



Overview of Minnesota Nitrate Work & the State's Response to EPA's Petition

House Agriculture Committee – February 22, 2024

Coordinated Efforts to Protect Our Water

The MDA, MDH and MPCA, along with their many local partners, work together and share responsibilities for monitoring water bodies in the state, from edge of agricultural fields, to streams and rivers, wetlands, lakes, and groundwater. Each agency plays an important role with a distinct focus.

- **MDA-** Responsible for management of pesticides and fertilizers, measures and assesses concentrations in streams, lakes, and groundwater; measures water quality and quantity at the edge of agricultural fields
- **MPCA-** Develops water quality standards for aquatic life, recreation and consumption for surface waters (per the Clean Water Act): measures chemical, biological, and physical parameters
- **MDH-**Assesses quality of drinking water sources (per Safe Drinking Water Act) and develops Health Risk guidance to evaluate risks of contaminants on public health

MDA's Statutory Authority Over Nitrate

Minn Statute Chapter 18C: Fertilizer, Soil Amendment, and Plant Amendment

- The Department of Agriculture is the lead state agency for the regulation of fertilizer, including storage, handling, distribution, use, and disposal of fertilizer.

Minn Statute Chapter 103H: Groundwater Protection

- The Department of Agriculture is responsible for the development, promotion and evaluation of best management practices (BMPs) for agricultural chemicals and practices.
- The Department of Agriculture is the lead agency for monitoring agricultural chemicals in the environment.

Minnesota Rules Chapter 1573: Groundwater Protection Rule

- Minimizes potential sources of nitrate pollution to the state's groundwater and protects our drinking water

EPA Petition Background

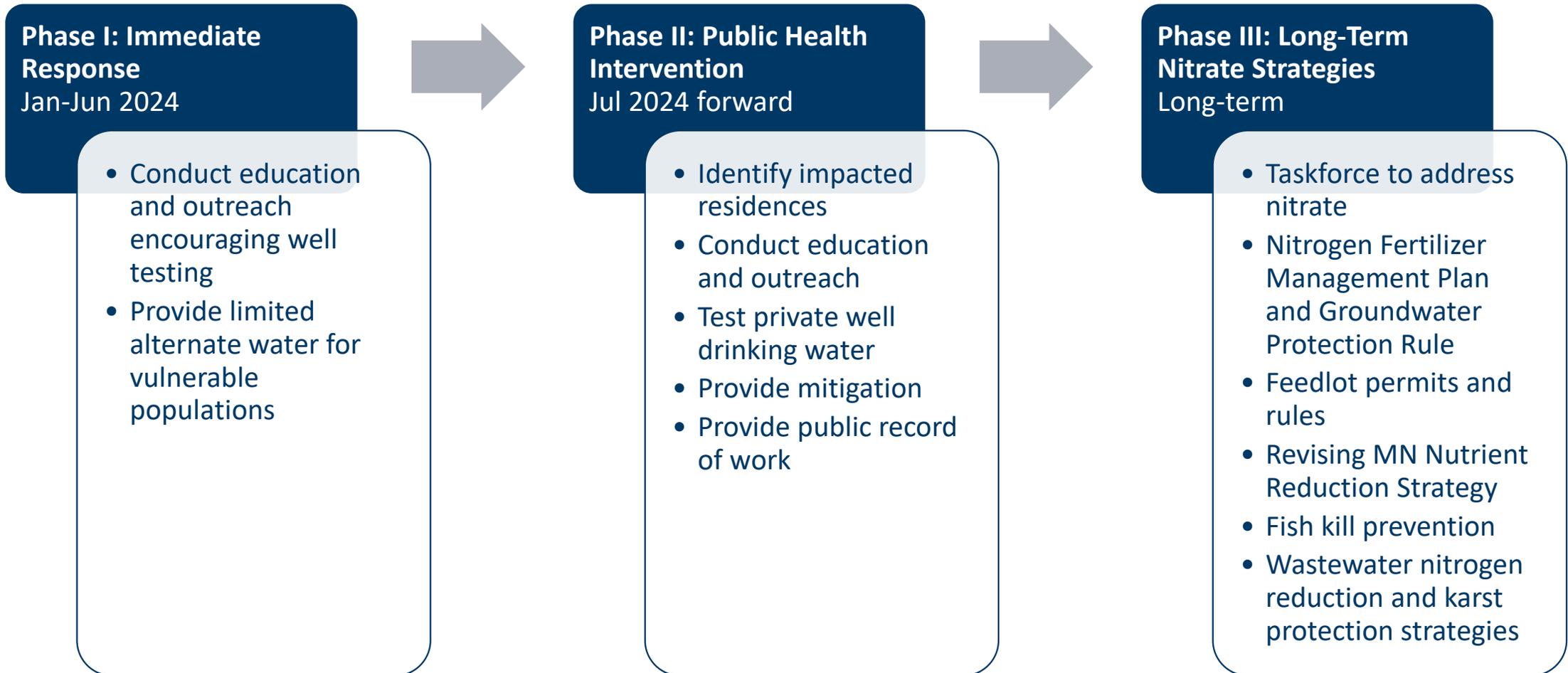
On November 3, 2023, the U.S. Environmental Protection Agency (EPA) requested the Minnesota Department of Health (MDH), Minnesota Pollution Control Agency, and Minnesota Department of Agriculture **develop a coordinated and comprehensive work plan to reduce nitrate contamination of drinking water aquifers in eight southeastern Minnesota counties.**

