

Imagine 2050: Water Policy Plan Outline

The Water Policy Plan (formerly the Water Resources Policy Plan) is part of the Metropolitan Council’s decadal Regional Development Guide (RDG) and sets regional policies to ensure the prosperous and economical growth of the Twin Cities metropolitan region. As a part of the RDG, the Water Policy Plan will connect with and define how the regional vision, values, and goals apply to the Metropolitan Council’s water planning and regional wastewater services.

Imagine 2050 is the RDG under development and is scheduled to be adopted by the Council by the end of 2024. The proposed values in this guide are:

<p>Equity</p>	<p>We value the people and communities of our region. Our region is economically and culturally vibrant. We also recognize, however, the harm and disparities that injustices, including racism, have created.</p>
<p>Leadership</p>	<p>We value those in our region who inspire and motivate others for positive change. Our region is known for its civic engagement. We need broad and inclusive leadership to help confront the significant challenges we face around equity, climate change, safety, and other pressing issues.</p> <p>To maximize the potential of our region and its communities, we turn to leadership that is diverse, collaborative, culturally competent, and innovative. We encourage this kind of leadership across all sectors including business, government, non-profit, and education.</p>
<p>Accountability</p>	<p>We value being effective in our work and achieving measurable outcomes. Our region is known for its research, initiatives, and collaborations. We must be open to criticism and clearly understand when we are not achieving results or have harmed communities.</p> <p>We recognize that we can maximize our effectiveness by being in partnership with others. We will also be transparent and flexible so that we can change course when needed.</p>
<p>Stewardship</p>	<p>We value our region’s resources. Our resources include our natural, economic, and financial resources as well as our infrastructure. We recognize that these resources may be vulnerable over time to changing conditions, including from climate change.</p> <p>We must design our systems and allocate our resources in ways that can be sustained over time and support the needs of future generations.</p>

Additionally, *Imagine 2050* contains crosscutting regional goals. Collectively, these goals describe and support an overall vision for the region and set the policy agenda for the subsequent chapters (Transportation, Parks, Water Resources, and Housing Policy Plans).

Imagine 2050 Crosscutting Regional Goals	
Our Region is Equitable and Inclusive	Racial inequities and injustices experienced by historically marginalized communities have been eliminated; and all residents and newcomers feel welcome, included, and empowered.
Our Communities are Healthy and Safe	All our region’s residents live healthy, productive, 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 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.

Water Policy Plan

The Water Policy Plan contains policies, objectives, commitments, actions, and expectations that carry the Council’s regional values and cross-cutting goals through the areas of water planning and wastewater collection and treatment services. Additionally, the Metro Area Water Supply Plan and the Regional Wastewater System Plan provide more detailed information and strategies to help locally implement regional policies.

Environmental Services’ service commitments of Partner, Plan, and Provide frame regional policy actions in the 2050 Water Policy Plan. They are the cornerstones of Environmental Services’ mission and concisely describe our internal and regional obligations to our partners, city and townships, businesses, industries, colleagues, and most importantly, to the residents of the metro region.

Imagine 2050: Proposed Water Policy Plan Commitments	
Partner	ES partners with national, regional, and local organizations and experts to work towards water sustainability, climate resilience, and equitable water outcomes.
Plan	ES collaboratively develops plans to protect, enhance, restore, and sustainably manage the region’s water resources.
Provide	ES provides essential water planning services to the entire region and wastewater

	treatment and collection services to 111 communities.
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Proposed Water Policy Plan Table of Contents

<p style="text-align: center;">Introduction</p>	<p>Shares the purpose of the regional plan and describes the components of the Water Policy Plan –</p> <ul style="list-style-type: none"> • Water policies • WW System plan • Water Supply Plan • Local plan requirements
<p style="text-align: center;">Regional Development Guide connection to water</p>	<p>This section connects the regional vision, values, and goals to water in the region’s natural and built environments. We will reference community water values studies and water’s inherent value to ecosystems, economic, community, and public health.</p>
<p style="text-align: center;">Principles, Goals & Roles</p>	<p>This section defines integrated water planning and identifies the roles and responsibilities of the various water sector players (state agencies, tribal governments, watershed organizations, city/township staff, etc.). It states our statutory authorities and explains why integrated water planning at the regional level is foundational to the region’s growth, prosperity, and sustainability.</p> <p>It will describe Environmental Services’ current regional water framework and underscore the importance of planning, partnering, and providing services at the local, regional, state, tribal, and federal levels. It also will commit our organization to a triple bottom line (social, environmental, economic), not solely economic outcomes.</p> <p>Lastly, this section will define the various aspects of regional water planning through the comprehensive planning process. It will describe the stages of plan development, desired regional objectives, metrics, and the explanations of completeness, conformance, consistency, plan departures, and incompleteness.</p>
<p style="text-align: center;">Regional Water Context</p>	<p>This section will highlight how water arrives and moves through the region, identifies</p>

	users, uses, and how water returns to the environment after use. Here, we can provide additional context for water and water services connections with social, economic, equity, and public and ecosystem health outcomes.
Problem Identification	<p>This section will share current and future concerns, risks, and opportunities for the region’s waters, water service providers, and water users regional water context. Examples include:</p> <ul style="list-style-type: none"> • Climate Change • Source Water Protection • Population growth & land use change • Contaminants of concern • Water reuse
Policies and actions	<p>This section describes regional water policies and the example actions to be taken by the Council and local communities to achieve our desired 2050 outcomes. They will be measurable so that we can track our successes.</p> <p>It will clearly state our local water (surface water, water supply, sewer) plan requirements and our review templates.</p>
Wastewater System Plan	<p>This is a current snapshot of the regional wastewater system and our capital investment program. It highlights and addresses future conditions (like population growth) and concerns (regulatory strategy) for the regional system.</p>
Metro Area Water Supply Plan	<p>This section includes the regional water supply plan. The plan provides an overview of current conditions, challenges, risks, and opportunities aimed at ensuring the sustainability of water supplies and water supplier services. This version will have subregional approaches to help align regional policies and outcomes with local actions and needs. This portion of the plan will need to be approved by the Metro Area Water Supply Advisory Committee.</p>
Appendices	<ul style="list-style-type: none"> • Wastewater data tables

