IMAGINE 2050
water policy plan

2050 Water Policy Plan Overview

Jen Kostrzewski

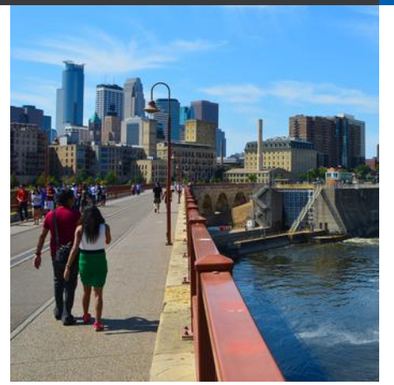
June 11, 2024

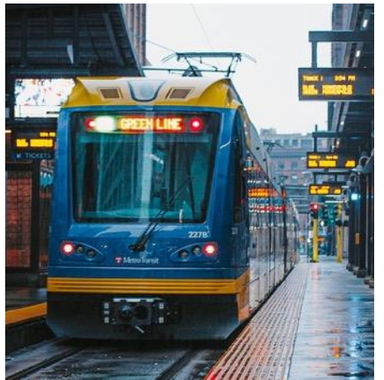
METROPOLITAN COUNCIL

Water Policy Plan (WPP)

Plan Purpose

- Met Council is developing the 2050 Water 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 WPP 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.
- WPP 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.





Regional plan elements

1 Values

Values are core beliefs or principles that guide the work of the Met Council, our expectations of partnerships, and our policy and program development.

2 Vision

Our vision is what we want to achieve for the region through our policies, practices, programs, and partnerships.

3 Goals

Our goals will broadly describe the desired end states that we want to achieve for the region.

4 Objectives

For each area of Met Council responsibility, achievable results that advance each regional goal.

5 Policies

Statement of the Met Council's intent and approach to regional issues or topics, independently and in its roles with partners.

6 Actions

Specific strategies or activities to implement policies and achieve goals.

Regional goals

Our region is equitable and inclusive.
Racial inequities and injustices experienced by historically marginalized communities have been eliminated; and every person feels welcome, included, and empowered.

Our communities are healthy and safe.
All our region's residents live healthy and rewarding lives with a sense of security, dignity, and wellbeing.

Our region is dynamic and resilient.
Our region meets the opportunities and challenges faced by our communities and the economy including issues of choice, access, and affordability.

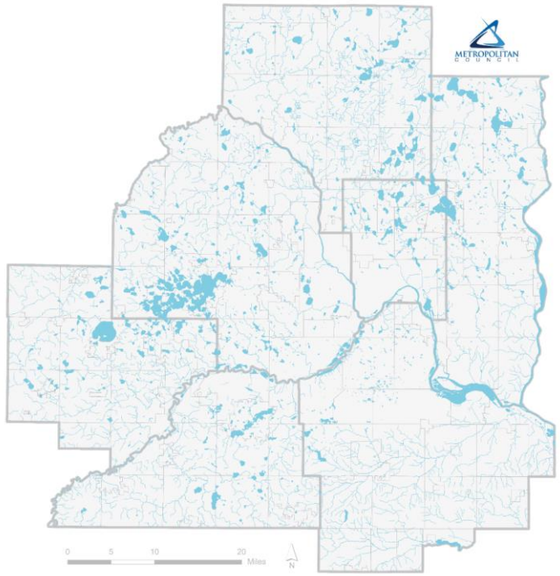
We lead on addressing climate change.
We have mitigated greenhouse gas emissions and have adapted to ensure that our communities and systems are resilient to climate impacts.

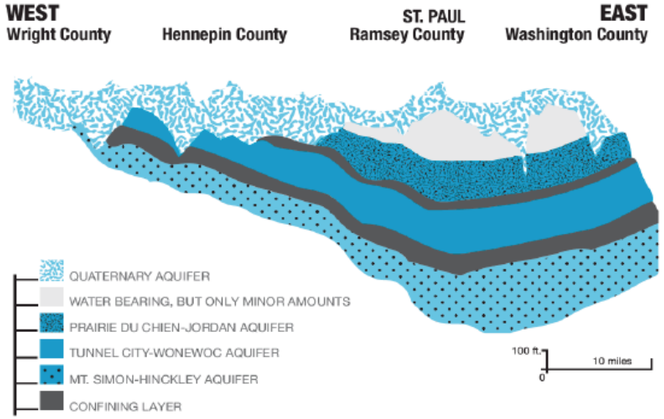
We protect and restore natural systems.
We protect, integrate, and restore natural systems to protect habitat and ensure a high quality of life for the people of our region.

Regional water context (1/2)

Plentiful, high-quality water is a foundational pillar of public and ecosystem health and thriving economies.

- 3,000 square miles of diverse landscapes - from highly developed cities to large rural agricultural areas.
- The region is home to more than 3 million people, over half of Minnesota's population.
- These landscapes include almost 1,000 lakes, hundreds of miles of rivers and streams, and thousands of acres of wetlands.
- Below ground there are surficial sand, gravel, and major bedrock aquifers that provide nearly 70% of the region's water supply.

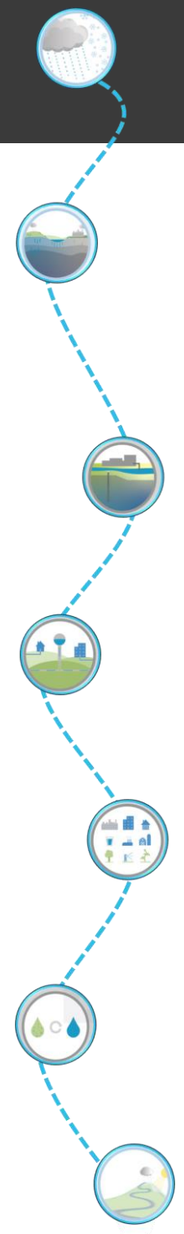




Regional water context (2/2)

Water moves through our region, is used, treated, and returned.

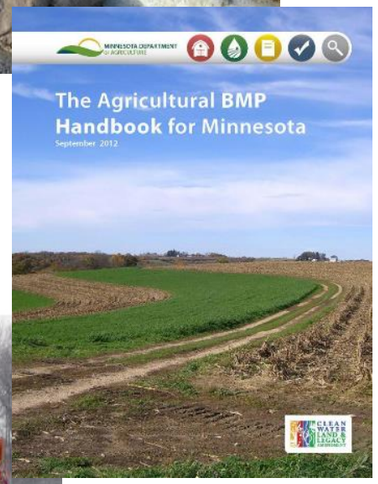
- +100 municipal community public water suppliers and tens of thousands of private and nonmunicipal public wells provide water to homes, businesses, and industries.
- Stormwater is conveyed through thousands of miles of stormwater infrastructure and collected in green infrastructure that allows it to safely infiltrate to replenish the water table and groundwater system.
- Used water is treated by individual subsurface sewage treatment systems, municipal wastewater facilities, private communal wastewater systems, or the regional water resource recovery system, which includes 9 water resource recovery facilities serving 111 communities.
- Recovered wastewater is then safely returned to the environment or reused to improve the sustainability of the region’s water sources



Key water sustainability challenges (1/5)

Growth, Development, and Land Use Connections

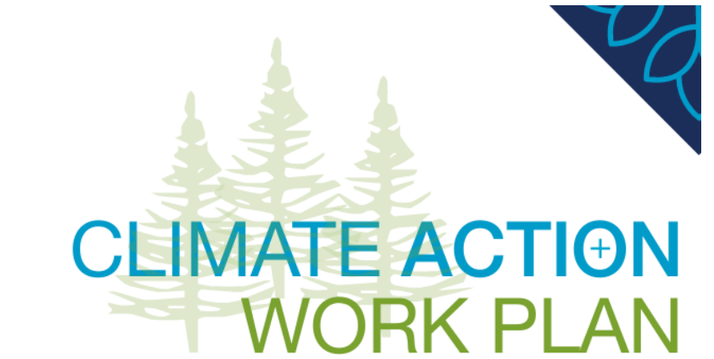
- What happens on land impacts waters.
- Smart design and planning can mitigate risk, while accommodating population and economic growth.
- Excessive use of groundwater (for irrigation or commercial purposes) impact groundwater levels and connected surface waters.
- Urban and rural areas feel this impact differently – there is no single approach.
  - Urban area has more dense road surfaces – increased chloride
  - Rural residents have private water systems – costly to maintain



Key water sustainability challenges (2/5)

Adapting and Mitigating Climate Change

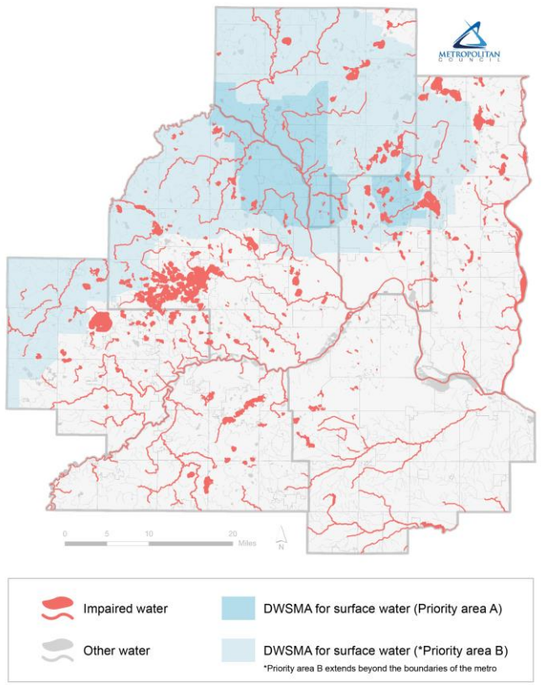
- Climate change affects the condition of water, water needs and uses, infrastructure and utility services, and ecosystem services.
- The livability, prosperity, and sustainability of the region face additional risks and uncertainty.
- Climate change will not be felt by all residents or communities simultaneously or in the same ways, potentially worsening current disparities around water services and resources.
- Greenhouse gas mitigation and adaptively planning our future investments are key to building regional resiliency.