- 8 counties: Dodge, Fillmore, Goodhue, Houston, Mower, Olmsted, Wabasha, and Winona.
- Minnesota will also include Rice County in this work.

EPA Directives to Minnesota

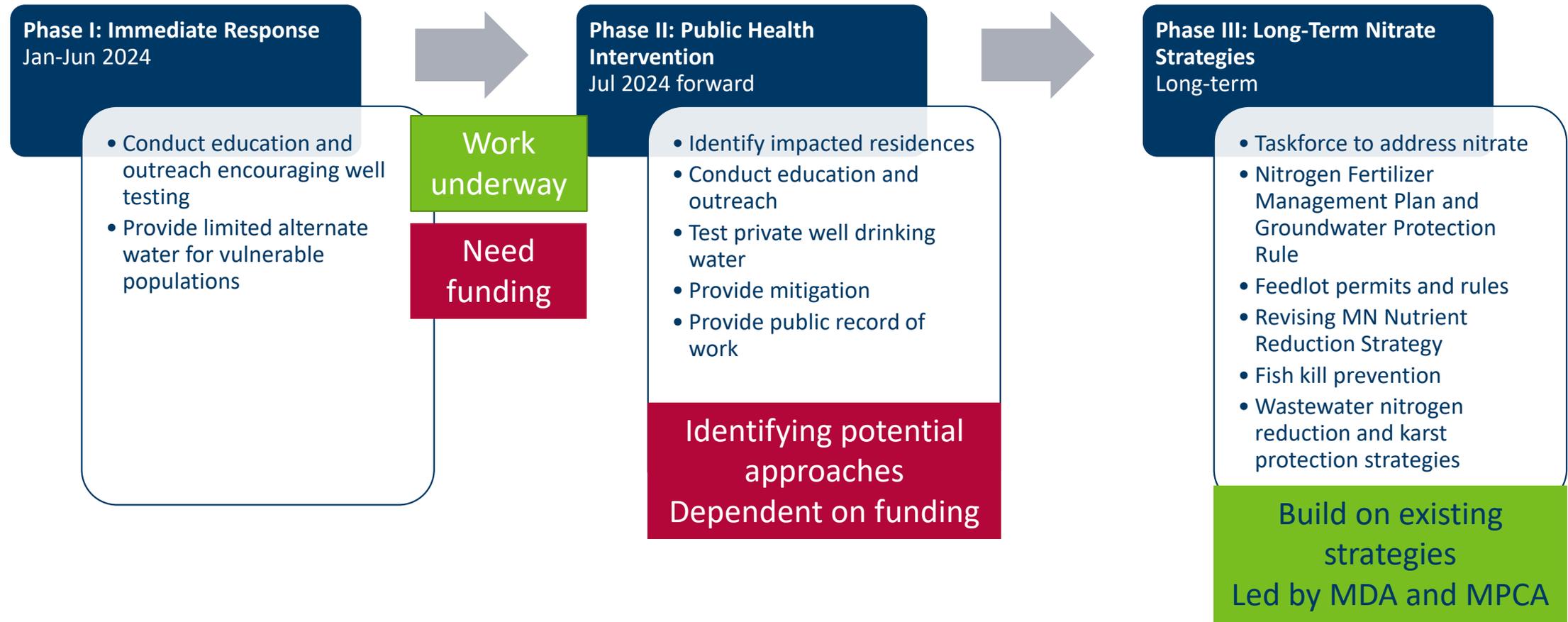
1. Develop coordinated communication plan
2. Identify all private wells
3. Provide education and outreach:
 - Private wells owners/users
 - Community water system customers
4. Offer testing for all private wells
5. Offer remediation for wells that exceed drinking water guidance
6. Establish public access to data and records
7. Report quarterly to EPA

