

Gary Dukes

Subject: Strengthening the 2025 Nutrient Reduction Strategy

Dear MPCA Nutrient Reduction Strategy Team,

Thank you for the opportunity to comment on the draft 2025 Minnesota Nutrient Reduction Strategy. I appreciate the agency's continued commitment to improving water quality across the state and recognize the progress made since 2014. However, I believe the strategy must more directly and rigorously address the role of clear regulations and mandates, and specify in no uncertain terms that the polluters need to pay. The Minnesota Nutrient Reduction Strategy 2014 (NRS) is a foundational document, but its effectiveness has been limited by certain factors, including the slow pace of voluntary adoption of Best Management Practices (BMPs). For example, Minnesota will fall far short of meeting nitrogen goals by 2040 without major new measures to accelerate the pace of reduction. To truly accelerate progress and meet its ambitious goals, the NRS needs to evolve from a primarily voluntary framework to a more robust and integrated approach that includes greater regulatory clarity, clear rules, clear mandates, and a deeper focus on transformative agricultural practices.

Additionally, we need a renewed focus on one of our greatest natural resources: the lakes of Minnesota. We need individual nutrient reduction strategies for selected lakes.

Here are some key changes and additions that could be made to improve the Minnesota Nutrient Reduction Strategy:

Shift from a Voluntary Model to a Model with Clear Regulations, Rules, and Mandates

I spent years of my boyhood living on a farm. The draft relies heavily on voluntary participation from the agricultural sector, which is the largest nonpoint source of nutrients. This approach has seen only limited success. It has not been sufficient to achieve the necessary reductions. A more effective strategy would involve outcome-based incentives, regulations, rules, and mandates.

- **Performance-Based Incentives:** Instead of just subsidizing the *adoption* of a practice, incentives could be tied to the *performance* of that practice in reducing nutrient loads. For example, a program could reward farmers based on measured reductions in nitrogen and phosphorus runoff from their fields, encouraging innovation and effectiveness. This would require more sophisticated monitoring and data collection but would ensure that public funds are being used for demonstrably effective outcomes.
- **Regulations:** The NRS could incorporate more rules and regulations, especially for critical source areas. These are areas that contribute a disproportionately high amount of nutrients due to factors like karst geology, vulnerable soil types, proximity to waterways, and specific agricultural practices. For example, the state could implement stricter rules on fall manure and fertilizer application, as it has begun to do in a limited capacity in southeast Minnesota with its Groundwater Protection Rule.
- **Strengthened "No-Till" and "Cover Crop" Mandates:** The NRS recognizes the importance of practices that keep the soil covered year-round. An effective strategy would move beyond

voluntary encouragement and into stronger, more widespread mandates for practices like reduced tillage and the use of continuous living cover crops, especially in high-risk watersheds.

Prioritize and Scale Up Transformative Agricultural Practices

The current strategy often promotes a wide array of BMPs. A more focused approach on the most impactful practices would yield better results.

- **Emphasize Continuous Living Cover (CLC):** The NRS 2025 draft has rightly identified continuous living cover as a cornerstone of nutrient reduction. This is a crucial and transformative shift. The strategy needs to go all-in on this concept, mandating the widespread adoption of winter annuals like pennycress and camelina, as well as perennial crops. This would create a system that not only sequesters nutrients but also offers new economic opportunities for farmers.
- **Support for Innovative Cropping Systems:** The NRS could provide technical assistance for farmers to experiment with and adopt new cropping systems that are inherently less nutrient-intensive. This includes using precision agriculture technologies and supporting the development of markets for new, low-input crops.
- **Soil Health:** A healthier soil ecosystem is better at retaining water and nutrients. The strategy should more explicitly link nutrient reduction to soil health, providing incentives for practices like diverse crop rotations, reduced tillage, and the application of compost and other organic matter. This not only reduces nutrient runoff but also improves agricultural productivity and resilience to climate change.

Enhance Data Collection, Monitoring, and Adaptive Management

An effective strategy is only as good as its ability to track progress and adapt. The NRS needs to enhance its data and monitoring capabilities.

- **Improved Water Quality Monitoring:** While Minnesota has a significant monitoring network, the NRS could benefit from a more strategic placement of real-time sensors in watersheds to provide more granular and immediate data on nutrient loads. This would allow for faster feedback on the effectiveness of on-the-ground practices.
- **Better Practice Tracking:** It is often difficult to get an accurate picture of the extent and location of voluntary conservation practices. The NRS could invest in better data collection technologies, such as satellite imagery and remote sensing, to track the adoption of cover crops and reduced tillage more efficiently and at a larger scale. This would help to close the gap between on-the-ground efforts and the observed changes in water quality.

Raise Taxes on Fertilizer

Raise taxes on fertilizer, including nitrogen fertilizer, to fund programs for cleaning up nitrogen contamination and programs to reduce fertilizer use in the first place, as well as other programs (see above). In this way it is polluters that pay.

Integrate Climate Goals and Water Goals

Nutrient reduction is not an isolated issue. The NRS needs to be more formally integrated with other state plans, especially those related to climate change, water, and soil health. By aligning these goals, the state can maximize co-benefits. For example, healthy soils that sequester carbon also reduce nutrient runoff in water. Furthermore, nitrate runoff and nitrate leaching from farm fields can naturally convert into nitrous oxide, a very potent greenhouse gas.

Nutrient Reduction Strategies for Lakes

I spent years of my boyhood living by a lake. I am very concerned about what I have read on startribune.com about Lake Nokomis and Lake Hiawatha. When selecting Lake Nokomis it says "Because of the amount of nutrients in the water, the state doesn't recommend swimming in this lake." When selecting Lake Hiawatha, it says the very same thing. We need individual nutrient reduction strategies for these lakes and other lakes like them, both urban and rural.

Conclusion

The Minnesota Nutrient Reduction Strategy is a well-intentioned plan. However, to move from incremental change to the transformative change needed to meet its goals, it must address the challenges of its current reliance on voluntary action. By incorporating a stronger mix of incentives, mandates, rules, and regulations, prioritizing truly transformative agricultural practices, and enhancing its data and adaptive management capabilities, Minnesota can accelerate its progress toward cleaner water for its residents and for the downstream communities that depend on the Mississippi River. Furthermore, we need individual nutrient reduction strategies for selected lakes. The revision of the NRS 2025 draft is critical to making these necessary adjustments, setting a new course for a healthier and more resilient environment.

Sincerely,

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