



ES Policy Research Project

Supporting the update of the Water Resources Policy Plan



Our ask of you...

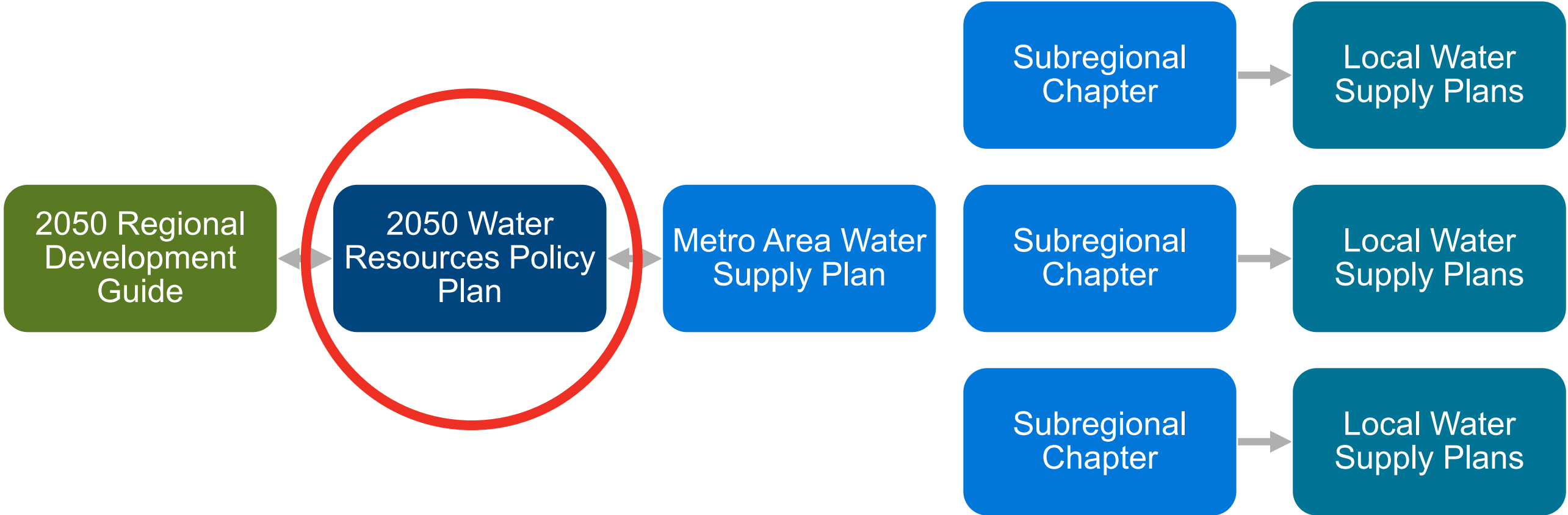
- The Water Resource Policy Plan research papers will be released over the next few months.

Please visit our website to provide feedback:

<https://metro council.org/Wastewater-Water/Planning/2050-Water-Resources-Policy-Plan.aspx>

- Stay tuned for more info and opportunities to give feedback over the year as we draft the policy plan.

Metro Area Water Planning Framework



RDG sets the framework for our region, including land use policy and other cross-divisional issues

WRPP provides a framework for integrated water planning (wastewater, water supply, and surface water)

MWSP provides water supply-related considerations for developing regional, subregional, and local plans and supporting programs

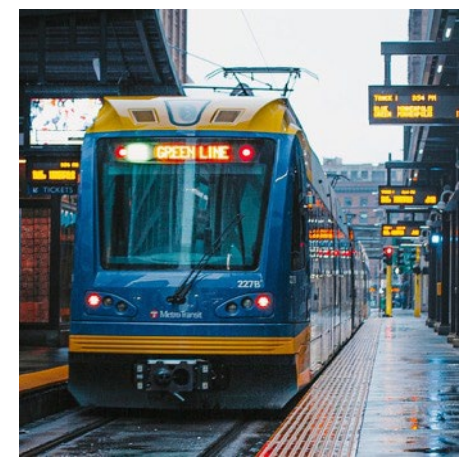
MWSP also provides subregional context, shared objectives and strategies, and direction for implementation and partnerships

LWSP provides information and identifies local actions for a sustainable water supply

Water Resource Policy Plan (WRPP)

