



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

September 3, 2024

Re: NPDES and SDS General Feedlot Permits

Dear Mr. Schwint,

We thank you for the opportunity to comment on the upcoming renewal of the NPDES/SDS permit. As representatives and stewards of the state's 1,600 dairy farms, we wish to raise the following concerns with the proposed revisions to the MPCA's NPDES and SDS Feedlot Permits on behalf of Minnesota dairy farmers and landowners accepting their manure.

To aid you with data in the decision-making process, the Minnesota Agricultural Water Resource Center **surveyed 175 members** of livestock groups to learn more. We will use that data in our comments with a **highlighted** yellow. As background on the data, about 92% held a NPDES/SDS permit, 91% were feedlot owners, and others were associated with the industry.

We believe the proposed rules have three major areas of concern (and celebration) – I. Devaluing manure on the permit holder's land; II. Devaluing manure outside the permit holder's land; and III. Field inspections. We've provided eight recommendations that we believe improve upon the current and proposed rules, and believe they will help Minnesota's water and climate monitors, dairy farmers and MPCA staff in their collective goals for continuous improvement.

I. THE PROPOSED CHANGES DEVALUE MANURE, ADD BARRIERS
A. CURRENT RULES ALREADY CREATE BARRIERS

On one hand, farms with an NPDES/SDS Feedlot Permit generally have the scale, sophistication and ability to meet the standards of existing and proposed terms of these

permits. The NPDES and SDS permitted feedlots meet the requirements of the 20-pages of rules and are susceptible to complying with unknown rule changes in future years or dropping their animal units to below the permit threshold (e.g., 999 animal units).

This situation of building and signing up for a permit without knowing how future proposed rule changes could impact on the facility creates a great regulatory risk. A facility could be constructed in a manner that is easily compliant today but not in the future. (For example, decisions and costs of siting feed centers and calf raising facilities on dairies cannot be easily or affordably changed.)

NPDES/SDS permits currently cause so much concern to farmers that we see many feedlots operate at 999 animal units, and in the past 10 years only those that can handle at least double that level would attempt to permit a new operation. We have talked to dozens of Minnesota dairy farmers who say they will never go over 999 animal units – not for management reasons, but only to avoid the purported headaches and cost of complying with an NPDES permit (few dairies use SDS permits).

All this to say, Minnesota’s NPDES permits are a negative incentive to the otherwise “natural” business evolution of what Minnesota feedlots might be. While some in the legislature or public may want this as a goal, this means using more land and resources for producing the same amount of milk, and utilizing more MPCA and county feedlot official time for the same amount of animals.

Recommendation #1: MPCA should be careful in adding further requirements of SDS and NPDES permits. These farms are already the most regulated in Minnesota.

B. SDS PERMITS COULD BE USED TO INCENTIVIZE POSITIVE CHANGES

Future of the SDS permit. We believe that the current proposal essentially eliminates the SDS permit in Minnesota due to the extra federal protection brought in case of a manure lagoon discharge provided in the NPDES permit. We believe MPCA should consider a uniform SDS permit for counties to adopt to help Medium CAFOs transition into the NPDES permit, either for a smaller animal unit size if 7020 Feedlot Rules are someday re-written, or as a starter/transition permit for the early years of an NPDES permit. The SDS permit should have lower thresholds and requirements, still following the science of the latest Land Grant research of manure. However, it should be a lower threshold than NPDES permit requirements in terms of full compliance

Recommendation #2: Rather than creating an orphan permit that exists only in name, MPCA should develop an SDS program for farms at 300 to 999 animal units

that counties could voluntarily adopt. This could eliminate a costly, time consuming and controversial update of the 7020 Feedlot Rules.

C. PROVIDING MORE OPTIONS IN THE NPDES PERMIT

Manure research and utilization has transitioned with technology rapidly over the past 40 years. One common practice for any Feedlot with liquid-based manure is dragline application with direct injection into the soil. This environmentally beneficial technology is not accounted for anywhere in the permits and we believe MPCA should have more strongly considered this as a positive option or benefit in Minnesota feedlots. When considering farm and local road safety, local road wear and tear, the social license for these farms to operate and the elimination of much odor through the direct injection process, MPCA should provide opportunities for direct injected manure to be one of the options that benefits NPDES permit holders, on top of other items. Environmentally, direct injection can increase nutrient recovery, prevents nutrient loss, improves soil health with micronutrients, and therefore protects water and air quality. Unfortunately, this practice has been taken up for these reasons with little comparative data, and as such MPCA has never provided any benefit to this technology that did not exist *en masse* when NPDES permits were first being created for dairy farms in the late 1990s.