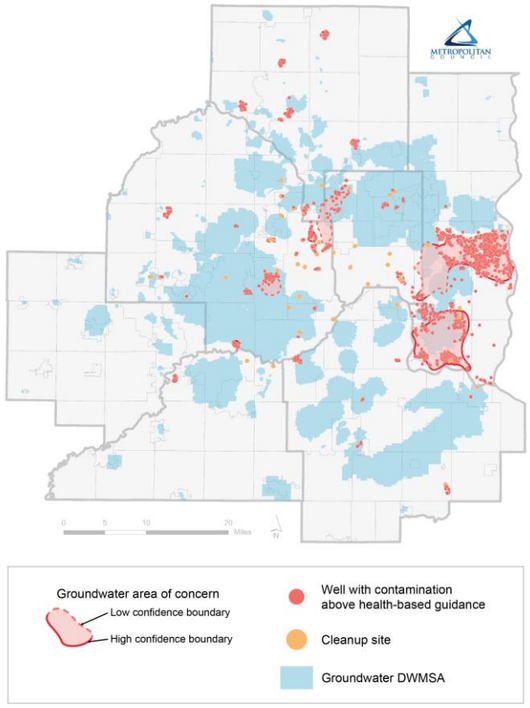


Key water sustainability challenges (3/5)

Water Contamination, Pollution Prevention and Source Water Protection

- Water contamination and its consequences impact public health, ecosystem function, and regional economic competitiveness.
- The metro region is challenged by multiple complex water quality issues.
  - increased pollutant-loaded runoff,
  - a growing list of water impairments,
  - contaminated drinking water sources,
  - high costs for water treatment, utility operations, and infrastructure.





Key water sustainability challenges (4/5)

Equitable Water Services, Planning, and Management

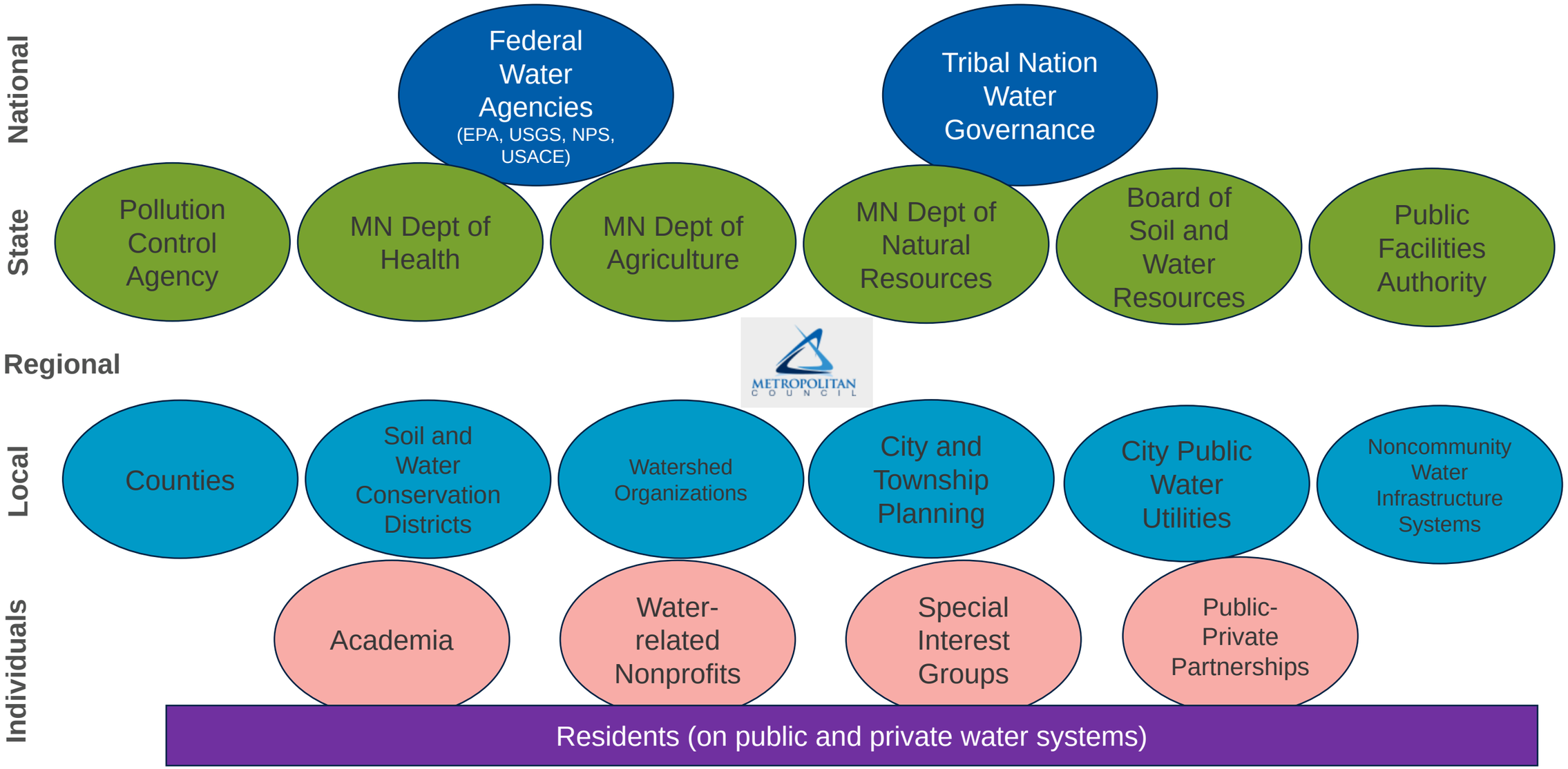
- The Met Council holds that accessible, affordable, sufficient, and safe water for personal and domestic use is a human right.
- Water should be plentiful and clean to support healthy ecosystems and the life that depends on them, including the needs of humans.
- Planners at all levels of government have exacerbated inequality by:
  - Continually identifying low-income neighborhoods for the siting of industrial development
  - Creating environments where pollution has been concentrated and public health has suffered.
  - Cumulating in impacted water quality, availability, and accessibility, contributing to a lack of trust in water services.

Key water sustainability challenges (5/5)

Water Sector Workforce Development

- Nationally, and in our region, the water sector faces a critical shortage of skilled workforce across various disciplines, including engineering, management, and technical operations.
- Demand for skilled professionals in the water sector continues to grow due to a smaller pipeline of workers, evolving technologies, aging infrastructure, and emerging environmental challenges.
- The lack of diversity in the workforce poses a significant threat to innovation, creativity, and effective problem-solving

Water governance



Met Council's water role

Partner

The Met Council commits to working with its partners to achieve our vision of clean water for future generations. Partnerships move the region towards a common vision in water sustainability, climate resilience, and equitable water outcomes.

This allows the Met Council to find sound innovative solutions to complex water challenges.

Plan

The Met Council's Environmental Services division collaboratively develops regional policies and plans to protect, enhance, restore, and sustainably manage the region's water resources.

- Wastewater
- Water Resources/Surface Water
- Water Supply Planning

We review local water plans to ensure that they are in conformance, consistent, and compatible with regional policies.

Provide

We provide regional wastewater collection and treatment services to 111 communities through our nine water resources recovery facilities within the metro region.

We provide essential surface water, water supply, and wastewater planning technical assistance, tool development, novel research, water monitoring, and plan guidance throughout local water, water supply and wastewater plan creation and implementation.

Draft WPP principles

The principles ensure that we think broadly about water challenges and opportunities without making the effort unnecessarily complex.

- **Watershed approach:** The state of Minnesota has adopted a watershed-based management strategy, fostering heightened collaboration and a shared perspective for planning and executing water improvement activities. This method transcends county or city boundaries and follows topographic and hydrologic boundaries.
- **“One Water”, integrated water management:** The metro region is perceived to be water-rich, and that water holds immense value. Integrated water management, also known as "One Water" addresses water as it moves from water supply, through wastewater systems and into surface waters. The ultimate goal of integrated water management is sustainable, high-quality water in the region.
- **Use existing systems:** The metro region has a robust water planning and wastewater operations system with many actors – community water and wastewater utilities, watershed management organizations, and regional, county, state, and federal agencies. Coordination and collaboration between these groups is necessary to protect our water.
- **Metric-based policies:** It is hard to quantify policy success without accountability. We will provide policy options with associated metrics and measurable outcomes where possible, to demonstrate the effectiveness of our water policies and actions.