	<ul style="list-style-type: none"> • Long-term wastewater service area map • Long-term capital investment plan • Priority Waters Lists & maps • Supporting data sources • Local plan requirements • Summary of all policies and actions • Definitions
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Proposed Water Objectives

The table below outlines proposed objectives and policy areas for the 2050 Water Policy Plan. These objectives are vital components of achieving our ultimate goal of sustainable waters within the region. The connection between drinking water supplies, surface and groundwater, stormwater management, and wastewater treatment is undeniable and the Met Council strives to integrate our regional operations and water planning efforts to meet the needs of current and future generations.

The associated policies and actions allow the Met Council staff to employ numerous approaches that collectively result in sustainable waters – including convening partners, utilizing new monitoring and wastewater treatment technologies, water conservation efforts, and water planning and technical assistance. The Met Council commits to working with and supporting our regional water partners to achieve the goal of clean, abundant waters.

The presence of icons indicates the need for diverse actions that connect the many water planning and management arenas that ES staff work in.

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



The region is already experiencing the impacts of climate change. Our winters are warming, the frequency and intensity of storm events have shifted from the historical record, and we are projected to experience more extreme heat and drought events. We support work to enhance resilience to help communities adapt to these changes. In partnership with the State of Minnesota and local communities, we work to reduce greenhouse gas emissions and adapt our practices to protect the infrastructure investments of the region and better understand the impacts to both surface and groundwater, to protect both water supply and our high-water quality.

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



Water professionals provide critical operations and planning services and put significant investment into water infrastructure for stormwater, wastewater, and assistance for local water supply across the region. We work to optimize the existing investments and thoughtfully and responsibly plan future infrastructure to sustain and serve our growing region. The

funding for this work and water planning must be supported now and into the future. We will continue to work to secure funds and grants for our efforts as well as to support local communities in those pursuits. We have a responsibility to the region to protect our region's waters with community input to identify needed expansions or additional service needs.

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



Through our breadth of services, we will continue to protect public and ecosystem health for the region and those downstream. The protection of these critical resources will allow our region to be successful, support growth, and improve the health and well-being of our residents. Examples of how we work to protect public and ecosystem health include wastewater treatment, water quality monitoring, source water protection, and technical assistance.

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



The Met Council and its partners support the work of our water service providers in our region's access to clean, safe, and affordable water for drinking, recreation, cultural, commercial, and other social uses. We will support and include vulnerable communities in identifying water service and benefit gaps and provide resources for the work necessary for a more equitable water future for all.

Proposed Water Policies

1. Integrated Water Planning

The Twin Cities metro region is shaped by the water that moves through it. The 2050 Water Resources Policy Plan, like the 2040 plan before it, is an integrated plan that supports our core mission to operate and manage the regional wastewater system, provide water supply planning, and provide surface water planning and management throughout the region. There is a finite supply of water in the metro region, and it is a shared responsibility for all regional water professionals to take care of the resource for future prosperity.

Integrated Water Policy:

Water planning and management approaches are integrated, cooperative, and holistic.

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 risks and impacts across the entire water sector.
- All water organizations work collectively across geographical, political, social, and cultural boundaries to achieve water sustainability in the region.
- The Council conducts long-range planning using a holistic (integrated system) approach that considers the water needs, challenges, and risks for both natural surface and groundwaters, as well as water moving through the built environment (stormwater, water supply, and wastewater).
- Water planning and management roles and responsibilities within the region are clarified and any identified gaps collaboratively addressed.
- The Metropolitan 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.

Connected Objectives:



Example Actions:

PARTNER

- Work within the metro region to address issues that transcend water organization boundaries to prepare water management plans that promote the enhancement and restoration of local and regional waters (lakes, rivers, streams, wetlands, and groundwater).

- Engage, consult, and collaborate with state agencies, tribal governments, watershed organizations, and community water utility providers to amend and update the Council's Water Policy Plan.
- Collaborate with federal, tribal, state, and local partners to perform studies that develop information and approaches that enhance the sustainability of water services of the Council and local providers.
- Support educational efforts through partnership opportunities with organizations that further integrated water planning and management.
- The Met Council will partner with the state to help rural communities collaborate around emergency planning and service reliability by identifying community needs and potential service or funding gaps.
- The Council will partner with communities, water agencies, technical experts, and residents to identify risks, associated vulnerabilities, and develop solutions for our regional water concerns.

PLAN

- Support local plan development and regional policy alignment through informed water planning, management, and development decisions.
- Identify and assess current groundwater and surface water conditions, uses and use behaviors, community needs, historical trends, drivers (influencers) of change, risks and system limitations, and estimated future conditions.
- Develop plan requirements that reflect and support addressing local and regional water planning and management challenges.
- Met Council staff will adopt an adaptive management approach ("plan-do-study-check") to ensure our water policies are prioritized, targeted, measurable, and effective at improving the region's water quality and quantity.

