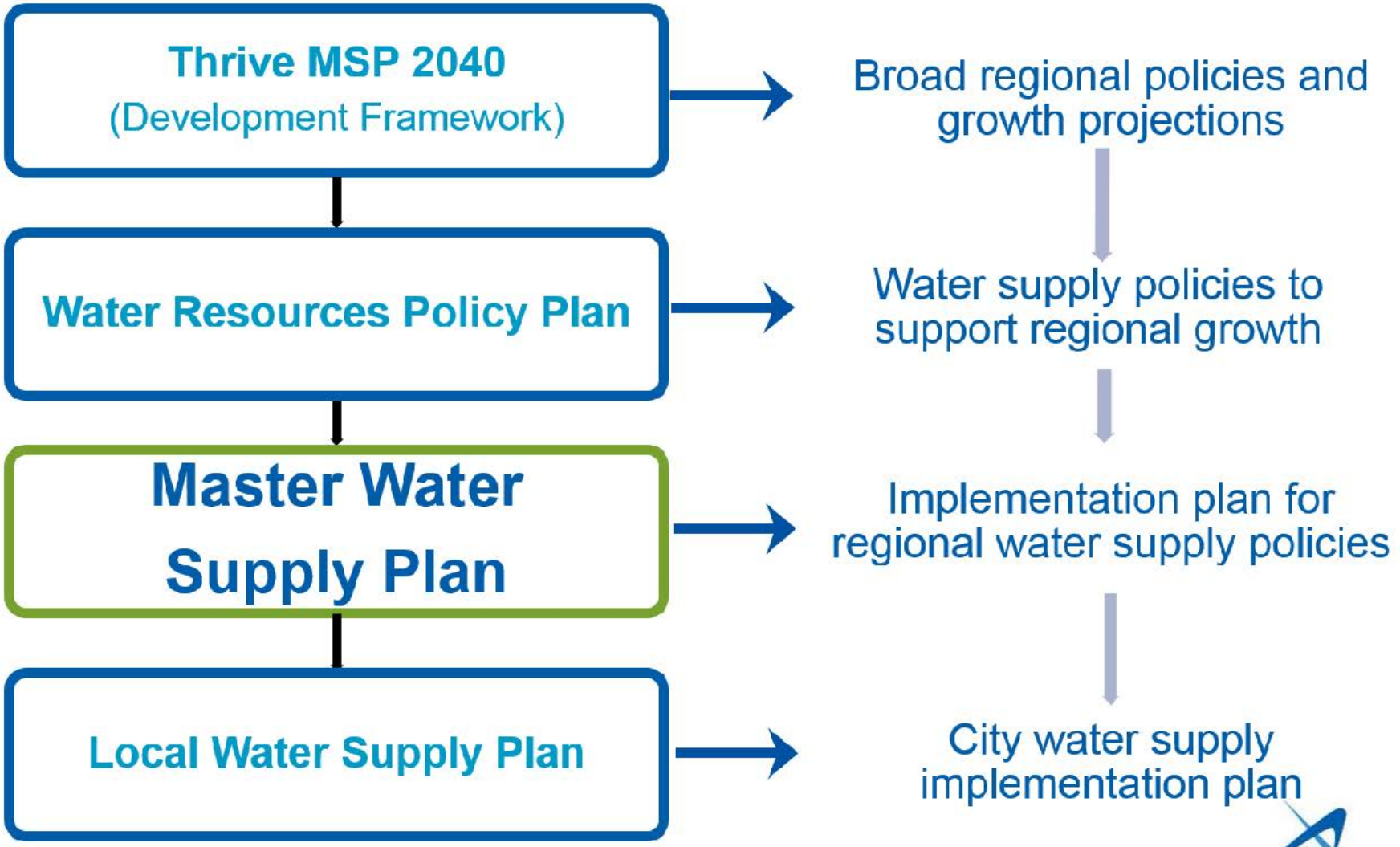
Master Water Supply Plan

December 21, 2015

Land Use Advisory Committee

METROPOLITAN COUNCIL

Metropolitan Area Water Planning Process



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Timeline

2005
Legislative Mandate

2010
Master Plan Complete

2015
Master Plan Updated

2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016

2009
Clean Water Fund begins to supports technical studies & planning tools for partner collaboration, including inter-agency coordination

CLEAN WATER LAND & LEGACY AMENDMENT

Thrive & Water Resources Policy Plan

Local Planning Begins

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What the Master Water Supply Plan IS and IS NOT

IS a regional planning document that provides:

- Information about the key water supply issues
- Information about potential approaches to address them
- Guidance for local and regional plans and investments

- **IS NOT** a system plan with regulatory requirements for local water suppliers

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Water Sustainability Goal

That the region's water supply is sustainable now and in the future

Strategies- Master Water Supply Plan

1. Facilitate collaboration with partners to
   - address water supply issues
   - update the Master Plan
2. Review and comment on plans and permits
3. Conduct water supply technical studies
4. Promote and support water conservation
5. Investigate reusing stormwater and treated wastewater
6. Support regional and local investments in water supply

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Sustainable Water Supply Management

- Maximize the region's use of existing water supply infrastructure investments – usually groundwater - within sustainable limits.
- Water conservation and other approaches can be used so that water is available to meet current and future demand.
- Alternative approaches to groundwater use can be combined to avoid exceeding the sustainable limits of groundwater and other sources.