Draft WPP objectives

CLIMATE: Create climate-resilient water sources, ecosystems, and water infrastructure through mitigation, innovative design, and adaptive planning.

INFRASTRUCTURE: Optimize regional water protection, planning, and infrastructure investments.

HEALTH: Protect public and ecosystem health to maintain, restore, and enhance a high quality of life, regional waters, and water services across the region .

EQUITY: Water benefits and services are accessible and shared amongst all residents and communities.

Draft WPP policy areas

- Integrated Water Planning
- Water Equity
- Water Monitoring, Data, Assessment
- Climate Change Resilience Waters
- Water Centered Growth and Development
- Regional Wastewater Service Area
- Conservation and Sustainability
- Water Reuse
- Pollution Prevention and Contaminant Management
- Wastewater Operations and Finance
- Inflow and Infiltration
- Water Sector Workforce Development

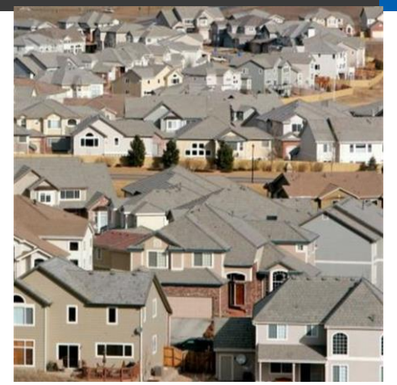
System Plan content

20-Year Planning

- High Level System Overview
  - Assets
  - Population, households, employment forecasts
  - Wastewater flow projections
- Regional Water Resource Recovery Facilities
  - Capacity (current and ultimate)
  - Treatment requirements
- Capital Improvement Program
  - Major projects
  - Regulatory strategies and anticipated treatment needs
- Considerations Guided by WPP
  - Reuse
  - Energy, climate change
  - Regulatory trends

Post 20-Year Planning

- Regional Water Resource Recovery Facilities (new – Scott Co, Carver Co, NE Metro)
- Interceptor Capacity Projects
- Regulatory Strategies



Metro Area Water Supply Plan draft content

Part 1
Desired Outcomes

- Rational approach to regional water supply planning
- Regional desired outcomes with 2050 water supplies and regional goals in mind

Part 2
Regional Commitments

- Connection to regional policies in the Water Policy Plan with more detail around water supply-related actions

Part 3
Regional Dashboard Measures

- Regional summary of information that provides context for water supply planning, describes the current state of sustainable water supply practices, and supports the development of measurable and trackable regional targets

Part 4
Subregional Info

- Subregional information related to water, land use, and other factors
- Key water supply issues, risks and opportunities identified by stakeholders
- Implementation needs (high-level)

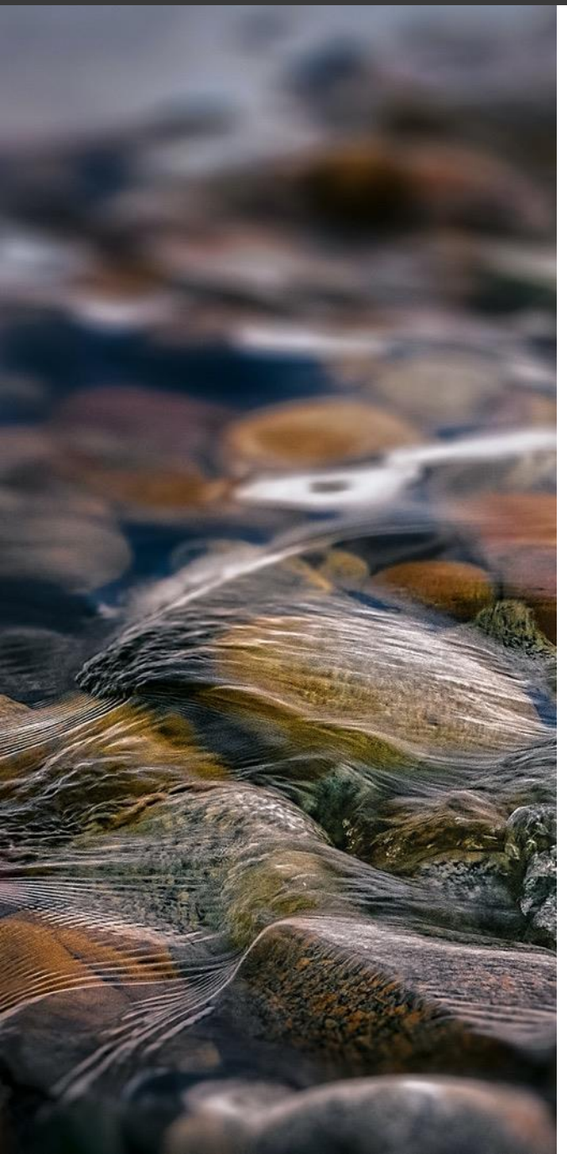
Similarities and differences in focus areas by subregion

Priority focus area	West	Northwest	Northeast	East	Southeast	Southwest	Central
Water quantity	♦	♦	♦	♦	♦	♦	♦
Water quality	♦	♦	♦	♦	♦		♦
Coordination and collaboration*	♦	♦	♦	♦	*	♦	*
Growth and demand	♦	♦	♦		♦	*	♦
Asset management	♦	♦			♦		♦
Changing behaviors and norms*	*	*	♦	*	*	♦	♦
Data and tools	♦			*		♦	♦
Workforce*		♦	*	*	♦		♦
Funding*	*	*	♦	*	*	*	*
Climate change*	♦	*	*	*	*		
Affordability	*						♦

♦ = Priority focus area

* = Incorporated into multiple focus areas as an "implementation consideration"

Amendment Process and Appendices



Draft Appendices' Content

- Comprehensive plan submittal requirements
  - Local Surface Water Management Plan Elements
  - Local Water Supply Plan Elements
  - Comprehensive Sewer Plan Update Review Requirements
- Long-Term Service Area Map
- Environmental Services Customer Level of Service
- Wastewater Reuse Task Force
- Wastewater Flow Variation Factors
- Community Forecasts and Flow Projections
- Methodology for projecting a range of water demand
  - Use of region-wide water demand projections
  - Overview of the projection method
  - Data used to project water demand

Questions?

- Is there anything in the narrative framing the WPP that doesn't resonate with you?
- Did we miss anything?
- Other comments?

