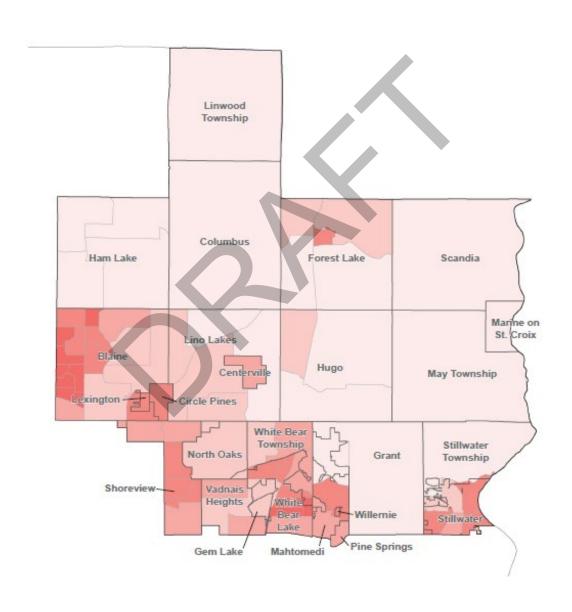
# NORTHEAST METRO SUBREGIONAL WATER SUPPLY PLANNING CONSIDERATIONS A CHAPTER OF THE METRO AREA WATER SUPPLY PLAN

# SECOND DRAFT - MARCH 2024





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# Water supply planning context and current conditions

Everything that happens on land impacts water, and water is all connected.

With the region as a whole expected to grow by more than 650,000 people between 2020 and 2050, the Northeast Metro will see growth. Preliminary estimates, which are being evaluated with community input through spring of 2024, suggest that approximately 59,000 more people, 28,000 more households, and 36,000 new jobs will be added to the area by 2050 compared to 2020.

Quality and quantity challenges already exist. See the <u>Northeast chapter of the Water Supply Planning Atlas</u> for examples. Additionally, climate change serves as a risk multiplier, amplifying the impacts that drought and flooding can have on water supply.

In the northeast metro subregion, collaboration on water supply planning is important because:

- Communities rely on sufficient, reliable, and safe water supply for health, prosperity, and the function of local ecosystems. This is not a given but is paramount.
- As the subregion continues to grow, the climate is also changing, and new issues resulting from human impacts continue to emerge that have the potential to further influence the quality and quantity of water available for drinking water supply.
- With existing supply constraints and challenges, as well as a forecast of continued growth, now
  is the time to plan thoughtfully and collaboratively to ensure a safe and sustainable water
  supply—for individual communities, ecosystems, the region, and future generations.

# Definition of success for water supply planning in the northeast metro subregion

Water supply planning for the northeast metro subregion is successful if:

- Clean, affordable, sustainable water supply for humans and ecosystems
- Regional sustainability and coordination with local control
- Balance between growth and resource protection
- Source water is protected

#### To be successful:

- Increased culture of stewardship/increased stewardship Green grass isn't the goal, and people need to understand Minnesota doesn't have unlimited water
- Increased trust of water and the water system
- Policy framework is streamlined and improved
- Increased state and regional support for planning and plan implementation
- · Decisions are scientifically and financially sound
- Current/emerging contaminants are understood and addressed

### Issues and opportunities

Achieving the identified success will require addressing barriers as well as advancing opportunities. In considering the full water supply picture, participants offered their thoughts for what barriers would need to be addressed or opportunities could be pursued to achieve the identified success. Those comments were merged with issues, goals, and actions offered at the March 15, 2023 Subregional Workshop also hosted by Met Council. These were then summarized into the following focus areas, listed here in alphabetical order.

