a discharge of pollutants to groundwater. Additional response action(s) under ch. NR 140 may be required if the groundwater monitoring network detects an exceedance of groundwater quality standards caused by landspreading activities.

Comment: Require a sampling point of groundwater discharge downgradient of the well network, at a perennial stream near subject area.

Response: The groundwater monitoring systems will have upgradient and downgradient wells of the field to be monitored. Another well downgradient of the entire monitoring network is not necessary to assure compliance with effluent limitations and groundwater quality standards.

Comment: Require a Phase 3 plan to amend the monitoring plan as new data is available.

Response: The department is following the typical phased approach for development of a groundwater monitoring plan to assure compliance with effluent limitations and groundwater quality standards. A Phase 3 plan is not necessary. Additional groundwater monitoring may be required in the future based on monitoring results.

Comment: When additional groundwater contamination occurs due to increased herd size, because of the well-documented karst geology in the area, will Kinnard Farms be required to downsize their herd in proportion to the groundwater contamination?

Response: An expansion is not currently proposed. If the off-site groundwater monitoring network detects an exceedance of groundwater quality standards that is caused by the permitted landspreading activity then NR 140.24 and/or 140.26 response action(s) may be required.

Comment: Require DNA sampling to determine if potential contaminant sources are bovine.

Response: Analyzing groundwater samples for DNA does not assure compliance with effluent limitations and groundwater quality standards. DNA will not be a required monitoring parameter for the groundwater monitoring system.

Comment: The monitoring plan should incorporate identification of high permeability pathways through a combination of geophysical and hydrologic logging – specifically by conducting caliber and optical image logging on an open borehole and conducting flow logging under ambient and pumping conditions to identify which fractures are moving the most water in/out of the borehole. Require sampling in zones with high permeability. This can be determined by constructing a piezometer with short monitoring intervals within the open borehole or by placing a sampling pump next to the high-permeability fracture if borehole is left open.

Response: The department agrees that identifying high permeable pathways may be necessary to implement a groundwater monitoring plan within the Silurian bedrock region that produces usable data. This will be considered during review of the plans and specifications for the groundwater monitoring

system. Language was added to permit section 3.10 that requires the groundwater monitoring plan be appropriate for the geology and hydrogeology of the site.

Comment: Will the department deny the plan if it is useless to characterize groundwater quality impacts from Kinnard Farms?

Response: The department will review the plans and specifications in accordance with NR 108, 141 and 243. The goal of the monitoring plan is to assure land spreading activities are compliant with effluent limitations and groundwater quality standards. If the plan cannot accomplish this goal then it will not be approved.

Comment: PALs should already be established since this is an existing operation.

Response: Preventive Action Limits are included for the following parameters: E. Coli, Total Coliform, Chloride Dissolved, Ammonia, and Nitrogen (Nitrite + Nitrate) in accordance with NR 140.10 and 140.12. Additional PALs may be calculated after monitoring data has been collected and analyzed.

Comment: The timeframe for monitoring groundwater is not specified. Kinnard Farms should be required to monitor groundwater for the life of the permit.

Response: Monitoring is required throughout the life of the permit. Monitoring requirements are reconsidered during the permit reissuance process.

Comment: The permit should require reporting levels for each analyte at least one-tenth of their groundwater standard in order for appropriate toxicological risk evaluation.

Response: Kinnard Farms is required to report all monitoring results to the department. Sampling procedures shall be conducted in accordance with NR 205.07(1)(p). Labs conducting sample analysis shall be accredited in accordance with NR 149.

Comment: The permit should require individual reporting of nitrate and nitrite as unique analytes, not nitrate + nitrite as N. Proper toxicological evaluation for these two contaminants requires individual reporting to allow chemical mixtures risk evaluation to be done.

Response: The permit requires testing for 1) Nitrogen, Ammonia Dissolved, Nitrogen; 2) Nitrite + Nitrate (as N) Dissolved; and 3) Nitrogen, Total Kjeldahl Dissolved. Monitoring these three parameters is sufficient to determine compliance with groundwater quality standards related to the Nitrogen series.

Comment: Well construction and testing costs must be paid for by Kinnard Farms. These tests for bacteria, protozoa and viruses as well as for nitrate levels should be mandated to be performed by a qualified laboratory.

Response: Kinnard Farms is responsible for construction and sampling of monitoring wells required by the permit. Samples are required to be analyzed by a certified laboratory. Testing for protozoa and viruses is not necessary or required. Sampling for *E. Coli* and Total Coliform Bacteria is required.