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Master Plan Content

1. Background information about the rationale for regional water supply planning and the Council's role
2. Regional goal and supporting principles (related to regional policies)
3. Summary of water use in the region
4. Summary of water sources in the region
5. Overview of regional water supply issues
6. Desired outcomes for the region
7. Implementation strategies
8. Summary of the Council's and partners' roles and responsibilities

Appendix 1 – Water supply profiles for communities, counties, watersheds and subregions

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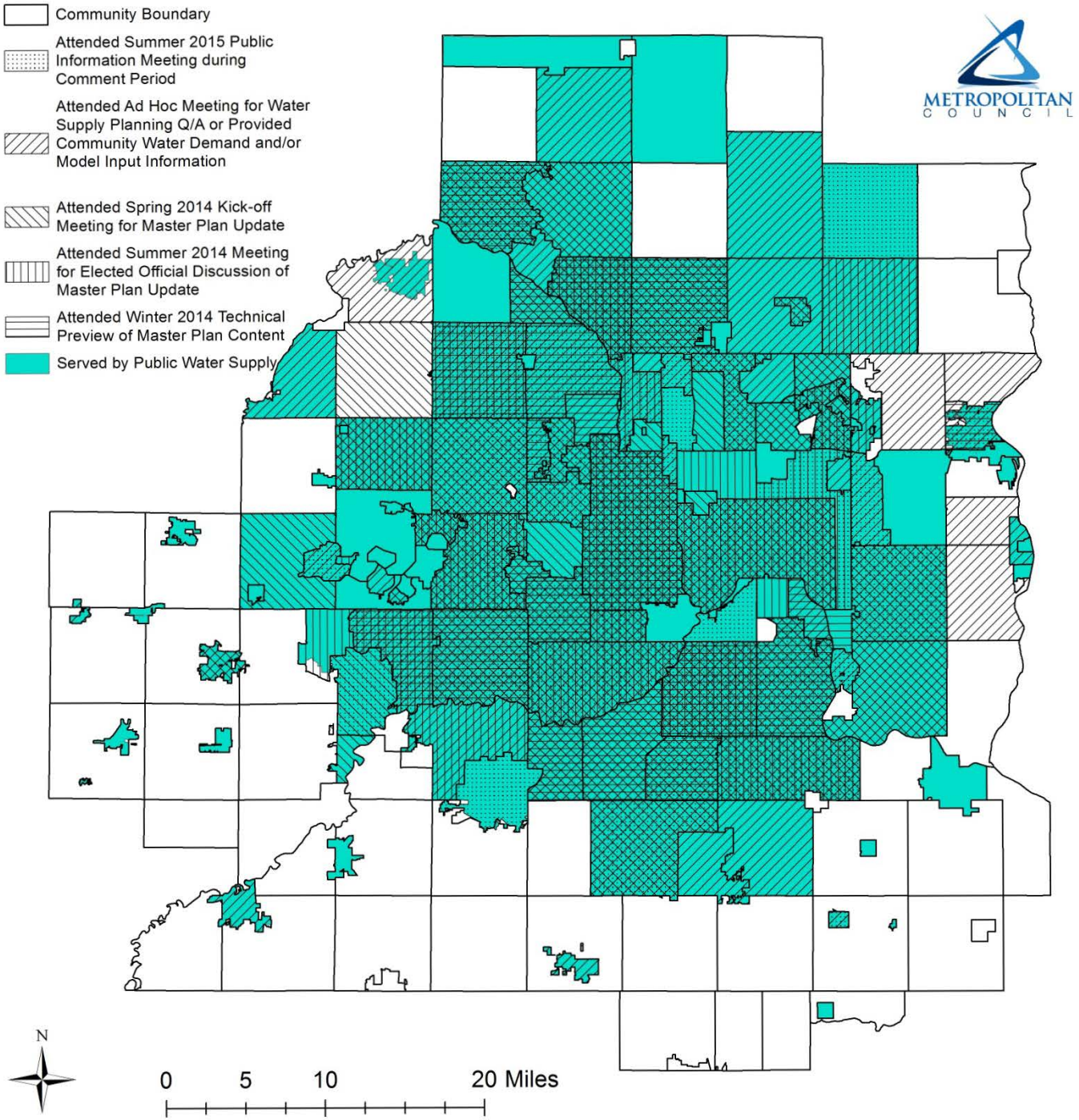
Community Boundary
Attended Summer 2015 Public Information Meeting during Comment Period
Attended Ad Hoc Meeting for Water Supply Planning Q/A or Provided Community Water Demand and/or Model Input Information
Attended Spring 2014 Kick-off Meeting for Master Plan Update
Attended Summer 2014 Meeting for Elected Official Discussion of Master Plan Update
Attended Winter 2014 Technical Preview of Master Plan Content
Served by Public Water Supply
METROPOLITAN COUNCIL
N
0
5
10
20 Miles

Stakeholders Comments

"We appreciate the work of the Metropolitan Council staff that developed the plan as well as the efforts of the Metropolitan Area Water Supply Advisory Group (MAWSAC). We commend you on developing a strong document and taking leadership in renewing the Master Water Supply Plan. The plan should serve the region well." – ***City of Minneapolis***

"I think the document has had a tremendous amount of input. I want to thank the staff and commend the staff, everyone that has been involved, for being open and very receptive to the comments." – ***Barry Stock, City of Savage, MAWSAC***

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Stakeholders Comments

"I'm very encouraged by the changes and also would say I think the tone is changing here. It's positioning the Met Council to be an… impactful player in terms of all these diverse interests in water. I think the fear was of another regulator getting involved. The document is now leaning toward third-party, to help facilitate solutions. The Met Council can play an important role in helping us get to those solutions." ***– Klayton Eckles, City of Woodbury, CTWG***