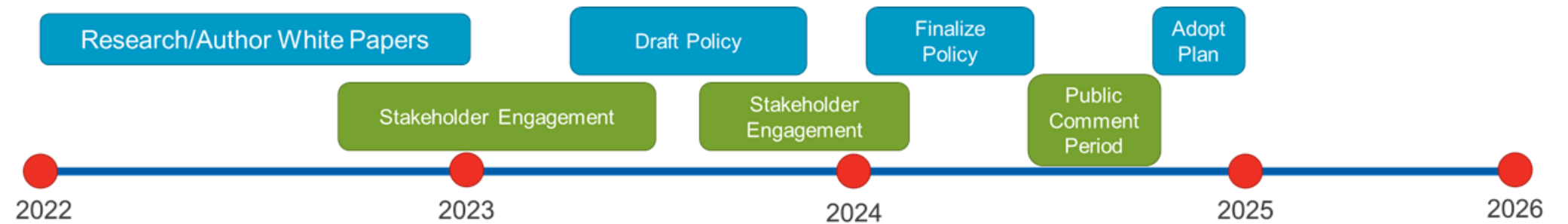
Plan Purpose

- Met Council is developing the 2050 Water Resources Policy Plan, which focuses on ensuring sustainable water resources in the region. It is a part of and informed by the Regional Development Guide.
- The WRPP provides a framework for integrative water planning (wastewater, water supply, and water resources) the Metro Area Water Supply Plan, and the Wastewater System Plan.
- It contains water policies, strategies, and actions for both the Met Council and our 180+ local governments within the seven-county region.
- WRPP policies will commit the Council to take action in the areas of long-range visioning and planning, regional system investments, facility management, technical assistance, research and assessment, and partnerships.



Water Resource Policy Plan (WRPP)

Overall Process Timeline



WRPP Research Topics



1. Protecting Source Water Areas
2. Rural Water Concerns
3. Wastewater Concerns
4. Water and Climate
5. Water Availability, Access, and Use
6. Water Quality
7. Water Reuse