PROVIDE

- Convene and facilitate discussions that support sustainable waters and delve into regional water issues that transcend community or watershed organization boundaries.
- Provide technical information to watershed organizations, city planners, and local water providers on practices to use and incorporate into their operations or planning efforts that protect water quality and quantity.
- Advocate for financial assistance to local governments, water suppliers, and other partners on water issues and water management activities.

2. Water Equity

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

Environmental justice and equity concerns in our region regarding water include, but are not limited to, access and impairment of waters for fishing and recreation, access and affordability of clean drinking water, affordability of wastewater treatment, treatment abilities and

technologies for contamination in private drinking water wells compared to public drinking water sources, and the impacts to a neighborhood that contains or is near water infrastructure.

The Met Council is committed to addressing water equity issues within our organization and support our partners in the region to do the same. Conversations with marginalized communities and reparative relationship efforts need to be had to better understand where they are occurring, what existing policies may still be exacerbating them, and how to best to remedy the injustice. All Minnesotans have the basic human right to access clean water.

Equitable Water Outcomes Policy:

Regional water benefits and water services are accessible and shared amongst all residents and communities.

Desired Outcomes:

- All residents have access to clean, safe, and affordable water for drinking, recreation, cultural, and other social or commercial uses.
- The public and ecosystem health benefits of abundant and clean natural waters and water service providers are fully realized in all communities in the region.
- Water service and benefit gaps are prioritized and addressed in vulnerable populations and communities.
- Historically underrepresented and marginalized populations are involved in water planning conversations and decisions.

Connected Objectives:



Example Actions:

PARTNER

- Engage with residents and other local and regional partners to understand local perspectives and regional water values and identify services and benefit gaps.
- Partner with groups and organizations who promote water equity and connect residents with water services and benefits.
- Partner with tribal nations and communities to build trust through shared knowledge and experiences, collaborate on solutions, and work together to bring indigenous values, perspectives, and experiences forward, to ensure the sustainable and equitable water outcomes for the region.
- Work with Council Members to promote and support environmental justice in the region.
- Environmental Services will partner with other Met Council divisions on equity efforts that overlap regional systems. Potential projects to explore:
 - Regional Parks: Pilot projects involving monitoring in waters in certain parks/ Create signage about blue green algae/ Information about safe swimming.
 - Transit: Pilot projects that increase access to Regional Priority Waters, create signage about waters

- Community Development & Housing: Pilot projects that promote low flow fixtures and green infrastructure in disadvantaged communities without causing housing affordability concerns and environmental gentrification.

PLAN

- Water infrastructure investments are planned for by prioritizing environmental justice approaches that promote equitable public and ecosystem health outcomes and undue past harms.

PROVIDE

- Met Council staff will convene and listen to community members who have water equity and environmental justice concerns or experiences. We will work together to try to alleviate imbalances that cause injustices and strengthen our relationship and build trust in our organization and the water services we and our partner organizations provide.
- Provide resources that inform and support equitable water outcomes.

3. Natural and engineered water tracking and evaluation

Data is critical to make informed decisions. Among other reasons, data helps us understand surface water and groundwater conditions, see trends and patterns in water quality, and support water supply partners in providing water for their population.

Environmental Services proudly served the region through the COVID-19 pandemic by tracking the concentration of viral material in the wastewater at the Metro Plant. This partnership gave scientists and public health officials another resource to guide public health decisions and was informative to the region. If the need arises, we are committed to offering our technical expertise and services to other public entities.

Through efforts of monitoring the water quality of the region's lakes, rivers and streams, monitoring wastewater effluent, the Priority Water List, and other efforts, we value the impact data can have on improving water to support human and environmental health and will continue to provide and understand the data to help the region meet its water quality, sustainability, and human health and aquatic life goals.

Water Monitoring, Data, and Assessment Policy:

Natural waters and engineered water systems (stormwater, water treatment and distribution systems, 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 environmental and human health.

Desired Outcomes:

- The region is a steward of water, understanding the current status of its waters, whether its quantity or quality, to be prepared for the future.

- The Council and regional partner organizations will monitor the region's surface water, groundwater, and wastewater to assess current conditions, trends, and assure regulatory compliance.
- The Council conducts studies and supports efforts to measure progress towards achieving sustainable and equitable water goals.
- The Council, in partnership with other organizations, uses its resources to support efforts to provide public health insights, as the need arises.

Connected Objectives:



Example Actions:

PARTNER

- The Metropolitan Council will partner, assist, and support collaborators with the monitoring and assessment of regional priority waters and groundwaters.
- The Metropolitan Council will collaboratively research and gather data and information on the quality, quantity, flow, and connections between the regions surface and groundwaters.
- In partnership with other water professionals, Council staff will complete technical studies to understand regional and sub-regional long-term water supply availability and demand.
- The Met Council will partner with public health agencies to remain aware of when Environmental Services can assist in wastewater monitoring and data collection in the interest of public health insights, when the need arises, and funding is available.

PLAN

- Explore and identify data sources to support the understanding of water value and use, especially to increase the effectiveness of the Priority Waters List.
- Support community efforts to identify and evaluate the economic and technical feasibility of water supply approaches and best practices that increase water conservation, enhance groundwater recharge, and make the best use of groundwater, surface water, reclaimed wastewater, and stormwater.