"… the process that integrated local subject matter experts helped the Plan reflect the realities of the water "business" here in the Twin Cities area, and accordingly, will realistically guide water supply planning efforts to accommodate the expected growth in our region. " ***– City of Shoreview***

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Changes between 2010 and 2015

- New data and information collected since 2010
  - New population forecasts
  - Updated groundwater model (Metro Model 2 → Metro Model 3)
    - New mapping of aquifer properties
    - New monitoring of groundwater levels
    - Newer and better-supported software
    - Ability to simulate seasonal effects of climate and pumping
    - Expanded model area
  - Subregional analyses of alternative approaches to water supply
- New regional vision and policies
  - Thrive MSP 2040
  - Water Resources Policy Plan
- Statutory changes (MAWSAC approval, TAC)

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Improved Local Water Supply Plan Review Process

PWS/City Submits Plan

- Community adopts plan, contingent on formal Council review and DNR approval. Submit through MPARS.

Council/DNR Review

- Council & DNR will work with city to address any issues

City Adopts Plan

Local Water Supply Plan

www.dnr.state.mn.us/waters/watermgmt_section/appropriations/eandc_plan.html

Key Metropolitan Council Content:

- Water demand projections through 2040
- Potential water supply issues
- Proposed alternative approaches to meet extended water demand projections

