

Minnesota Pollution Control Agency  
c/o George Schwint  
12 Civic Center Plaza, Suite 2165  
Mankato, MN 56001

August 29, 2024

Re: NPDES and SDS General Feedlot Permits

Dear Mr. Schwint,

The undersigned farm organizations wish to raise the following concerns with the proposed revisions to the MPCA's NPDES and SDS Feedlot Permits on behalf of Minnesota farmers and related professionals.

#### Concern #1- Proposed changes violate engagement process

The proposed permit changes for vulnerable groundwater areas have been developed with little engagement with farmers. In addition, the MPCA has initiated the Southeast Minnesota Nitrate Strategies Collaborative Work Group to develop strategies to address nitrate in groundwater in response to the activist petition submitted to the EPA in April 2023. The Work Group is scheduled to meet monthly for the next year, and is charged with developing recommendations for improving, prioritizing, and implementing strategies, including strengthening communication and engagement activities, policy or funding proposals, or collaborative strategies to accelerate prevention and mitigation activities.

The Work Group includes several farmers committed to working with other task force members to identify nitrate mitigation strategies. Allowing the work group to complete its work first will result in greater buy-in and engagement of all sectors, but only if the agencies then implement the strategies they have contributed to and agreed on.

It is extremely disingenuous of the agency to convene this group while proposing such substantive changes to feedlot permits. The proposed permit changes should be withdrawn until the Work Group concludes its process.

#### Concern #2- Definition of "vulnerable groundwater area"

The agency proposes new prohibitions and/or requirements for manure applications defined by the agency as "vulnerable," but provides no criteria for the vulnerable groundwater designation. It appears that the agency is largely adopting the MDA's vulnerable groundwater map. However, MDA lists the specific data sources that determine the vulnerable groundwater areas subject to the fall fertilizer application restriction. At a minimum, MPCA should list the data sources on the map description page of their website.

The broad singular characterization as “vulnerable” does not recognize degrees of vulnerability, which differ across the designated regions. Soil depth above bedrock and karst differ, suggesting different levels of vulnerability which the proposed rule does not account for.

Utilizing the same map as the MDA’s Groundwater Protection Rule is also problematic because the logistics of manure and fertilizer management are very different. The timeframe for fertilizer application includes a few weeks prior to planting, at planting, and for several weeks during the growing season. Manure applications under the agency proposal would be greatly limited, as applications at planting time and into a growing crop are not feasible with current technology.

### Concern #3- Forcing spring manure applications will increase risk

Limiting the number of days available to apply manure presents a significant hardship to livestock producers, crop producers who utilize transferred manure, and commercial manure applicators. Narrowing the window of available days for manure applications could also lead to negative management outcomes due to poor early crop growth due to soil compaction and the inability to avoid runoff-inducing rainfall events, which could all lead to a loss of yield and potentially *increase* nitrate leaching. For example, an unintended consequence of spring application is soil compaction which could create nutrient runoff rather than allowing nutrients to soak into the soil.

Many livestock farmers apply manure both in the spring and fall. For many of them, inadequate manure storage would prevent them from storing 12 months manure production. Further, weather conditions frequently disrupt application plans. The current proposal to limit fall applications would require farmers to increase storage capacity to 14-18 months production to provide a buffer against weather delays. This would require a significant investment and may not be feasible for some farmers.

Current permit requirements, specifically, delaying fall applications until soils are below 50 degrees F, should be a continued option, along with nitrogen stabilizers and split application.

### Concern #4- Cover crop requirements in vulnerable groundwater areas

Cover crops hold promise for reducing nitrate leaching loss. We support the incentivizing of cover crops as an option. However, research and farmer experience show that later planted cover crops have much less potential to reduce nitrate leaching due to limited growth in our short growing season.

In a four-year replicated study, conducted at the University of Minnesota Southern Research and Outreach Center drainage facility, it was documented that the weather permitted adequate cover crop growth only during one season that allowed for a significant reduction

of nitrates in tile drainage. Vetsch, J. 2020. Vegetative cover crops as a nitrate reduction strategy for tile drainage water. Four-year final report available at [mncorn.org](http://mncorn.org).