#### Changing behaviors and social norms

Humans impact the environment around them, and all have a role to play to minimize that impact. Yet, that role as it relates to water supply is not always known, well-understood, or bought into as something they can and should do something about. Compounding this is a need for a shifting of social norms, as the inertia of expectations and desire for things like green lawns will take effort and time to overcome, as well as an approach customized to specific audiences (different cities, ages, cultural backgrounds, private vs public well, levels of decision-making authority, etc.) to make the information relatable and help promote behavior and policy change. That said, a coordinated education initiative across communities with shared resources (such as mobile units) and tools could reduce cost and increase consistency in messaging. Achieving this will require more funding than is currently dedicated to outreach and education initiatives, and funding for something like this could also be used statewide.

#### Contamination

Various sources of human-contaminants are impacting water supply--both in terms of what is available and the cost of treatment and remediation. Specifically, these include fertilizers and herbicides, septic systems, chloride, PFAS, TCE, pharmaceuticals, nanomaterials/compounds, disinfection byproducts, other contaminants of emerging concern, selenium, and manganese. Research, education, monitoring, testing, technological innovation, enhanced rules, and enforcement are needed. This includes implementation of the PFAS Blueprint.

#### **Funding**

As it stands, the cost for water does not reflect the true cost of accessing, treating, and distributing water or maintaining that infrastructure, yet further changes spurred by quality and quantity challenges require new investments. There is a need for a sustainable, consistent, long-term source of reliable funding for water quality and quantity initiatives. This could be state and federal funding to support local and regional goals, adjusted and tiered rate structures and policy tools to better reflect the true cost of water, as well as incentives and grants to support further work.

#### **Governmental Coordination**

Operating in silos creates challenges, as water flows across jurisdictional boundaries, multiple communities tap the same water supply, and the management of water is distributed across agencies though all water is connected.

#### **Agency Coordination**

Generally speaking, continuing to work towards regional/state planning for water supply with common ground for all agencies is desired. Specifically, there is interest in seeing increased coordination and consistency between agencies, a streamlining of efforts, and an increase in understanding of the impacts of requirements (and the timing of those requirements) on local offices. Additionally, coordination within agencies is also desired. For the Met Council, there is opportunity at this time to ensure alignment and tie-ins between regional planning guidance and system statements.

#### **Jurisdictional coordination**

Working across community boundaries provides the opportunity to reduce costs to individual communities in planning, reduce instances where neighboring plans conflict with each other, provide space for regional considerations and to share best practices or lessons learned, address the needs of multiple types of water systems, more broadly protect source water, and identify innovative opportunities and legislative priorities that meet the goals and needs of multiple communities.

#### Integrated water management

There is benefit in pursuing an integrated approach to water supply management, but this requires rethinking who is in the room and their roles (including water suppliers and regulators but also community development and land use planners, natural resource managers, and counties), an integration of surface water and groundwater perspectives, increased agency cooperation, and a willingness to develop customized solutions that can achieve multiple benefits.

#### Managing for uncertainty

It can be challenging to plan for a future with so much uncertainty, including knowing what kinds of growth you'll actually get, the impacts of climate change, or the outcomes of consequential, pending decisions that need to be made.

#### Policy change

Policy can be used to improve water quality and quantity conditions, but misapplied or reactive, it can also create burdensome requirements and restrictions that hinder the ability to pursue desired, sound actions. Policy changes that create a legislative framework to support action with consistent (yet flexible) regulation are needed, as are tools to increase compliance. Achieving these changes will require political will, decision-maker understanding of water supply, and a willingness to collaborate.

#### Private well user support

Private well owners need more education and financial resources to maintain their systems and understand their local groundwater picture, but there are questions about where those resources should come from.

#### Water quantity

Quantity of groundwater is of major concern, especially considering the White Bear Lake Comprehensive Planning effort directed by the legislature and ongoing questions about future groundwater availability. While the Metro Area Water Supply Plan update and the White Bear Lake Area Comprehensive Plan each have their own predetermined purposes, statutory drivers, and timelines, there are actions that can be taken now to stretch groundwater supply.