PROVIDE

- The Met Council will continue to provide monitoring data to our partners through our regional database that contains easily accessible water quality, quantity, and other water-related information collected as a part of the Council's monitoring programs.
- The Metropolitan Council will create a data products, visualizations, and databases of narratives and water values regarding regional waters to understand how different people relate to water and are impacted by policy and planning of city and township, watershed, and regional planners and water utility providers.
- Council staff will provide long-term assessments of the quality and quantity of our regional waters

4. Water and Land Use

Water issues throughout our region are varied and complex. Climate change, infrastructure, land use, and land use change all impact water quantity and quality and differ across the metro. Rural areas may focus on natural resource protection and groundwater recharge for drinking water wells. Urban areas may focus on aging infrastructure and access to water. And some issues or concerns overlap all land use types.

In all areas across the region, the development, redevelopment, and land use changes impact water quality and quantity. We can be thoughtful and proactive about changes on the landscape that impact our region's resource. With local partners, we can implement actions on the landscape that support local economic development and the health and wellbeing of residents and communities.

Water and Land Use Connections Policy:

As the region grows, the effects of development, redevelopment, and land use changes on water quality, quantity, and utilities are planned for and inform water management approaches and strategies.

Desired Outcomes:

- The quality and quantity of source and recreational waters is protected and restored.
- Natural system, water treatment, and distribution risks and limitations are accounted for and addressed in development and redevelopment planning.
- Current land uses and future changes mitigate negative water outcomes and enhance the benefits of clean and abundant water in all communities.
- Integrated water management, including sustainable water approaches, are made critical parts of land use decisions, planning protocols, and procedures through comprehensive water planning.
- 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 to ensure state and regional goals for protection and restoration of regional waters are enhanced.

Connected Objectives:



Example Actions:

PARTNER

- Partner with state, tribal, local, and watershed planners and water utility staff to build a shared understanding and identify strategies that address risks to public and ecosystem health.
- Support preservation of regionally significant ecologic areas as rural areas develop through engaging stakeholders, technical assistance, outreach to local governments, and plan review.
- Support the agriculture certification program and soil health/regenerative agriculture in rural areas through the Council-monitored Agricultural Preserves Program and

partnerships with the Minnesota Department of Agriculture, metro soil and water conservation districts.

- Work with communities, watersheds, agricultural landowners and business, and agency partners to identify, promote, and assess best management practices including the timing, rate, placement, and source of fertilizer, herbicide and pesticide application, healthy soil practices, vegetated buffers to provide vegetated land areas between pollutant sources and surface water bodies and protect groundwater.
- The Met Council will partner with local and regional experts to identify needs and develop tools that help to improve public understanding around contamination, well testing and maintenance, source water protection, and publicly available resources.
- Support communities and watersheds in their application of regional treatment of stormwater to reduce design and maintenance costs while increasing the utilization of developable land.
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PLAN

- Ensure, the protection and restoration of natural, source, and recreational waters, as well as the sustainability of water utility systems, is prioritized in the development and review of comprehensive, local water (surface, supply, and sewer), source water / wellhead protection, and county groundwater, and environmental impact plans.
- Identify and use the latest research to improve and update stormwater infiltration requirements and recommendations around practices, particularly in vulnerable drinking water supply management areas.
- Evaluate how growth and development, urban and rural land uses, and overall land use change impact and influence water supplies and local water needs.

PROVIDE

- Implement and promote the use of nature-based, green infrastructure solutions on Met Council properties.
- The Metropolitan Council will analyze the impact of land practices on water quality and quantity, including the vulnerability of source water areas and water supplies.
- Provide resources and tools to promote land use practices and development decisions that enhance water quality and quantity for communities and watersheds across the region.
- Identify and develop tools and resources to better understand pressures on and interconnection of the region's rivers, lakes, streams, and aquifers to help regional, local, and watershed planners and water utility staff make informed water management decisions.
- Offer grants or other funding opportunities that protect and enhance water quality, quantity, or other water benefits throughout the region.

5. Climate Resiliency

Acute and chronic changes to weather patterns, including temperature and precipitation, pose significant risks to the water resources we rely on for drinking, recreation, and economic productivity.

These changes also impact the ability of our wastewater utility and local water suppliers to provide essential public health services to the region. Negative impacts 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 that they serve.

The Metropolitan Council produced the Climate Action Work Plan to address areas where the Council can act and reduce climate change impacts within the organization. The Climate Action Work Plan’s vision is *“to reduce our contributions to greenhouse gas emissions in the region and make our services and facilities resilient to the impacts of climate change.”* The Water Policy Plan supports the actions and goals of the Climate Action Work Plan.

We are committed to reducing greenhouse gas emissions in our wastewater operations and support services. Likewise, through our long-term planning responsibilities, our wastewater and water resource planning sections can help the region to adapt by providing technical support that helps communities to prepare, build resiliency, and grow sustainably.

Water and Climate Resiliency Policy:

The risks and associated impacts of climate change on water resources, utilities, and infrastructure are proactively addressed, supporting the region’s mitigation and adaptation actions to climate related impacts and ever-evolving climate futures.

Desired Outcomes:

- 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 will reduce and mitigate greenhouse gas emissions produced in the collection and treatment of water supply and treatment through energy efficiency improvements.

Connected Objectives:



Example Actions:

PARTNER

- The Metropolitan Council will prioritize inter-agency collaboration to understand the effectiveness of water reuse and infiltration as a stormwater management practice, particularly under a range of potential climate futures.
- The Metropolitan Council will connect, partner, and learn from other water utilities and planning organizations as we take on water and climate challenges.
- The Metropolitan Council will 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 best understand future climate scenarios based on current science and models.