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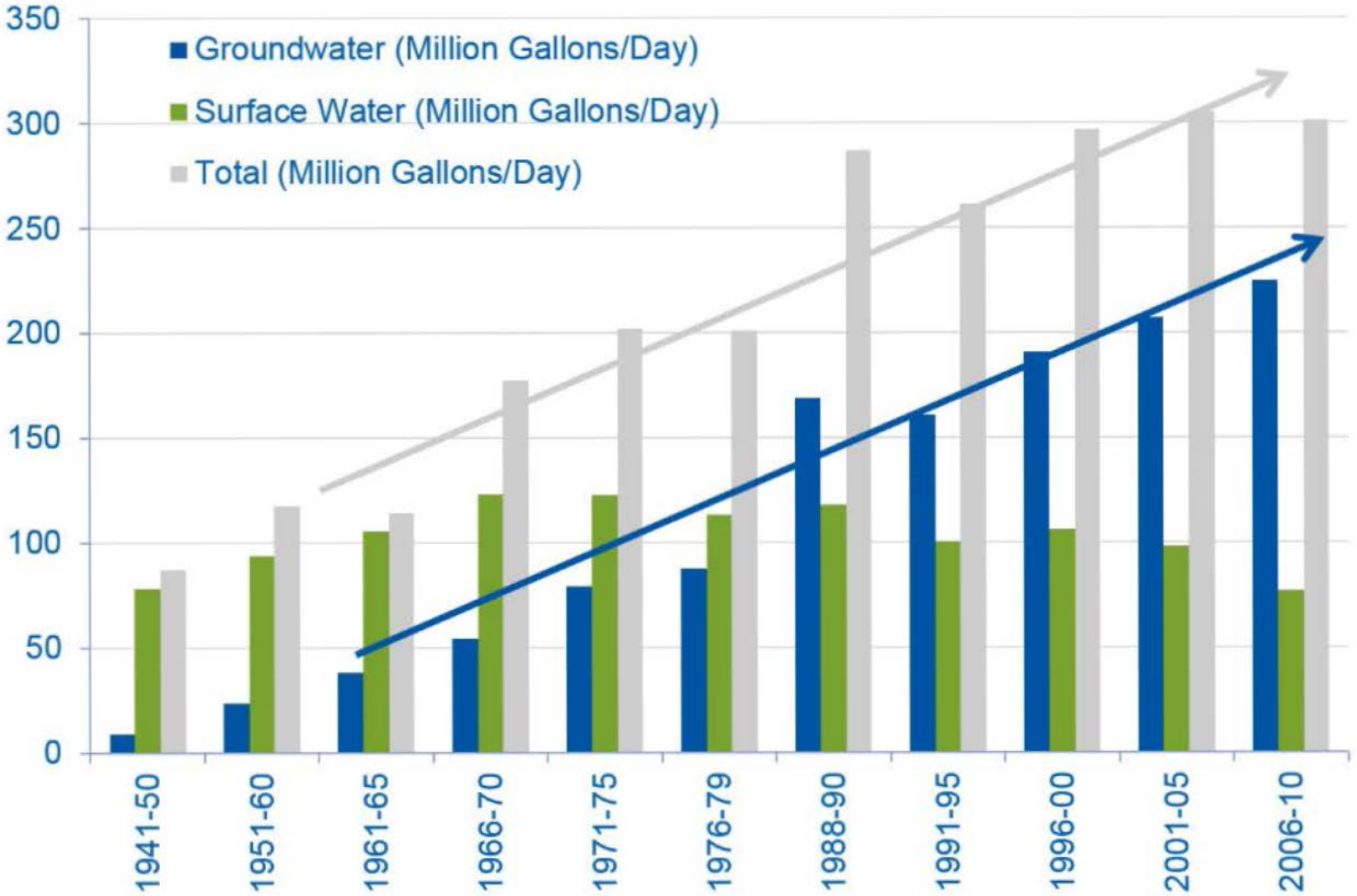
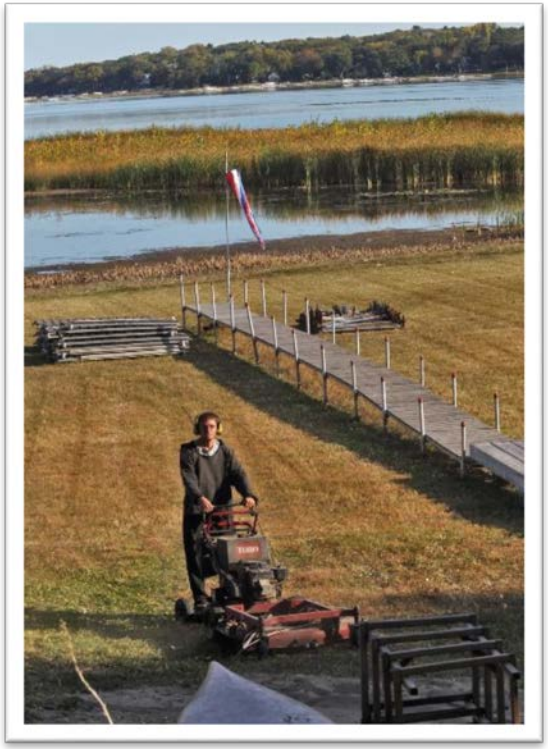
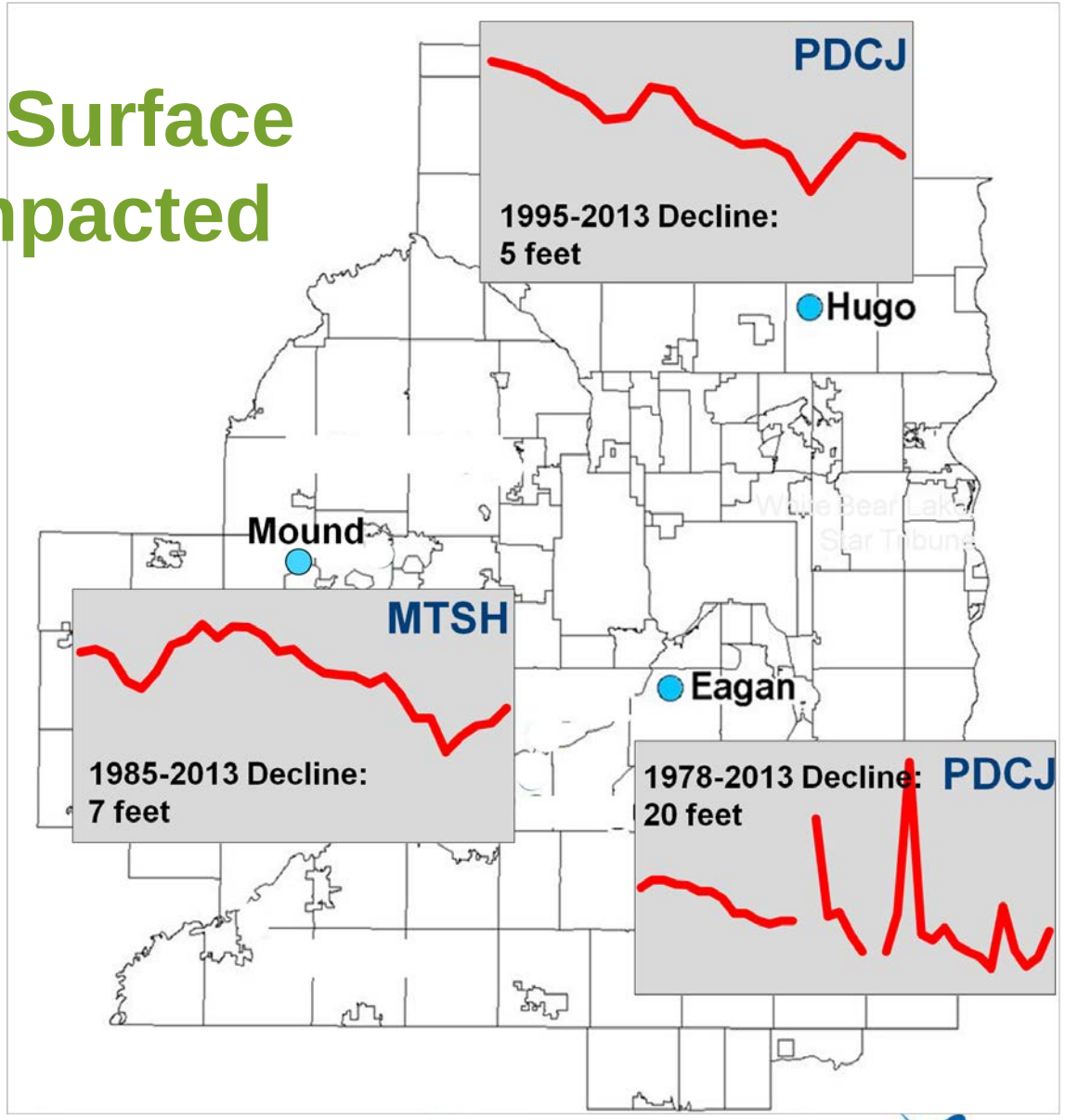
The Region is Growing



