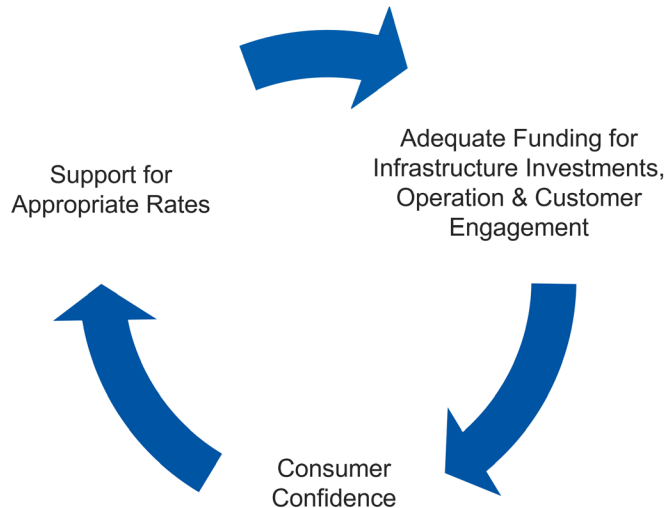


RECOMMENDATIONS RELATED TO WATER INFRASTRUCTURE

The TAC, serving at the pleasure of the MAWSAC, recommends that the MAWSAC, with the Metropolitan Council and the State of Minnesota, help maximize the value the region receives from existing water supply infrastructure investments by supporting communities to act nimbly and equitably in addressing changing water demand and climate, aging infrastructure, earning consumer trust, and addressing water quality needs. Increasing collaboration across communities among utilities, city planners and other staff, and water resources managers to address one concern is likely to address other concerns, as shown in the figure below.



Problem

It is a persistent challenge to maintain the ongoing sustainability of the region's water supply infrastructure. In some cases, falling consumer confidence may make it harder to get support for water supply infrastructure investment. In others, utilities with a relatively small customer base may struggle to maintain or enhance infrastructure in response to unplanned events like emerging contamination or new regulatory limits. In still others, local and neighboring water supply infrastructure planning may be complicated by changing land use plans that don't consider the related long-term public infrastructure costs.

Questions to consider

Consider the following questions in preparation for the meeting, based on your experiences dealing with land use impacts on water supply systems and risks to source water. The [Master Water Supply Plan](#) and [Thrive MSP 2040](#) outcomes, principles, and goals are a resource to draw on.

1) How can communities manage infrastructure to meet long-term (30+ years) growth?

How could the region grow and continue to optimize the use of current infrastructure?
How would considering alternative water sources/solutions impact the ability of communities to develop and redevelop?

2) What can be done to increase consumer confidence and use?

Community support of long-term water infrastructure investment is critical to achieving a greater level of sustainability. Do customers understand the value they receive? Is water pricing fair and equitable

across the region? How can water suppliers assist those in need while still ensuring that utilities have the revenue they need to both operate and maintain systems?

3) What capital projects, other than maintenance, are lacking funding now? How can the infrastructure problem be brought to light?

Can water supply funding be added to planning efforts for transportation, housing, and natural resource protection? Are water suppliers aware of all funding available? How can support for infrastructure funding grow?

4) How could the Council and/or organizations represented on TAC help?

What actions will result in continual growth and support?

Potential solutions or approaches

The following proposed solutions or approaches come from conversations had by MAWSAC, TAC, LUAC, and Met Council staff.

Outreach, engagement, and training/technical assistance

- a) Broad engagement to understand residents' water values, to support more targeted and effective outreach.
- b) Support creation of educational materials specific to the region's water supply context, to help communities campaign regarding the value of water and water infrastructure.
- c) Continue supporting Public Water Suppliers (PWSs) to work with and educate city councils and managers about the value and cost of their city's water supply system.
- d) Support for regular multi-community emergency response planning and training such as table-top exercises.

Research

- a) Create database of metro area interconnection and other emergency water supply options.
- b) Explore relationships among equity and socioeconomic factors, water rates, and infrastructure investments (example: lead service line replacement), with support by MDH and cities.
- c) Exploration of benefits and drawbacks for water supply infrastructure from redevelopment versus new development in the metro area
- d) Investigate what an equitable water rate structure looks like and means for the metro area.

