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Via email

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Dear Mr. Gunderson:

Thank you for the opportunity to comment on the Minnesota Department of Agriculture’s (MDA) proposed Nitrogen Fertilizer Rule.

I am writing you today as a lifelong resident of Winona County, where, according to MDA data, 65% of agricultural cropland overlies vulnerable groundwater. I also write as a former apple grower, Minnesota State Senator, Minnesota state agency leader and now Executive Director of the Minnesota Environmental Partnership (MEP). MEP is the state’s largest coalition of environmental and conservation organizations working together to protect and restore our Great Outdoors.

I was also the chief Senate author of, and led the effort to conceptualize and enact, the state’s 1989 Groundwater Protection Act (GPA). This draft rule is a long delayed implementation step of this law.

It is important to remember the context of the passage of the Groundwater Protection Act (GPA). At that time, we were only starting to understand the impact of agricultural practices on our state’s waters. There was considerable alarm that pesticides were being detected, even in low concentrations, in our valued groundwater resources. As part of the legislative process, the Senate Agriculture Committee hosted multiple, well attended hearings around the state on the legislation and took testimony from many concerned citizens, farm operators and other stakeholders. This extensive public input was then used to help draft the final language.

The law is constructed around the central concept of a state degradation prevention goal that “groundwater be maintained in its natural condition” and where practicable, “it is intended that it (degradation prevention) be achieved.” The Act provides the goal, broad authority and a continuum of increased interventions and tools to meet this challenge. It also invests considerable trust, authority and discretion with the Minnesota Department of Agriculture (MDA) to implement the act.
Now, a generation later, any honest assessment can only conclude that implementation of the GPA has not resulted in meaningful progress in reaching the law’s nondegradation goal for nitrogen pollution. For example, in my home County of Winona, 65% of the private wells tested by MDA last year reported elevated levels of nitrate in their drinking water and fully 19% of these were in excess of the state health limits. This is both disappointing and unacceptable for the citizens of counties like Winona and the state of Minnesota as a whole.

The Draft Nitrogen Fertilizer Rule falls far short of the proportional agency response required to meet this public health and environmental crisis. It might have been reasonable in the early 1990’s, but it is now too little too late and effectively ignores the increased scientific understanding of the issues and the state’s groundwater protection goal. It essentially locks in place strategies from the 1990’s that have now been shown to be ineffective and insufficient to reach our water quality standards. Instead of using MDA’s broad authority, the draft rules limits the agency’s scope to inadequate measures that are already widely adopted and are universally recognized as being incapable of maintaining our drinking water in safe condition. Part 2 of the proposed rule needs to be dramatically reworked to:

1) Provide equal water protection for all groundwater, as the Groundwater Protection Act requires; and
2) Require approaches that will meet water quality goals.

Provide equal protection for all groundwater, as the Groundwater Protection Act requires.

The charge of the GPA is to protect all groundwater and drinking water. However, the current draft of the proposed rule opts (without direction in state law) to narrow this charge to drinking water only. Because of this arbitrary reduction in jurisdiction, the MDA Draft Nitrogen Fertilizer Rule Fact Sheet notes that “the area covered by the Rule is subject to change over time.” The recharge of groundwater can span decades and centuries. Just because a particular groundwater source is not used to supply drinking water now does not mean it will not be used for drinking water in the future. Allowing the pollution of groundwater sources is shortsighted and unethical. The state needs to follow the law and protect all groundwater and drinking water and intervene wherever there are elevated levels of nitrate pollution.

Require approaches that will meet water quality goals.

The current draft of the proposed rule inappropriately relies on “best management practices (BMPs)” along with an implementation structure and timeframe that will not reach our water quality goals. Specific concerns include:

The Rule’s required BMPs are inadequate to protect water quality.

In his recent review of the relevant science and practices, soil scientist Gyles Randall stated: “MDA’s proposed water resource protection requirements are not designed to, and cannot independently, prevent and minimize the nitrate pollution to the extent practicable; or prevent nitrate pollution from exceeding the health risk limit.”

Those BMPs were designed to find the point at which the cost of nitrogen fertilizer and the anticipated crop yield are most economically optimal. While optimizing nitrogen application to reduce waste may help prevent further contamination, this practice does not – and has not – adequately prevented and minimized nitrogen pollution to Minnesota’s groundwater.
The Rule arbitrarily sets as its goal 80% compliance with these ineffective BMPs, regardless of the impact of those measures on nitrate pollution.

There is no scientific evidence to suggest that 80% compliance with the above BMPs achieves any particular result, yet the Rule sets this as its target beyond which no further interventions can be required. Anecdotally, we have heard farm industry leaders state that farm operators are at or near this compliance level already. Yet nitrate pollution continues to increase.