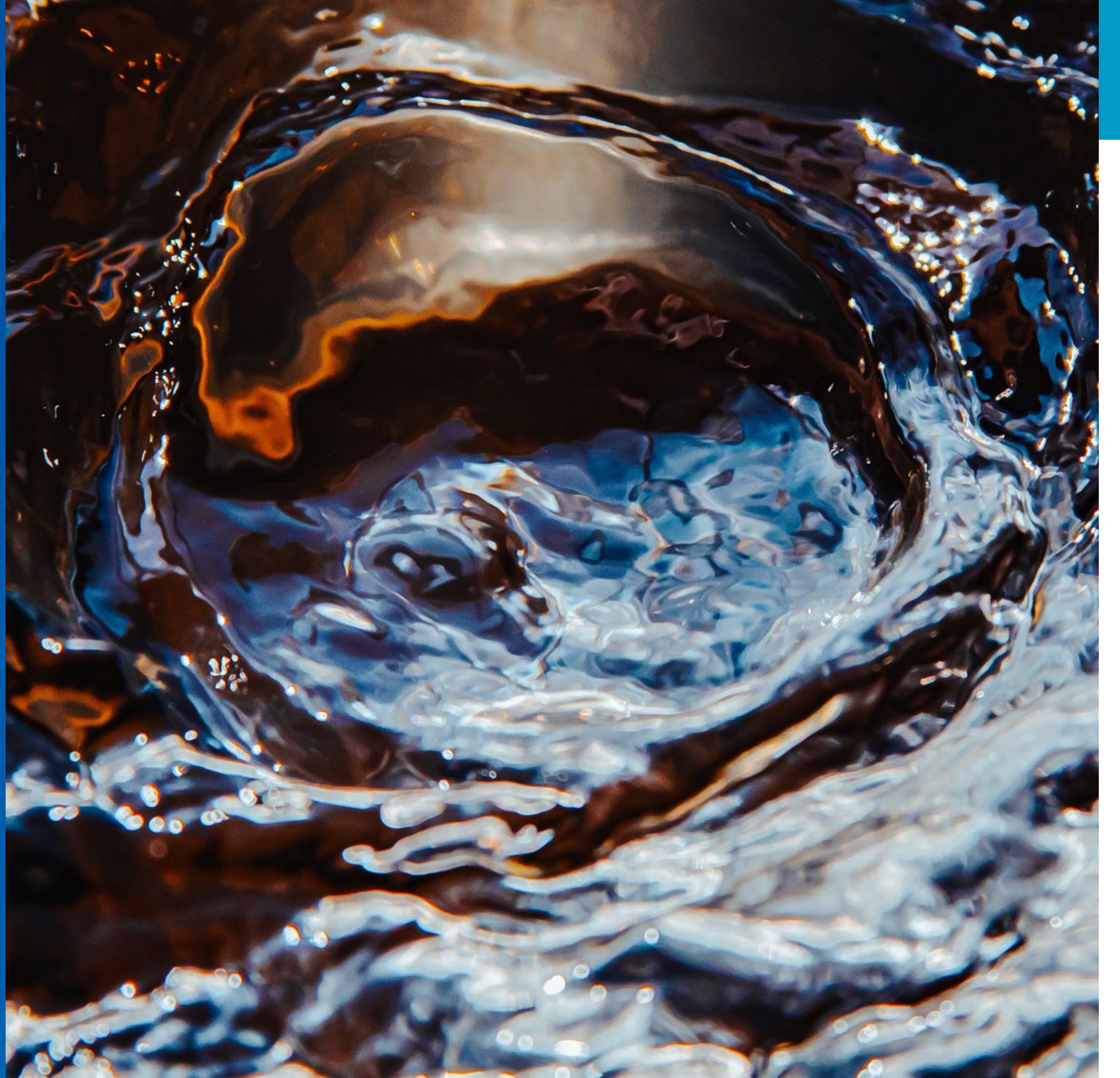
WRPP Research Papers

Contents

- Introduction
- Issue Statement
- Our Role
- Crucial Concerns
- Connections to Current Policy
- Policy/Action Recommendations
- Next Steps



Water Quality Research Paper



Water Quality



Issue Statement

Water quality contamination and its consequences impacts public health, ecosystem function, and affects regional economic competitiveness.

The metro region is experiencing increased pollutant-loaded runoff, a growing list of water impairments, contaminated drinking water supplies, and high utility treatment costs.

Uncertainty around emerging contaminants, regulatory changes, and climate change intensifies these issues and complicates how to address water contamination.

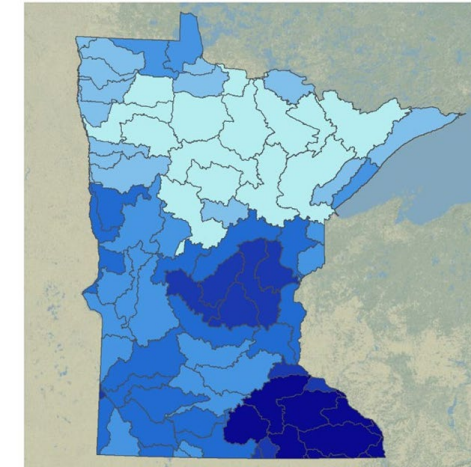
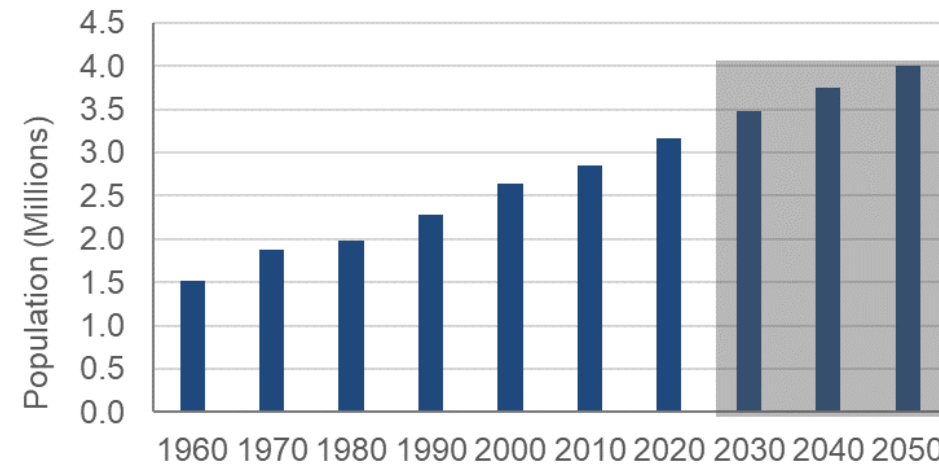
Strong regional water policies are necessary to restore and protect the quality of our waters and to ensure their resiliency to known and future contamination threats.