Recommendation #3: MPCA should allow land utilizing direct-injection of manure to have a wider calendar window, slightly higher soil temperatures and more options for cover crop installation compared to land-applied manure, crediting its soil health benefits. Or, if MPCA believes there is a lack of data, they should prove that direct-injection of manure is not better for the reasons cited above (reasons pulled from Extension publications) through research.

II. DEVALUING MANURE OUTSIDE THE APPLICANT'S LAND BASE

A. CREATING A REGULATORY HURDLE FOR NON-LIVESTOCK FARMERS

Until this permit proposal, the regulations have generally stayed on the land of the feedlot permit holder. Today, NPDES Feedlot permit holders in Minnesota utilize their own land base and those of neighbors who may have very small operations. Depending on the part of the state and the immediate neighborhood of an NPDES feedlot, it could be quite easy or quite difficult for neighbors to incorporate the new rules including record keeping into their operation. Further, farmers have mentioned to Minnesota Milk and at information sessions that in some pockets manure is well received as an option, and in others it is seen as a burden. Regardless, these additional requirements do more to devalue manure than they do to help increase its value. Livestock farmers, soil health advocates and science-minded

environmental groups would prefer we increase the value of manure so it is used first, with commercial fertilizer utilized after manure is tested and matched with a soil test.

Recommendation #4: To offset this regulatory hurdle for NPDES Feedlot Permit holders and their neighbors, MPCA should waive all fees for compliant NPDES operators, treating livestock and NPDES permit holders as a public good rather than something to be permitted and charged against. MAQCP users would be one standard, with additional multi-year users with no enforcement actions also cited for good behavior have fees waived.

B. LIMITING APPLICATION DAYS WITH DEFINITION OF “VULNERABLE GROUNDWATER AREA.”

The 2021-2025 permit already redefined application days in June through March. Misinterpretation by farmers due to a difference in the written rule, staff interpretation and legislative commentary by MPCA staff created several examples brought forth at the Paynesville information session of this new rule where the weather did not match the application. Livestock groups brought up this concern in legislative testimony ahead of the 2021-2025 permit, as utilizing average temperatures and average data overall – from three weather stations in the southern half of the state – creates an unacceptable situation for farmers as there are typically always good agronomic and ecological days to apply manure, but they may not fit with a regulatory calendar if we assume March will have snow, October will become cold, and December and January will be frozen.

This concern is heightened with a new prohibition and requirements for manure applications in areas defined by the agency as “vulnerable.” This new designation was provided with no criteria for the vulnerable groundwater designation; instead it is stated by staff that MPCA has adopted MDA’s vulnerable groundwater map plus DWSMAs. **To show this with data, over 25% of survey respondents selected each of the following in a multi-answer question:**

- They would need to move applications to comply, and purchase commercial fertilizer for affected fields.
- They would need additional manure storage.
- They would need to adopt cover crops, which is new to them.
- They expect difficulty in scheduling a commercial manure applicator.

Recommendation #5: Current permit requirements, specifically delaying fall applications until soils are below 50 degrees F, split applications and use of a nitrogen stabilizing agent/product should be a continued option. Further, direct-injected manure should also be considered – as mentioned earlier – as a benefit to

increase options in these time periods in these defined but undefined vulnerable areas. Without these options, a neighboring farm who has committed to taking manure may be unable to take it with the tight requirements and uneven adoption of situations not considering crop rotation in different parts of the state.

C. COVER CROPS ARE PROVEN TO BE INCONSISTENT AND SHOULD BE LESS OF A REQUIREMENT.

While we support and have long supported cover crop usage on dairy farms, the state of Minnesota should be mindful in how difficult it is to find the right year, location and rotation of incorporation. Farmers express to Minnesota Milk that cover crops are especially difficult in rotation with manure. We are thankful for the opportunity to respect multi-year crops like alfalfa in replacement of cover crops as a requirement.