IMAGINE 2050
water policy plan

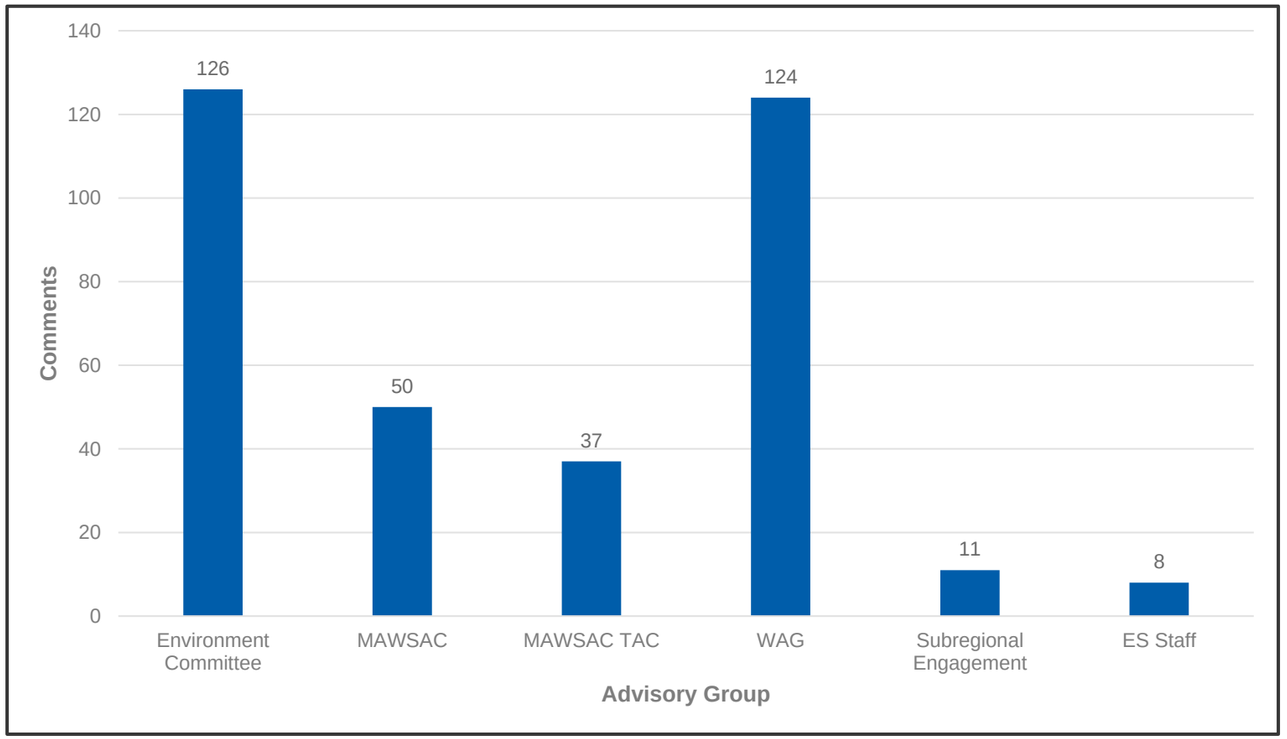
2050 Water Policies and Feedback

METROPOLITAN COUNCIL

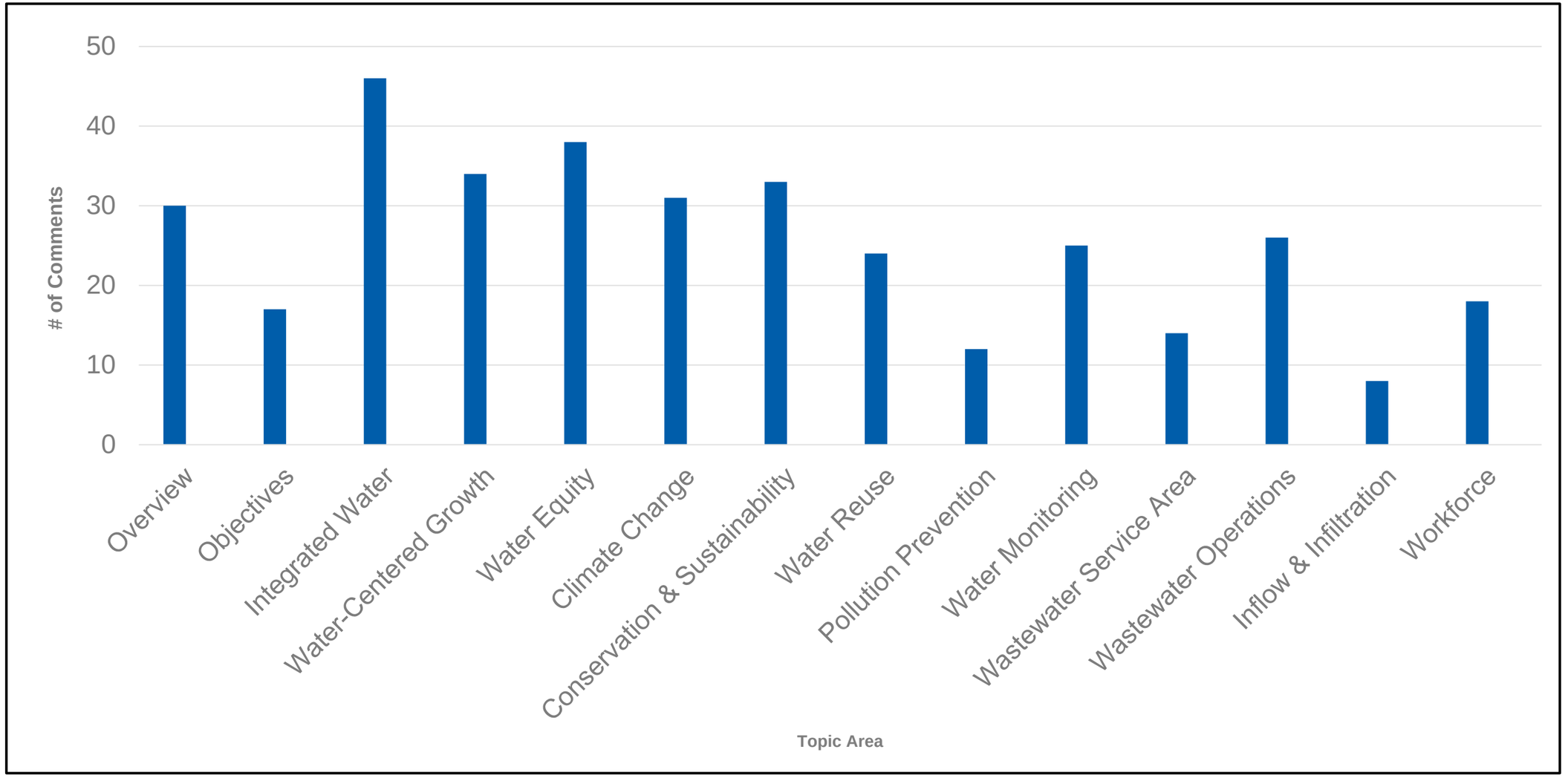
Comment summary

There is general support from all advisory groups on the direction that the Water Policy Plan is headed.

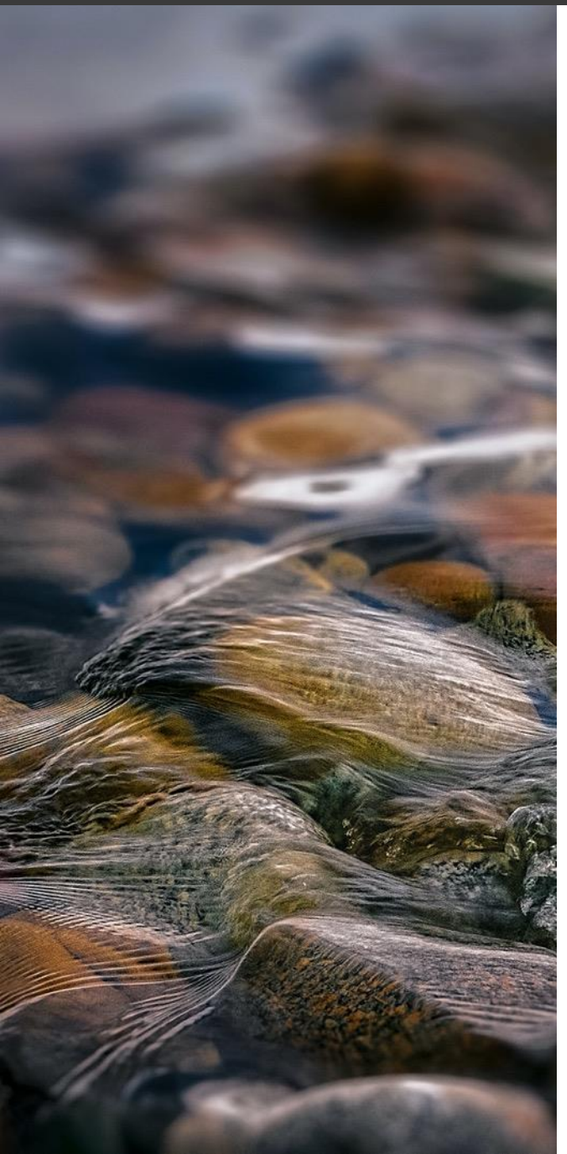
- We have engaged:
  - Environment Committee
  - Water Advisory Group (WAG)
  - Metro Area Water Supply Advisory Committee (MAWSAC)
  - MAWSAC- Technical Advisory Committee (MAWSAC-TAC)
  - 7 subregions about water supply plan
  - 4 WPP specific engagements
- +350 written comments to date.
- Areas of improvement:
  - Definitions
  - Roles and responsibilities
- Strong desire for measurable outcomes.



Comments by topic area



Policy Structure



4. Climate Change Resilience Policy

The impacts of climate change on natural waters and the built water environment are proactively addressed to minimize impacts to public and ecosystem health, and ensure the benefits of clean and plentiful water are protected and available for current and future generations.

Acute and chronic changes to weather patterns pose significant risks to the water the region relies on for public and ecosystem health, and economic productivity. These changes also impact the ability of our wastewater utility and local water suppliers to provide essential services to the region. Climate impacts can threaten the reliability of water infrastructure and service delivery, and the predictability of the regulatory environment, resulting in increased costs for service providers and those they serve. Other public water service providers, businesses and industries with water appropriation permits, and individuals with private water supplies and wastewater treatment infrastructure may also be impacted.

To ensure the abundance and quality of the region's waters, as well as the robustness of water services and service providers, the region must proactively address the current risks and impacts of climate change and plan for known and unknown impacts in the future. This means that the factors that drive climate change like greenhouse gas emissions are mitigated, and that the region can adapt to new and evolving conditions. Doing so helps to limit negative outcomes and increases the resiliency of communities and the water and water services we all rely on.

Desired Outcomes:

- The Council works with its partners across water sectors to mitigate greenhouse gas emissions, enhance carbon storage, and adapt to new and changing climate conditions.
- Council and local actions mirror and are in alignment with the Minnesota Climate Action Framework.
- The region is prepared for impacts and associated risks due to climate change and has the tools and resources to adapt and thrive.
- Negative climate impacts on water sources and water infrastructure are reduced and limited, while positive climate impacts are enhanced and promoted.
- Water utilities mitigate greenhouse gas emissions.
- Natural waters, water managers, and water service providers can adapt to evolving climate risks and continue to support and protect public and ecosystem health.

