

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

NOTICE OF FINAL DETERMINATION TO MODIFY A WISCONSIN POLLUTANT DISCHARGE
ELIMINATION SYSTEM (WPDES) PERMIT No. WI-0062359-03-2

Permittee: Gordondale Farms Inc, Box 26, Nelsonville, WI, 54458

Facility Where Discharge Occurs: Gordondale Farms Inc, 9845 Hwy 161 Amherst, WI 54458

Receiving Water And Location: Unnamed tributary to Tomorrow River within the Waupaca River Watershed

Brief Facility Description: Gordondale Farms Inc. is an existing Concentrated Animal Feeding Operation (CAFO) located in Portage County, approximately one mile northeast of the Village of Nelsonville. The dairy consists of 3 farms, all located within one mile of Deere Ridge Dairy (Main Farm) which is located at 9845 Highway 161. Livestock are present at 2 of the facilities, Deere Ridge Dairy and the Home Farm (2823 Cty Rd Q). The third farm is the Hog Farm (9488 Hwy 161) which is a Hog Barn with an under-floor manure storage which is used as needed for additional manure and process wastewater storage.

Permit Drafter's Name, Address and Phone: Tyler Dix, 101 S Webster St, DNR WT/3, Madison, WI, 53703, (608) 220-2096

Date Permit Signed/Issued for Modification: May 24, 2024

Date of Expiration: July 31, 2024

Public Informational Hearing Held On: December 7, 2024

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:

Permit Changes since Public Notice: The effective date of the modification was changed to June 1, 2024. The due date for the Phase I groundwater monitoring plan was changed to July 1, 2024.

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

Many comments suggested that groundwater monitoring at GORD-068 will not demonstrate to the extent that manure and process wastewater applications impact groundwater quality. Comments suggested a new site be selected. Additional comments suggested requiring monitoring for at least two sites. Reasons include the site being an irregular shape, being too small (6.1 acres), having a limited nutrient application history, and having a limited future nutrient application.

Response: It is reasonable to require at least one site to be selected for Phase 1 off-site groundwater monitoring. Additional sites may be required during Phase II. The number of sites required for monitoring will be determined during review of the Phase I monitoring plan. At minimum, GORD-068 will be selected as a site for groundwater monitoring wells. The limited nutrient application history is actually a benefit when considering the purpose of the groundwater monitoring program: to determine if manure applications are causing an exceedance of groundwater quality standards. Limited past and near-term future applications should allow for low concentration baseline data which can be compared to post-application data to determine the contribution of manure application to groundwater quality.

GORD-068 does not have a typical crop rotation. The selected site should have a typical tillage, cropping, and nutrient applications. The rotation will do almost nothing to inform on whether permitted practices comply with groundwater quality standards. The nutrient application timeline means crucial monitoring data will not be collected until 2029 at the earliest. Phase I continues until two manure applications occur. Based on the current, non-binding crop rotation, this will be in 2029. Moreover, there are serious concerns regarding the value of the data. The delay in initial monitoring is unreasonable. Further, none of the crop rotation, manure sampling schedules or requirements are established in the permit. Adding uncertainty if or when the requisite monitoring will occur.

Response: The department disagrees that the rotation will provide no useful data. Monitoring events during periods with no manure applications will provide baseline data, which will allow for determining the contribution of manure

applications to groundwater quality. Phase I monitoring will continue until useful information regarding the extent to which manure applications impact groundwater quality has been obtained.

The site is not upgradient from the impacted wells of Nelsonville. The DNR's groundwater memo suggested a site upgradient of impacted wells in the Village.

Response: Based on the Portage County water table elevation map, the site is upgradient of some impacted wells in the Village of Nelsonville.

Groundwater flows at a rate of 1 foot per day. The recharge rate for the site is 10 inches per year. The effective porosity of the aquifer is 0.25. The short flow path minimizes the thickness of the aquifer impacted by field recharge. This is estimated at 2.7 to 5.5 feet of impacted aquifer. The flow time is short (0.8 to 1.6 years). Wells constructed in accordance with NR 141 will yield nonrepresentative samples. The groundwater that originates from GORD-068 will be diluted by factors of two to five by upgradient recharge. The temporal distribution of the recharge will be very recent if the wells are screened within five feet of the water table.

The field likely does not have a simple, unidirectional groundwater flow direction that can be adequately quantified by three monitoring wells. Regional groundwater flow in the area is southwest toward the Tomorrow River. The adjacent tributary to GORD-068 is likely a "weak sink". It is likely that groundwater flow in the northwestern part of the field flows west and discharges at the unnamed tributary, while flow in the southeast part of the field flows to the south or southwest. Therefore, the standard setup with three monitoring wells will not be adequate to show the groundwater flow complexity. Additional comments suggested requiring nested wells and detailed vertical profiles.