The Rule then unnecessarily and detrimentally restricts the agency’s power to act.

After 80% compliance with the ineffective BMPs is achieved, the state is limited to only providing education about practices that could make a significant difference to water quality. “If nitrogen fertilizer BMPs are being used on 80% or more of cropland in the designated area (township or DWSMA), regulations will not be required” (MDA Draft Nitrogen Fertilizer Rule Fact Sheet).

This portion of the Draft Nitrogen Fertilizer Rule is perhaps worse than no nitrogen rule at all because it directs the agency to not use its authority to take further interventions that may be needed to protect water quality. This is directly contrary to the intent and language of the GPA to escalate interventions to the extent practicable until groundwater goals are achieved. This provision dramatically undercuts the potential effectiveness of the Groundwater Protection Act and the future tools available to the agency.

And it does all of this at a snail’s pace.

Even in areas where nitrate pollution is a serious health threat, MDA protocols unfold too slowly:

- MDA forms a local advisory team and seeks input
- The Advisory Team reviews nitrogen fertilizer BMPs (the same inadequate BMPs) and advises the MDA on suitable practices
- MDA posts nitrogen fertilizer BMPs for the area
- After three growing seasons, farmers participate in a nitrogen fertilizer BMP survey

Even if BMPs are not widely in use, the MDA will only reevaluate the area every three subsequent years. (MDA Draft Nitrogen Fertilizer Rule Fact Sheet)

Suggested Additions

Beyond concerns with the contents of the draft rule, the omission of more meaningful actions are a major missed opportunity for protecting our groundwater.

The GPA provided a very broad definition of what activities MDA may regulate through Water Resource Protection Requirements (WRPRs).

The law includes an explicit list of activities that can be regulated that reads: “design criteria, standards, operation and maintenance procedures, practices to prevent releases, spills, leaks, and incidents, restrictions on use and practices, and treatment requirements.” This language allowing for “restrictions on use and practices” provides MDA with the authority to restrict practices such as cultivation and the use of particular crops that have a high level of nitrogen leakage. In addition, this list that was only intended to illustrate the wide range of tools available to MDA. It is not, and was never designed to be, exclusive. MDA has clear authority to adopt a wide range of WRPRs that “prevent and minimize pollution to the extent practicable.”
The rule should require adoption of WRPRs that are capable of protecting our groundwater. MDA should exercise its existing authority to “adopt by rule water resource protection requirements that are consistent with the goal of section 103H.001” (degradation prevention).

Use of Perennials

Currently 62 Minnesota community public water supply systems have elevated nitrate concentrations. An ideal high priority initial use of WRPRs would be to require water protecting perennial crops on land that is at high risk for groundwater pollution and located within the recharge area of community drinking water wells. Perennial crops, like alfalfa, brome grass, orchard grass and many others, reduce nitrate loses by more than 95%. According to the Minnesota Department of Health data, most of these high-risk lands are already in a type of perennial vegetation, however 116,000 acres are still being planted to corn and soybeans.

Current efforts to persuade and incentivize conversion of these lands to crops that are protective of our groundwater are resulting in a very slow rate of change and new strategies and models are imperative to address this critical need. The MDA should use its existing authority under the GPA to require the transition of these lands away from row crop agriculture over the period of a few years. This could be coupled with conversion payments to the landowners.

Funding of Monitoring

In addition, any increase in monitoring costs resulting from finding elevated nitrate levels in wells should be entirely funded through increased fees under M.S. Chapter 18C: Fertilizer, Soil Amendment and Plant Amendment. The taxpayers of the state should not be saddled with ever increasing monitoring and regulatory costs to clean up the pollution created by individual farm operators.

In consideration of the reasons stated above, I and members of our Minnesota Environmental Partnership, call on MDA to dramatically rework the Draft Nitrogen Fertilizer Rule to address the legitimate public health and environmental concerns of the people of this state. This draft rule is more about locking in the current set of inadequate nitrogen fertilizer practices and preventing other future implementation strategies than creating a framework that will drive new innovation and changes to current harmful agricultural practices.

It is incumbent on MDA to use the authority it has been granted to adopt new and effective WRPRs that are consistent with state law and will immediately begin reducing overall pollution levels in our drinking water and groundwater from nitrogen fertilizer.
Minnesota Environmental Partnership looks forward to working collaboratively, in conjunction with other stakeholders, to revise and improve this important rule for our state.

Sincerely,

Steve Morse
Executive Director

cc: Commissioner Dave Frederickson
Commissioner Ed Ehlinger
Commissioner John Stine
Anna Henderson

¹ Gyles Randall, Soil Scientist (retired) and Professor Emeritus, University of Minnesota. “Nitrogen BMP’s for Corn in Minnesota” (2017, p. 1).
² Ibid, p. 18.