#### Conservation

Efforts systematically rolled out to address high-volume users (residential and non-residential) older properties and appliances with monitoring to help target outreach, to increase buy-in of rental properties, apartments, etc. to support smart conservation.

#### Reuse

Reuse can further increase efficiency by using water more than once, or using stormwater for non-potable purposes, though this would require policy change and clarity.

#### Recharge

Considering wastewater as a resource can support recharge.

#### Workforce

Communities are experiencing workforce related challenges. There are not enough staff or ability to fund their roles currently, and retirements create concern around loss of institutional knowledge and qualified staff. There is a need to increase technical capacity and knowledge of water quantity and quality among new water supply staff. In addition to addressing these workforce challenges, there is also a variety of technical, scientific, education, and funding assistance that is needed to support communities to respond to and understand the nature of various challenges. Increasing internal staff while also increasing access to regional assistance can reduce the burden of plan implementation and

system management experienced by local staff. Specific requests in this category include: ability to model aquifer volumes, shared educational materials, assistance in obtaining funding for infrastructure needs, resources for risk communication.

## Prioritized focus areas and action plan

In a survey following the first workshop, participants were asked to share which of the focus areas they believed should have the most focused attention from the Northeast Metro subregion and Met Council in the next ten years, as well as why. The survey outcomes were shared for discussion at the second workshop, and based on that discussion, participants agreed to the following as the priority focus areas for the Northeast Metro subregion (again, recorded here in alphabetical order to not reflect further prioritization among them). Statements for what success looks like in 10 years, as identified by participants, are also included for each.

# Governmental Collaboration Agencies

- Shared data
- Not having overlapping work efforts between different agencies and communities

#### **Jurisdictions**

- Limited conflicting plans
- Consider scale of planning at aquifer level

#### Integrated water management

- Having conversations about cost/benefit
- Sensible rules and regulations for organizations dealing with water resources
- Awareness among LGUs and land use planning impacts to water resources
- Reducing complexity of LGUs involvement in decisions related to water resources
- Move thoughtful coordination among agencies to integrate resource concerns / improvements

#### **Changing Behaviors and Social Norms**

- Widespread acceptance (industry, business) of alternative cover (natives, non-irrigation, etc.)
- Greater household awareness of water use and implementation of conservation practices
- Coordinated or standardized BMPs / conservation measures for the metro (and beyond)
- Coordinated / shared outreach and education resources for communities
- Regional agency to perform and education
  - Uniform messaging
  - Removes the fear that LGU using cowboy approach

#### Contamination

- Safe and clean drinking water from tap in both public and private spaces
- Expanded program for discovering and managing emergent contaminants that works collaboratively with other agencies
- Surveillance, remediation, prevention, and funding for each
- Continued tracking of trends ie. less usage of road salt

#### **Funding**

- Money for continued research/data collection
- Thoughtful allocation of costs polluters? Users? Statewide?
- Focus on priorities / competing interest

#### **Water Quantity**

#### Conservation

- Residential gallons per person per day in cities is on a downward trend while peaking factors are reduced to below 2x January use
- Conservation planning is proactive and not reactionary
- Focus on finding biggest cost-effective actions and develop grant program for adoption
- Groundwater appropriation fees should cover costs for groundwater management

#### Reuse

- Every community has the option to have a water reuse plan- irrigation
- Supported by agencies/jurisdictions legislation/law
- Community understanding education- use + water quality
- Saving water (drinking) targets for amount saved goals
- Stormwater
- Wastewater
- Recycled water
- Less-potable solutions

#### Recharge

Some % (to be determined) of water successfully recharged into aquifers

**Water Availability** (added by the group in the second workshop to include growth and demand as well as quality-induced pressures on supply)

- Identified solution, acquired funding, started to implement projects.
- Reliable clean water source, sustainable.
- Make decision on whether we have to change if we do, then solutions and move to projects

