

## RECOMMENDATIONS TO CONNECT LAND USE & WATER SUPPLY

The TAC, serving at the pleasure of the MAWSAC, recommends that the MAWSAC, with the Metropolitan Council and the State of Minnesota, promote actions so that public water suppliers have tools and are empowered to work with land use planners and developers to protect the quantity and quality of critical source waters. Local actions that protect source water need to be better understood, coordinated, and incentivized in the region. Forethought in land use planning today provides opportunities to prevent contamination in the future.

### *Problem*

Many of our current water quality problems came about because we didn't realize the implications of our land use – and related industrial and commercial waste – years ago. We have opportunities to make choices now with our current land use that help prevent the kind of legacy contamination that past land use practices have caused.

*As committees form recommendations around this challenge, look for opportunities to:*

- Increase support for inter-jurisdictional analyses and coordination. Considering the overlap of source water protection areas, the challenges that hinder local actions to protect source water need to be better understood, coordinated, and incentivized. Certain areas contribute more than others to the number of people drinking that water and should be prioritized (ex: where DWSMAs overlap).
- Clarify roles and financial and logistical responsibilities for water utilities, community planners, regulators, and others.

### *Questions to consider*

Consider the following questions in preparation for the meeting, based on your experiences dealing with land use impacts on water supply systems and risks to source water. The [Master Water Supply Plan](#) and [Thrive MSP 2040](#) outcomes, principles, and goals are a resource to draw on.

- 1) **What trade-offs or tensions do you perceive might shape public support for protecting source water through land use choices?** What political or regulatory pressures are you trying to balance?
- 2) **What resources would help most?** What financial resources, information, plans, permits, or technical assistance set us up to do better? Anything missing from current local, regional, or state agencies?
- 3) **Who in your community is most impacted by source water protection expectations or concerns about infrastructure changes/expansion?** What outreach approaches have been most effective? Are there any gaps in resources?
- 4) **How could the Council and/or organizations represented on TAC help?** How could the region be better prepared to support land use choices that promote source water protection and water supply sustainability?

## *Potential solutions or approaches*

The following proposed solutions or approaches come from conversations had by MAWSAC, TAC, LUAC, and Met Council staff:

### **Financial support**

- a) State of Minnesota funds investigation and programs to move unlined landfills out of source water areas.
- b) State of Minnesota financially supports sub-regional wellhead protection implementation projects that extend beyond political boundaries of one community.
- c) State of Minnesota, with Metropolitan Council and other partners, provides funding for grants for communities that are prioritizing redevelopment and high-density housing (examples: Metropolitan Council Livable Communities Grants).
- d) State of Minnesota provides financial incentives to encourage developers to implement best management practices to protect source water.
- e) State of Minnesota increases funding and outreach for agricultural practices to protect source water.
- f) State of Minnesota increases incentives for communities to conserve natural lands or shift land use for source water protection.

### **Outreach, engagement, and training**

- a) Metropolitan Council's Local Planning Assistance program provides resources for community planners and public water suppliers to protect source water areas (examples: Local Planning Handbook, PlanIt):
  - information about the location, vulnerability, and population served by source water areas
  - model ordinances and other best practices
  - tools to target well sealing programs (examples: Fridley, Edina)
  - checklist for source water protection analysis for new construction
  - customizable education campaign materials for public water suppliers highlighting the value of protecting source water, water treatment methods and costs, and how community members' actions impact health.
- b) Committee members and partners commit to participating in and supporting Minnesota Source Water Protection Collaborative and subregional partnerships (examples: proposed Dakota County Groundwater/Source Water Collaborative, Anoka County Municipal Wellhead Protection Group). Includes partnering with agricultural community.

## Research

- a) State of Minnesota continues to work to identify and publish presence of contaminants in drinking water supplies in metropolitan area, filling gaps in monitoring and analyzing how past and current land use practices impact soils and water.
- b) Metropolitan Council, with state and local partners, proposes approach to consistently delineate wellhead protection areas using updated data and analytical approaches.
- c) Metropolitan Council, with partners, analyzes and creates maps of areas where development should be guided for water supply sustainability. May include source water protection and availability challenges caused by the intersection of groundwater, geology, topography, infrastructure, current and future development density, etc.
- d) Explore the regional costs and implications of maintaining or improving land use and waste disposal practices to protect the Mississippi, Minnesota, and St Croix Rivers and vulnerable groundwater sources of drinking water. May include looking at regional benefits of density changes/redevelopment, wetland restoration in source water areas, enhanced infiltration/recharge projects, and other topics.