Comment: PFAS need to be included as a groundwater monitoring parameter.

Response: Agricultural operations are not a known source of PFAS. Kinnard Farms is not required to monitor for PFAS.

Comment: What about the water the cattle are drinking? Is there a drinking water standard for cattle in WI? What are the criteria that are included?

Response: Groundwater quality standards contained in NR 140, Wis. Adm. Code, apply to groundwater throughout the state, regardless if intended for human or livestock consumption.

Comment: Monitoring needs to be representative. Wells for a single field is not representative of Kinnard Farm's NMP and is, therefore, illegal in light of the Clean Water Act.

Response: Groundwater monitoring will be required for at least two fields initially. Starting with two fields is reasonable. Groundwater monitoring wells may be required for additional land spreading sites in accordance with NR 140.24.

Comment: Groundwater monitoring wells at land application sites is not practicable and should not be required. Kinnard Farms already goes above and beyond what is required by law. This type of monitoring is not likely to produce probative data. This is due to legacy nitrate, the origin of nitrate can vary with depth, travel time for nitrate to reach the water table, and low areas in fields focusing recharge from precipitation/irrigation.

Response: The department believes it is practicable for Kinnard Farms to design a groundwater monitoring system for land application sites to assure compliance with effluent limitations and water quality standards. Please view the hydrogeologic memo attached to the permit fact sheet for additional information. NR 140 contains processes to account for background nitrate concentrations.

Comment: Off-site groundwater monitoring would impose significant costs on Kinnard Farms, present numerous implementation challenges, and place it at a competitive disadvantage within its own industry.

Response: Numerous industrial WPDES permit holders have installed and maintained groundwater monitoring systems for land treatment sites. CAFO WPDES permit holders have also installed monitoring wells at land application sites with permanent irrigation systems in the past. It is reasonable to require off-site groundwater monitoring wells to assure compliance with effluent limitations and groundwater quality standards.

Comment: It would be difficult, if not impossible, to identify a field or fields which could produce meaningful groundwater monitoring data that is representative of potential impacts from land spreading activities. Land application sites are surrounded by neighboring crop and livestock farmers whose manure management practices have the potential to impact water quality and skew groundwater monitoring results. Many of these farms do not hold permits or implement a nutrient management plan and may utilize fields that would not be deemed suitable for manure application if the farm was permitted.

Response: NR 140 does contain procedures to account for background contaminant levels. The groundwater monitoring plan shall be developed to be site-specific to Kinnard Farm's land spreading activities. The department believes groundwater monitoring at Kinnard Farm's land application is necessary to assure compliance with effluent limitations and groundwater quality standards. Non-CAFO operations are not defined as a point source under the Clean Water Act; therefore, they are not subject

to the same monitoring requirements as a CAFO. As mentioned in the previous comment response, groundwater monitoring at land treatment sites has been common practice for many WPDES permittees.

Comment: Kinnard Farms rents most of their land application sites. The farm expects most of these landowners will not consent to the installation of groundwater monitoring wells.

Response: Kinnard Farms can choose to install groundwater monitoring wells to monitor fields owned by the farm or on rented land with consent of the landowner. The department has already received a letter indicating landowners within close proximity of land application sites are open to discussing installation of groundwater monitoring wells.

Comment: No other CAFO has ever been required to install off-site groundwater monitoring wells. Kinnard Farms would be in a regulatory category of its own.

Response: Groundwater monitoring wells have been required at off-site locations for CAFOs with permanent irrigation systems. Off-site monitoring wells are necessary to assure land spreading activities are compliant with effluent limitations and groundwater quality standards. The Wisconsin Supreme Court opinion states that off-site groundwater monitoring wells are necessary at Kinnard Farms to assure compliance with effluent limitations and groundwater quality standards.

Comment: If off-site groundwater monitoring is required, then the following changes are suggested.

- **Section 2.1.2 – the sampling frequency should mirror the existing production area groundwater monitoring frequency. Monthly monitoring for all parameters is unnecessarily burdensome and costly.**
- **Section 3.10 – the due date for the Phase 1 monitoring plan should be six months from the date the permit is modified. The Phase 2 plan should be due after 12 to 24 months of data from the Phase 1 plan is obtained. This timeframe suggests the Phase 2 plan should not be required during the current permit term, which ends on January 31, 2023.**

Response: A monthly sampling frequency is typical for Phase 1 groundwater monitoring systems. A new sampling frequency may be considered during Phase 2 implementation. The department believes it is important that monitoring begins as soon as possible. The Phase 1 plans will continue to be due 60 days after the permit is modified. Details of the phase 2 plan should be driven by initial monitoring data from the phase 1 sampling.