Research has shown that the lack of precipitation for more than a week after cover crop seeding often results in their poor establishment. The authors argued that “in rainfed agriculture of northern climates weather conditions drive the success of cover crops use in conventional maize production systems”. Rusch, H.L., Coulter, J.A., Grossman, J.M., Johnson G.A., Porter, P.M and Garcia y Garcia. A., 2020. Towards sustainable maize production in the U.S. upper Midwest with interseeded cover crops. PLoS ONE 15(4): e0231032. <https://doi.org/10.1371/journal.pone.0231032>.

The ability of cover crops to reduce nitrate losses without adverse effects on the primary crop greatly depends on season length. Research conducted in Minnesota shows that cover crops work best in late planted, early harvested crops. This is a significant limitation for full season crops intended to be planted in April or early May and harvested in October. “Cover cropping practice provides promising opportunities for reductions in N losses for cropping rotations wherein the primary crops are harvested before mid-September and planted after mid-May.” Feyereisen, G.W., Wilson, B.N., Sands, G.R., Strock, J.S., Porter, P.M. 2006. Potential for a rye cover crop to reduce nitrate loss in southwestern Minnesota. *Agron. J.* 98, 1416-1426.

And finally, Dr. Melissa Wilson’s recent and ongoing manure management research is modernizing University of Minnesota manure application recommendations. She reports that “waiting until after soils had cooled to below 50°F resulted in similar or better corn yields than spring fertilizer. This trend happened regardless of whether cover crops were planted or not.” (emphasis added) <https://www.mncorn.org/research-item/best-management-practices-to-integrate-cover-crops-and-manure/>

Clearly, more research is needed on the effectiveness of cover crops to mitigate nitrate leaching in manured systems.

We ask the agency to provide additional options in addition to cover crops, specifically, continuation of the current permit options to delay application until soil temp is below 50 degrees F, the use of a nitrogen stabilizing agent/product, or split application.

Concern #5- Extending requirements to transferred manure

The MPCA does not have authority through the permit process to extend its reach to recipients of transferred manure. Legally, the permit is issued to the permittee and the permittee only – the permit is not and cannot be issued to a purchaser of manure. The proposed rule places an undue burden on permitholders to collect information from manure recipients that is beyond their purview, and beyond MPCA’s authority under the NPDES

process. This is unreasonable and will cause some current manure users to switch to fertilizer.

Manure is a proven source of nitrogen that helps to reduce greenhouse gas (GHG) emissions in agriculture. A switch from manure to fertilizer would increase greenhouse gas emissions and work at cross purposes with other MPCA goals and initiatives to reduce GHG emissions in agriculture. Changes to the general feedlot permits should also take into account any unintended consequences of the proposed changes and the increased difficulty in achieving MPCA goals in other areas.

Livestock and crop production working together provide a sustainable cycle, reducing dependence on fertilizer manufactured elsewhere and transported here. Our environment and economy benefit when manure is used efficiently as plant food. Reporting mandates should be streamlined.

#### Concern #6- Field inspections

The requirement for field inspections during and up to 14 days following application should be clarified. Delays and costs associated with agency inspection would be unworkable. Any reporting required by manure applicators or permittees should be streamlined. Additionally, most manure is incorporated within 24 hours as a best practice recognized by the MPCA.

We encourage the MPCA to consider our recommendations and look forward to working with the agency as the new permits are developed.

Sincerely,

Warren Formo, Executive Director  
Minn. Agricultural Water Resource Center

Darin Johnson, President  
Minnesota Soybean Growers Association

Dana Allen-Tully, President  
Minnesota Corn Growers Association

Jake Thompson, President  
Minnesota State Cattlemen's Association

Dan Glessing, President  
Minnesota Farm Bureau Federation

Jake Vlaminck, President  
Minnesota Turkey Growers Association

Lucas Sjostrom, Executive Director  
Minnesota Milk Producers Association

Mindy Larsen, CEO  
North Central Poultry Association

Daryl Timmerman, President  
Minnesota Pork Producers Association