Example Actions:

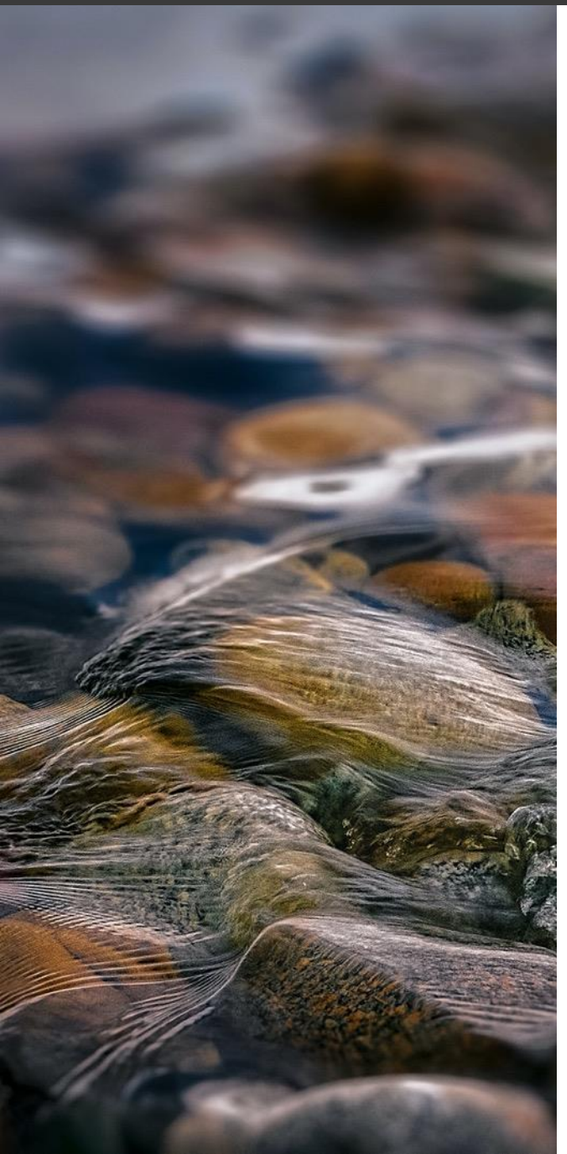
Partner

- Connect, partner, and learn from other water utilities and planning organizations to address water, water utility, and water services climate resiliency.
- Partner with and support academic institutions and other organizations to conduct research to generate metro area-specific climate change information, identify potential risks and benefits, and better understand future climate scenarios based on current science and models.

Plan

- Integrate and center state and regional climate objectives into our wastewater operations and water planning within the region.

Integrated Water Policy

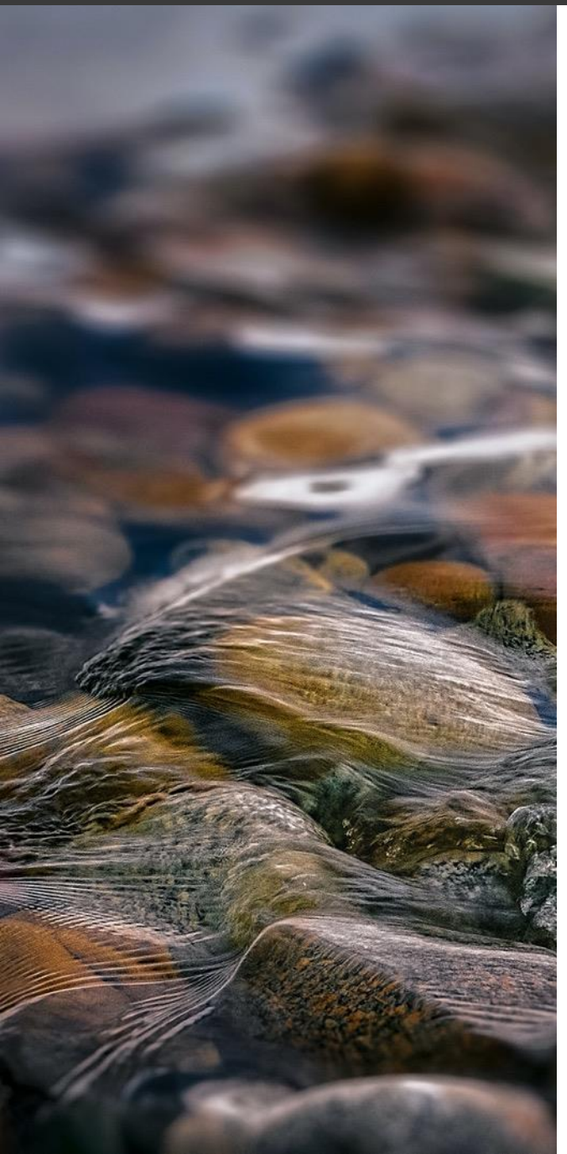


Water planning, management, and operation approaches are collaborative and span the natural and built water cycle.

Desired outcomes:

- Federal, Tribal, state, regional, and local water plans and policies align to support sustainable and equitable water outcomes.
- Water planning and management decisions consider the needs, challenges, risks, and impacts of planning decisions for both natural surface and groundwaters, as well as water moving through the built environment.
- Water organizations work collaboratively across geographical, political, social, and cultural boundaries to achieve water sustainability in the region.
- Water planning and management roles and responsibilities within the region are clarified and any identified gaps collaboratively addressed.
- The Met Council will strive to maximize the benefits of clean and plentiful water from regional investments, through coordination among its divisions and across the integrated water cycle.
- Surface water and groundwater in the region are protected and restored to meet the needs of current and future residents, communities, ecosystems, and economies.

Water-Centered Growth and Development Policy

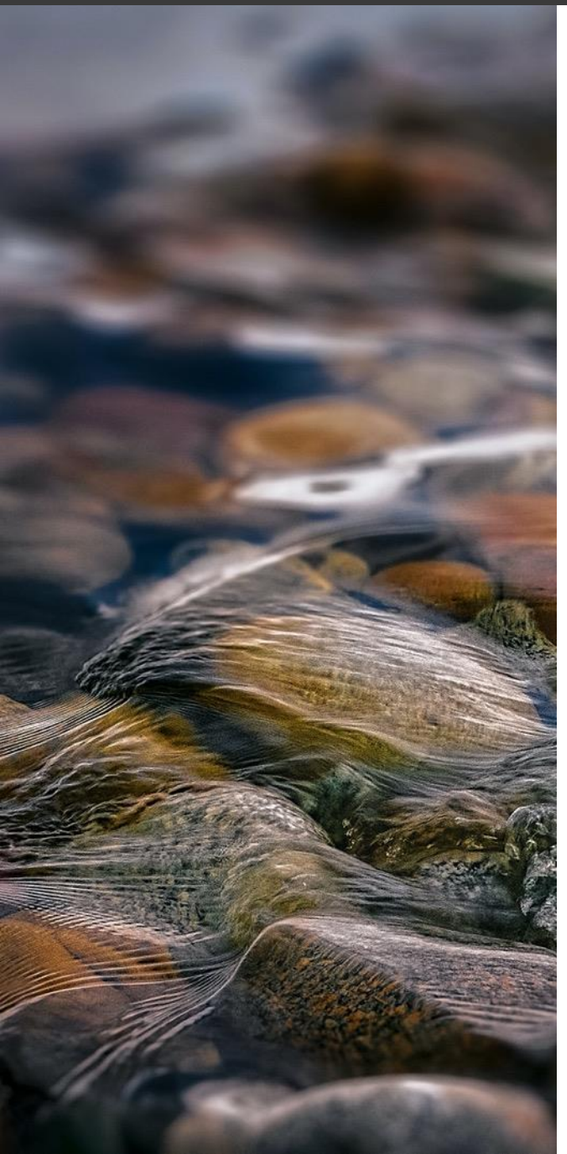


The benefits of clean and plentiful water are integrated with, protected by, and restored through development and redevelopment decisions. The effects of land use and population changes on water and water service providers are accounted for and potential negative outcomes addressed so that the region can grow sustainably.

Desired Outcomes:

- Natural system, water supply and wastewater systems and services are accounted for and addressed in new development and redevelopment planning.
- Growth is prioritized where dual source water supplies are feasible and where existing infrastructure can accommodate growth.
- Growth is limited as much as possible to areas that can sustain reliable water supply and water services.
- The quality and quantity of source and recreational waters is protected and restored.
- Recharge areas are identified, protected, and enhanced through land restoration and new systems that promote infiltration.
- The Met Council and local partners implement engineered systems and new technologies that enhance the rate of groundwater replenishment where feasible.
- Current land uses and future land use changes consider equity, reduce negative water outcomes, and enhance the benefits of clean and abundant water in all communities.
- Development and re-development plans consider natural waters and water system sustainability, including potential impacts to public and ecosystem health, as critical parts of land use decisions, planning protocols and procedures.
- Public water suppliers, land use planners, and developers have tools, funding and authority to work together - supported by aligned agency directions - to guide and support development in ways that balance communities' economic needs while protecting the quantity and quality of sources waters that are vital to the region's communities.