Water Quality

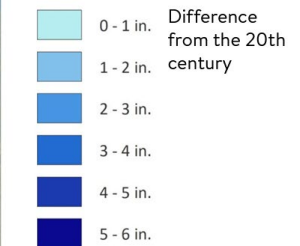
Primary Drivers

- Population Growth
- Land Use Change
- Climate Change
- Regulation
- Costs/ Benefits
- Emerging Concerns

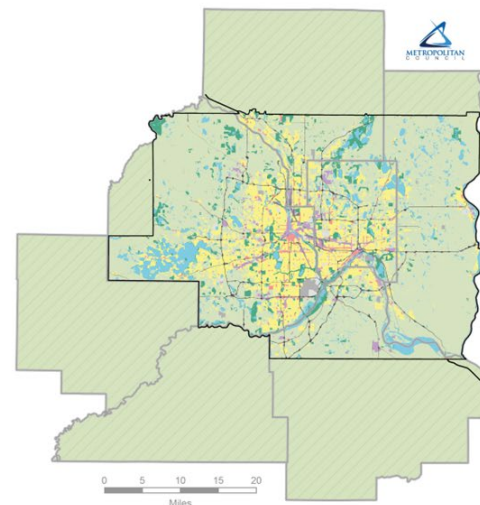
Seven-County Metro Area Population
(2030-2050 forecasted values)



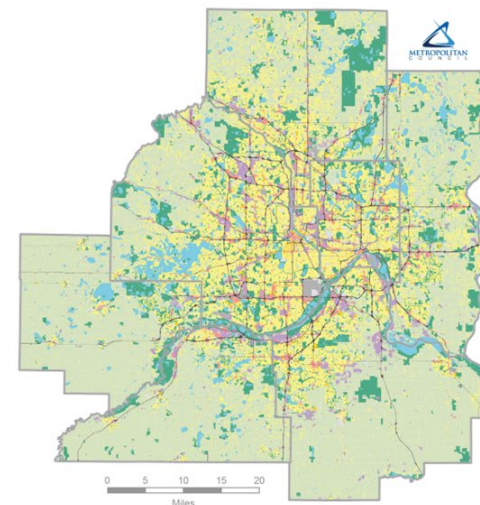
Annual precipitation change 2000-2019
Annual precipitation change by watershed for 2000-2019, compared to 20th century averages. Minnesota is getting wetter, especially the southern parts of the state.



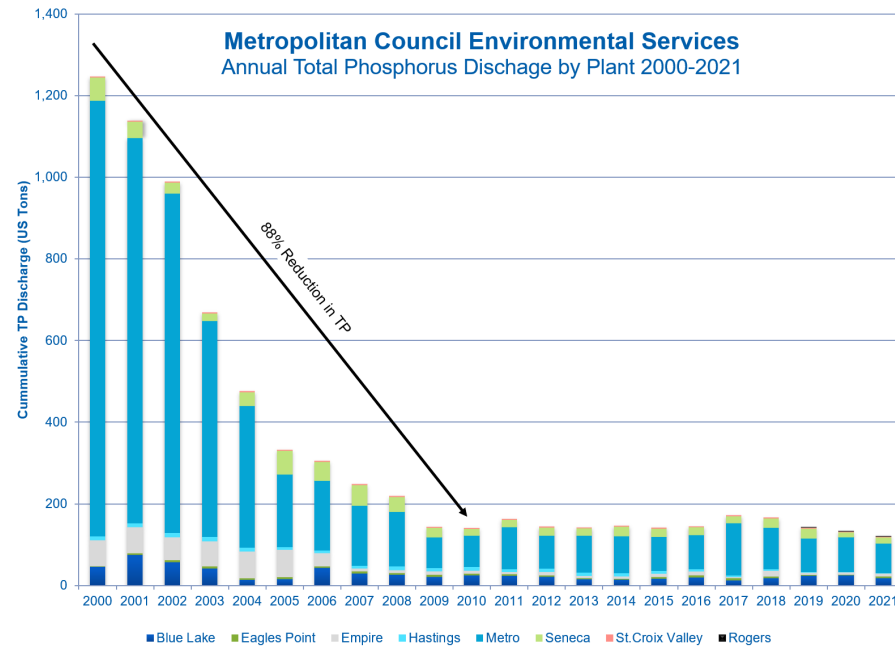
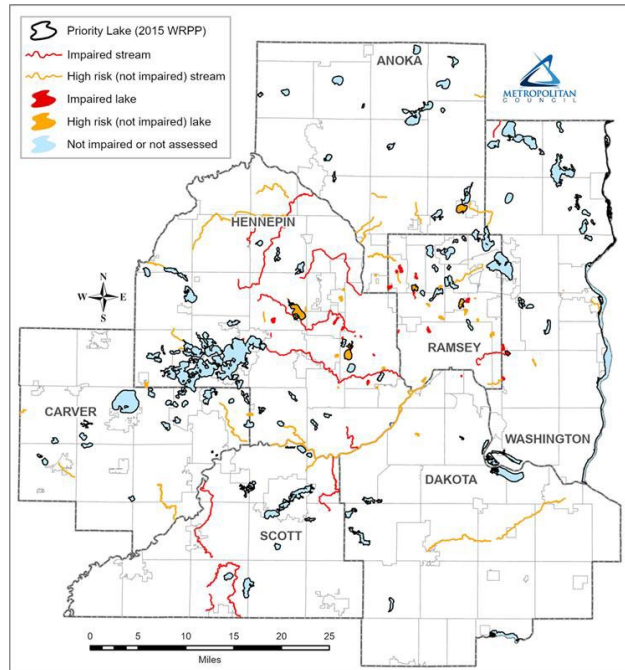
Metro Area Land Use 1968