State Agencies Response Includes Three Phases



Status of the Three Phases

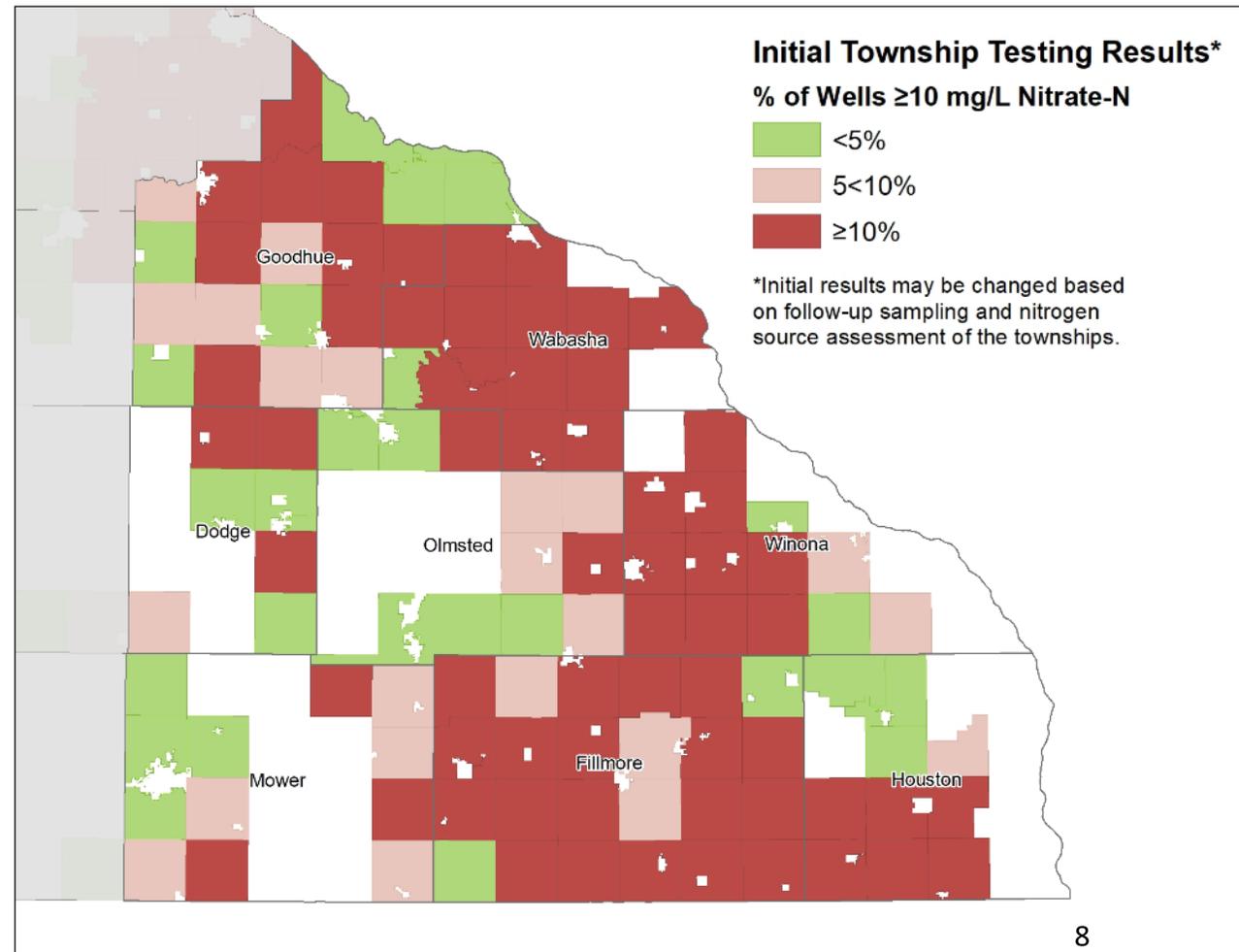
1. Initial response letter sent December 1, 2024
2. Workplan submitted January 12, 2024



