

Urgent Need for Mandatory Regulations to Address Nitrate Contamination in Southeast Minnesota

Re: Draft Minnesota Nutrient Reduction Strategy 2025

Summary: After four decades of documented nitrate contamination in Southeast Minnesota groundwater, voluntary best management practices have demonstrably failed to protect public health. The 2025 Minnesota Nutrient Reduction Strategy must establish mandatory groundwater quality targets below 10 ppm nitrate and implement strict regulatory enforcement to address this ongoing public health crisis.

The Magnitude of Failure: 40 Years of Ineffective Policy

- Since the 1980s, the state has documented dangerous nitrate levels in Southeast Minnesota groundwater
- MPCA acknowledges that agriculture accounts for 80% of nitrate pollution in the region
- Row crop runoff—including both commercial fertilizer and manure from large concentrated animal feeding operations (CAFOs)—is the largest contributor to nitrate contamination in Southeast Minnesota groundwater
- Nitrate contamination in Southeast Minnesota continues to increase despite decades of voluntary programs
- MDA's own 2018 Statement of Need and Reasonableness (<https://www.mda.state.mn.us/sites/default/files/2018-08/sonargwprule.pdf>) admits their voluntary best management practices are ineffective at reducing groundwater nitrate
- The EPA recognizes this public health threat, and has directed the state to take action

The Human Cost: Rural Southeast Minnesota residents face a stark choice: purchase expensive water treatment systems, buy bottled water indefinitely, or risk their family's health with contaminated well water. This burden disproportionately affects individuals, families, and communities least able to afford these solutions, creating what is quickly becoming an environmental justice crisis in our own state.

The Regulatory Framework is Broken: Because they are tasked both with supporting agriculture to maximize yields and profits, as well as the regulation of fertilizer use as it relates to water quality, the Minnesota Department of Agriculture operates under a structurally inherent conflict of interest that undermines water quality protection.

The agency tasked with promoting agricultural expansion cannot effectively regulate the very practices driving their economic mission—particularly the intensive row crop production that generates the majority of nitrate pollution through fertilizer and manure runoff.

The Minnesota Department of Agriculture's continued reliance on voluntary adoption of best management practices represents a 40-year failed experiment. MDA's 2018 Statement of Need and Reasonableness (<https://www.mda.state.mn.us/sites/default/files/2018-08/sonargwprule.pdf>) explicitly acknowledges the ineffectiveness of their voluntary best management practices. And, nitrate levels in Southeast Minnesota continue to rise despite decades of programs aimed at reducing them.

Specific Recommendations for the 2025 Strategy for Southeast Minnesota

1. **Establish Groundwater Quality Targets that Address the Problem Directly:**
 - Reduction of nitrate levels to **below 10 ppm** in Southeast Minnesota groundwater
 - Specific timelines with interim milestones for achieving these targets
 - Consequences for failure to meet established deadlines
2. **Reduce reliance on modeling**
 - Use actual private well test data to determine levels of target achievement

- Increase monitoring wells in Southeast Minnesota
 - Locate monitoring wells near industrial scale operations
 - Establish well test frequency, or use continuous monitoring
 - Mandate monitoring wells where infractions have occurred
 - Make well test data easily accessible to the public
3. **Implement Scaled Regulatory Enforcement**
Industrial-scale operations pose the greatest threat and must face proportional consequences. An operation over-fertilizing 1,000 acres of row crops will cause more nitrate contamination than an operation over-fertilizing 100 acres of row-crops. A CAFO with 1,000 animal units will generate more manure that must be disposed of than a feedlot with 100 animal units. Large row-crop operations and large feedlots / CAFOs should operate under strict, **mandatory regulation, monitoring and reporting** with penalties proportional to scale and severity of violations.
4. **Promote Sustainable Agricultural Practices**
- Incentivize pasturing animals and rotational grazing over concentrated animal feeding operations
 - Mandate cover crops in vulnerable watersheds during critical periods to reduce fertilizer and manure runoff
 - Require fertilizer management plans with third-party verification for both commercial fertilizers and organic manure applications
5. **Restructure Regulatory Authority**
- Transfer fertilizer regulation authority to MPCA for water quality protection
 - Maintain MDA's role in agricultural promotion and technical assistance
 - Establish independent oversight of agricultural water quality impacts
6. **Create Dedicated Funding:**
- Establish a cleanup fund financed through the legacy fund and fees on large-scale agricultural operations based on nitrate loading potential
 - Increase technical assistance funding for implementation of sustainable practice
 - Fund independent water quality monitoring
7. **Require Transparency:**
- Public reporting of all nitrate monitoring data
 - Annual progress reports with specific metrics
 - Public accountability measures for regulatory agencies

Conclusion: The Time for Half-Measures Has Passed. Four decades of voluntary programs and computer modeling have failed to protect Southeast Minnesota's groundwater. While the state relies on theoretical projections, real families install expensive water treatment systems and worry about their children's health. With row crop runoff with CAFO manure and commercial fertilizers remaining the dominant source of nitrate contamination, and with households already requiring emergency treatment, the state cannot continue policies that prioritize industry convenience and modeling comfort over measured reality and public health.

The 2025 Minnesota Nutrient Reduction Strategy represents a critical opportunity to implement the mandatory regulations and enforcement mechanisms necessary to protect Southeast Minnesota's groundwater. The health of our communities, the sustainability of our agricultural economy, and the integrity of our natural resources depend on bold action now.

Southeast Minnesota residents deserve the same clean drinking water enjoyed by all Minnesotans. This Strategy must deliver a strategy to make that basic right a reality.

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