Aquifers and Surface Waters are Impacted





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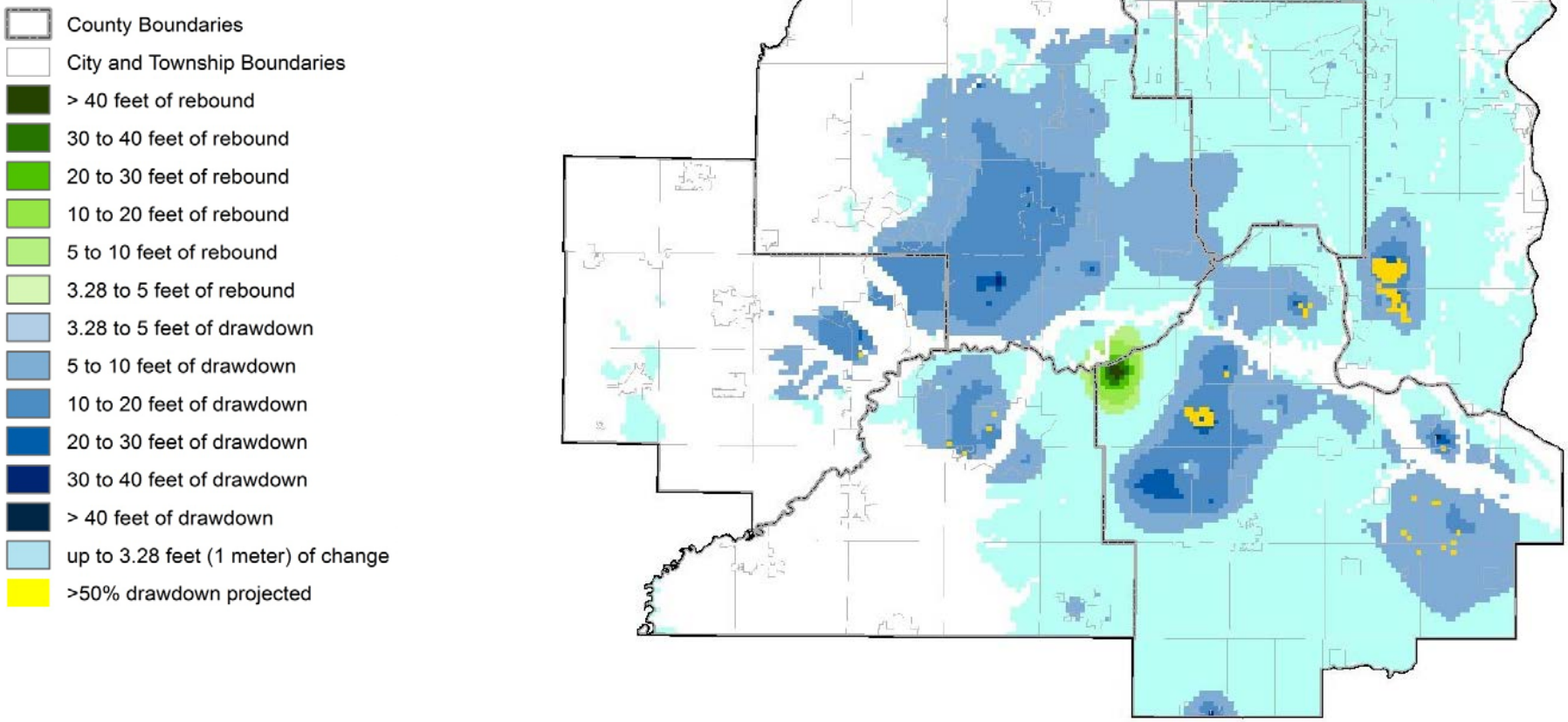
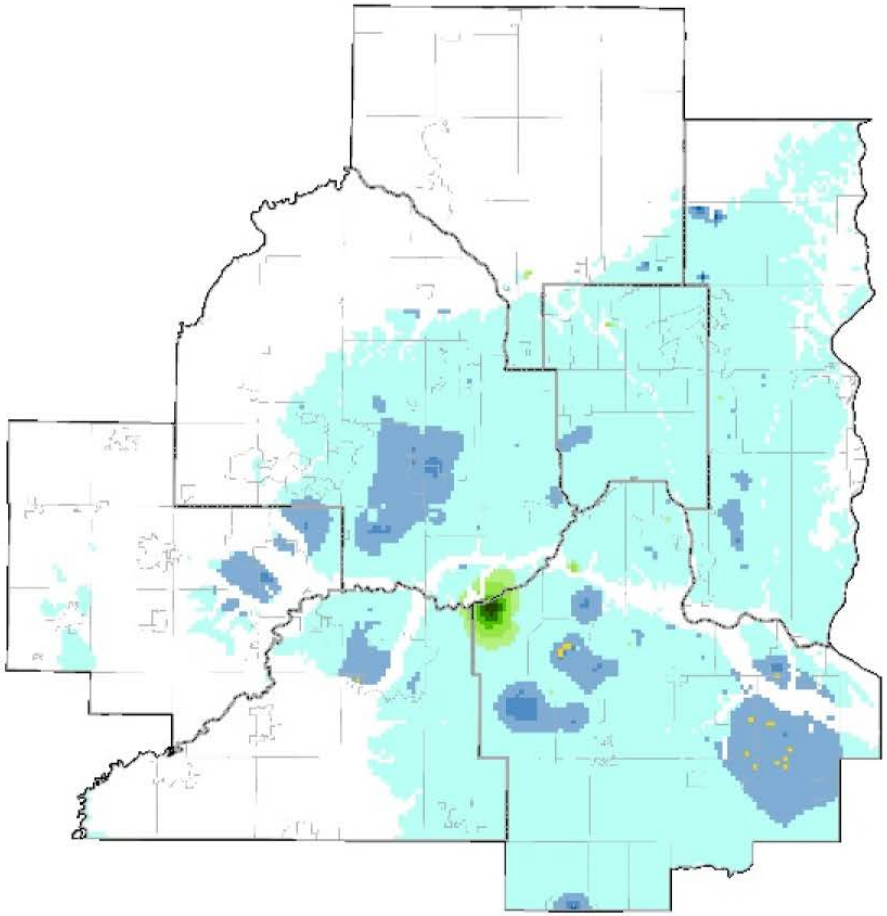
Future Scenarios: Increased Reliance on Groundwater to Meet Demand