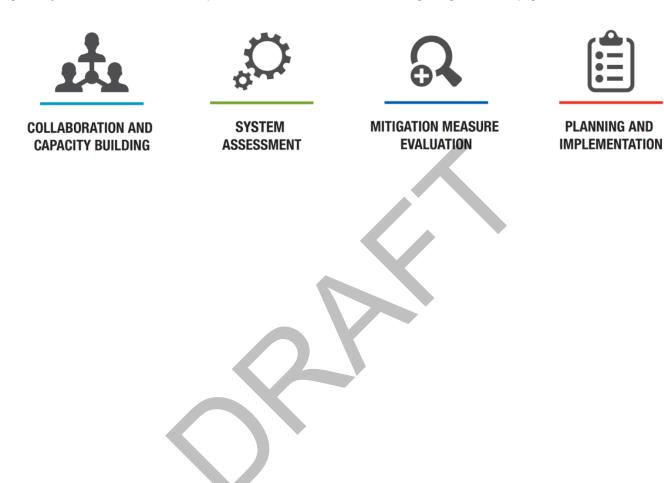
It should be noted that, as a part of the discussion, the following focus areas were identified as "implementation considerations", in that they would be needed (either as a strategy or something to manage for) in order to support success for any of the other focus areas. As such, these were requested to be incorporated as action plans to address priority focus areas were developed:

- Workforce
- Managing for uncertainty
- Policy change
- (ALSO funding)
- (ALSO changing behaviors and social norms)

The following pages reflect the action plan developed by participants at the second subregional workshop in order to address the priority focus areas. It is possible and expected that actions not

reflected here may emerge as important steps needed to be taken in subsequent years. This list, therefore, reflects what was being considered in early 2024. They have been organized according to the Metro Area Water Supply Advisory Committee's 2022 proposed framework to achieve progress on regional goals (figure 1).

Figure 1. The framework for action to achieve MAWSAC goals includes four general steps. Northeast metro subregion actions generally fall across the framework steps, as can be seen in the action tables beginning on the next page.



#### **Actions to support success**

Specific actions steps have been identified for each of the focus areas. While they primarily focus on work needed over the next 10 years, some actions are expected to be ongoing over the next 25 years or more. While the actions are currently organized according to the Metro Area Water Supply Advisory Committee framework for action, these may be better organized to highlight education (For HOAs and other larger users, schools, and resident), data (databases and sharing), connections (funding sources), and permitting actions. Action items in bold were prioritized by subregional participants in a 2/29/2024 workshop.

Table 1. Subregional water supply stakeholders identified several actions to focus on over the next 10 years (and in some cases, 25 years) to set the subregion up for long-term success in the priority focus areas discussed in this chapter. The action plan includes proposed roles for leads, Met Council, subregional groups, and local entities. This action plan is intended as a high-level, long-term, collaborative planning tool. The details may change as collaboration gets underway and on resource availability.

ACTIONS	RELATED FOCUS	10-YEAR PLAN		25-YEAR PLAN			POSSIBLE ROLES			
	AREAS	2025- 2030	2030- 2035	2035- 2040	2040- 2045	2045- 2050	LEAD(S)	MET COUNCIL	SUBREGION	LOCAL
COLLABORATION AND CAPACITY BUILDING										
Increase collaboration among agencies for proactive engagement on issues	Agency coordination									
Increase communication from agencies to LGUs with the intent of reducing surprises	Agency coordination									
Coordinate data requests, reporting, and requirements for LGUs among agencies	Agency coordination						DNR, Metro Sewer/water use reporting			
Increase staff level coordination across agencies	Agency coordination									
Determine where or under what circumstances multi-jurisdictional planning and collaboration is needed, and then engage in collaborative planning to establish common goals	Jurisdictional coordination	•					Met Council, County	Provide suggestions		
Connect HOAs to educational programs	Changing behaviors and social norms						UMN Extension			
Develop large scale, coordinated education and outreach efforts for both water quality and quantity to increase consistency of messaging and take advantage of economies of scale	Changing behaviors and social norms, jurisdictional coordination	×	X	X	x	X	DNR, Local public health, Met Council, MDH			
Collaborate with schools for education and plantings	Changing behaviors and social norms						LGUs, DNR, schools			
Advocate at the legislature for metro and state-wide funding for treatment needs (public water supply and private wells)	Contamination									
Provide more technical and IT support to develop tools to monitor for or respond to contamination issues	Contamination						Met Council			
Establish memorandums of agreement between LGUs to support collaboration	Jurisdictional coordination						LGUs in certain areas			
Establish standard regulations between watersheds and other agencies, including clarification of DWSMA guidance, while allowing for site-specific flexibility for infiltration	Integrated water management, Recharge	Х	Х				BWSR, watershed districts, LGUs, MDH			
Share data between communities	Jurisdictional coordination									
Promote dual uses of recreation areas for recharge and reuse	Recharge						DNR			
YSTEM ASSESSMENT										
Identify available solutions to ensure sustainable water for the future, as well as the funding source or mechanisms to pay for their design and implementation	Water availability						MDH, DNR, Legislature			