Regulatory

- a) None identified at this time.

Regional policies and planning

- a) Identify criteria for targeting state and regional support for water supply infrastructure-related projects, to highlight and address priority areas of need (at risk).
- b) Regional policies, system plans, and local comprehensive plans acknowledge and address the long-term (30+ years) impact on water supply infrastructure and source water protection from planned land use and land use changes. Consider:
 - Do proposed plans estimate the long-term cost of related water supply infrastructure?
 - Do proposed plans support economic growth at the expense of protecting public health?
 - Do proposed plans consider impacts to the value and safety of community water supplies?
- c) Guidance for regional agencies to support PWSs in addressing:
 - Prioritizing replacement of lead service lines
 - More and consistent infrastructure funding
 - Investment in infrastructure improvements to reduce risks from droughts and flooding
 - Long term planning for new infrastructure for areas of development or redevelopment

Financial support

- a) Investment in water sustainability and resiliency of systems specifically addressing climate change mitigation, infrastructure rehabilitation and planning, and water use efficiency by State of Minnesota and partners.
- b) Grant funding to maximize water efficiency in low-income areas by State of Minnesota.
- c) Support for multi-community planning of infrastructure and source water projects, that extends beyond political boundaries of one community, by State of Minnesota and partners.
- d) Funding for accelerated replacement of lead service lines and related programming, supported by State of Minnesota and partners.
- e) Support for programs that fund the costs of infrastructure asset renewal by State of Minnesota and partners.

Resources related to water supply infrastructure

The following resources were shared or referred to during conversations with committee members or highlighted by staff as this document was developed. They may be useful to review related to committee conversations around water supply infrastructure. This is not intended to be a complete list of resources.

Examples of funding considerations:

- Minnesota Public Facilities Authority Infrastructure Funds and Programs ([website](#))
- MDH Drinking Water Revolving Fund 2021 Intended Use Plan ([pdf](#))
- MN Public Facilities Authority 2021 Estimated Funding Needs Report (water supply in Table 1 on pages 9-10) ([pdf](#))
- MDH 2020 Project Priority List for MN Drinking Water Revolving Loan Fund ([pdf](#))
- The Trust for Public Land 'The Cost of Not Protecting Source Waters' ([website](#))

Examples of local work:

- City of Fridley Well Finder ([ArcGIS interactive map](#))
- City of Hugo stormwater reuse ([Met Council article](#))
- Conceptual Drinking Water Supply Plan for 14 East Metro communities ([website](#))

Research examples: understanding infrastructure challenges

- MN Section of American Society of Civil Engineers Minnesota 2018 Infrastructure Report Card ([website](#))
- MDH Minnesota Drinking Water Annual Report for 2018 (see figure 17 on page 35) ([report](#))
- MDH drinking water treatment database (how well is our treatment infrastructure working) ([website](#))
- 2021 Freshwater Society and University of MN report: Banking Groundwater: Managed Aquifer Recharge ([report](#)) ([55-min seminar presentation](#))
- Metropolitan Council regional feasibility assessments ([website](#))

Examples of existing infrastructure data:

- Key water information catalog, hosted by Metropolitan Council ([database](#))
- MN Office of the State Auditor Infrastructure Stress Transparency Tool ([website](#))

Examples of guidance (technical assistance, best practices, planning, funding):

- American Water Works Value of Water Campaign ([online toolkit](#))
- American Water Works Risk & Resilience ([website](#))
- America's Water Infrastructure Act (AWIA) ([website](#))
- Minnesota Water/Wastewater Utilities Agency Response Network (MnWARN) ([website](#))

Community data

- Metropolitan Council Water Rates comparison tool ([online data](#))
- Metropolitan Council Long-Range Forecasts ([website](#))
- Metropolitan Council Community Profiles ([interactive datasets](#))
- Metropolitan Council Equity Considerations for Placed-Based Advocacy and Decision Dataset ([website](#))
- MPCA Understanding Environmental Justice ([interactive map](#))