# Minnesota's draft strategy to reduce nutrients in water

Achieving in-state and downstream water quality goals

Minnesota released its first Nutrient Reduction Strategy (NRS) in 2014 to address excess nitrogen and phosphorus in water and updated it in 2025. Minnesota and 11 other Mississippi River states developed nutrient reduction strategies to address low oxygen areas in the Gulf that harm fish and wildlife. Minnesota's plan also addresses in-state water quality needs and the Red River of the North and Lake Superior watersheds.

The 2025 Minnesota NRS evaluates 10 years of progress toward water quality goals, compiling the latest science, data, and strategies to reduce nitrogen and phosphorus. Developed with input from over 100 state, federal, and local partners and the University of Minnesota, it reflects updates in technology, land use, programs, monitoring, best practices, and weather extremes. The draft was released for public comment on July 14, 2025, with final publication planned for late 2025.
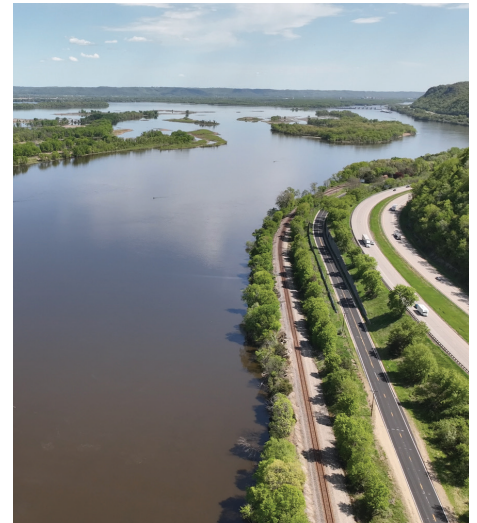
Progress we've made

Programs

Over the past decade, most 2014 NRS recommendations were implemented. About 35 government programs were launched or strengthened, and nutrient management research, monitoring, and online tracking and planning tools advanced. Minnesota's Water Management Framework has produced plans to address excess nutrients statewide.
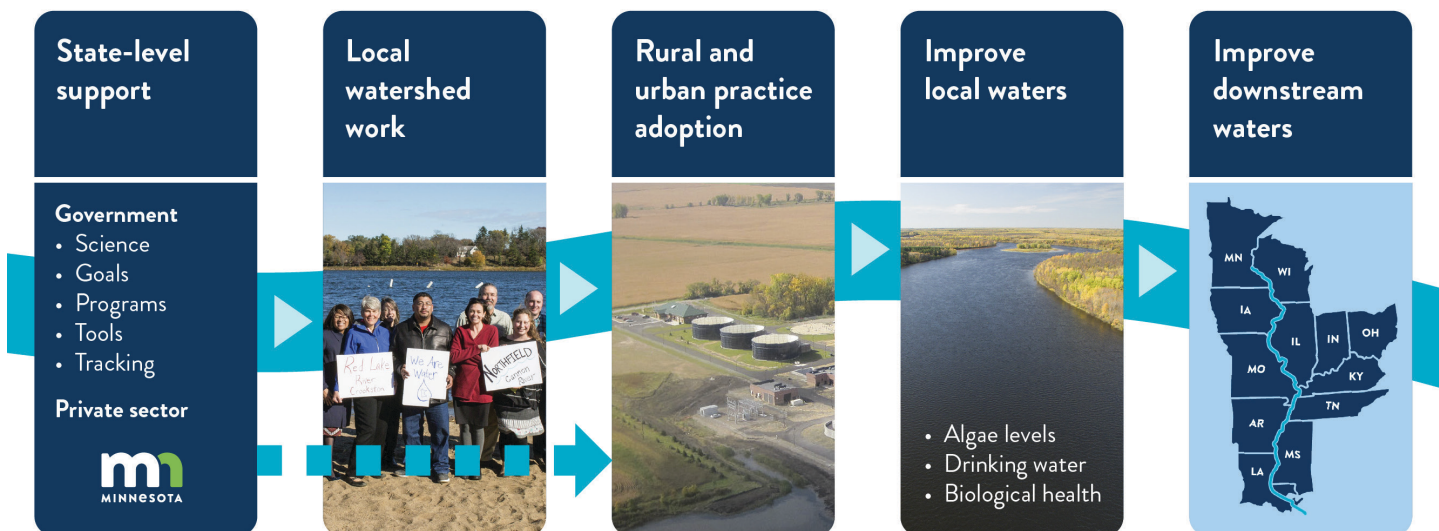
Practices

Minnesotans have added nutrient-reducing practices to 4 million cropland acres; wastewater phosphorus is down 76%; and urban stormwater, feedlot, and septic practices have improved.

In our waters

Water monitoring has greatly expanded, supported by the Clean Water Fund. Where trends were detected, results show:

- **Statewide nutrients** — Phosphorus concentration is mostly improving in lakes and rivers while total nitrogen/nitrates results are mixed, where trends are detected.
- **Statewide nitrate** — Nitrate concentration trends in groundwater and rivers across Minnesota show mixed results.
- **Mississippi River** — Phosphorus down 32% since baseline; nitrate down 6%.
- **Red River** — Phosphorus up slightly; nitrogen down slightly.

State-level support	Local watershed work	Rural and urban practice adoption	Improve local waters	Improve downstream waters

Government
- Science
- Goals
- Programs
- Tools
- Tracking

Private sector

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- Algae levels
- Drinking water
- Biological health

Goals still to meet

Mississippi River Basin — A 32 to 38% nitrate reduction is needed to protect drinking water and aquatic life in the state. A 42% phosphorus reduction is required to meet in-state water quality goals and address excess phosphorus where it is elevated. Meeting the in-state goals positions Minnesota to achieve downstream reduction goals by 2040.

Red River Basin — A 50% total phosphorus and 42% total nitrogen load reduction are needed to reach downstream goals, shared with North Dakota and South Dakota.

Lake Superior Basin — The goal is no net increase in phosphorus or nitrogen. Monitoring of the St. Louis River Estuary shows encouraging nutrient decreases from 2011 to 2023.

Scaling up for success

Since 2014, Minnesota has built a strong foundation of programs and practices that are reducing excess nutrients. To reach 2040 water quality goals, we must scale up these efforts together.

Living cover for lasting impact
Expanding continuous living cover offers great potential for nutrient reductions. A new working group will lead efforts to expand alternative crops and promote long-term adoption across millions of acres.

Treating nutrients before they reach water
Reducing nitrate and nitrogen relies on treating tile-drainage and urban wastewater. The 2024 Wastewater Nitrogen Reduction and Implementation Strategy and expanded use of buffers, bioreactors, wetlands, and drainage recycling will advance this work.

Expanding local watershed successes
Strong local foundations are in place. Expanding programs like soil health initiatives, increasing best management practices, and continued watershed-based funding will accelerate progress.

Tracking our progress
A statewide dashboard and tools like the BEET tracker and BEET planner will strengthen data-driven watershed planning and accountability.

Scan code to read the full Nutrient Reduction Strategy and see tools to track our progress.

www.pca.state.mn.us/nrs

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