The Concern is with Private Wells

- Community water systems: Safe Drinking Water Act protects consumers
- Private wells have little protection:
 - Well Code regulates construction, sealing
 - Owner responsible for testing, mitigation, operation
 - Pre-code wells are very vulnerable

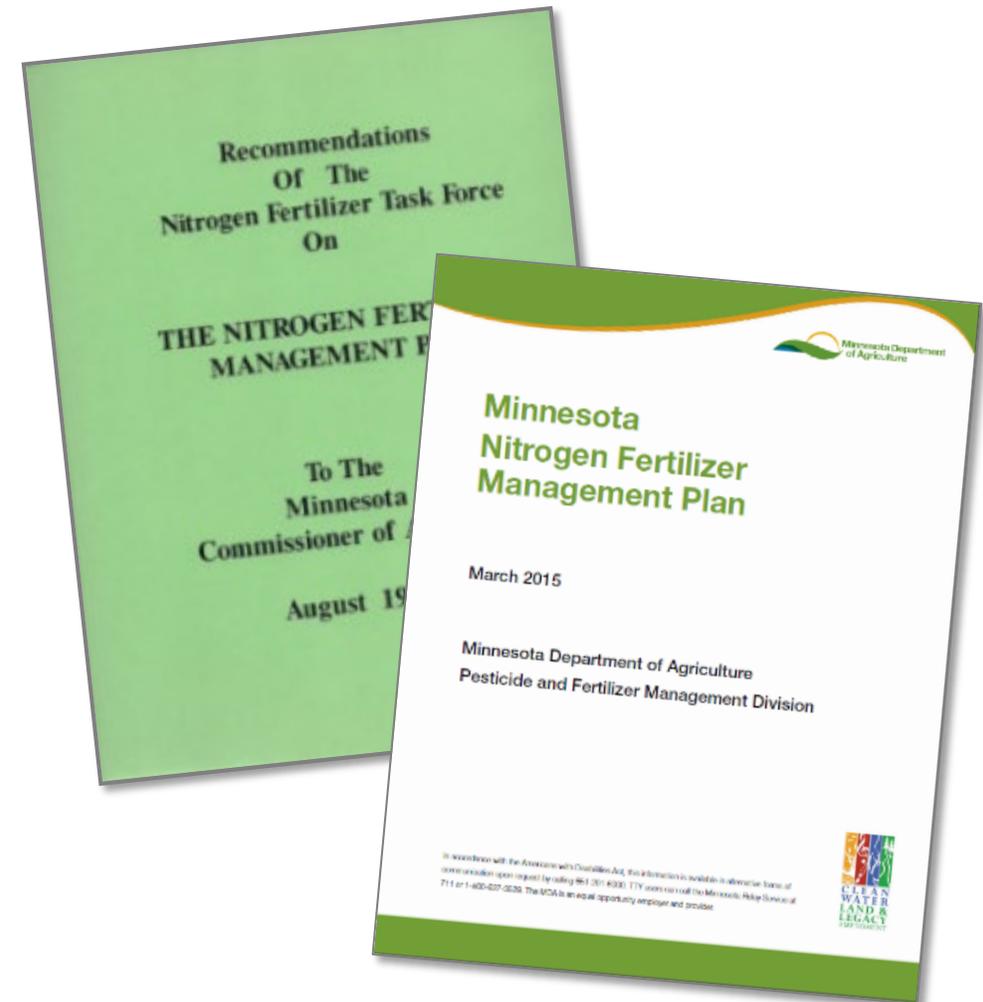
Township Testing Results for 8 County Area