PLAN

- The Metropolitan Council will integrate and center state and regional climate objectives into our wastewater operations and water planning within the region.
- The Metropolitan Council will consider the climate vulnerabilities and risks within our facilities and operations and reduce the impact of climate on water resources, land management, water planning, and regional wastewater services now and in the future.
- Met Council staff will develop internal infrastructure design and placement guidelines based on the latest scientific and engineering knowledge to reduce their climate-risk on longevity.
- The Metropolitan Council will support low impact design and the integration of nature-based solutions into regional development to adapt to projected climate impacts on our land and waters.

PROVIDE

- The Metropolitan Council will manage our facilities and land holdings to reduce impervious surfaces, integrate green infrastructure and nature-based solutions within our stormwater management systems, install native plantings where possible, and be a regional leader in climate-focused land management.

6. Resilient Water and Energy Systems

Sustainable water resources are a necessary component of a growing, prosperous Twin Cities metro region. While water is abundant across the region, the factors below are just a few of the many factors that may compromise the future availability and quality of our water resources:

- Contamination
- Increased demand for drinking water
- Regulatory usage limits
- Climate change

As water infiltrates deep into the ground it recharges the amount of groundwater in the region, increasing the sustainability of our water in the deeper aquifers. This occurs naturally in areas without impervious surfaces (buildings, sidewalks, parking lots, etc.) and with porous geology that allows the water to move downward. It can also be accomplished by engineered systems that retain treated stormwater or wastewater effluent into basins that promote infiltration.

Water conservation is another method that can extend the water supply into the future and may defer expensive capital investments that may be needed to continue supplying a growing region. The Met Council values the investments made internally on water infrastructure as well as the investments made by our partners in the region.

Benefits of recharging water and reducing water consumption include reduced stress on our water sources (surface and groundwater) that may allow for more growth and development in

the regions and less water sent to the wastewater treatment plants which means lower bills to our customer communities.

Technology that increases water efficiency gets better every day and the Met Council will support the research, collaboration, and implementation of these technologies to protect the region's valuable resource.

Sustainable and Efficient Water Use Policy:

The use, treatment, recharge, and distribution of water in the region is designed so that resources are conserved, current investments are optimized, and public and ecosystem health are protected.

Desired Outcomes:

- Recharge areas are protected and new technologies are implemented to enhance the rate of groundwater replenishment.
- Efficient use and water conservation practices are prioritized and invested in at the local and regional level to help optimize infrastructure investments.
- The water needs of all cities, townships, and residents across the metro are met now and for future generations.
- The Council explores and supports community efforts to adopt technologies that increase the efficient use of water and reduce energy consumption.

Connected Objectives:



Example Actions:

PARTNER

- The Met Council will work with partners to support efforts that encourage residents, businesses, and water utilities to incorporate new technology and behaviors, where feasible, as a means of achieving water sustainability and energy efficiency in the region.
- Promote customer engagement efforts to increase water conservation to extend the life expectancies for critical water infrastructure components.
- Work with water supply service providers and agency partners to identify significant water users that could be targeted for water quantity reductions, conservation, and reuse where applicable.

PLAN

- Identify and evaluate the economic and technical feasibility of best practices that enhance groundwater recharge and make the best use of reclaimed wastewater and stormwater while protecting source water quality.
- Invest in nonpoint-source pollution control when the cost and long-term benefits are favorable compared to further upgrading wastewater treatment.

PROVIDE

- The Met Council will implement water conservation and efficiencies in the operation of the regional wastewater collection and treatment system.

- Continue to support programs targeting water and energy conservation practices and implementation of efficient water and energy use like the Minnesota Technical Assistance Program (MnTAP) to assist local businesses, residents, and communities.
- Support ongoing research to direct residents and developers to identify alternatives to using drinking water supplies for lawn watering, install low maintenance turf or no mow and native landscapes that reduce outdoor water use, lessen water demands, and promote climate resiliency.

7. Water Reuse

Recent events and changes in climate have put stress on our water supply systems, ecosystems, and valued water resources. The region should explore ways to replenish our water resources through the nonpotable reuse of treated wastewater and stormwater. This reuse will offset the demands being placed on surface waters and groundwater. The metro region may not have an immediate need to look to reuse for drinking water sources as in the arid southwest, but we are seeing clear impacts on our surface water and groundwater levels.

The two primary forms of reuse currently implemented in the state are stormwater and wastewater reuse. Stormwater reuse is the practice of harvesting stormwater runoff to meet water demands. Wastewater reuse is the practice of highly treating and reusing wastewater treatment plant effluent for beneficial use.

Water Reuse Policy:

The Council will work with our partners to identify issues and challenges for the region as we work together to reduce barriers to water reuse while balancing public health and financial concerns. Additionally, the Council will explore and implement when feasible the use of water conservation practices such as wastewater and stormwater reuse and low-impact development practices to promote a more sustainable region.

Desired Outcomes:

- Stormwater reuse guidelines for the state and region that balance the needs of implementors, state agencies, public health, and financial cost, while furthering sustainable waters.
- Wastewater reuse is implemented where it is economically feasible and appropriate.
- Met Council pursues water reclamation projects within its own operations and supports our partners in their water reclamation efforts through financial and technical support.

Connected Objectives:



Example Actions:

PARTNER

- Metropolitan Council staff, in collaboration with partners, will determine direction on whether further guidance and/or regulation is needed for the various stormwater and rainwater reuse practices being installed in the metro region. This action will include collaborating with partners and agencies to better understand the risks associated with all types of reuse before decisions are made about guidance or regulation.
- Metropolitan Council staff will work with agency partners to better define agency roles and responsibilities for reuse in Minnesota.
- The Metropolitan Council will promote and invest in stormwater and wastewater reuse as viable alternatives to augment non-potable water uses to support regional growth when economically feasible.
- The Metropolitan Council will continue to work with partners to identify external opportunities to reuse treated wastewater and assist in the evaluation of this opportunity as one regional alternative to conserve potable water sources.

