

**Legislative Water Commission**

**October 26, 2015**

# **Metropolitan Council Master Water Supply Plan**



**Ali Elhassan**

**Metropolitan Council**

# Metropolitan Council Role in Water



# Water Supply Planning



- **2005 Legislation (MN Stat., Sec. 473.1565)**
  - “Carry out planning activities addressing the water supply needs of the metropolitan area”
  - Twin Cities Metropolitan Area Master Water Supply Plan
- **Metro Area Water Supply Advisory Committee (MAWSAC)**
  - State agencies
  - Counties
  - Municipalities/utilities
- **Purpose (MAWSAC)**
  - Assist and Guide Council water supply planning
  - Approve Master Water Supply Plan (2015)
  - Appoint Technical Advisory Committee (2015)

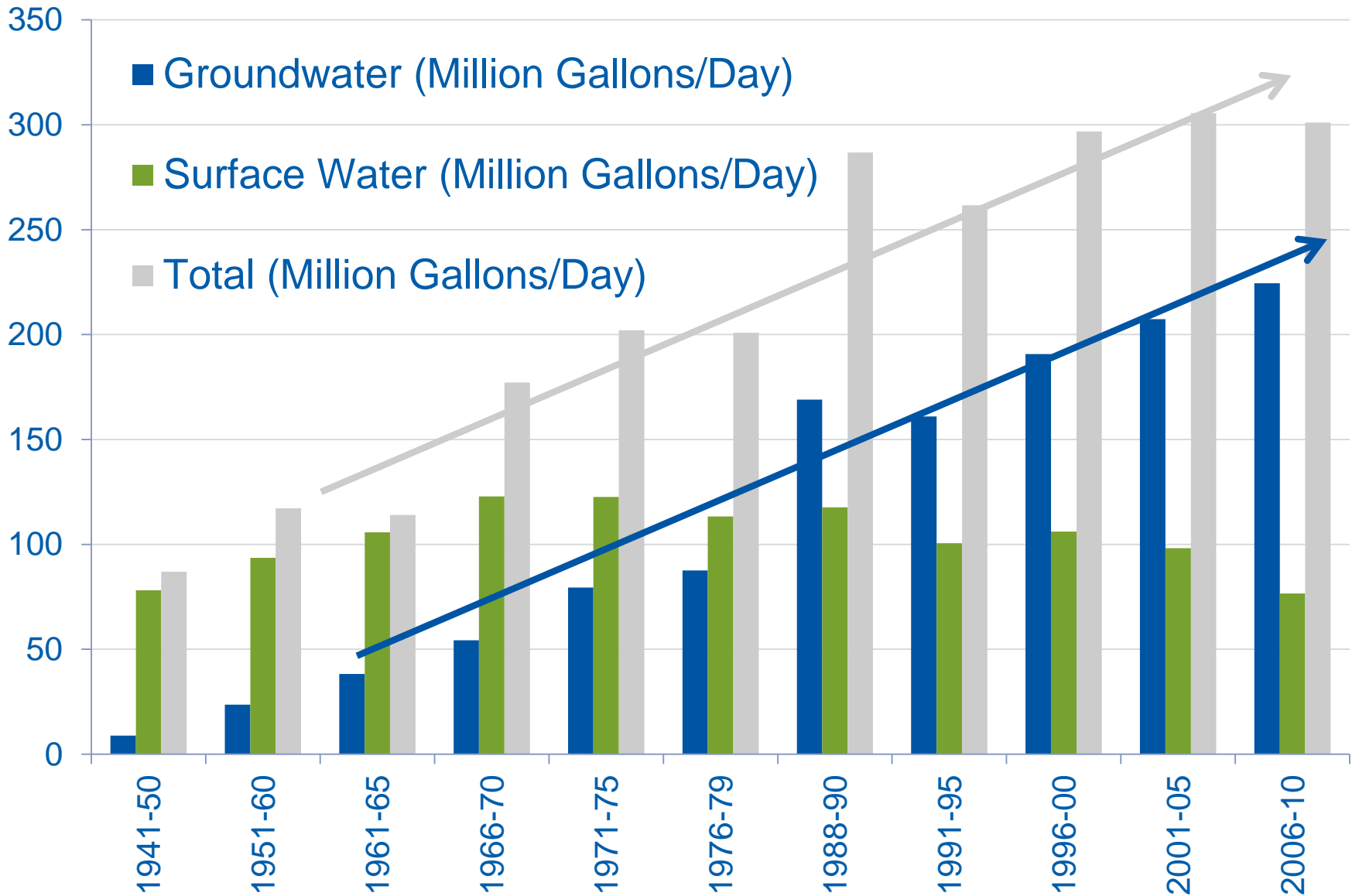


# Metropolitan Area Water Supply

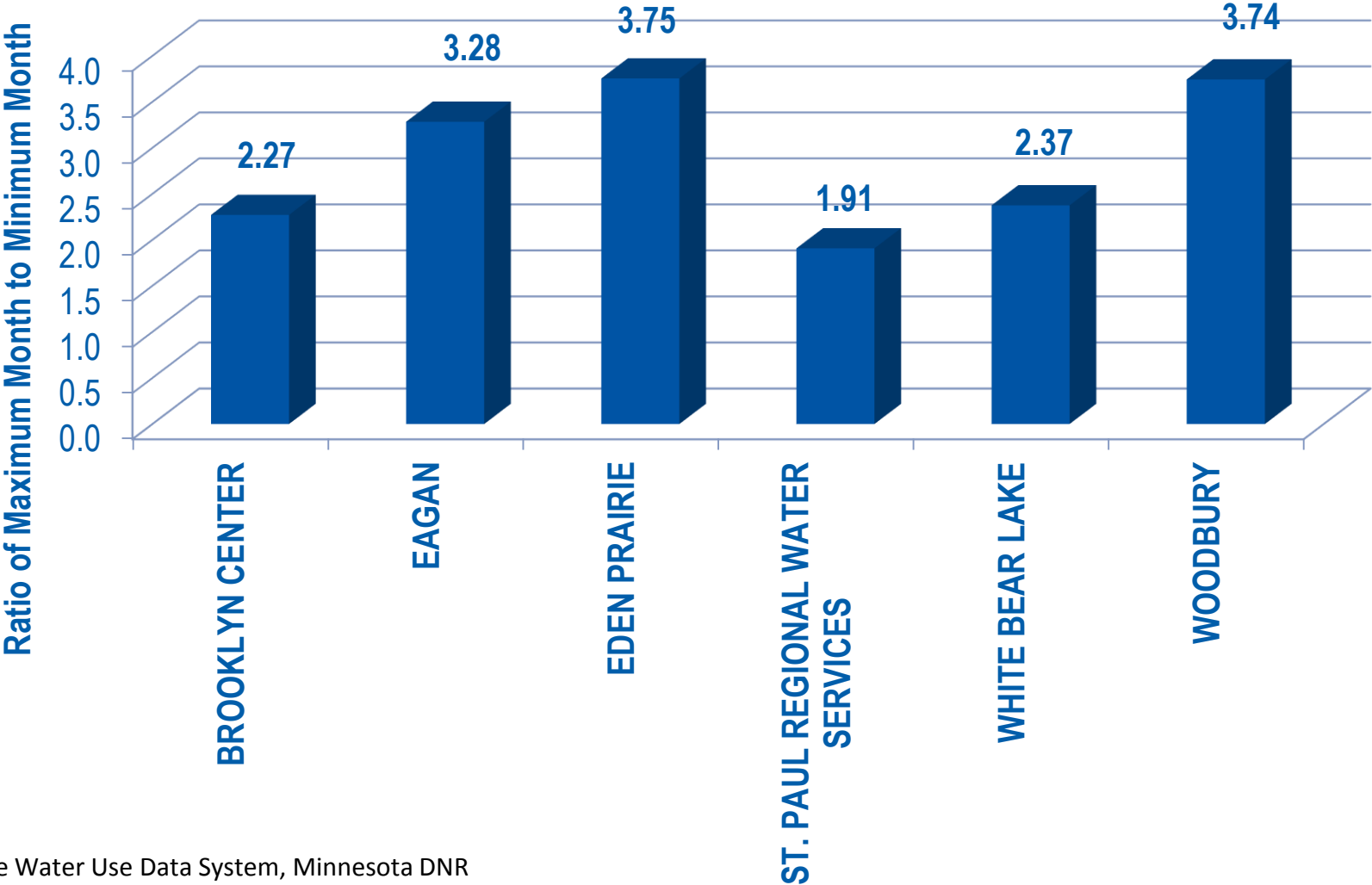
- 2010 population : **3 Million**
- 186 communities, 105 water supply providers
- **74%** of residents use groundwater
- Municipal water use:
  - Current: **300** Million gallons per day
  - Projected (2040): **450** Million gallons per day
- Average per capita water use: **125 gallons per day**