Metro Area Land Use 2020

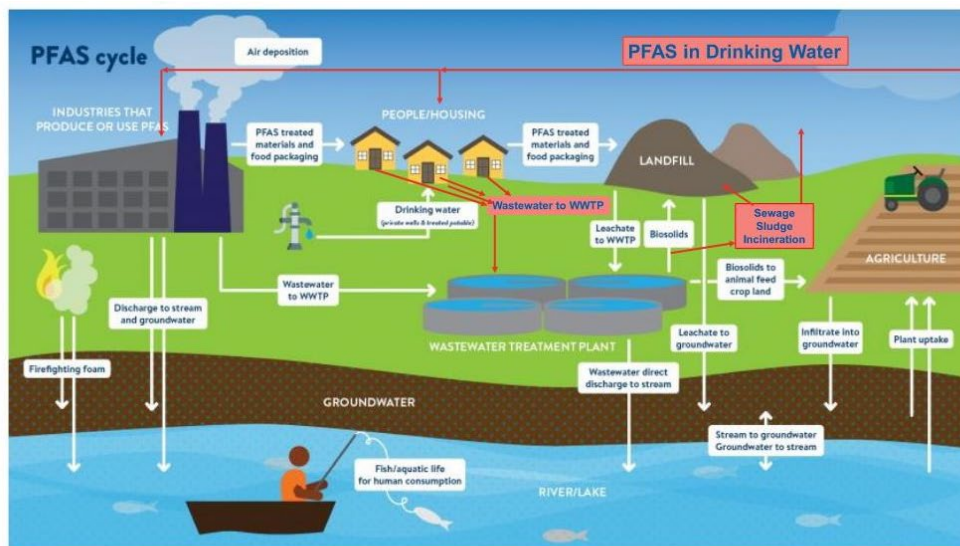


Water Quality

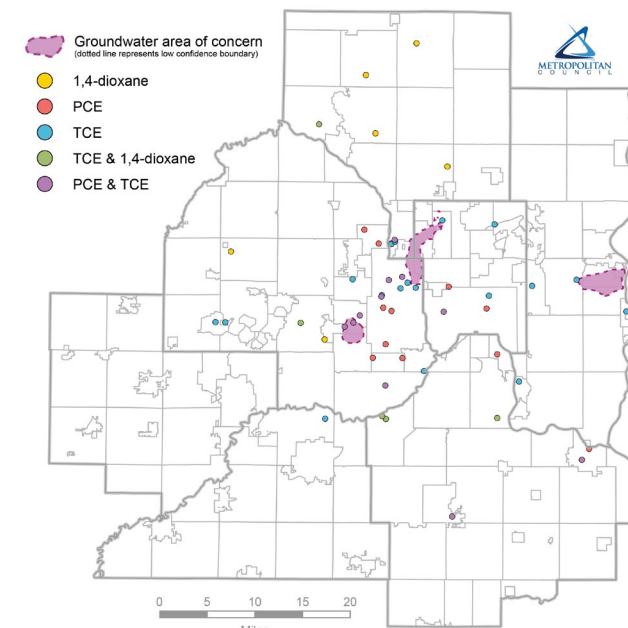
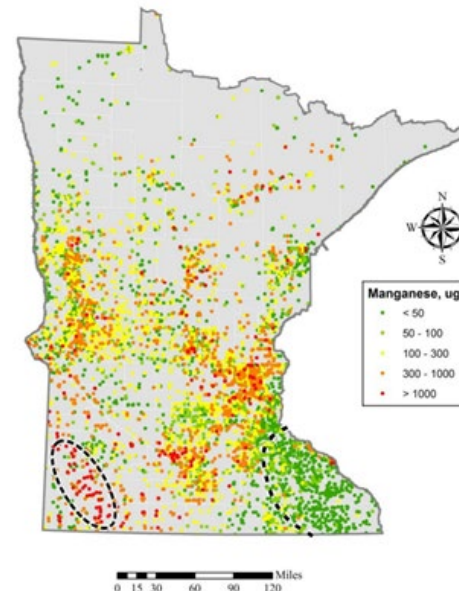
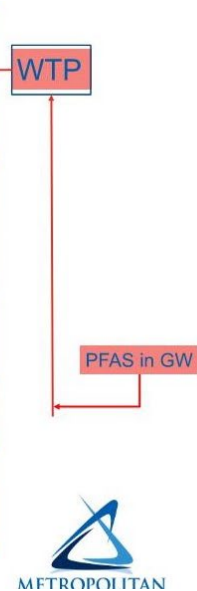


