RECOMMENDATIONS FOR WATER SUPPLY PLANNING

Highlights of a report to the Minnesota Legislature and the Metropolitan Council

The Twin Cities metro area – despite our relatively abundant supply of clean water – faces challenges like water pollution, growth, aging infrastructure, and climate change. Current regional issues like PFAS, chloride pollution, and impacts of the historic summer 2021 drought must be addressed.

Leaders have an opportunity to set in place a critical strategy to ensure the long-term sustainability of the region’s water resources. The federal Infrastructure Investment and Jobs Act of 2021 will award Minnesota $680 million over five years to improve water infrastructure and ensure clean, safe drinking water for all communities.

The Metropolitan Area Water Supply Advisory Committee and its Technical Advisory Committee, which assist the Metropolitan Council in carrying out its water supply planning activities, published the 2022 report Recommendations for Water Supply Planning. The report is a guide for decision makers on how to approach priority water supply challenges in the coming years.

PLANNED INFRASTRUCTURE THROUGH 2040

50+ communities plan to drill new municipal wells
60+ communities plan to improve and/or expand their distribution systems
35+ communities plan to enhance their water supply treatment processes

OUR SOURCES OF DRINKING WATER:

- **Mississippi River only** – 6 cities, about 520,000 people
- **Groundwater only** – 162 cities and townships, about 2,080,000 people
- **Combined sources** – 13 cities, about 550,000 people
EIGHT CONDITIONS THAT DEFINE REGIONAL WATER SUSTAINABILITY

Maximize use of existing infrastructure
Offset demand with efficiency and conservation
Balance multiple water sources to meet demand
Align agency directions
Recognize uncertainty and minimize risk
Maintain groundwater levels
Prevent groundwater contamination spread
Protect surface water flows

VISION: SUSTAINABLE WATER SUPPLIES

Our vision is a sustainable water supply for the entire region now and in the future.

• All people have access to clean, safe, affordable water and wastewater services.
• All water and wastewater systems have sufficient funding to provide affordable services.
• All communities share in the economic, social, and environmental benefits of investment in water systems.

SUPPORT THESE GOALS TO REACH OUR VISION

Addressing the region’s increasingly complex water problems requires collaboration. We identified four focus areas and set goals for maintaining a safe, sustainable water supply across jurisdictional boundaries:

Water Supply Infrastructure. Communities can act quickly, thoughtfully, and equitably to address aging infrastructure, contamination, changing groundwater conditions, changing water demand, and financial challenges.

Water Quality. Communities have the resources they need to provide a safe water supply. A shared process is developed that allows communities, water utilities, and regulators to respond in a more coordinated and effective way to both contaminants of emerging concern and existing contamination.

Land Use and Water Supply Connections. Public water suppliers, land use planners, and developers have tools and are empowered to work together to guide and support development in ways that balance communities’ economic needs while protecting the quantity and quality of source waters that are vital to the region’s communities.

Understand and Manage Groundwater and Surface Water Interactions. Water resource managers, community planners, and leaders understand how groundwater and surface water interact and how those interactions impact water supply sustainability.

PROJECTED WATER USE

2040 More Use: +100
2015 Water Use: 350 Million Gallons per Day

PROJECTED INFRASTRUCTURE INVESTMENT & JOBS ACT

$680M over 5 years to replace aging infrastructure, connect underserved communities to public water systems, and reduce lead in drinking water.
COMMIT RESOURCES TO WATER SUSTAINABILITY

No single effort can achieve our goals. These recommended action steps support better risk management across the region’s full water supply system and advance the goals.

Expert partners will help direct a more complete assessment of the region’s water supply system, along with measures to reduce risks and hazards. The result will be sound technical information for state, regional, and local partners to develop and implement effective water plans, programs, and projects.

To achieve the goals for the four priority focus areas, a wide range of actions must be taken across the entire water supply system – from source through use to reclamation and back to the environment. Key steps for action are outlined below. A more detailed list of recommended activities is in Table 1 of the Recommendations for Water Supply Planning report.

COLLABORATION AND CAPACITY BUILDING
- Continue engaging leaders across the water sector
- Connect diverse technical experts
- Build and maintain capacity for collaborative work over the long-term

SYSTEM ASSESSMENT
- Describe, document, and diagram the water supply system at a multi-community scale
- Identify potential hazards
- Determine potential risks

MITIGATION MEASURE EVALUATION
- Identify and evaluate existing and potential measures to reduce hazards and risks to our water supply
- Prioritize risks

PLANNING AND IMPLEMENTING RISK REDUCTION PRACTICES
- Establish a new subregional water supply planning approach
- Target regional guidance and incentives
- Better prepare for the unexpected
- Support local planning and implementation
- Check outcomes and adapt to continuously improve
Legislators and state agency leaders should consider the following as you propose legislation, program development, and funding for the work made possible by the new Infrastructure Investment and Jobs Act of 2021 and other water-supply-related funding:

- Funding is needed for public water suppliers’ and partners’ emergency responses.
- Communities across the region need and are seeking funding for proactive infrastructure upgrades and expansion.
- Coordination across political boundaries is critical, because water moves freely between communities and one community’s water supply decisions will impact others.
- Proposals have the most impact when they can advance multiple goals at once, recognizing the nexus between water quality, land use, groundwater-surface water interaction, and water supply infrastructure.
- Look for opportunities to remove regulatory barriers to help advance our goals for the region.
- Request information from water utilities and resource managers to craft the most effective legislation.

Please share information in this summary and the full report in your committee deliberations – particularly those with jurisdiction over environment, natural resources, commerce, and public health.

PROTECTING THE REGION’S SOURCE WATER

More than half of Minnesota’s population lives in the metro area, and 90% of them get their water from the 1,000 square miles that have been designated as source areas for drinking water (groundwater areas in blue, surface water areas in green).