ACTIONS	RELATED FOCUS	10-YEA	R PLAN	25-YEAR PLAN			POSSIBLE ROLES				
	AREAS	2025- 2030	2030- 2035	2035- 2040	2040- 2045	2045- 2050	LEAD(S)	MET COUNCIL	SUBREGION	LOCAL	
Develop a central tracking tool for water supply system information (GIS and otherwise) that are viewable in a browser	Agency coordination			Х	х	х	Met Council	Develop data repository			
Create a regional contaminant database with tools and information for residents to better understand contaminants	Contamination						Met Council, MDH				
Increase funding available for testing and monitoring at the state level	Contamination						MDH, MDA, MPCA				
Target funding to priority issues	Funding										
Determine needed chemistry for injection of water	Recharge						Met Council, Land use planners, City planners				
Define terminology such as "recharge", "protection", and "prevention" to ensure consistency and understanding	Recharge						MPCA, MGS, DNR				
Conduct a localized study to understand where injected recharge or designed infiltration make the most sense	Recharge										
Determine whether a change in source of water is needed	Water availability						MCES, DNR				
IITIGATION MEASURE EVALUATION											
Use best available technology to calculate permits (and provide grants to upgrade)	Conservation						DNR				
Identify most cost-effective actions for conservation and develop grant programs to incentivize adoption	Conservation	Х	х				DNR with help from UMN Extension, legislature, MDA?				
Establish criteria to be reviewed before installing infiltration BMPs	Recharge						MPCA, MDH, watersheds				
LANNING AND IMPLEMENTATION											
Cities lead by example with installing alternative cover	Changing behaviors and social norms						Cities				
Provide programs to incentivize private and commercial entities to lead by example	Changing behaviors and social norms						Met Council, businesses, lawns to legumes, watersheds				
Establish an incentive program for native plantings have city ordinances reflect native planting and conservation goals, and develop a guidance toolkit for maintenance of native plantings	Changing behaviors and social norms						UMN Extension				
Pass limited liability legislation complete with a secure funding source for outreach and education	Changing behaviors and social norms										
Generate revenue for water user education through conservation rates	Changing behaviors and social norms										
Develop a toolkit for technical and financial assistance for large volume users	Conservation										
Update DNR appropriations permits process to reflect conservation actions	Conservation										
Pass legislation to increase appropriation fees to more adequately cover the cost of groundwater management	Conservation										
Establish a grant program for public water suppliers to perform system audits and make repairs	Conservation										
Engage in ambient groundwater monitoring	Contamination	Х	Х	Х	Х	х	MPCA				
Engage in ambient monitoring for drinking water	Contamination						MDH				
Establish supplemental funding for water systems to help manage changing rates	Contamination						Met Council, Legislature	Advocate for supplemental funding			