Contaminants of Concern

- Chloride
- Nutrients
- PFAS
- Manganese & Volatile Organic Compounds



Original image from MPCA, adapted by Environmental Services PFAS Team



Water Quality

Recommendation Areas

- Environmental Justice & Water Equity
- Investment and Finance
- Sustainable Water Resources
- Sustainable Water Supplies
- Wastewater Sustainability



Water Quality

Key Messages

- Water quality contamination and its consequences impacts public health, ecosystem function, and affects regional economic competitiveness. The metro region is, and will continue to, experience increased pollutant-loaded runoff, a growing list of water impairments, contaminated drinking water supplies, and high utility treatment costs.
- Uncertainty around population growth and density, emerging contaminants, regulatory changes, and climate change affect our ability to enact impactful regional water quality improvements in all cases.
- We know there are many pollutants that require a regional response to mitigate their impact on our waters. We have focused on chloride, nutrients, PFAS, drinking water pollutants (manganese and volatile organic compounds).
- We acknowledge that not all metro residents are impacted by water quality concerns equally and the Council has a role in lessening the burdens on vulnerable, marginalized, and underinvested communities within the region.

Protecting Source Water Areas Research Paper



Protecting Source Water Areas



Issue Statement

To ensure safe, sustainable, and sufficient drinking water for the region:

Public water suppliers, land use planners and developers, watershed organizations, business owners/managers, residents, and others...