## Regulatory

- a) State of Minnesota requires coordination between land use planning and environmental benefits and protection. For example: wellhead protection plans become a required component of local comprehensive plan (this requirement existed before 2007 when the Council supported changes to [MS 473.859, Subd. 3](#) and [103G.291](#) to clarify and consolidate water supply planning requirements).
- b) Minnesota Rules are revised to streamline wellhead protection plan update process and requirements to encourage communities with overlapping DWSMAs to work together.

## Regional policies and planning

- a) Metropolitan Development Guide update recognizes source water protection as a crucial public health issue that should be recognized as appropriate and feasible in all the Council's work, not just in watershed and wastewater realms. Related regional policies and programs should consider vulnerable areas within source water protection areas for both surface water and groundwater sources. Examples:
  - considering high priority source water protection in property acquisition and management criteria
  - considering forecast scenarios in the context of water supply availability.
- b) Updated expectations for local water supply plans and comprehensive plan content so that land use planners and developers understand and are empowered to implement strategies for urban and agricultural land use practices to protect critical source water protection areas. Examples:
  - working with water suppliers to understand critical source water protection areas
  - supporting agricultural land use practices that protect ultimate source areas
  - consideration of water supply issues in land use planning.

## *Resources related to land use and water supply*

The following resources were shared or referred to during conversations with committee members or highlighted by staff as this document was developed. They may be useful to review related to committee conversations around land use and water supply. This is not intended to be a complete list of resources.

### **Key source water protection laws and rules**

- Minnesota wellhead protection program laws and rules ([MDH website](#))
- 2007 version of MN Statute 473.859, Subd. 3 (4) (vii) illustrating changes to wellhead protection plan requirement in local comprehensive plans ([State of MN website](#))

### **Land use and landscape information**

- MDH Source Water Protection Web Map Viewer ([interactive map tool](#))
- MDH list of Land Cover Types and Associated Potential Contaminant Sources ([3 page pdf](#))
- MPCA Effects of Land Use on Ground Water Quality, St. Cloud Area, Minnesota ([short report](#))
- Metropolitan Council report 'Growing Greener, Getting Leaner: Land Use in the Twin Cities Region in 2016' ([7 page pdf](#))
- Metropolitan Council report 'Release of the 2016 Generalized Land Use Inventory (2017)' ([15 presentation slides](#))
- DNR Watershed Health Assessment Framework ([interactive map tool](#))

### **MDH source water protection program**

- MDH Source Water Protection program ([MDH website](#))
- MDH Resources for Source Water Protection ([MDH website](#))

### **Examples of collaborative approaches**

- Upper Mississippi River Source Water Protection Project ([UMRSWPP website](#))
- Environmental Initiative Source Water Protection Collaborative ([EI website](#))
- MN Rural Water Association (MRWA) Source Water Protection Resources ([MRWA website](#))
- DNR Community-based Aquifer Management Partnership (CAMP) brochure 'Getting to know your community's groundwater story' ([DNR website](#))
- Talking drinking water with local ag producers ([3 min video](#) and [factsheet](#) by MDH)
- MDA Drinking Water Protection resources ([MDA website](#))

### **Examples of Metropolitan Council technical assistance (grant programs & guidance)**

- [Transit-Oriented Development Account \(TOD\)](#) (Metropolitan Council program website)
- [Tax Base Revitalization Account \(TBRA\)](#) (Metropolitan Council program website)
- [Livable Communities Demonstration Account \(LCDA\)](#) (Metropolitan Council program website)
- [Local Planning Handbook](#) (Metropolitan Council program website)

- [PlanIt](#) (Metropolitan Council program website)

#### Examples of local source water protection work

- Hugo's using less water despite a growing population. How they do it. ([Pioneer Press article](#))
- Washington County 'Our Groundwater Connection' ([5 minute video](#) on basics of groundwater and land use impacts)
- Burnsville Drinking Water Protection Overlay District ([Burnsville website](#))
- White Bear Township wellhead protection guidance ([White Bear Township website](#))
- City of Fridley 'Well Finder' supports well sealing and source water protection ([online map tool](#))
- Hennepin County's 'Landowner Guide – Maintaining Wells' ([guidance document](#))
- Starting a Sustainable Cycle, presented by WSB ([Finance & Commerce webinar panel including City of Hugo](#))
- From Portland, Maine: 'Source Protection Video Series: Protecting a Trillion Gallons of Water' ([1 ½ min video](#))

#### Groundwater monitoring data

- [MDH drinking water quality](#)
- [MDH consumer confidence reports](#)
- [MPCA Petroleum Remediation Program Maps Online](#)
- [MPCA groundwater quality data](#)
- [DNR groundwater level data](#)
- [MDA agricultural monitoring and assessment](#)
- [MC environmental information management system](#)

#### Community data

- [MC Community Profiles interactive datasets](#)
- MC Equity Considerations for Place-based Advocacy and Decision Dataset ([website](#))
- [MPCA Understanding environmental justice](#)