Water Equity Policy

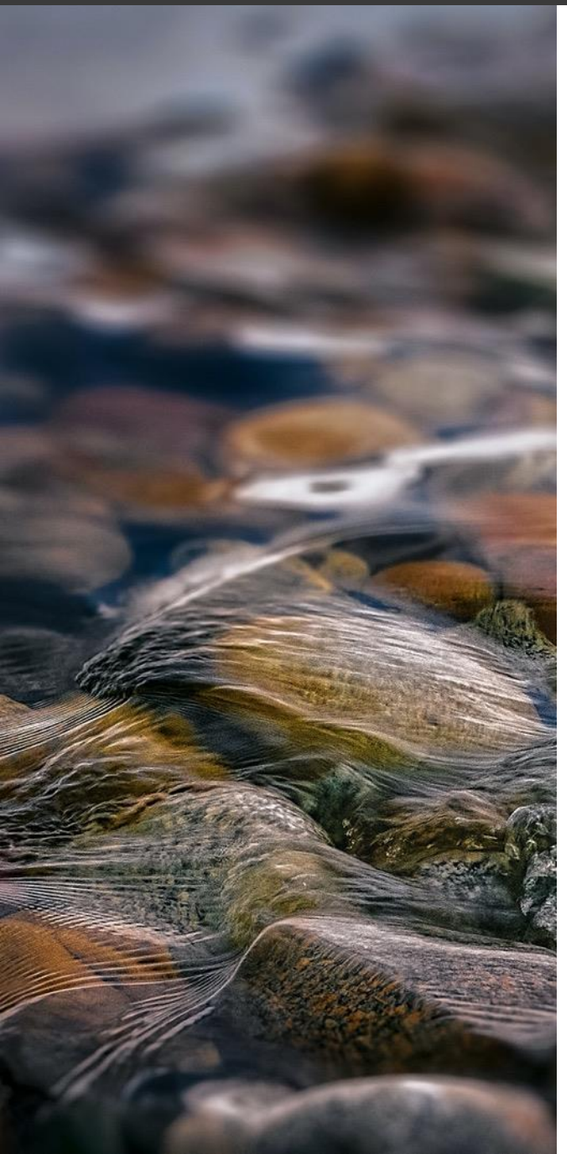


Access and the benefits of safe, plentiful, and affordable water, including sustainable water utility and ecosystem services, are shared among all residents and communities by addressing inequities with community-centered solutions that go beyond harm reduction.

Desired outcomes:

- All residents have access to safe and affordable water for drinking, recreation, cultural, and social, spiritual, or communal uses.
- The public and ecosystem health benefits of clean, safe surface and drinking waters are fully achieved in all communities in the region.
- Water utility and ecosystem services gaps are prioritized and addressed in overburdened communities.
- Historically marginalized and overburdened populations are centered in water planning and management conversations and decisions.
- Improvements to the regional wastewater conveyance and treatment systems enhance regional aesthetics and amenities as directed by communities.

Climate Change Mitigation, Adaptation, and Resilience Policy

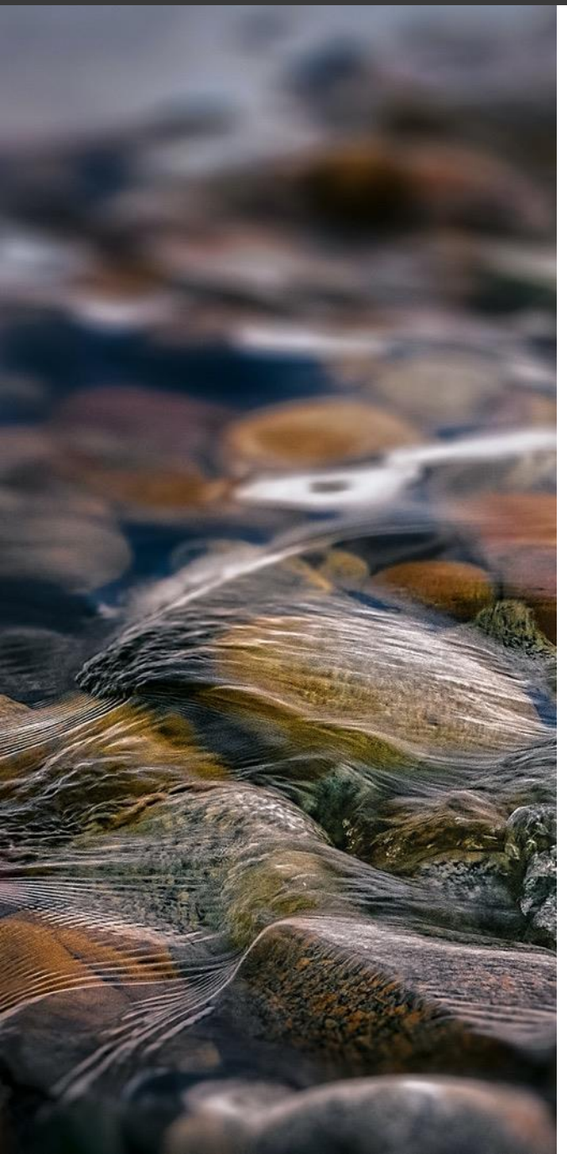


Climate change's effects on natural waters, water infrastructure, and water utilities are proactively addressed through mitigation and adaptation actions that work together to protect public and ecosystem health and enhance community and environmental resiliency.

Desired Outcomes:

- Actions are taken to lessen greenhouse gas emissions across all water planning and management sectors.
- The region's water service providers and managers are prepared for and able to adapt to climate impacts to water sources and water infrastructure.
- The water sector is prepared for and able to adapt to impacts and associated risks due to climate change and has the tools and resources needed to be resilient to impacts and enhance any positive changes.
- Met Council and local actions align with the Minnesota Climate Action Framework.

Conservation and Sustainability Policy

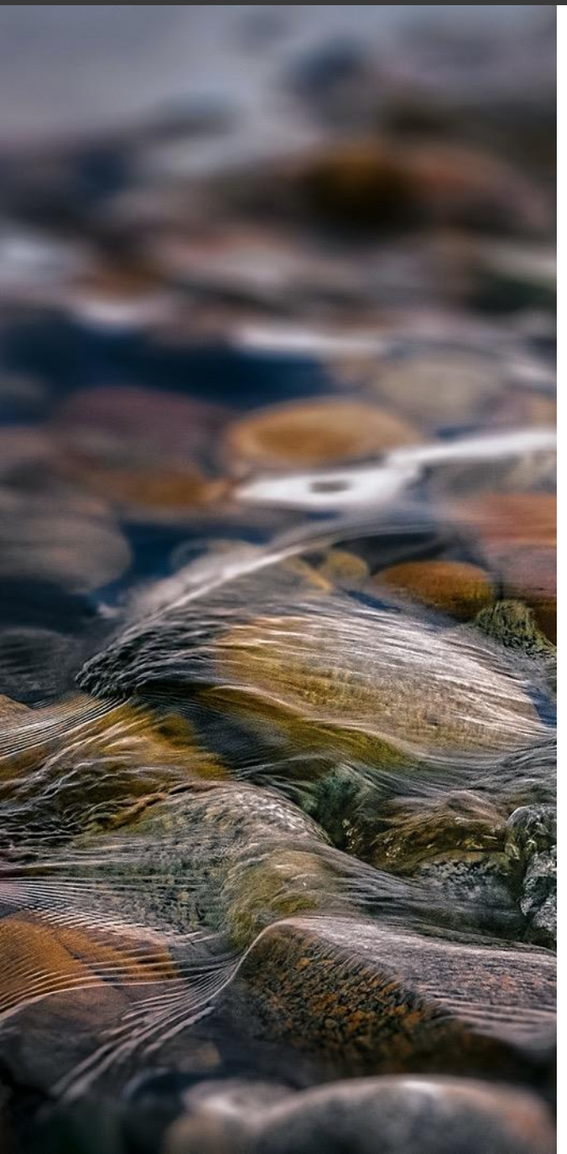


The Met Council and its regional partners work together to ensure the region's water is conserved and used efficiently to optimize current water infrastructure and treatment investments, safeguard the sustainability of water sources, and ensure the reliability of water utility services.

Desired outcomes:

- The water needs of all cities, townships, residents, and ecosystems across the metro are met now and into the future.
- Efficient use and water conservation practices are prioritized and invested in at the local and regional level to help optimize all water infrastructure investments.
- The Met Council explores and supports community efforts to adopt technologies that increase the efficient use of water and reduce energy consumption.
- Communities can act quickly, thoughtfully, and equitably to address aging infrastructure, contamination, changing groundwater conditions, changing water demand, and financial challenges.
- Communities and water agencies understand the sustainable limits of groundwater and surface water sources.
- Agency directions are aligned and support local plans to supply demand that exceeds sustainable withdrawal rates from currently used groundwater and/or surface water sources using the most feasible combination of alternative groundwater or surface water sources, conservation, and reclaimed wastewater and stormwater reuse.