Nitrogen Fertilizer Management Plan (NFMP)

Minnesota's blueprint to minimize groundwater impacts from the use of nitrogen fertilizer

- Written in 1990 and updated in 2015
- Key outcomes:
 - Township Testing Program (2013-2019)
 - Prioritization of areas with elevated nitrate in groundwater
 - Engagement of local agricultural community in problem solving
 - Groundwater Protection Rule



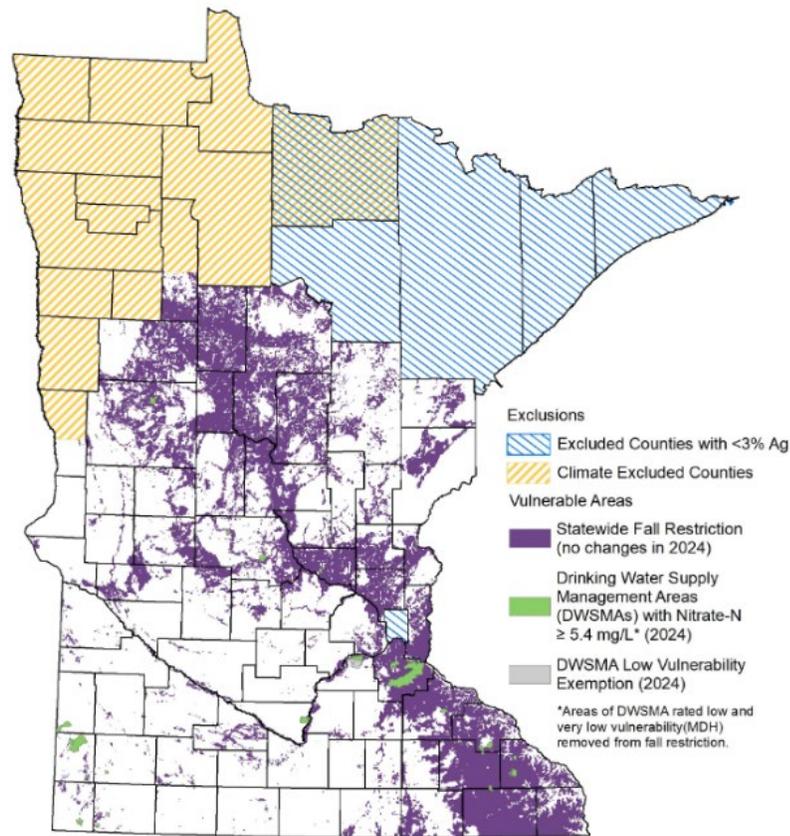
Minnesota's Groundwater Protection Rule

- The Groundwater Protection Rule applies to the use of nitrogen fertilizer.
- It focuses on protecting groundwater in areas vulnerable to groundwater contamination.
- It went into effect on June 24, 2019.
- The Rule contains two parts. Each part contains separate criteria and requirements.