PLAN

- The Metropolitan Council will identify and plan for long-range regional investments in wastewater and stormwater reuse that protect source water quality and quantity.
- The Metropolitan Council will identify criteria for viable wastewater reuse projects including, but not limited to, reducing effluent contaminant concentrations to match the water quality need associated with the intended reuse.
- Reuse treated wastewater to meet nonpotable water needs within Council wastewater treatment facilities where economically feasible.
- Council shall pursue sources of non-Council funding to complement Council funding of wastewater reuse projects, including Clean Water Legacy Funds, state bond funds, and reuse grants.

PROVIDE

- The Metropolitan Council will implement stormwater and wastewater reuse at our facilities (including for purposes of demonstration) in accordance with Minnesota Department of Health guidance as it is developed, NPDES permit requirements, and as is economically feasible.
- The Metropolitan Council will continue supporting our partners in their water reuse projects through financial and implementation support.
- Council shall report on all wastewater reuse study and project activities at the Council's annual budget outreach meetings.

8. Water Infrastructure

Built water infrastructure (water supply, stormwater, wastewater) is vulnerable to a climate shifting toward more frequent and intense wet weather patterns. Low-lying water infrastructure faces increased flood risks in terms of both frequency and intensity. This could affect operational performance and prove costly to protect. Rising groundwater tables may also impact buried water infrastructure and specifically could lead to increased I/I in the wastewater system which increases costs to ratepayers.

Changing regulatory limits may also impact the built water system. Treating water, both drinking water and wastewater, to new standards based on the latest regulation could result in the need for new technology installation or infrastructure construction. It is important to thoughtfully plan changes to the water.

To support growth of the region and maintain the integrity of our infrastructure, the Met Council works cooperatively with communities, regulatory agencies, and citizens of the region to help ensure that costly infrastructure can be efficiently built and operated in a sustainable manner. Environmental Service, on average, invests \$110 million per year to maintain, replace, and expand wastewater treatment infrastructure. This investment does not include drinking water or municipal wastewater infrastructure, so overall the regional water infrastructure maintenance and operations cost is much larger. Regular maintenance can extend the life of infrastructure and delay costly repairs.

Built Infrastructure Policy:

The region's investments in water (drinking water, stormwater, wastewater) infrastructure and related assets are built, operated, maintained, and rehabilitated in an efficient and prudent way, considering current and future challenges.

Desired Outcomes:

- Additional capacity will not be provided until it is planned, and growth requires it.
- Efforts in all water infrastructure result in long term use of existing systems, maximizing our investments, and safeguard sustainable water.
- Infrastructure investments are cost-effective and support sustainability of the region.

Connected Objectives:



Example Actions:

PARTNER

- Water utility organizations and partner agencies will discuss and set planning priorities around aging infrastructure, system resiliency, service population growth, and potential impacts to the region's water users.
- Work with state agencies, local utility organizations, researchers, and regional water professional partners to collaboratively address current and emerging water contaminants through taskforces.
- Co-create and develop funding requests for water infrastructure projects that benefit multiple communities.
- Partner with local public works and city planners to ensure stormwater infrastructure helps to protect and enhance receiving waterbody quality.

PLAN

- Investments to meet regulatory standards are timely and cost efficient, utilizing the latest, tested technology.
- Design and plan for adequate and resilient stormwater infrastructure to mitigate localized flooding impacts throughout the region.
- Wastewater treatment will address contaminants in accordance with current state and federal guidance.
- Interceptors and related facilities that are no longer needed to serve the regional system will be reconveyed, abandoned, or sold to the appropriate local governmental unit, pursuant to related statutes. The following conditions are recommended for the transfer:

- An existing interceptor (or segment of it) is no longer necessary to the regional wastewater system when it serves:
 - Primarily as a local trunk sewer; or
 - As a local trunk sewer that ultimately conveys 200,000 gallons per day or less from an upstream community; or
 - A local trunk sewer that conveys only stormwater.
- Unless,
 - The interceptor has been designed to provide wastewater service to all or substantially all the upstream community; or
 - The flow from the upstream community is greater than 50% of the total forecasted flow at any part within the interceptor.

PROVIDE

- Services are regionally appropriate and meet the needs of all residents, businesses, industries, and communities.
- Support cost-effective investments in water supply infrastructure to promote sustainable use and protect the region’s water supplies by:
 - Developing criteria to identify water supply projects with regional benefit.
 - Promoting equitable cost-sharing structure(s) for regionally beneficial water supply development projects.
 - Supporting cost-benefit analyses of alternative water supply options.
 - Identifying funding mechanisms for regionally beneficial water supply development projects.

9. Water Quality and Regulatory Challenges

Contaminants in our water impact every part of the use cycle, from quality of water for recreations, drinking water, wastewater treatment requirements, and aquatic health. The Met Council is committed to partnering with regional water professionals to further our efforts and actions to address contamination and work to improve water quality. Today we are working to address environmental pollution due to nitrogen, phosphorus, chlorides, PFAS/PFOAS, sulfates, and manganese, selenium, and arsenic. Tomorrow may bring something new, either another contaminant of concern or new or changed regulatory limits. We will mitigate these threats to the best of our capability and technological ability.

At each of our nine wastewater treatment plants, teams of operators, chemists, engineers, mechanics, water resources scientists, and others ensure our treatment plants continue to meet the regulatory limits. We address new and modified regulatory limits as they arise. Constant monitoring and communication with other state and federal agencies support us in our goals and the maintenance of record compliance.