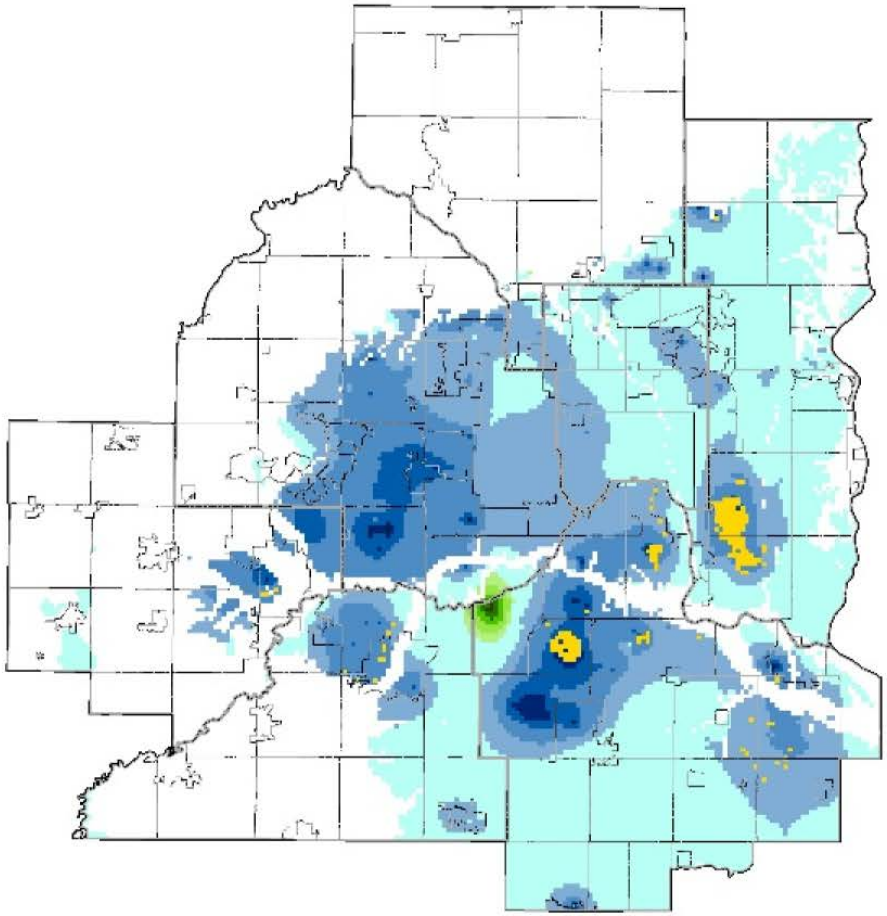
Drawdown in the Prairie du Chien-Jordan Aquifer under Projected 2040 pumping



Future Scenarios: 20% Change in Groundwater Demand

Drawdown in the Prairie du Chien-Jordan aquifer, should average projected pumping be reduced 20% (left) or increased 20% (right)





