Discussion of SMART goals

Reviewing draft Metro Area Water Supply Plan content

METROPOLITAN COUNCIL

Metro Area Water Supply Technical Advisory Committee June 18, 2024 | Jen Kader, Lanya Ross

Existing content to enhance measurability in the draft Metro Water Supply Plan

Draft content in the Metro Water Supply Plan

- Definition of success
- Regional commitments
- Regional indicators

Content in the 2015 Master Water Supply Plan

- Limitations on sources
- Supporting outcomes
- Groundwater optimization modeling

Regional definitions of success in the draft Metro Area Water Supply Plan

Water supply infrastructure. Public water suppliers can act quickly, be well informed about their decisions, and equitably address aging infrastructure, contamination, changing water availability, changing water demand, and financial challenges. Communities and their water supply are resilient to climate change and other impacts, because there is sufficient funding and other resources for water supply such as infrastructure, staff, new technology, etc.

Sustainable water quantity. Communities and water agencies have a common understanding of the sustainable limits of groundwater and surface water sources and work together to collectively make plans that sustain an adequate supply – for people, the economy, and the function of local ecosystems. Agency directions are aligned and support local plans to supply demand that exceeds sustainable withdrawal rates using the most feasible combination of alternative groundwater or surface water sources, conservation, reclaimed wastewater and stormwater reuse.

Land use and water supply connections. Public water suppliers, land use planners, and developers have tools, funding and authority to work together – supported by aligned agency directions – so that growth is responsible and supported by reliable and adequate water supply. Development is done in ways that balance communities' economic needs while protecting the quantity and quality of source waters that are vital to the region's communities.

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

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

Regional commitments in the draft Metro Area Water Supply Plan

- Convening diverse partners to collaborate on a variety of water supply work
- Messaging and public education
- Inter-organizational trainings
- Workforce development partnerships
- Legislative initiatives
- Monitoring, data, and assessment
- Describe/document water supply system at multi-community scale
- Identify and evaluate mitigation measures
- Collaborative water planning
- Technical assistance for implementation
- Inter-agency coordination, planning
- Tracking progress for continuous improvement

Regional indicators in draft Metro Area Water Supply Plan

- Regional impacts of climate events
- Community responses to climate events
- Potential contaminants associated with current and future land use
- Source water quality
- Groundwater levels
- River flow
- Ecosystem health in waters sensitive to changing groundwater
- Designation of special well and boring construction areas
- Summary of well interference/conflicts
- Trends in water reuse
- Metro summary of MDH drinking water report results
- Metro summary of PFA estimated funding needs
- Metro summary of ASCE infrastructure report card
- Private wells drilled and sealed
- Current and future population
- Current and projected water use
- Trends in per person water use
- Impacts from (re)development on indoor water use and related wastewater generation
- Wastewater flow trends
- Water quality impacts of water softeners
- Quality and quantity of waters receiving reclaimed wastewater

Example metrics from 2015 Master Water Supply Plan

Water demand versus sustainable limits

- Estimated limit of sustainable groundwater withdrawals: 400-500 MGD
- Estimated limit of sustainable Mississippi River water use: 1,940 CFS
- Estimated limit of sustainable wastewater reuse: 250 MGD

Per person water use versus regional targets

- Regional average total water use of 90 gallons per person per day
- Regional average residential water use of 75 gallons per person per day

Use of current water supply infrastructure versus capacity

- Monthly summer versus winter ratio less than 1.6, the 1990-1994 average

Groundwater flow changes at sites of groundwater contamination

- Less than 10 degrees of change in flow direction

Group discussion: Overview and example for SMART goals discussion

Definitions of success	Regional commitments (what can we do as a region in 10 years?)	Regional indicators	Metrics to track sustainability
Sustainable water quantity	• Messaging and public education • Inter-organizational trainings • Legislative initiatives • Monitoring, data, and assessment • Describe/document water supply system at multi-community scale • Identify and evaluate mitigation measures • Collaborative planning • Technical assistance • Inter-agency coordination, planning	• Groundwater levels • River flow • Summary of well interference/conflicts • Trends in water reuse • Current and projected water use • Trends in per person water use • Wastewater flow trends	• Water demand versus sustainable limits • Per person water use versus regional targets • Use of current water supply infrastructure versus capacity • Groundwater flow changes at sites of groundwater contamination

SMART goal example: Regional average water use per person per day remains level or decreases by 2035.

Note: If the region used an average of 80 gallons per person per day, 2050 growth could be supplied with the amount of water used regionally by municipal water supply systems in 2007 (the highest historic municipal water use).

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