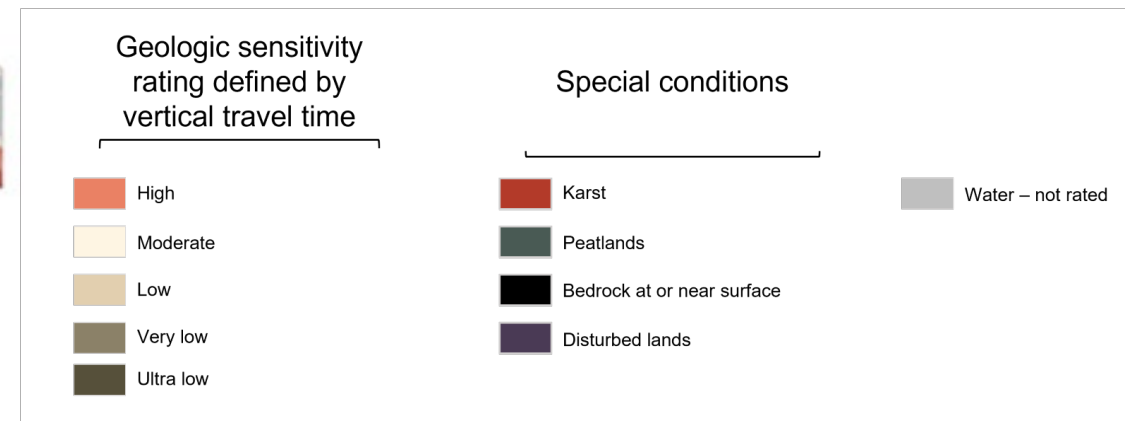
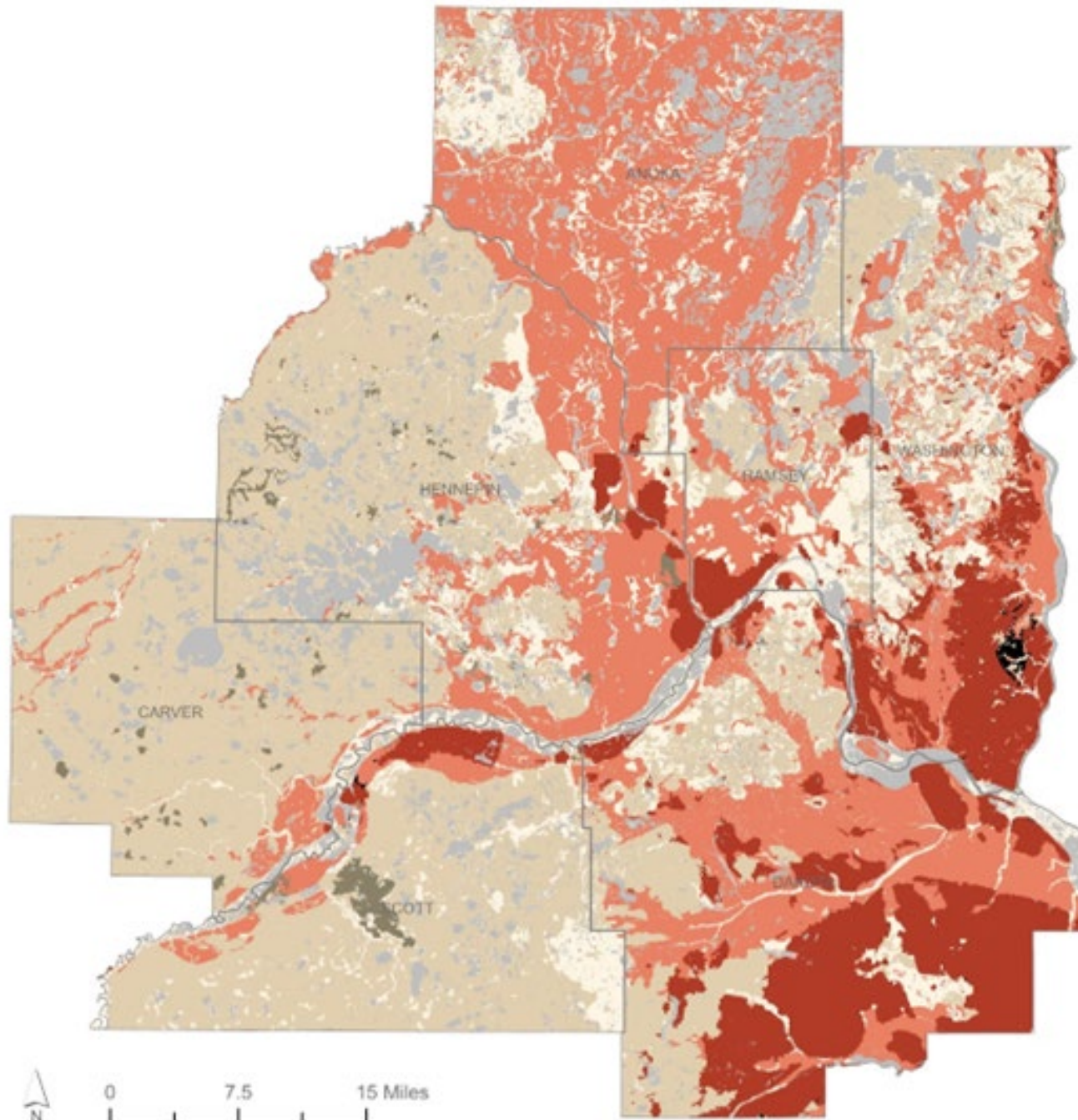
...need to improve understanding and collaboration to protect the land areas that are the sources for the region's water supply.

This is particularly important where source water protection areas extend beyond any one jurisdiction's boundaries.