In the producer survey, 3/4 of respondents said that less than 25% of transferee acres currently plant cover crops. While MPCA's stated goal is to increase those acres, that means 75% of current acres are potentially no longer available to NPDES/SDS permits as these transferees may turn down the additional requirements. Without some positive incentive, it seems clear that this requirement could backfire with its stated goal.

At least four scientific publications in Minnesota cite this difficulty:

- “We estimate that establishment of a winter rye cover crop after corn will be successful in one of four years in southwestern Minnesota.”- Strock, J.S., Porter, P.M., Russelle, M.P. 2004. Cover cropping to reduce nitrate loss through subsurface drainage in the northern U.S. corn belt. J. Environ. Qual. 33, 1010-1016.
- “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.
- In a four-year replicated study, conducted at the Univ. of Minnesota Southern Research 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.
- Recent research across southern Minnesota highlights the importance of cover crop planting date. As reported by Axel Garcia y Garcia at the February 9, 2021,

Nitrogen: Minnesota's Grand Challenge and Compelling Opportunity Conference, cover crop biomass was greatly reduced with planting dates later than September 20 and near zero with planting dates in mid-October. Axel probably referred to the following Minnesota Corn Growers Association funded project: 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>.

Further, attendance by Minnesota Milk staff at the past two years' soil health conference showed that no speaker on stage – those professing more soil health practices – had more than 40% of acres in manure. We believe this touches on the difficulty of incorporating a fully manure-cover crop rotation; some tillage is typically involved.

Recommendation #6: The use of 2/3 years multi-year crops should be extended to October applications in lieu of the cover crop requirement. Minnesota Milk applauds this development and if had been incorporated in the previous permit for October requirements, MPCA would have seen much more favorable adoption from dairy farmers.

D. TRACKING TRANSFER OF MANURE IS NOT FEASIBLE.

One of the new requirements most likely to devalue manure in this proposal is to track information in a manure transfer situation through the transferee's use. This is not only new, but unreasonable. To turn the anecdotes we heard from many farmers early in the comment/education process into data, we turn to a survey done by the Minnesota Ag Water Resource Center survey with 75 farmers, whereas 92% were NPDES holders and 91% were feedlot owners (the remainder expected to be contractors or service providers). In that survey, 73 percent of respondents expected less than 25 percent of transferee recipients utilize cover crops with another 25 percent saying they did not know if transferee recipients' usage listed as "I don't know" – or in other words 98 percent of transferee recipients had low or unknown usage. The goal of MPCA may be to increase cover crop usage, but the next question in the survey was telling in that 105 (60%) of the 175 respondents expected the top practice change of these transferees would be to switch to utilizing only synthetic commercial fertilizer.

The requirement for permittees to obtain this information from transferee manure recipients is unreasonable and will cause some current manure users to switch to fertilizer. 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.

Recommendation #7: Do not require transferees to record more data, instead provide incentives to collect data in all cases. Farmer data is far more valuable than has been previously recognized until very recently. Find financial and other incentives (less bureaucratic work for both MPCA and NPDES/SDS permittees) for those compliant.

III. 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 of the manure is incorporated within 24 hours as a best practice recognized by the MPCA.

Over 33% of respondents to the MAWRC survey said both that they concerned there wouldn't be enough inspectors. 33% also had biosecurity concerns with inspectors visiting multiple sites in one day.

Recommendation #8: Do not change the field inspection rules.

IV. CONCLUSION

We encourage the MPCA to consider our recommendations and look forward to working with the agency as the new permits are developed. 96% of survey respondents said they did not believe there were enough commercial applicators if the new fall restrictions were implemented.

We appreciate MPCA giving growers time to change to adapt to new rules. But as shown, farmers don't believe these are the right rules for the environment, as it will devalue manure so the "new" practice of the future will simply be eliminating manure from land management for many transferees (and potentially even livestock owners who will quit the business, or not enter NPDES size permits to avoid the new rules).

Minnesota dairy farmers want what is best for their land, their water and their air so they can provide a great environment for the animals and their crops. We believe several of the issues above move us away from the goal, while the recommendations cited herein would move MPCA closer to reaching success.

Sincerely,

A handwritten signature in black ink that reads "Lucas Sjostrom". The signature is written in a cursive style with a long horizontal flourish at the end.

Lucas Sjostrom
Executive Director
Minnesota Milk Producers Association