Water Reuse Policy

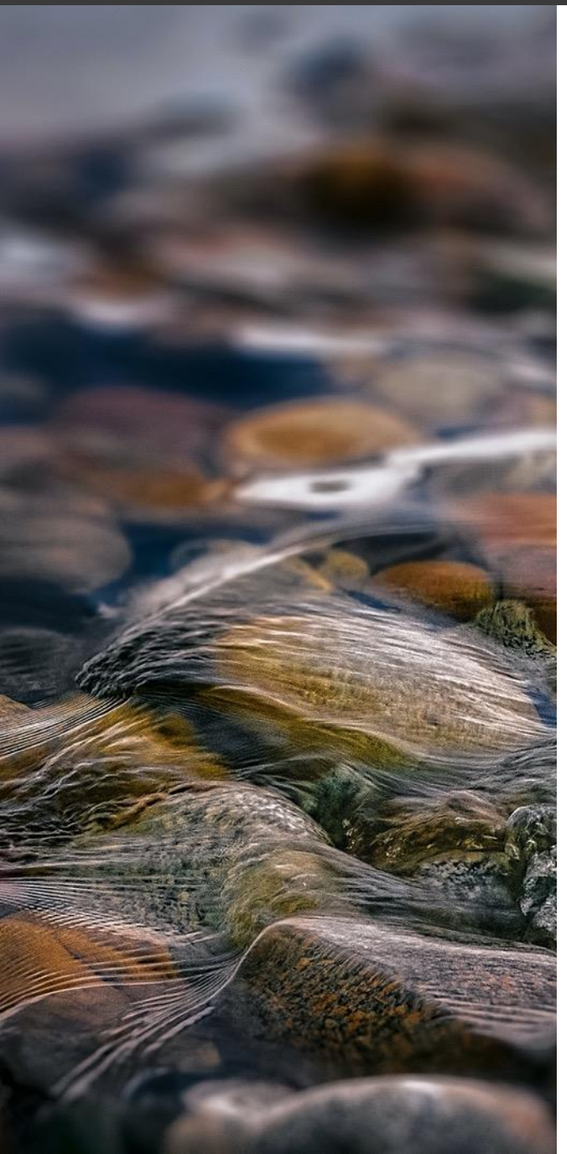


The Met Council will work with partners to reduce barriers, pursue opportunities, and support efforts to reuse stormwater and wastewater for potable (drinking) and nonpotable purposes, while balancing public and ecosystem health and financial viability.

Desired outcomes:

- State guidelines on stormwater reuse are clarified and barriers to implement stormwater reuse are reduced.
- Stormwater reuse guidelines for the state and region balance the needs of implementors, state agencies, public health, and financial cost, while furthering sustainable waters.
- Reclaimed wastewater reuse implemented in Met Council facilities and across the region.
- Met Council pursues water reuse projects within its own operations and supports our partners in their wastewater reuse efforts through financial and technical support.

Pollution Prevention and Contaminant Management Policy

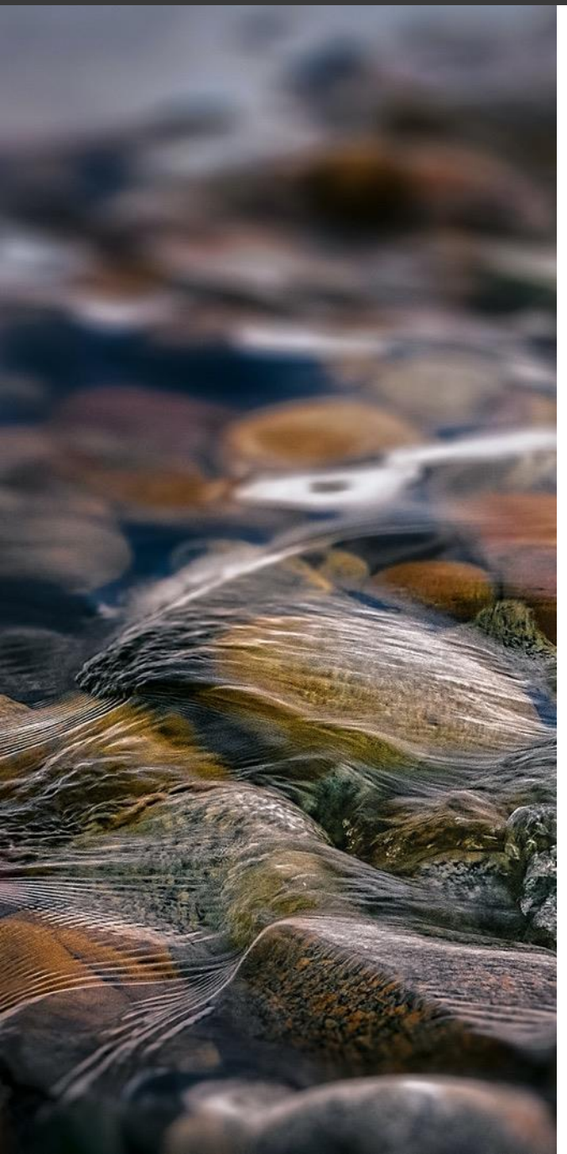


The quality of the region's surface, groundwater, and drinking water supplies is protected and restored through proactive and collaborative action. Planning and management for source water protection, stormwater, wastewater, and water resources prioritizes public and ecosystem health and equitable outcomes.

Desired outcomes:

- Protection, restoration, and improvement of water quality is holistically pursued and achieved.
- The Met Council partners, engages, and provides expertise in the research and regulatory work for contaminants of concern with other public agencies.
- The Met Council stays abreast of new and evolving emerging contaminants, contaminant issues, and respond to changing regulatory requirements.
- The connections between water quality (physical and chemical), public and ecosystem health, and equitable water outcomes are addressed in planning and management decisions.
- Efforts to protect and improve water quality are addressed collaboratively by local governments, state agencies, regional partners, Tribal nations, and individual residents.
- 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.
- Pollution in stormwater is reduced with the widespread use of best management practices and green infrastructure.
- Public and environmental health is protected, and all residents, communities, Tribal Nations, and agency partners have the support, technical and financial, needed to address evolving and emerging contaminants.

Water Monitoring, Data, and Assessment Policy

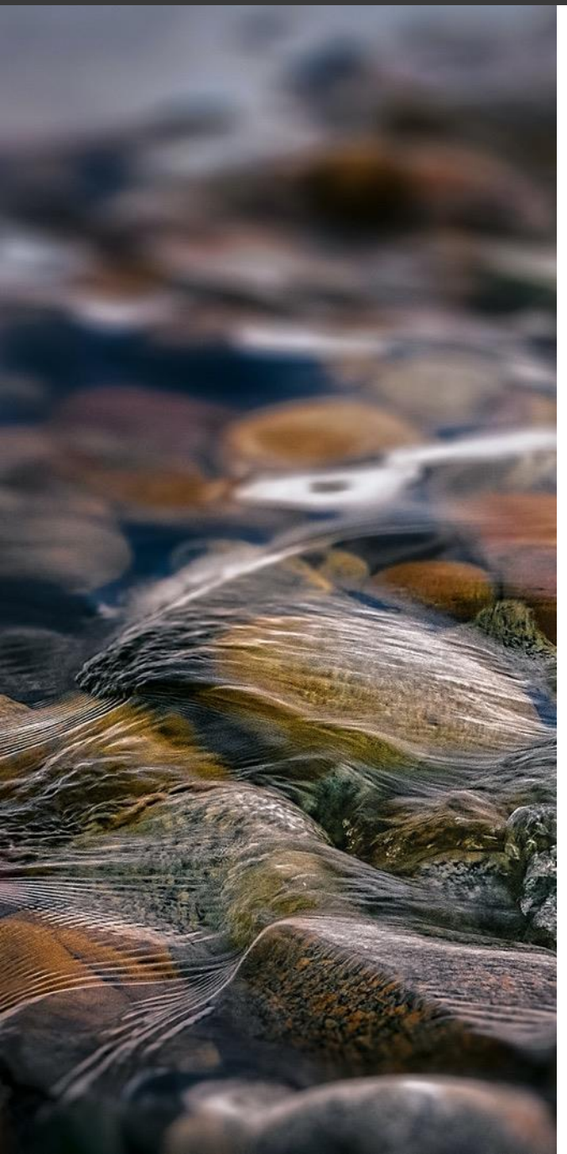


Natural waters and engineered water systems (stormwater, water supply, wastewater, and reuse systems) in the region are proactively monitored, high quality data is collected and shared, and conditions (past, present, and future) are collaboratively assessed to support regional water objectives.

Desired outcomes:

- The region is a steward of water, understanding the status of its waters, whether its quantity or quality, to be prepared for the future.
- Efforts to monitor the region's surface water, groundwater, and wastewater to assess current conditions, trends, vulnerabilities and risks, and support regulatory compliance are coordinated between the Met Council and regional partners.
- Water resource managers, community planners, and leaders understand how groundwater and surface water interact and how those interactions impact water sustainability.
- Studies and efforts to measure progress towards achieving sustainable and equitable water goals are supported.
- Data will be shared among water organizations and other interested groups.
- The Met Council, in partnership with other organizations, uses its resources to support efforts to provide public and ecosystem health insights to reduce negative health risks, as the need arises.