General Permit Process/Compliance Comments

Comment: Fines levied against CAFOs are grossly inadequate and provide little incentive to act within the law.

Response: The department follows the stepped enforcement process to address alleged permit violations and work with the permitted operation to return to compliance. The final step in the process for permittees who do not return to compliance may be referral to the Department of Justice to require forfeitures. Fine amounts are determined based on the specific case.

Comment: Who is responsible for monitoring? How will it be corrected if pollution is detected? The department should conduct the monitoring. The state does not exhibit any significant level of

oversite and CAFOs do as they wish with minimal monitoring. Department site visits are infrequent. How many inspections are actually conducted? It seems like compliance is a paperwork exercise. Have you scrutinized paperwork to see if it matches what is happening on the land? How is compliance with storage and land application requirements monitored?

Response: Self-reporting is a key component of the federal NPDES permit program that serves as a basis for Wisconsin's WPDES permit program. The permit requires the operation complete ongoing self-monitoring and reporting of its production area and nutrient management activities. If the permittee identifies an area that is not meeting permit discharge limitations, then interim controls are implemented to bring any illegal discharge into compliance. Interim controls are required to be maintained until a permanent solution is in place. The permittee is required to report certain types of non-compliance within 24 hours to the department. In addition to self-monitoring/reporting by the permittee, the department (1) reviews annual reports summarizing self-monitoring activities and Nutrient Management Plan updates, (2) responds to citizen complaints, (3) may conduct a manure hauling audit on an operation's land application practices, (4) conducts a compliance inspection at least once every five-year permit term, typically during the last year of the permit term, (5) conducts more frequent inspections where warranted based compliance issues or constructions activities and (6) responds to spills should they occur. Documented noncompliance is subject to department compliance and/or enforcement measures. The department is continually working to find ways to increase the amount of time staff can spend on compliance and enforcement activities.

Comment: Soil testing should be required by the State or the Land and Water Conservation Departments. Should be done prior to spreading.

Response: Soil testing for nutrient content is required prior to land application.

Comment: The department needs to place a moratorium on permits for new and expanding CAFOs.

Response: The department does not have authority to adopt a moratorium on new and expanding CAFOs. Kinnard Farms is not expanding at this time.

Comment: Permits allow a considerable automatic increase in a permit holders herd size annually.

Response: WPDES permits do not allow a considerable automatic increase in herd size annually.

Comment: This permit action was not properly presented to the public. High profile cases such as this requires more finesse. The comment period length was the bare minimum. This information needs to be presented in a digestible manner.

Response: The public input process was conducted in accordance with NR 203, Wis. Adm. Code. The public notice was published December 3, 2021. The hearing then took place on January 4, 2022. A listening session was then held on January 20, 2022. The comment period closed January 25, 2022. This process provided more opportunity for public input than is minimally required by NR 203.

Comment: An EIR and EIS need to be conducted for this permit modification.

Response: An environmental analysis was conducted in 2012 when Kinnard Farms expanded its operation. This permit modification is considered an integrated analysis action in accordance with NR 150.20(2)(a)3w and does require a separate environmental analysis process.

Comment: Make all comments readily available.

Response: All comments received are public records that may be requested by submitting an open records request. The department does not generally make these records readily available, but they are available upon request.

Comment: Why is it that CAFOs are not required to analyze, record, and submit critical data to document their land application operations on at least a monthly basis?

Response: CAFO permittees are required to maintain detailed land spreading records. These records are submitted to the department annually. The department can also request land application records at any time.

Comment: Who ensures concerns of citizens are heard?

Response: The public input process for permit actions provides the venue for citizens to voice concern. These comments are maintained with the permit file and are summarized and responded to within the Notice of Final Determination. If a citizen has a specific complaint then they are encouraged to reach out to the regional CAFO specialist. Complaints can also be anonymously texted or called in to the DNR Hotline (1-800-TIP-WDNR). If a spill is actively occurring then it should be immediately reported to the spill's hotline (1-800-943-0003).

Comment: Who oversees clean up? Who oversees clean-up from past practices? Who pays for clean up?