The potential for new contaminants and eventual discharge limits exists. Current and near future challenges include addressing PFAS, chlorides, and nitrogen, through the state’s Nitrogen Reduction Plan. New and changing limits have the potential to increase operational expenses to the Met Council. We work hard to cost effectively meet the regulatory standards.

Water Contaminants Policy:

The Met Council will continue to partner, engage, and provide expertise in the research and regulatory work for contaminants of concern. The Met Council will continue participating in

conversations with other public agencies to stay on top of emerging contaminants and any changing regulatory requirements for known and emerging contaminants. Social, environmental, and economic impacts will be considered when actions resulting from regulation are required.

Desired Outcomes:

- The Industrial Waste and Pollution Prevention section (Pretreatment) of the Met Council partners with industry and is authorized to set and review permit limits.
- The Met Council partners with other state agencies in determination and review of state water plans, permits and regulatory limits through convening assistance and technical support,
- Water quality is protected and the connections between groundwater, lakes, streams, rivers, stormwater, and wastewater are recognized.

Connected Objectives:



Example Actions:

PARTNER

- The Met Council will work with stakeholder groups in the development of potential water quality standards.
- The Met Council will continue to engage with stakeholder groups in the development of the Minnesota Nutrient Reduction Strategy and other state water plans.
- The Met Council will support PFAS research related to wastewater treatment plants both internally and externally.
- Pretreatment group partners and regulates industrial customers to help reduce environmental impacts while encouraging economic development.
- The Met Council will support point source pollutant reductions (chlorides, PFAS, nitrogen, and others) to regional waters, including, as appropriate, through legislative solutions.

PLAN

- The Council will engage in pollutant trading or off-set opportunities of pollution when cost-effective and environmentally beneficial.

PROVIDE

- The Met Council will develop risk-based priorities for accelerated actions for PFAS source reduction, like focused source reduction at wastewater treatment plants with land application programs.
- Strategically invest to prevent and control nonpoint source pollution.

10. Regional Wastewater Operations and Finance

The Met Council shall conduct its regional wastewater system operations in a sustainable manner as is economically feasible. Sustainable operations relate not only to water resources

but also to increasing energy efficiency and using renewable energy sources, reducing air pollutant emissions, and reducing, reusing, and recycling solid wastes.

The regional wastewater system is composed of over 630 miles of interceptor sewer mains, 229 metering stations, 60 lift stations, and 9 treatment plants. It is critical to maintain and rehabilitate the system in a timely manner to prevent the need for costly repairs, so that funding can be put towards needed system and capacity expansion.

Environmental Services is working towards a programmatic approach to address infrastructure condition assessment to protect the region's investments. After initial assessment of infrastructure, the program will guide the upcoming work and prioritize areas needing rehabilitation.

Regional Wastewater Operations and Finance Policy:

The region's investments and operation of wastewater infrastructure and related assets are built, operated, maintained, and rehabilitated in a sustainable, efficient, and economical way, considering current and future challenges.

Desired Outcomes:

- Efforts in wastewater infrastructure result in long term use of existing systems, maximizing our investments, and safeguarding sustainable water.
- All types of private wastewater treatment systems remain up to code, reducing the potential for spills and environmental damage.
- Infrastructure investments are cost-effective and support sustainability.
- Additional capacity will not be provided until it is planned, and growth requires it.
- The Council will not pay for repairs or rehabilitation for private wastewater treatment systems.

Connected Objectives:



Example Actions:

PARTNER

- The Council will continue to support State rules for subsurface sewage treatment systems and other private wastewater systems.
- Communities that permit the construction and operation of subsurface sewage treatment systems and other private wastewater treatment systems within their communities are responsible for ensuring that these systems are installed, maintained, managed, and regulated consistent with Minnesota Pollution Control Agency rules. The Council will provide technical assistance, but will not financially support communities if these systems fail.
- The Council will allow a community to connect a failing subsurface sewage treatment system or other private wastewater treatment system to the regional wastewater system at the community's expense.

- The Council will seek customer input prior to, and give at least three months, notice of, any material changes in the design of charges.

PLAN

- Preserve regional wastewater system assets of the Council through effective maintenance, assessment of condition and capacity, and capital investment.
- Pursue other renewable energy sources, such as solar power generation, thermal energy recovery, and new technologies – such as fuel cells – as they become proven and economical.
- Improve sustainability of wastewater operations, when economically feasible.

PROVIDE

- Implement and enforce Waste Discharge Rules for the regional wastewater system.
- Accept septage, biosolids, leachate, and other hauled liquid waste at designated sites, provided that the waste can be efficiently and effectively processed.
- Generate energy from biosolids processing, utilize energy-efficient processes and equipment, and reduce building-energy use.
- Stabilize and reduce the volume of biosolids through thermal processing or anaerobic digestion, and utilize the remaining solids as fertilizer and soil conditioner.

Wastewater Finance Policy:

Wastewater service fees and charges to operate the regional wastewater system are based on regional cost of services and rules adopted by the Council.

Desired Outcomes:

- Efforts in wastewater infrastructure result in long term use of existing systems, maximizing our investments, and safeguarding sustainable water.
- Fees based on regional cost of services and rules adopted by the Council are collected from customer communities.
- The Council will not pay for repairs or rehabilitation for private wastewater treatment systems.

Connected Objectives:



Example Actions:

PARTNER

- Cost-sharing between the Council and a local governmental unit may be used when construction of regional wastewater facilities provides additional local benefits for an incremental increase in costs.