ACTIONS	RELATED FOCUS	10-YEA	R PLAN	25-YEAR PLAN			POSSIBLE ROLES				
	AREAS	2025- 2030	2030- 2035	2035- 2040	2040- 2045	2045- 2050	LEAD(S)	MET COUNCIL	SUBREGION	LOCAL	
Provide education for private well users on well maintenance, testing, and treatment	Contamination	Х					MDH				
Provide funding for pre-treatment upgrades to old and new plows to reduce chloride use	Contamination						State, cities, county				
Promote municipal water quality as safer and cheaper than purchased bottled water	Contamination										
Develop a northeast metro subregional supply plan-where one is needed	Integrated water management										
Pass legislation to allow MN to have groundwater injection control	Recharge						MPCA, DNR, Met Council, EPA				
Establish decentralized wastewater treatment and use treated discharge for recharge or reuse	Recharge										
Increase ability to use graywater for recharge	Recharge										
Explore options to maintain shallow groundwater levels during construction dewatering through nearby injection of pumped water	Recharge										
Establish water reuse plans for cities	Reuse	Х	Х				LGUs, partnerships				
Provide guidance and incentives for water reuse, including for less-potable uses	Reuse	Х	х				MDH				
Provide public education about water reuse	Reuse	Х					UMN Extension				
Design and construct projects that have been evaluated to show they will support sustainable water use	Water availability		X	х	×	х	Water suppliers, DNR				
New Climate Change Actions											
Identify funding and education for municipalities regarding reuse	Climate change, Reuse										
For greywater, increase educational funding for municipalities/residents	Climate change, Reuse										
Create and implement model ordinances to permit stormwater reuse for irrigation	Climate change, Reuse										
Incentivize counties and cities to transition properties to native landscaping	Climate change, Reuse										

# **Appendix A: Subregional engagement process**

#### Scoping and gaging local support

MAWSAC, in the 2022 report to the Council and MN Legislature, recommended updating the 2050 regional development guide and related policy and system plans (which connect to the master water supply plan) to support MAWSAC goals, customized for subregional and local conditions. The committee also recommended taking a new subregional approach that leverages subregional water supply working groups to inform regional and local policy and plan updates.

On July 19<sup>th</sup> and September 8<sup>th</sup>, 2022, the Metro Area Water Supply Advisory (MAWSAC) and their Technical Advisory Committee (TAC) discussed an approach to subregional engagement and potential content for subregional chapters in the updated Metro Area Water Supply Plan. Meeting materials document those discussions and are available on the Council's website:

- July 19, 2022 MAWSAC meeting (agenda, presentation, handout, minutes)
- September 8, 2022 TAC meeting (agenda, presentation, handout, minutes)

On March 15, 2023, Metropolitan Council hosted a workshop for all the metro region's subregional work group participants. Six people from the northeast metro attended. The proposed approach for subregional engagement was presented, and workshop participants expressed support for it and shared some water supply priorities in their areas. A summary about the workshop was shared with MAWSAC at their May 9, 2023 meeting and is available on the Council's website (presentation, summary).

Core team of local stakeholders to customize engagement for the northeast subregion On August 28, 2023, a kick-off meeting was held with core team members to scope an engagement approach in the northeast metro.

Core team members included:

- Beth Carreno, Comfort Lake-Forest Lake Watershed District
- Mike Grochala, City of Lino Lakes
- Tom Wesolowski, City of Shoreview

Outcomes that the core team sought from the engagement process:

- A shared vision for water supply in the subregion for 2050
- A shared understanding of the water supplies available in the northeast metro
- A list of all issues, with top issues identified (and inclusive of key opportunities)
- Action plans to address priority items
- An understanding of what the Metro Area Water Supply Plan is and how it benefits them

#### **Subregional engagement: Workshops**

On January 3, 2024, the first workshop for the northeast metro was held to introduce the project and the approach to updating the Metro Area Water Supply Plan, share subregional water supply information in the newly developed Water Supply Planning Atlas, and get input about what successful water supply planning should look like, what is already working well, what challenges exist, and what high-level goals do people have for the next ten years.