Response: The permittee is required to mitigate discharges that violate permit requirements. The department primarily oversees cleanup. In some situations, the county land conservation department will also provide oversight. Permittees are responsible to pay for costs associated with spill mitigation when an unlawful discharge is documented.

Comment: Will the farm provide compensation for contaminated wells? The goal of groundwater protection should not be to verify pollution. It should be to prevent violations to begin with.

Response: WPDES permit conditions are intended to protect private wells and groundwater from becoming impacted from land spreading activities. The operation's WPDES permit and associated nutrient management plan contains conditions designed to protect groundwater quality. Examples of these conditions include:

- Manure or process wastewater may not be applied within 100 feet of a direct conduit to groundwater.
- Nutrients shall not be spread within 200 feet upslope of direct conduits to groundwater unless the nutrient is effectively incorporated within 48 hours
- No manure application within 100 feet of direct conduits to groundwater (sinkholes, private wells)
- No causing fecal contamination of water in a well.

- No application on fields with soils that are 60 inches thick or less over fractured bedrock when ground is frozen or where snow is present.
- No application when snow is actively melting.
- No application on areas of fields that have less than 24 inches of soil to bedrock.
- Field verification procedures include ground depth evaluations on fields with mapped shallow soils. A detailed protocol for determining bedrock depth on fields with such soils is outlined in the NMP. All fields must be evaluated before applying manure.
- The operation is required to have an emergency response plan to help avoid impacts associated with spills.

The department recommends private well owners sample their well water on an annual basis for nitrate and bacteria. Information about well testing is available through the department website at <https://dnr.wi.gov/topic/wells/privatewelltest.html>. Additional information is available at <https://dnr.wi.gov/topic/Wells/homeowners.html> and <https://dnr.wi.gov/topic/DrinkingWater/Manure.html>.

Homeowners with levels of nitrates or other contaminants in exceedance of state drinking water standards should contact their local Private Water Supply Specialist. If a homeowner suspects their well is contaminated with manure, they should immediately contact a regional Private Water Supply specialist (see list at <https://dnr.wi.gov/topic/Wells/PrivateWaterSupply.html>) or CAFO specialist (see contact map at <https://dnr.wisconsin.gov/topic/CAFO/contacts.html>) to investigate the source of contamination. Where the source of the contamination can be identified, the department will determine the appropriate enforcement response. In some cases, the department can provide an emergency source of water, technical assistance for well treatment or replacement options and/or financial assistance for well replacement.

Comment: The permit fact sheet indicates Kinnard Farms is expanding. If the farm is not proposing an expansion this should be fixed.

Response: The permit fact sheet was updated to reflect a proposed animal unit level of 11,369.

Comment: Kinnard Farms has expanded over the years and has continued to violate their permit. This has caused groundwater contamination. Animal units should be reduced until groundwater contamination is mitigated.

Response: Groundwater contamination has been documented and analyzed in various scientific publications. However, contamination has not been directly linked to Kinnard Farm's land spreading activities. The goal of the off-site groundwater monitoring network is to determine the extent of discharge to groundwater from Kinnard Farms permitted landspreading activities. An NR 140 response action may be required if the network detects an exceedance of groundwater quality standards caused by the permitted landspreading activity. The department does not have authority to require Kinnard Farms to reduce animal units.

Comment: Composting should be required for Kinnard Farms. The department should pay the farm to compost. Kinnard Farms should be required to install a wastewater treatment facility.

Response: Storage of manure and process wastewater and the subsequent land application of these stored materials is considered the best available technology for CAFOs under federal NPDES requirements. Pursuant to Chapter 283, Stats., the department cannot require more stringent technology-based limitations, such as requiring other methods of manure treatment. Operations can voluntarily choose to install more advanced manure treatment technologies.

Comment: Spills from Kinnard Farms will impact water quality.

Response: Permittees are required to maintain an emergency response plan that includes the operation's production areas and land application sites in accordance with NR 243.13(6), Wis. Adm. Code. Implementation of this plan should minimize potential impacts to water quality resulting from a potential spill. If a potential spill is a result of permit noncompliance, then the stepped enforcement process would be followed.

Comment: Require financial liabilities for potential spills. For every spill or accident that occurs, the department should require a herd reduction.

Response: The department does not have authority to require financial liabilities for potential impacts resulting from spills. Instead, the stepped enforcement process is followed.

Comment: The department is not utilizing the opinion granted by the Wisconsin Supreme Court properly.

