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August 23, 2017

Larry Gunderson  
Pesticide and Fertilizer Management Division  
Minnesota Department of Agriculture  
625 Robert Street North  
St. Paul, MN 55155

Dear Mr. Gunderson,

This letter is in response to the MDA's informal request for comments on the proposed nitrogen fertilizer rule.

In my experience, Minnesota farmers, agronomists and fertilizer retailers are committed to helping ensure the safety of drinking water, now and into the future. They are also committed to continuing to provide for a hungry world. I believe that safe drinking water and a prosperous agricultural industry can exist together. The nitrogen fertilizer rule as proposed includes key provisions to help prevent and mitigate the effects of nitrate contamination of groundwater, but unfortunately the proposed rule also includes requirements that will have little effect and run counter to the education and best management practice (BMP) promotion efforts outlined in the state's Nitrogen Fertilizer Management Plan (NFMP).

While I support the stated intent of the proposed rule to help insure that nitrogen fertilizers are used as efficiently as is practicable, I strongly disagree with the approach taken in part one of the proposed rule. As has been frequently stated by MDA staff at the listening sessions regarding the proposed rule, farmers are already adopting the "right time" recommendations as promoted through the fertilizer industry's 4R program and supported by University of Minnesota research at a very high rate on those soils generally considered to be vulnerable to groundwater contamination. As such, there is no need for part one of the proposed rule.

There is broad consensus that spring pre-plant or in-season nitrogen applications are the best option on vulnerable soils. There is also broad consensus that the soils defined as vulnerable under the proposed rule are much broader than is necessary.

At listening sessions, MDA staff have also stated that part one of the rule is intended as a preventative measure to be implemented through education and BMP promotion. However, part one is written as an exceedingly broad regulation. If the MDA has been honest with listening session attendees, part one of the proposed rule is not necessary.

At your listening sessions, you have heard loudly and clearly from many farmers and agronomy professionals expressing concerns with the Ksat approach outlined in the proposed rule. There are also concerns with the subjective definition of vulnerable soil based on bedrock or karst “near” the surface.

You have also heard many examples of various practices being used by farmers that encompass all of the 4R principles, the right rate at the right time in the right place using the right form of fertilizer. Building from a research base begun at land grant universities and now expanded to include industry and on-farm research, farmers continue to fine tune nitrogen rates, adjust timing and utilize products that reduce risk of nitrogen loss. Promotion of research and education to further develop and demonstrate beneficial nitrogen management practices has been effective in the past. I believe that increased support for these efforts would do more to protect groundwater and improve farm sustainability than will part one of the proposed rule.

Having served on the task force that assisted the MDA in updating the NFMP, I would also note that during the lengthy discussion that took place over about two years and 18 meetings, great emphasis was brought to creating a statewide framework only from the perspective of addressing groundwater nitrate issues wherever they occur in the state, with any remediation efforts focused on the specific areas where groundwater nitrate levels are elevated as outlined in part two of the proposed rule. In fact, the question was asked several times, “will your efforts expand into areas beyond the irrigated sands and karst regions?” and the answer was always “no, we just don’t see problems there.” The area defined as vulnerable under the proposed rule goes far beyond the central sands and karst regions.

The draft rule has been promoted as an outcome of the updated NFMP, including references to significant input by agricultural stakeholders. Most of our discussions in updating the NFMP were focused on addressing elevated nitrate levels where they are occurring. Much of this discussion is captured in part two of the rule. However, part one of the rule is not, in my opinion, an appropriate product of the NFMP update discussions.

Given the significant problems with the methods used to generate the vulnerable soils map, the most practical solution is to delete part one of the proposed rule and all language associated with it entirely.

Throughout the development of the updated NFMP and in the MDA’s presentations on the proposed rule, much emphasis has been placed on the involvement of local advisory teams, especially farmers and their nutrient management advisors. The NFMP update process included much emphasis on these local advisory groups, which can serve as a way for the MDA to learn more about local conditions relevant to groundwater nitrate issues, and provide an opportunity for increased education and BMP promotion. As stated in the name, the function of the team is to “advise” the commissioner, not provide funding for this regulatory program. The requirement that local advisory team members “provide support” to the commissioner for the implementation of the response activities should be deleted.

With regard to part two of the proposed rule, there are significant concerns with the current approach. First, the Township Testing Program County reports show that in some townships the number of wells is very small, sometimes due to a low number of wells and sometimes due to low participation. It is important that the MDA put forth greater effort targeting those areas in Level 2, 3 and 4 to ensure that all residents are made aware of groundwater conditions in the county by requiring that at least 80% of wells in the township be tested and screened for potential non-fertilizer nitrate sources prior to level 2, 3 or 4 designations.

It is also very important that the MDA provide greater emphasis on the difference between initial and follow-up sampling, as first round results can be misleading. It is important for all residents in affected areas to know that their drinking water is safe. It is also extremely important for all stakeholders to know that wells that may be influenced by nitrate sources other than fertilizer are NOT being used in the determination of mitigation level. Township well testing reports should not be released until after round two testing has been completed and all ineligible wells have been removed from the calculation of mitigation level.

I am also very concerned about the complexity of evaluating nitrogen management practices. While I fully support the commissioner's intent to ensure that farmers are using nitrogen as efficiently as possible, factors such as weather greatly influence crop growth and nitrogen uptake. I am concerned that the general recommendations currently found in University of Minnesota's BMPs are not well understood and there is a fear that the MDA may set unreasonable nitrogen rate limits through this regulation. This issue is compounded by the fact that the MDA has taken on a larger role in nutrient management education by choosing to add nutrient management staff within its own ranks. As it takes on a larger role in regulation, the MDA should provide additional funding to the University of Minnesota and Extension and agricultural organizations for the purposes of BMP research and education. Direct MDA activities should be confined to the regulatory functions being created, specifically water monitoring and BMP adoption assessment.

In summary, I would emphasize the following three points:

- Do away with part one of the proposed rule.
- Increase support for continued BMP development and implementation
- Refine the township testing program to ensure that results reflect actual groundwater conditions without the influence of well condition problems

If you have any questions or would like to discuss these comments, feel free to contact me.

Best regards,

A handwritten signature in cursive script that reads "Warren Formo".

Warren Formo, Executive Director