Minnesota's Groundwater Protection Rule

Part 1 - Restricts nitrogen fertilizer application in fall and on frozen soils

Fall Restrictions Map 2024

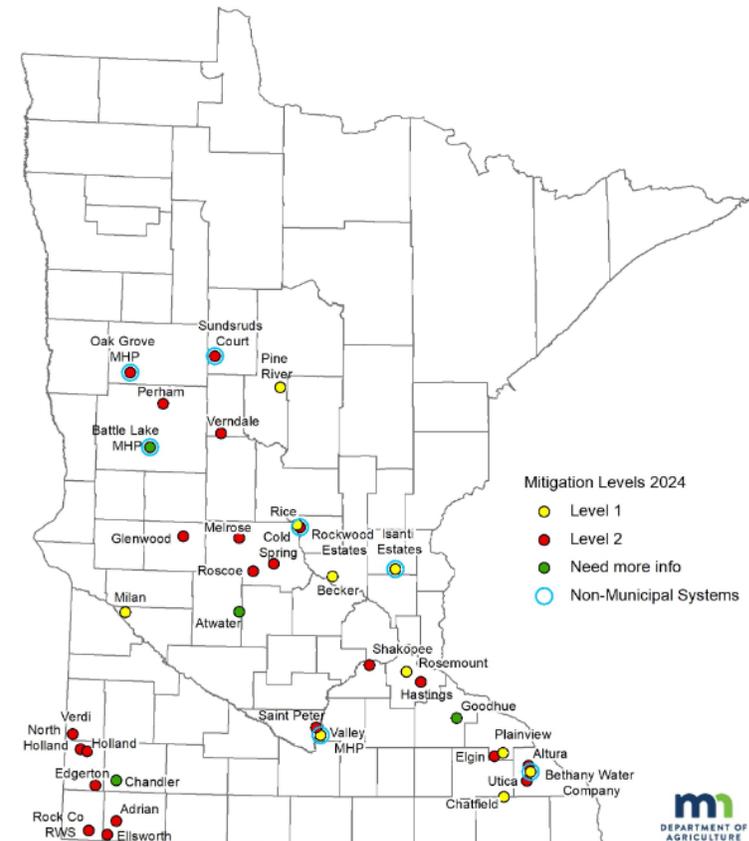


Updated 1/12/2024

The Minnesota Department of Agriculture

Part 2 - Applies to DWSMAs with elevated nitrate-N levels in the well water

Drinking Water Supply Management Area Mitigation Levels
January 11, 2024



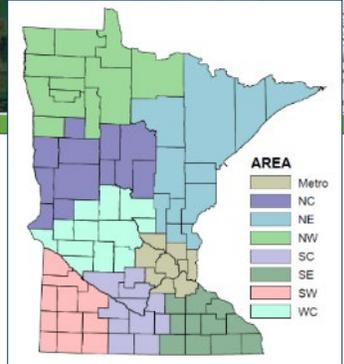
Groundwater Protection Rule Working in Southeast MN

- Part 1 restricts fall application of commercial fertilizer on 1.1 million acres (71% of cropland) in SE counties.
- Part 2 applies to three Level 1 and three Level 2 communities with elevated nitrate in the community water supply.
- The MDA has convened local advisory teams in all Level 2 communities, meeting with farmers and crop advisors to develop a list of best management practices.
 - Emphasis on nitrogen management and increasing vegetative cover
 - Positive voluntary actions, including first commercial acres of Kernza[®], evaluation of BMPs for water quality, and adoption of conservation practices
- The MDA has contributed to the foundational science and understanding of how groundwater, and contaminants like nitrate, move in SE and the timeline for monitoring changes.