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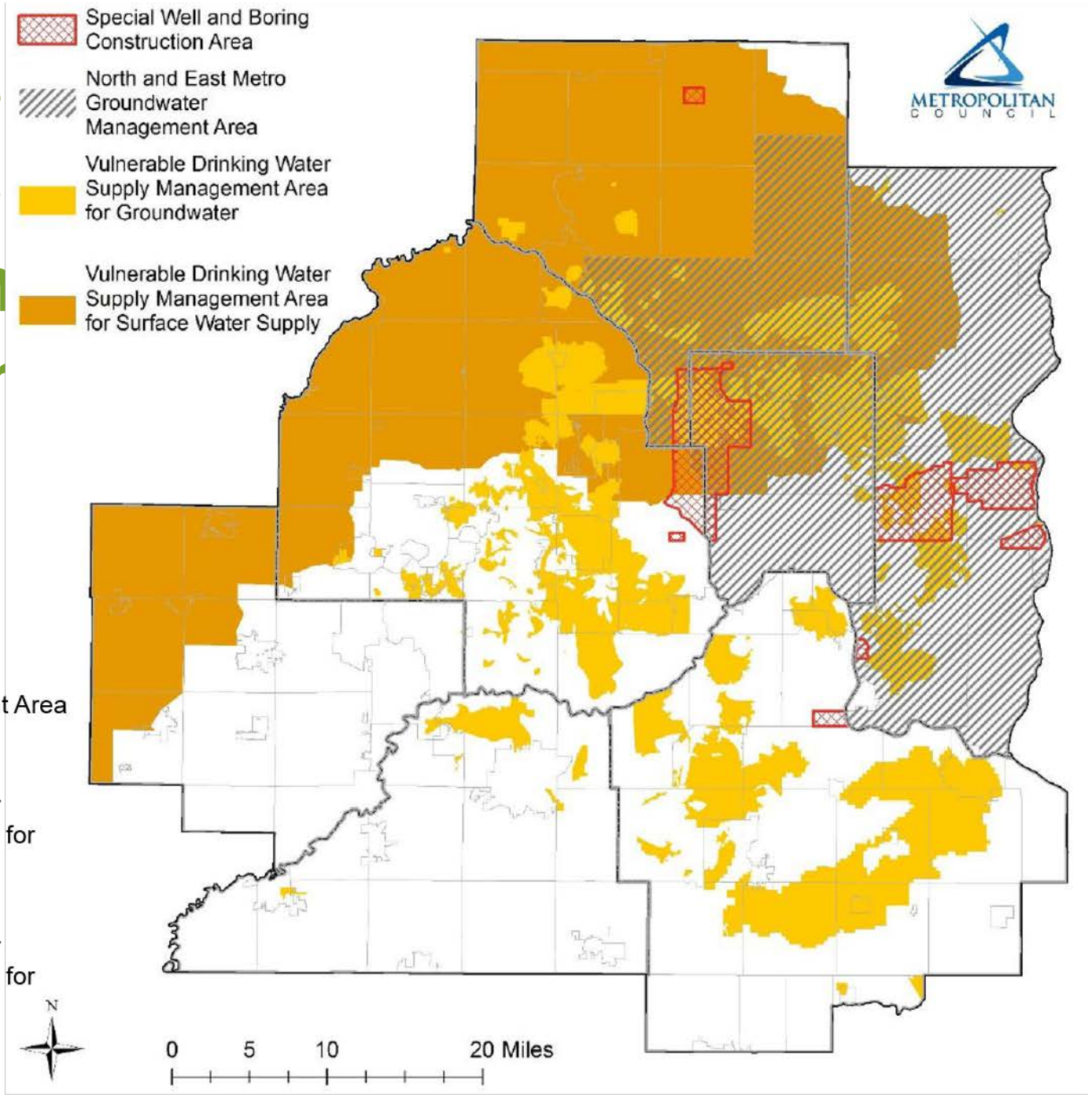
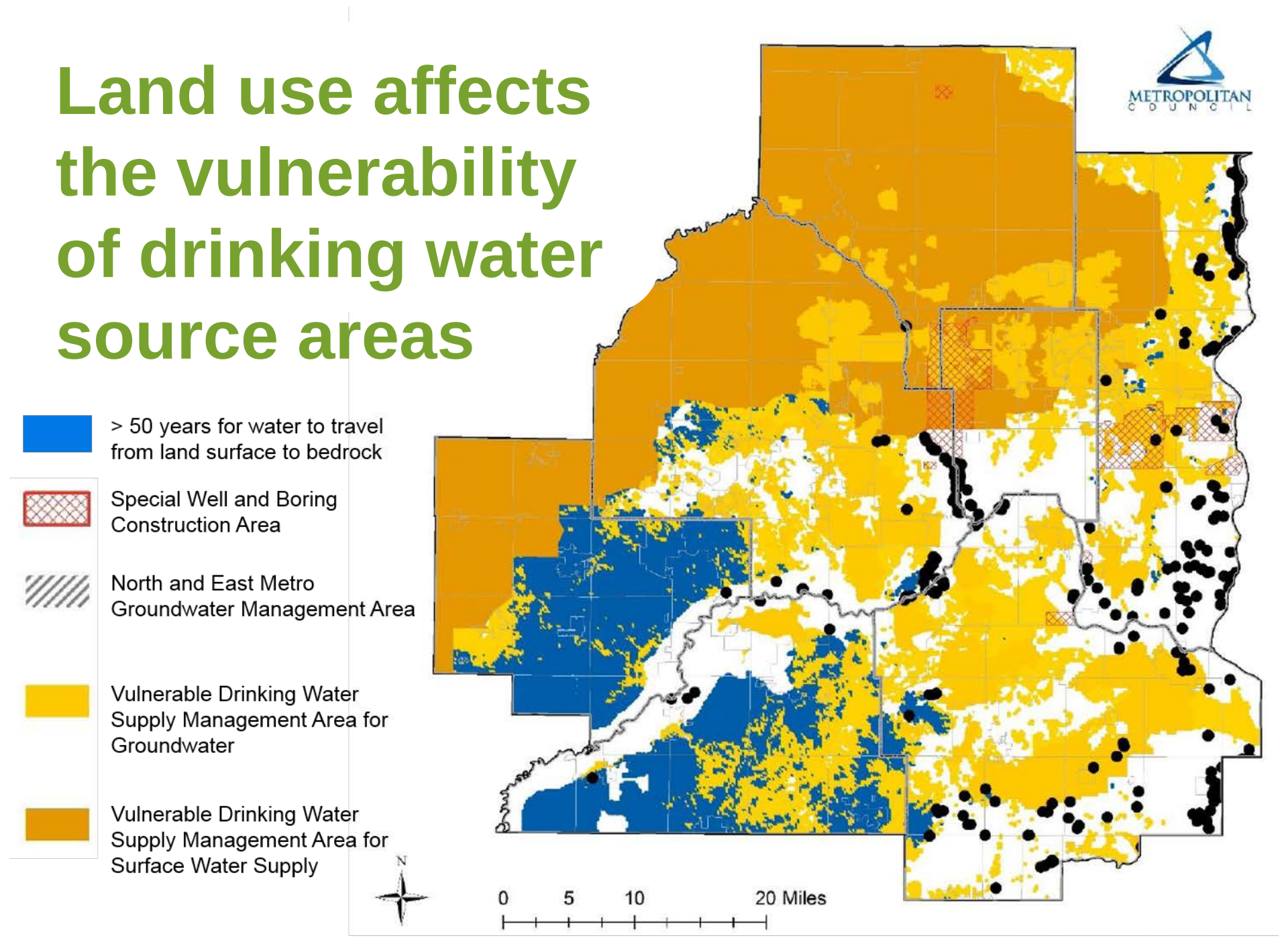


Special Well and Boring Construction Area
North and East Metro Groundwater Management Area
Vulnerable Drinking Water Supply Management Area for Groundwater
Vulnerable Drinking Water Supply Management Area for Surface Water Supply

Land use affects the vulnerability of drinking water source areas



Future Direction for the Region

Embrace proactive and integrated management of water:

- Conservation and efficiency
- Diversify water supply portfolio
- Maintain and enhance recharge capability

Integrate local and regional efforts to ensure greatest efficiency and cost effectiveness.