#### Attendees who signed in:

- Abby Shea, MDH
- Andy Nelson, City of Lino Lakes
- Anneka Munsell, MDH
- Beth Carreno, Comfort Lake-Forest Lake Watershed District
- Bill Petraek, City of Lexington
- Bryan Bear, City of Hugo
- Corey Larson, MDH
- Dale Reed, White Bear Township
- Daniel Elder, Washington County
- Dave Schulenberg, National Groundwater Association
- Emma Dvorak, Metropolitan Council
- Erin Spry, City of Vadnais Heights
- Gail Cederberg, Metropolitan Council
- Jay Riggs, Washington Conservation District
- Jim Hauth, City of Vadnais Heights
- Jim Studenski, TKDA / White Bear Township

- Justin Williams, City of Lino Lakes
- Karla Peterson, MDH
- Kristian Gaasland, City of Blaine
- Kristin Tuenge, CMSCWD
- Lucas Martin, MDH
- Michael Grochala, Lino Lakes
- Mike Kinney, Comfort Lake-Forest Lake Watershed District
- Patrick Sarafolean, MDH
- Paul Kauppi, City of White Bear Lake
- Peter Tholen, White Bear Township
- Rachel Juba, City of Hugo
- Rebecca Higgins, MPCA
- Serena Raths, Washington County
- Sharon Kroening, MPCA
- Steve Winter, MSA
- Tim Gladhill, City of Stillwater
- Tom Wesolowski, Shoreview

Draft focus areas that emerged from the first workshop were merged with issues, goals, and actions offered at an earlier March 15, 2023 Subregional Workshop also hosted by Met Council. These were then shared with participants in a survey to identify priorities to work on at the second workshop.

On February 7, 2024, a second workshop for the northeast metro was held to focus on drafting action plans for priority focus areas identified at Workshop 1 and through the interviews. In small groups, participants filled out action plan worksheets for the focus areas identified at the first workshop. Groups rotated through three topics each, revising and adding to the ideas of the group who discussed the topic before them.

#### Attendees:

- Anneka Munsell, MDH
- Beth Carreno, Comfort Lake-Forest Lake Watershed District
- Bryan Bear, City of Hugo
- Chris Lord, Anoka SWCD
- Claudia Hochstein, DNR
- Clark Schroeder, Lake Elmo
- Dale Reed, White Bear Township
- Dan Miller, DNR
- Daniel Scollan, DNR
- Dave Schulenberg, National Groundwater Association

- Elden Lamprecht, Wash Co Groundwater Community Advisory Committee
- Emily Berquist, MDH
- Emma Dvorak, Metropolitan Council
- Erin Spry, City of Vadnais Heights
- Gail Cederberg, Metropolitan Council
- Jessica Collin-Pilarski, Washington County
- Jim Hauth, City of Vadnais Heights
- Jim Studenski,TKDA / White Bear Township
- Lauren Grouws, North Oaks

- Lucas Martin, MDH
- Mark Statz, Centerville
- Michael Grochala, Lino Lakes
- Mike Isensee, Carnelian-Marine-St.
   Croix Watershed District
- Nick Neylon, Ramsey SWCD
- Patrick Sarafolean, MDH

- Paul Kauppi, City of White Bear Lake
- Peter Tholen, White Bear Township
- Rachel Juba, City of Hugo
- Rebecca Higgins, MPCA
- Serena Raths, Washington County
- Sharon Kroening, MPCA
- Tom Wesolowski, Shoreview

**Workshop photos** 



Figure 2. Workshop 1 for the northeast metro water supply group was hosted by the City of Shoreview and held at the Shoreview Center.