MN Ag Water Quality Certification Program

- Unprecedented partnership of local, state, federal government, and private industry
- Whole-farm planning for water quality; risk assessment of every parcel, every crop; boots-on-the-ground conservation
- Pairs producers with agronomy and conservation planning professionals to develop site-specific solutions for risks to water quality
- Available to either/both renter or landowners; free and voluntary





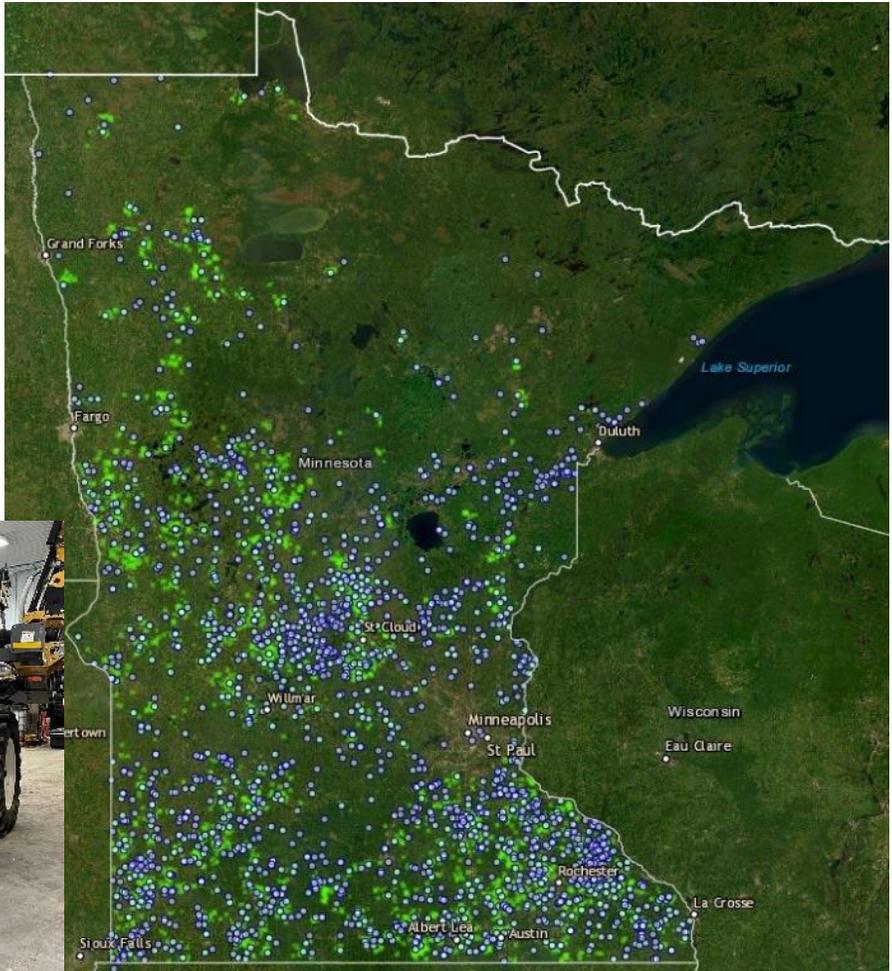
MN Ag Water Quality Certification Program

MAWQCP - Statewide as of 2/02/24:

- **1,445** certified producers **1,034,856** acres
 - 2,811 new practices
 - Soil loss reduced +142,000 tons per year
 - Nitrogen loss reduced up to 49%

MAWQCP - 8 SE Counties as of 12/31/23:

Wabasha	52 certified producers	25,539 acres
Winona	32 certified producers	23,558 acres
Fillmore	28 certified producers	18,880 acres
Houston	29 certified producers	12,451 acres
Olmstead	56 certified producers	42,744 acres
Dodge	20 certified producers	22,471 acres
Goodhue	31 certified producers	32,017 acres
Mower	21 certified producers	14,051 acres
TOTAL:	269	191,711



AgBMP Loan Program

- The AgBMP Loan Program is a water quality program that provides low-interest loans to farmers, rural landowners, and agriculture supply businesses.
- The program supports agricultural best management practices that prevent or reduce runoff from feedlots, farm fields, and other pollution problems identified by the county.
- In southeast Minnesota, 284 loans totaling nearly \$12 million have been invested in projects from January 1, 2019 – December 4, 2023.

Thank You!

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