Response: The Wisconsin Supreme Court's opinion was properly utilized during this permit action. The Court stated that animal unit caps and off-site groundwater monitoring could be tools utilized to assure compliance with effluent limitations and water quality standards. The settlement agreement for the challenged permit reissuance process required the department to modify the Kinnard Farms permit for inclusion of off-site groundwater monitoring wells if warranted and practical. The agreement also required implementation of an animal unit cap. Off-site groundwater monitoring wells are required by this permit modification along with an animal unit cap of 11,369 units.

Comment: Wisconsin law prohibits reissuing permits to farms with groundwater quality standard exceedances.

Response: The WPDES permit is being modified to require off-site monitoring wells and an animal unit cap. It is not being reissued at the moment.

Comment: What if Kinnard Farms refuses access to property for inspections?

Response: The department has authority to enter and inspect WPDES permittee's activities. Unreasonable refusal of access is a permit violation. If access is denied, an inspection warrant may be obtained and the stepped enforcement process may be utilized.

Comment: The department has never denied a permit.

Response: The WPDES program, which covers multiple types of discharges to waters of the state such as paper mills and municipal wastewater treatment plants as well as CAFOs, has been issuing and reissuing 5-year permits since 1974 to the roughly 1200 wastewater dischargers in the state.

One of the greatest successes of the adoption of the Clean Water Act was the creation of a “permit” system to replace the previous regulatory system. That previous system was “order” based, which allowed discharges to occur until and unless an order was issued mandating better pollution control. The cost and difficulty of proving environmental contamination made that approach essentially ineffective.

The key advantage of the NPDES/WPDES permit program is that it sets out the terms and conditions under which a facility not only needs to operate but also needs to self-monitor and self-report. There is a significant difference between simply denying or restricting someone’s ability to operate and, conversely, allowing one to operate but under precise, legally and technically defensible conditions. While permits allow pollutants to be added to the environment, this is done in compliance with state ground water and surface water standards using the best science available and under the oversight of the U. S. Environmental Protection Agency (EPA).

Comments: The department received a number of comments that were not specific to the conditions being modified in the WPDES permit or did not provide any specific suggestions. These issues are listed below to acknowledge these broader issues of concern to the public.

- Numerous surface waters in Kewaunee County are on the impaired waters list. Manure runoff from Kinnard Farms will cause hypoxia and fish kills.
- Plants do not take up nutrients after harvest or before seeds have sprouted. Why is manure spread during this time?
- Kinnard Farm’s NMP does not accurately describe the number of spreadable acres.
- How many gallons of manure are being applied per acre and what is a safe application rate in an area with Karst topography are valid questions.
- Many soil tests outdated
- Majority of NMP acres excessively high in P (>35 ppm), with many over 50 ppm and 100 ppm. One is 205 ppm P.
- Many cases of considerable N over application. See Kurt DeGrave fields. Almost 200#/acre N over UW recs.
- There are long-term treatment costs for public and private drinking water systems
- Pollutants travel unnoticed in groundwater until detected by public/private drinking water supply wells. Nitrate in GW can be an indicator of other contaminants.
- Do not allow spreading on fields with less than 20 ft to bedrock or groundwater. Should really be 50 ft.
- Do not allow spreading on fields with drain tile
- Do not allow spreading within 50 feet of a wetland, stream, lake, or any surface water conduit.
- Require a written and signed land contract for rented application sites
- Given the increase in animal units anticipated, is there a published multi factorial analysis on which to base the carrying capacity/acreage limits on local waste management?
- The permit only requires monitoring “during and shortly after” land application on frozen or snow covered ground. This is inadequate because runoff problems occur when the ground thaws, which is typically not “during and shortly after” the land application event. Monitoring should also be required at or around the time ice/snow begins to melt.