Protecting Source Water Areas

Primary Drivers

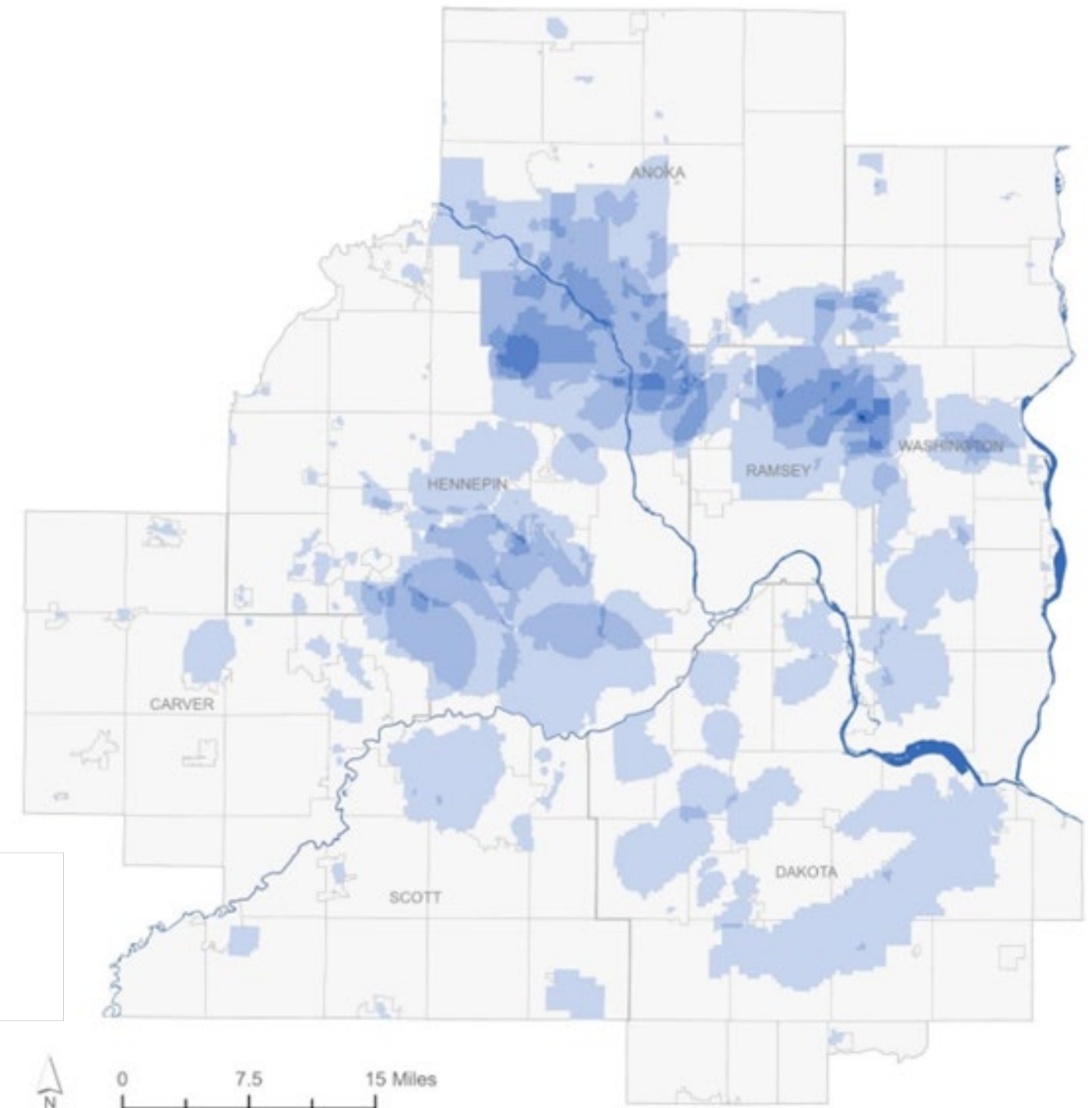
1. Current and future climate
2. Sensitivity of near-surface sediments and underlying bedrock to potential contamination
3. Land cover and land use
4. Federal and state programs



Protecting Source Water Areas

Key Concerns

1. Land management and source water protection implementation
2. Source water contamination
3. Costs and benefits of source water protection



Number of overlapping Drinking Water Supply Management Areas

- | | | |
|--|---|--|
| No overlap; only one DWSMA in this area | Two DWSMAs overlap in this area | Three DWSMAs overlap in this area |
| Four DWSMAs overlap in this area | Five DWSMAs overlap in this area | |

Protecting Source Water Areas

Key Messages

- Regionwide commitment to investing in source water protection supports the economical development of the metropolitan area by avoiding hundreds of millions of dollars in treatment and clean-up costs.
- Existing and potential sources of surface water and ground water contamination are documented across the region, associated with a different land use practices.
- Public water suppliers and the Minnesota Department of Health are responsible for providing safe drinking water, but they do not have the authority or capacity to protect drinking water sources on their own due to land ownership rights within drinking water supply management areas.
- Collaboration with local decision-makers, other state agencies, the Met Council, and partner organizations to plan and implement activities is necessary to protect drinking water sources.
- There is a need to improve understanding and collaboration to protect the land areas that are the sources for region's water supply – especially where source water protection areas extend onto MC/MCES properties and where they extend beyond any one jurisdiction's boundaries.

Protecting Source Water Areas

Recommendation Areas

- Assessing Water Resources
- Collaborations & Partnerships
- Integrated Water Planning
- Investment & Finance
- Protecting Water Resources
- Wastewater Sustainability
- Water Reuse



Discussion



What are your thoughts?

- What do you think of this policy research approach?
- Do you think we encapsulated the right contaminants of concern and key source water protection concerns? Did we miss anything?
- From your perspective, do the proposed policy/strategy/actions recommendations make sense?
- Did we miss any policy recommendation that would help to alleviate our key concerns?

Our ask of you... (one more time)

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Please visit our website to provide feedback:

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- Stay tuned for more info and opportunities to give feedback over the year as we draft the policy plan.



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