PLAN

- Pursue other renewable energy sources, such as solar power generation, thermal energy recovery, and new technologies – such as fuel cells – as they become proven and economical.

PROVIDE

- Metropolitan wastewater charges will be allocated among local government units based on volume of wastewater treated.
- Industrial wastewater strength charges will be based on actual or average discharge strength above domestic wastewater strength.
- Load charges for septage, portable-toilet waste, holding-tank wastewater and out-of-region wastes will be uniform for each type of load, and based on the volume of the load, the average strength of the types of loads, and the costs of receiving facilities.
- Sewer availability charges (SAC) will be uniform within the urban area based on capacity demand classes of customers and the SAC Procedure Manual. Sewer availability charges for a rural center will be based on the reserve capacity and debt service of facilities specific to the rural center.
- Other fees recovering costs of specific services may be imposed, as approved by the Council.

11. Inflow and Infiltration

Inflow and infiltration (I/I) is stormwater runoff and groundwater that makes its way into sanitary sewer pipes, mixes with sanitary wastewater, and gets unnecessarily treated at wastewater treatment plants. Inflow is clear water that enters the wastewater system through rain leaders, sump pumps, or foundation drains that are illegally connected to sewer lines. The largest amount of inflow occurs during heavy rainstorms. Infiltration is groundwater that seeps into cracked or broken wastewater pipes.

Unaddressed I/I can result in public and environmental health concerns, mainly through sewage backups resulting from limited system capacity; be costly to communities and utility rate payers through both increases to billed volume of water treated at the wastewater treatment plant and investments to expand the system to accommodate capacity; and it wastes the region's valuable water resource.

Thus far, I/I from private property has been an under investigated and under supported area of mitigation. Sources of I/I from private property include flow from uncapped sewer cleanouts, improperly connected sump pumps, improperly connected gutters, and cracks in sewer lateral pipes. Local communities in the metro area have estimated that overall, at least half of all I/I comes from private property sources. This is primarily due to a lack of dedicated and reliable funding sources to incentivize this work. Entry into a private residence or business adds to the legal and political challenges that private property I/I work poses for local communities.

In 2022, Minnesota Statutes section 471.342 was amended to give cities, townships, and political subdivisions with statutory sewer ownership or operational responsibilities authority to use revenue generated by user fees to fund private property I/I grants for property owners. In response, an I/I Task Force was convened to design a grant program to that uses Environmental Services revenue to support residents in I/I mitigation on private property.

Despite the success of the I/I mitigation work and heavy effort undertaken by Environmental Services and surrounding communities to repair and maintain sewer infrastructure, climate change has the potential to impact these mitigation efforts. Recently, we published our Climate

Action Work Plan with a commitment to “Evaluate the impacts of climate change on inflow and infiltration to the regional wastewater collection system and develop recommendations to respond accordingly” (Metropolitan Council, 2022). Changing precipitation patterns may stress the regional collection system and could lead to increasing issues with I/I. Another consideration related to climate change is the potential for rising groundwater levels, potentially inundating pipes that were originally above the groundwater table. With the uncertainty of climate change impacts, it is important to plan for changing conditions and continue work on public and private infrastructure.

Inflow and Infiltration Policy:

Additional capacity will not be provided in the interceptor and wastewater treatment systems to serve excessive inflow and infiltration.

Inflow and infiltration goals for all communities discharging wastewater to the regional wastewater system will be established by the Met Council. Communities that have excessive inflow and infiltration in their sanitary sewer systems will be required to eliminate the excessive inflow and infiltration within a reasonable time period.

Desired Outcomes:

- Capacity enhancements will not be made to accommodate inflow and infiltration.
- Municipalities are supported in both mitigation efforts on public and private infrastructure.
- Funding is consistent and reliable for inflow and infiltration mitigation efforts.

Connected Objectives:



Example Actions:

PARTNER

- Work with the State to attempt to make funds available for inflow and infiltration mitigation, and promote statutes, rules, and regulations to encourage I/I mitigation.
- Continue to support, advocate, and coordinate with Metro Cities for state bond funding for municipal public system inflow and infiltration grants
- Coordinate with lead-removal municipal programs to help residents address water supply and wastewater laterals concurrently, when feasible.

PLAN

- Require all communities served by the regional wastewater system to include its inflow and infiltration mitigation program in its comprehensive sewer plan, including a program to mitigate sources of inflow and infiltration from private property.
- The Met Council will continue developing inflow and infiltration goals for all communities served by the regional wastewater system.
- The Met Council will limit expansion of service within communities where excessive inflow and infiltration jeopardizes the Council’s ability to convey wastewater without an overflow or backup occurring or limits the capacity in the system to the point where the

Council can no longer provide additional wastewater services. The Met Council will work with those communities on a case-by-case basis, based on the applicable regulatory requirements.

PROVIDE

- Met Council facilities and interceptors will be maintained and rehabilitated to minimize inflow and infiltration.
- The Met Council will institute a wastewater rate demand charge for those communities that have not met their inflow and infiltration goal(s), if the community has not been implementing an effective inflow and infiltration reduction program as determined by the Council, or if regulations and/or regulatory permits require Council action to ensure regulatory compliance.
- The cost of wastewater storage facilities and/or other improvements necessary to avoid overloading Council conveyance and treatment facilities and the appropriate charges for use of capacity beyond the allowable amount of inflow and infiltration will be covered by the wastewater demand charge.
- The Met Council will continue to advocate for and seek funding for communities working to reduce inflow and infiltration from private property sources, which may include partnering with lead service line replacement efforts.