

Protect water quality and source water to ensure public health and long-term resilience

Water contamination and its consequences impact public health, ecosystem function, and regional economic competitiveness. Over the past century, federal and state water protection laws significantly reduced the amount of pollution in rivers, lakes, and streams nationwide, especially since the passage of the Clean Water Act. However, the country and Twin Cities metro region have not met the ambitious Clean Water Act goal to provide drinkable, swimmable, and fishable water for all areas of the Twin Cities metro region^{WQ-1}.

Clean and reliable drinking water is essential to public health, economic stability, and quality of life in the Twin Cities metro region. Communities throughout the region depend on groundwater, rivers, lakes, and aquifers^{WQ-2} that can become more difficult and expensive to protect once contamination occurs.

Some contaminants can be treated relatively easily, while others require complex and costly long-term treatment systems once they reach groundwater, rivers, drinking water facilities, or wastewater systems.

Many communities are now facing rising costs related to PFAS^{WQ-4} treatment, nitrate^{WQ-5} concerns, aging treatment infrastructure^{WQ-6}, changing drinking water standards^{WQ-7}, cybersecurity expectations^{WQ-8}, and climate-related water quality impacts^{WQ-9}. Preventing contamination and planning proactively for future treatment needs can reduce long-term costs and risks for residents, businesses, utilities, and natural resources^{WQ-3}.

Preventing contamination can avoid significant costs for investigation and remediation to protect drinking water

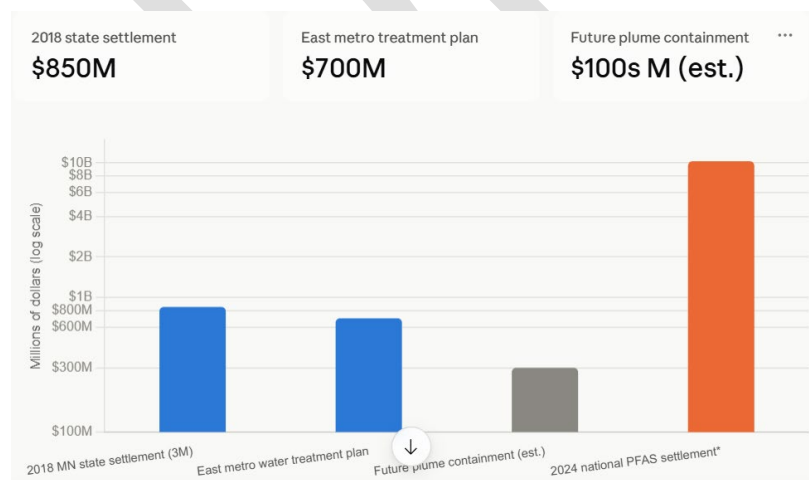


FIGURE 1. PFAS COSTS IN THE TWIN CITIES METRO REGION

CURRENT CONTEXT

- Nearly 98% of community water systems have drinking water that meets all federal health-based standards.^{WQ-1}
- Lead can get into drinking water after it leaves the treatment plant, as it passes through household plumbing systems. Homes built before 1940 may have lead service lines that connect them to public water. Plumbing systems built before 1986 may have lead parts.^{WQ-10}
- More funding is needed for source water planning and protection to prevent groundwater contamination before it happens.
- Additional funding is needed to treat current (ex. PFAS) and future emerging contaminants with higher levels of water treatment
- Funding is inadequate to address major maintenance for aging and failing water treatment infrastructure.

Opportunities for action

Support pollution prevention and source water protection

Provide funding and policy support for practical actions that prevent pollution before it reaches drinking water sources. Examples include efforts that identify and reduce nonpoint source pollution, expanding agricultural conservation practices such as cover crops and nutrient reduction efforts, reducing chloride use on the landscape, and strengthening wellhead protection across jurisdictional boundaries.

Invest in drinking water treatment and contaminant response

Provide sustained funding to help public water suppliers and private well owners monitor and treat contaminants of concern such as nitrate, manganese, PFAS, chloride, and other known and emerging contaminants.

Increase capacity for water quality monitoring and research

Increase investment in monitoring, research, laboratory capacity, technical assistance, and collaboration among agencies, researchers, and local governments so communities have access to the tools needed to implement effective water quality programs.

Examples that could inform future action

Communities and agencies are taking more proactive and collaborative approaches to protect source water quality^{WQ-12}.



Eight communities in the western part of the Twin Cities metro region collaborated with the Minnesota Department of Health to pilot the state's first multi-community Wellhead Protection Plan.



Minnesota is providing funding to protect source waters through grants supporting the implementation of plans for source water protection, watersheds, and county groundwater.



Minnesota's Total Maximum Daily Load (TMDL) effort has led to water quality improvements, including the receiving waters of wastewater treatment facilities upstream of water supply intakes in the Twin Cities metro region.



The New Brighton/Arden Hills Superfund Site provides useful information about the costs and management challenges of addressing water supply contamination. The cities of New Brighton, St. Anthony, Columbia Heights, Fridley, and Minneapolis have been collaborating with the U.S. Army for decades to pump and treat contaminated groundwater and protect public health.^{WQ-11}

To see the full report: [LINK/QR code to website where full report is posted](#)