- The permit prohibits dry weather discharge following land application but does not have monitoring requirements to ensure this is occurring. Kinnard Farms should be required to inspect all field edges during and shortly after land application.
- The department stated NMPs are intended to maximize crop growth and profit.
- 7,722 acres of Kinnard Farm's NMP are in southern Door County. 51,530 acres in southern Door County are included in NMPs.
- CAFOs have requested emergency spreading approvals in Kewaunee County.
- Why would the department allow a farmer to put liquid manure on drain tiled fields? They are sewer lines that direct materials to our waterbodies.
- Has Kinnard Farms discarded milk? If so, would it make sense to allow an expansion?
- Why do we continue to give permits to and subsidize industrialized systems that are unsustainable?
- Why do we allow corporations and CAFOs to continue to poison our air and water, risking the health of our neighbors and our environment?
- Why are local citizens forced to live with and pay for the consequences and costs?
- We have odor and air pollution concerns from manure management.
- What is the fiscal impact to taxpayers if the farm is allowed to expand?
- CAFO operators in Kewaunee County state that installation of digesters have reduced groundwater contamination. This is not true – well contamination has persisted.
- Kinnard Farms has already exceeded groundwater quality standards for the production area with its current herd size.
- There is no more spreadable land in Kewaunee County. Expanding will mean hauling to other locations such as southern Door County, which is also karstic.
- Require increased setbacks.
- Require stricter engineering standards for controlling leachate.
- Increased fees to cover all real expenses involved with processing, consulting, and investigation of the permit application to be paid by the applicant.
- Add air emission standards that protect health, safety and welfare of citizens.
- Require financial responsibility for polluted wells, road repairs, and damage created by CAFO operations.
- Assure local governments' rights to develop ordinances related to manure spray irrigation.
- Restrict application rates and spreading of waste on frozen soils in areas deemed sensitive.
- How much has already been spent due to well-documented groundwater contamination?
- Hard to explain how government works when Prehn remains at his job eight months after his term expired while Sandra Dee Naas cannot get a confirmation hearing. Apparently, Democrats did the same during the Doyle administration. Wasn't right then or now.
- Decision seems to not align with WI's commitment to clean water. Did Fred Prehn have influence?
- Industrial farms lower quality of life. They destroy small farms. Milk consumption continues to decline while farms grow.
- The department failed to protect the health of WI citizens by failing to promulgate N TPS.
- How many department staff responsible for permitting/compliance of Kinnard Farms live in or near Kewaunee and are impacted by the farm? If none, how many department staff live near any CAFO in WI?
- Lack of empathy to neighbors from the farm was apparent.
- How can the department make decisions for these citizens if they have never "put themselves in their boots"?

- Does the department really know what is going on in Kewaunee County?
- How does the updated permit align with Wisconsin's Climate Change Task Force Recommendations?
- Emerald has issues with water quality contamination.
- Existing practices are not working, need to change.
- If a municipal system experienced this level of contamination, then it would be "hair on fire" time. Groundwater is the drinking water system for rural WI.
- Don't understand the morality of "feeding the world" while contaminating in the process
- Is the department planning for the producer's balance sheet or the next generation of citizens?
- "Right to Farm" doesn't mean right to pollute water and put health at risk
- On average, the animal unit density ratio throughout WI is less than 1.0 ac/au. In many cases it is less than 0.5. In some cases, this number decreases over the length of time the farm has been permitted due to high P levels in particular fields and the availability of fields nearest to production area.
- Modern livestock practices resulted in larger farms and land bases, posing threats to water quality. Also transitioned from spreading solids to entirely liquid manure/process wastewater. Liquid manure systems pose the greatest challenge and threat to aquifers/watershed, especially in karst and sandy areas.
- Applying manure to enhance soil health are sustainable practices. Using land as a means of livestock waste disposal is unsustainable. Causes P buildup and runoff to surface waters and causes excess N leaching to groundwater.
- Excessive nutrients applied to fields makes no economic, agronomic, or environmental sense. Need to apply the 'optimum' amount (UW).
- P and sediment in surface water are a primary reason for impairment. P drawdown can take a long time (24 years from 100 ppm to 20 ppm).
- Fields throughout WI are over 200 or 300 ppm P, especially fields near production areas.
- Since both P and N are macronutrients, it is reasonable to assume fields high in P probably experienced excessive N applications as well. Leads to more N leaching.
- Nitrate ES is 10, since that is the level associated with methemoglobinemia. Many other health impacts from nitrates. Health impacts are costly. The "safe" level of nitrate tend to fall lower as our understanding increases (see lead standard, went from 60 to 5 mcg/dl)
- Taxpayers and rate payers (i.e. CARB credits) fund digesters. They are not financially viable without this funding. Not feasible.
- Kinnard Farms poses noise and traffic concerns.
- Many farms do not have an NMP as required by NR 151.
- Large farms of this magnitude are just not fit for door/Kewaunee land depths.
- Production area monitoring wells have shown nitrate concentrations greater than 20 mg/L
- Are monitoring requirements for the four lagoons solely from the five wells located at the Main and Satellite facilities?
- The land, air and water are for everyone to benefit from, not just a few CAFOs.
- Crawford County is karstic like Kewaunee County. SW WI requires similar protections as NE WI. Need to protect groundwater before it is contaminated.
- Odor and noise prevent outdoor activities
- Smaller farms allow more than one person to make a living.
- "Who's paying whom, and for what?" We are among the Wisconsin citizens who pay your salaries, and we're becoming convinced that you are laborers not worthy of your hire.
- Require real-time monitoring on high cap wells to determine water use.