Response: In determining the appropriate Phase I groundwater monitoring requirements, the department considered all the information available to it relating to groundwater movement and contamination in and around the Village of Nelsonville. This information includes that provided in August, 2020 by Dr. George Kraft, in July, 2021 by Ms. Lisa Anderson, at a meeting with Ms. Anderson and other interested parties in August, 2023, as well as information provided by Mr. Pete Arntsen in Technical Memoranda dated Sept 20, 2019 and Dec 28, 2021. Other data sources include published geologic maps and water quality databases. Based on this information and cropping information provided by the farm, the department has determined that the proposed Phase I monitoring approach is appropriate to determine the impact on groundwater quality of a typical crop cycle and to provide information on whether additional Phase II monitoring is necessary.

The groundwater monitoring plan should not be designed by Gordondale Farms. DNR should design the plan. The wells should be installed and financed by the permittee.

Response: Plans and specifications for groundwater monitoring systems are typically designed by the permittee's consultant, subject to department review and approval. The department's hydrogeologist will review these plans for compliance with NR 141, and to determine if the plan meets the goal of monitoring.

The sampling frequency is too sparse. It should be monthly for all parameters.

Response: Given the intended land use of the site, the department believes the proposed sampling frequencies are adequate.

This process has unreasonably precluded meaningful public participation. The department agreed to permit terms via settlement negotiations. By committing to the settlement, the department has created a situation where public comments cannot be considered in the final determination.

Response: In accordance with the requirements of ch. 283, Wis. Stat. and ch., NR 203, Wis. Admin Code, the department publicly noticed the draft modified permit and held a public hearing. The department reviewed and considered all of the comments received from the public prior to making a final determination of the proposed permit modification. This document summarizes the comments received and the department's evaluation and review of those comments.

GORD-068 is not in the recharge zone for the majority of contaminated wells in Nelsonville.

Response: Based on the Portage County water table elevation map, the site is upgradient of some impacted wells in the Village of Nelsonville.

Phase II requirements were inappropriately removed. It is necessary to evaluate the Phase I data and then require a Phase II plan. The Settlement states that additional monitoring will only be required if the data from Phase I “has not and will not cause of significantly contribute to an exceedance of groundwater quality standards.”

Response: The requirement for a Phase II groundwater monitoring plan was appropriately removed from this permit because Phase II does not commence until Phase I is complete or has provided data sufficient to determine whether any Phase II monitoring is needed. As stated above, the intent of the Phase I monitoring is to determine the impact of manure application over the period of a typical crop cycle. The typical crop cycle extends beyond the 5-year term of this permit, therefore it is appropriate to not include Phase II monitoring in this permit because Phase I monitoring will not be completed nor have provided sufficient information to determine Phase II needs during this permit term. At the end of this permit term and prior to reissuance of the permit, the department will review all available groundwater data including Phase I monitoring data and will determine at that time what monitoring is appropriate for the next permit term.

The department cannot limit if or when additional monitoring occurs if it is apparent that those actions are necessary to protect public health and welfare. This clause in the Agreement does not conform to NR 140.

Response: The future decision to limit, cease, or require additional monitoring will occur in accordance with ch. 283, Wis. Stats. and ch. NR 140, Wis. Adm. Code and will be based on all available groundwater data.

The monitoring and sampling schedule will allow for only two of the 15 sampling events to have any likelihood of showing significant nitrogen impacts from manure application. Only two other monitoring events (the events after each manure application) have even a moderate likelihood of showing impacts. All other sampling events are unlikely to show nitrogen impacts originating from the field. It seems likely that arguments will be made that the data show that the field is not contributing significant nitrogen to groundwater. The flexibility allowed to the Crop Rotation impedes enforceability and is inappropriate.

Response: The department does not have authority to dictate the permittee’s crop rotation and frequency of manure applications. The permittee has agreed to a crop rotation and manure application schedule that the department believes is appropriate for determining the impact of landspreading activities on groundwater quality.

One single monitoring well will not provide useful data regarding how land use impacts groundwater quality.

Response: At minimum, during Phase I three groundwater monitoring wells are required.

After alfalfa harvest, manure was spread on the fields north of my home. It was surface applied. Undoubtedly, contaminated runoff from those fields was carried to our property. I thought no further manure applications on fields within the Village’s recharge zone would occur.

Response: It is the department’s understanding that Gordondale Farms has voluntarily committed to an “alfalfa heavy” crop rotation for fields located upgradient of the Village to reduce nutrient applications to these sites. The department cannot prohibit manure applications, but rather requires that applications follow the permittee’s approved nutrient management plan.

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.