Metropolitan Council - in collaboration and partnership with stakeholders - will support the region's effort by promoting development of growth plans that ensure sustainable water supply.

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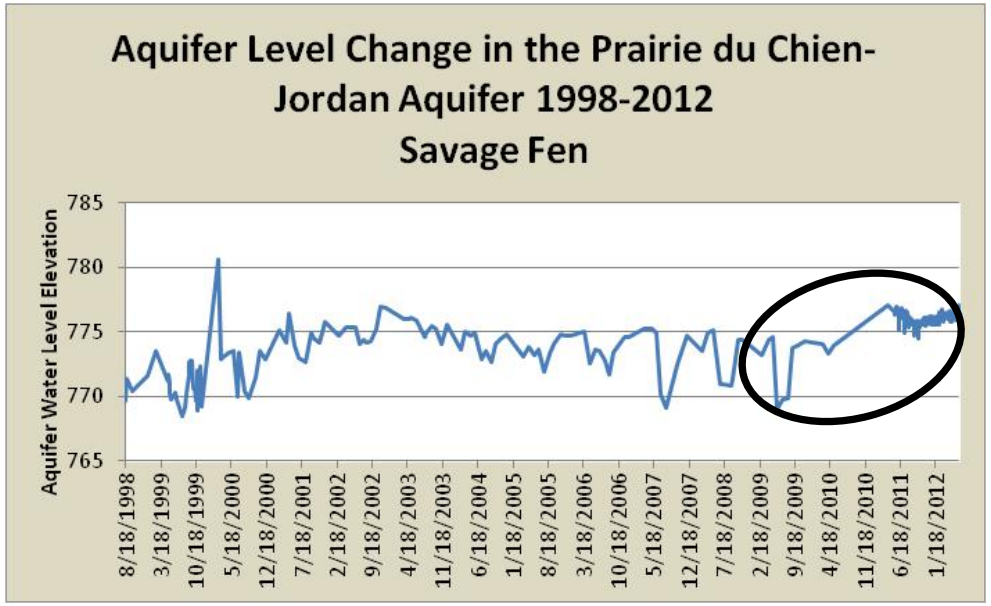
Examples of Local Leadership for New Approaches

Burnsville- Savage Collaboration



Woodbury Water Conservation Plan

KELLY SMITH

WOODBURY

City adopts 'aggressive' approach to water use

Woodbury is pledging to try to keep its water use flat through 2030, even though it expects to grow by 15,000 people by then.

The city will stress the need to dial back on lawn sprinkling. Water use leaps from 4 million gallons a day in winter to 10 million in the summer, mostly because of lawns.

An inch of water a week, including rainfall, keeps grass healthy, said Klayton Eckles, director of engineering and public works.

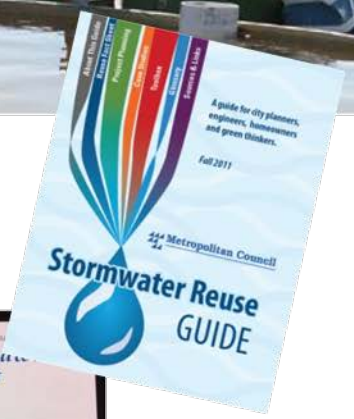
The price of failing to use water sustainably, the city warns, could be to pipe it from the Mississippi River, tripling the cost vs. pumping from aquifers.

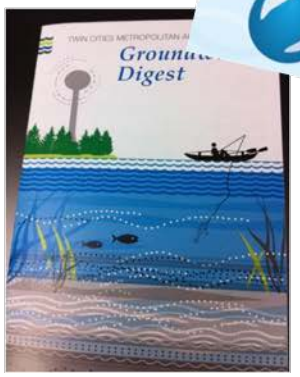
The city is working on strategies to meet its goal, including two-day-a-week sprinkling at some public sites. It will urge citizens to use "responsible lawn irrigation practices."

DAVID PETERSON

Council Water Supply Services

- Technical Studies and Assistance
  - Engineering Feasibility Analysis
  - Groundwater Modeling
  - Management Strategies
- Water Conservation
  - Online Toolbox
  - **Grant Program (NEW)**
- Rainwater Harvesting and Stormwater Reuse
- Regional and Strategic Planning





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Engaged Communities: Planning for the Future

- Metro Area Water Supply Advisory Committee (MAWSAC)
- Community Technical Work Group (TAC)
- Water Supply Workgroups
  - Regional Technical Workgroup
  - 6 Subregional Workgroups, 54 Communities
- Public Education and Outreach
  - Community Forums, Workshops and Community Events
  - Publications
  - Media

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Comp Plan Training

- DNR/Metropolitan Council Workshops:
  - October 23, 2015 in Woodbury
  - October 26, 2015 in Blaine
  - November 2, 2015 in Lakeville

- Local Planning Assistance Training (beginning 2016)
  - Council Water Supply Planning unit working with Local Planning Assistance to develop water supply materials as part of the comprehensive plan outreach efforts

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For More Information:

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