- I live by the El-Na CAFO. They regularly spread during heavy rain. Runoff flows onto my property.
- If you like I can send you water from our well and you can drink it.
- Prior to Scott Walker's administration, Wisconsin had a national reputation for clean air and clean water.
- Kinnard Farms should be required to create the same energy capturing ability from manure that Sassy Cow Farms does in Columbus, WI.
- CAFOs create profit but not wholesome foods. More like death imitation food.
- Kinnard Farms expended a tremendous amount of legal effort for years to avoid monitoring groundwater conditions around their farm
- Animal cruelty at CAFOs is unacceptable.
- Commend the department for holding 2nd hearing
- DNR, DATCP, legislature limit local authority. No faith in State protecting natural resources or constituents.
- Require NR 140 response action due to production area groundwater contamination. Production area monitoring already shows exceedances for nitrate and bacteria. It seems that recourse and enforcement exists at the discretion of the department. It's time to use it or your permits have no meaning.
- Businesses and residents impacted by odors should be compensated for loss of business, costs associated with air conditioning, and costs associated with road damage.
- CAFOs cause mental health problems for neighbors.
- CAFOs cause stress from reduced property values
- CAFOs cause increases in insect vectors of disease
- Antibiotic use causes antibiotic resistance, which ultimately reduces antibiotic effectiveness for human use
- What is the fiscal impact to taxpayers if this expansion is allowed?
- How much taxpayer money has gone into documenting the existing groundwater contamination?
- 17,000 of 18,000 agricultural acres are covered under nutrient management plans in Kewaunee County, but there is still groundwater contamination.
- Any real measurement tool for odor other than the inefficient odor score process?
- Was odor from the digesters considered?
- All land spoken for within Kewaunee County. Where will extra manure go due to expansion?
- The department is letting people down, not protecting the resource, and protecting corporate interest.
- Anaerobic digesters are huge systems with storage tanks. These tank systems don't have confined space entry requirements. These are producing explosive gases and hydrogen sulfide and they don't need to operate by a confined space entry permit. Accident waiting to happen. There are also no requirements for fire department reviews, noise concerns, or odor concerns. Digesters also are not economically viable. Digesters also remove energy from the manure, making it less usable for crop growth.
- Digesters are not the solution. Digesters do not kill pathogens. Digesters do not reduce volume.
- The fact that the entire community is suffering so one business can prosper is criminal.
- Proposed CAFO on Polk/Burnett border has generated a lot of concern.
- We are currently operating under a massive regulatory failure. The department needs to change its practices to actually protect water quality.
- Why does anyone need more cows while milk consumption continues to decline? CAFOs continue to become larger and larger due to greed.

- Zero confidence the department will remove cows due to noncompliance.
- We don't trust the department. We will sue them again once this permit is approved.
- The model created by Environmental Working Group shows that nutrients applied in Kewaunee County already exceed plant nutrient needs.
- Kinnard Farms has been extremely concerned about the environment and how their operation affects not only the farm and its animals but the surrounding community as a whole.
- Kinnard Farms has spent millions of dollars of their own money to improve the lives of all those around them.
- Kinnard Farms has continually added new procedures and processes to be sure that the waste generated meets ever more stringent regulations.
- Kinnard Farms has worked with the local county conservation department.
- Kinnard Farms has to deal with harassment and untrue accusations
- I believe the department is not in the business to see businesses fail but instead succeed and prosper while doing the right thing.
- Dairy farmers are some of the most responsible stewards of the land.
- Kinnard Farms has been at the forefront of technologic innovation.
- The multi-phased, rigorous groundwater monitoring approach is laid out in Wisconsin law.
- Those in opposition to large dairy farms promote falsehoods.

Response: Comments summarized above either made no specific suggestions to the proposed permit or were not germane to the modified aspects of the permit; therefore, no changes were made to the permit based on these comments.