Regional Wastewater Service Area Policy

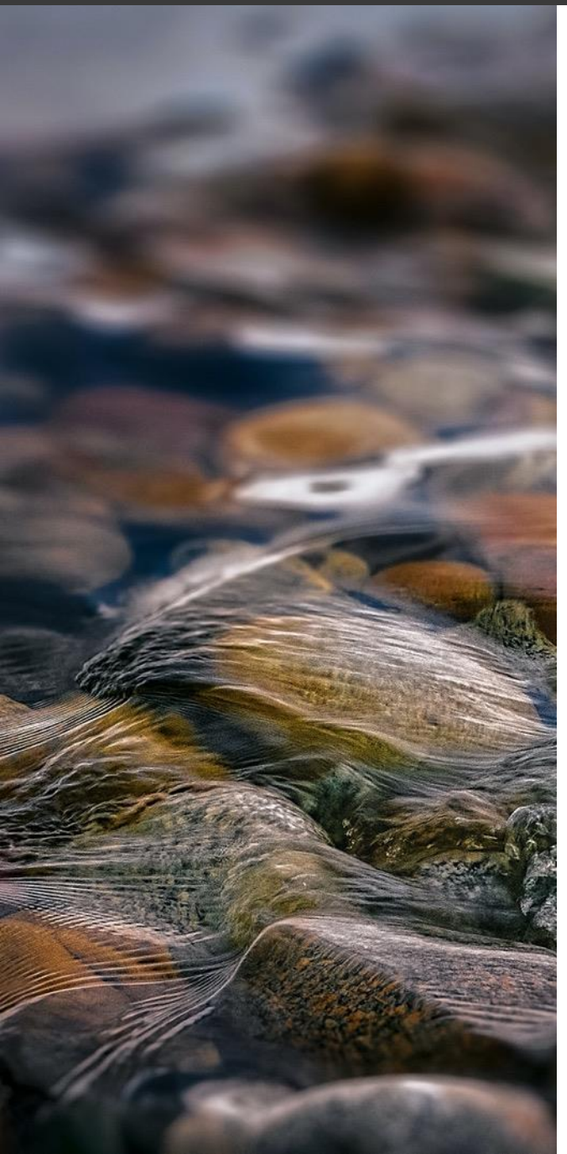


The Met Council will plan for and provide wastewater service corresponding to designated land uses to protect water for public health, recreation, habitat, and environmental health.

Desired outcomes:

- Wastewater services are provided to support orderly and economical development and redevelopment of the metro region.
- Long-range planning of regional wastewater service supports source water protection, equitable water outcomes, water and ecosystem protection, public health, sustainable growth and development, and timely infrastructure investments in both urban and rural areas.

Regional Wastewater Operations and Finance Policy

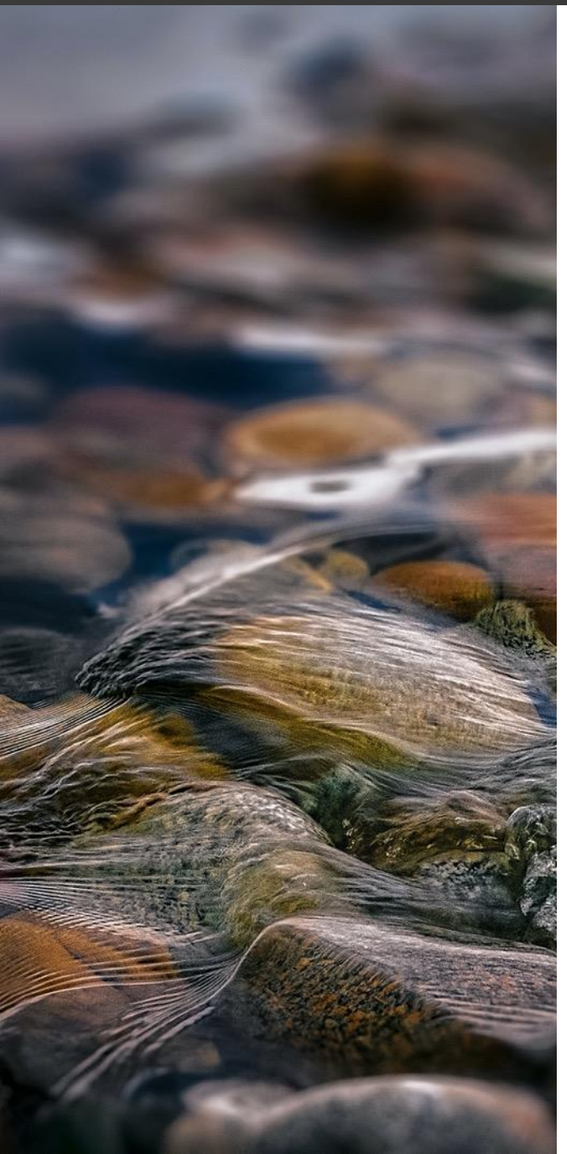


The region's investments and operation of water resource recovery infrastructure and related assets are built, operated, maintained, and rehabilitated in a sustainable, efficient, and economical way, considering current and future challenges. Service fees and charges to operate the system are based on regional cost of services and rules adopted by the Met Council.

Desired outcomes:

- Maintenance and rehabilitation efforts in wastewater infrastructure result in long-term use of existing systems, maximizing our investments, and safeguarding sustainable water.
- Water resource recovery infrastructure investments are cost-effective and support sustainability.
- Additional sewer capacity for communities is timed to be consistent with the Wastewater System Plan and a community's approved comprehensive plan.
- Customer communities pay fees for wastewater services based on the regional cost of service adopted by the Met Council.
- Private wastewater treatment systems remain up to code, reducing the potential for negative environmental impacts or premature expansion of the Metropolitan Disposal System.

Inflow and Infiltration Policy

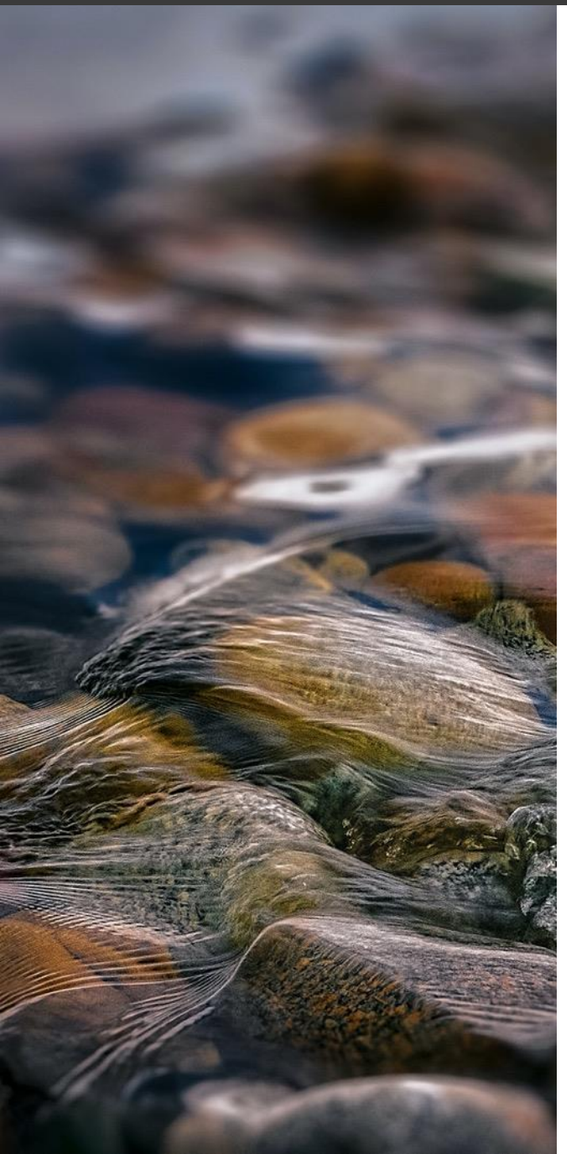


Inflow and infiltration is systematically addressed in the regional wastewater conveyance system to reclaim and ensure capacity, improve efficiency, and better utilize capital funds.

Desired outcomes:

- Ongoing inflow and infiltration mitigation work results in reclaimed capacity in the wastewater conveyance and treatment system.
- Capacity enhancements will not be made to accommodate excess inflow and infiltration.
- Municipalities are supported in both public and private efforts to reduce inflow and infiltration.
- Funding is consistent and reliable for inflow and infiltration mitigation efforts.

Water Sector Workforce Development Policy



Foster a diverse water sector workforce with the skills and capacity to plan and manage water resources and maintain safe, efficient, and reliable water operations through addressing challenges in recruiting, training, and retaining employees.

Desired outcomes:

- A resilient and technologically competent water sector workforce.
- The water sector talent pipeline and workforce reflect the racial and gender identity diversity of the communities served.
- Water sector careers that pay a livable wage with clear paths for advancement.
- A regional portfolio of talent development opportunities and experiences that support performance excellence, emerging challenges, and opportunities in the industry.
- Cross-sector collaboration and partnerships that support workforce sustainability and development.

Questions on policy?

- Is there anything in the policies, desired outcomes, or actions that does not resonate with you?
- Did we miss anything?
- Other comments?

Jen Kostrzewski

Assistant Manager, Water Planning and Policy
Jennifer.Kostrzewski@metc.state.mn.us

Judy Sventek

Water Resources Manager
Judy.Sventek@metc.state.mn.us

Kyle Colvin

Manager, Wastewater Planning and Community Programs
Kyle.Colvin@metc.state.mn.us

METROPOLITAN
COUNCIL