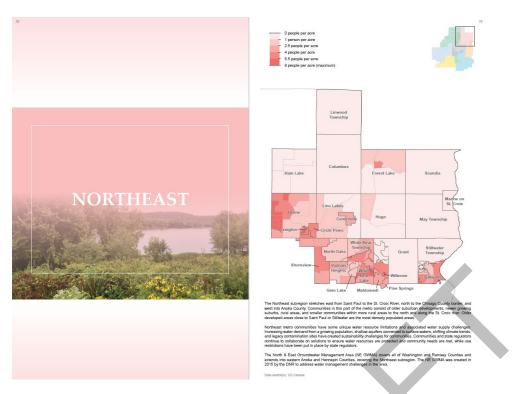


Figure 3. The Northeast chapter of the recently-released Water Supply Planning Atlas for the Twin Cities Metropolitan Area provided subregional water supply information and context to support group discussion.

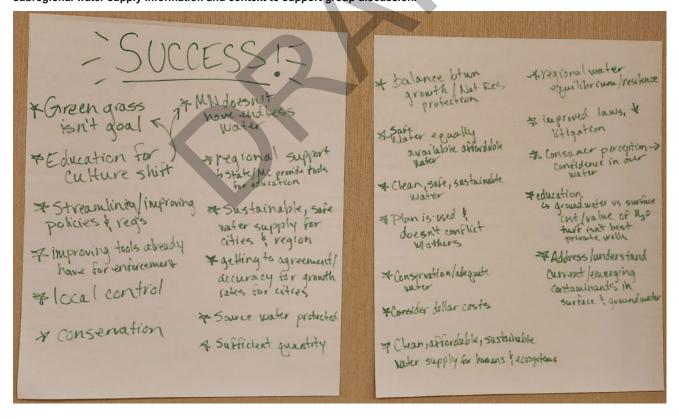


Figure 4. At Workshop 1, the northeast metro water supply group discussed what a successful water supply planning effort would look like.

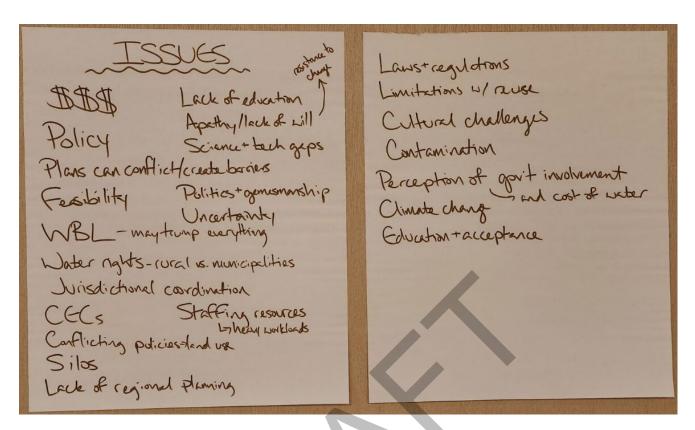


Figure 5. At Workshop 1, the northeast metro water supply group discussed water supply planning challenges.

# **Glossary and Initialisms**

**BWSR:** Minnesota Board of Water and Soil Resources

**CECs:** Contaminants of emerging concern

**Data standards:** Data standards are documented agreements on representation, format, definition, structuring, tagging, transmission, manipulation, use, and management of data.

**DNR:** Minnesota Department of Natural Resources

**DWSMA:** Drinking water supply management area, designated by municipal water suppliers and the Minnesota Department of Health.

**EMWREP:** East Metro Water Resource Education Program, a partnership of 30 local units of government hosted by the Washington Conservation District.

**HOA:** Home Owners Association

MC: Metropolitan Council

MDH: Minnesota Department of Health

MIDS: Minimum Impact Design Standards

**MPCA:** Minnesota Pollution Control Agency

**PFAS:** Per- and Polyfluorinated Substances

**SWCD:** Soil and Water Conservation District

**WD:** Watershed District

**WMO:** Watershed Management Organization

**VOC:** Volatile organic compounds are compounds that have a high vapor pressure and a low water solubility.

What other terms should be included to ensure we all mean the same thing?

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