# The Region is Growing



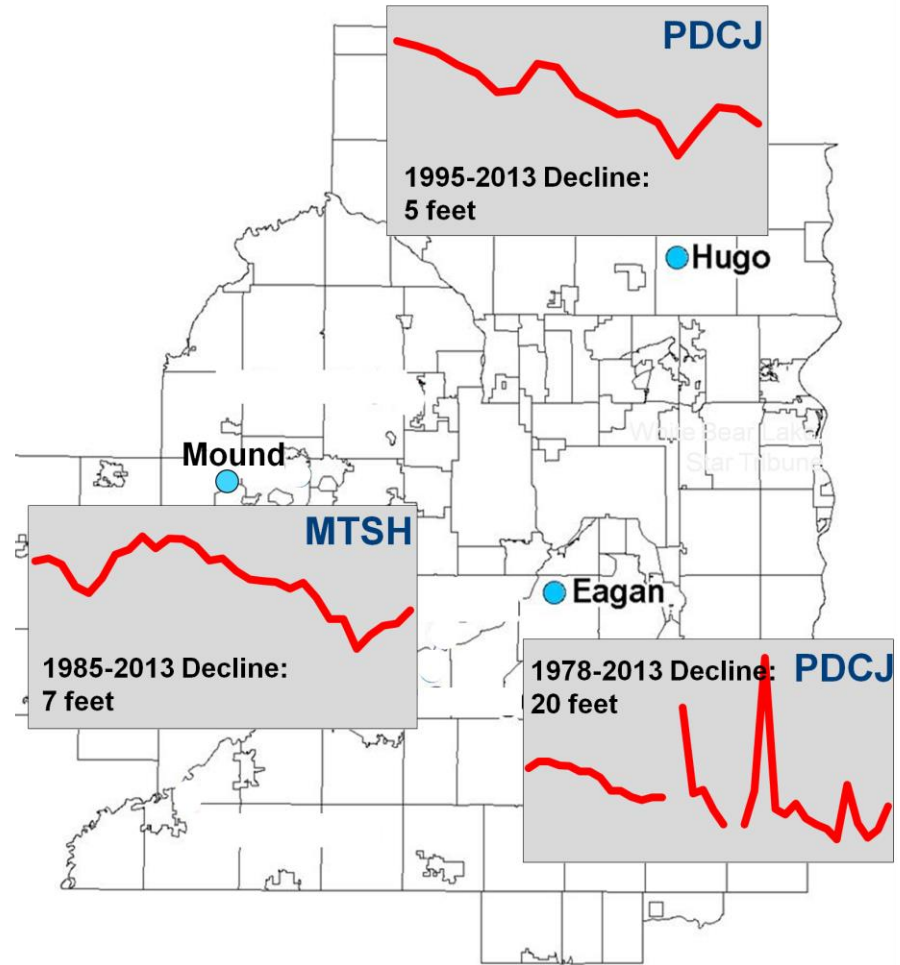
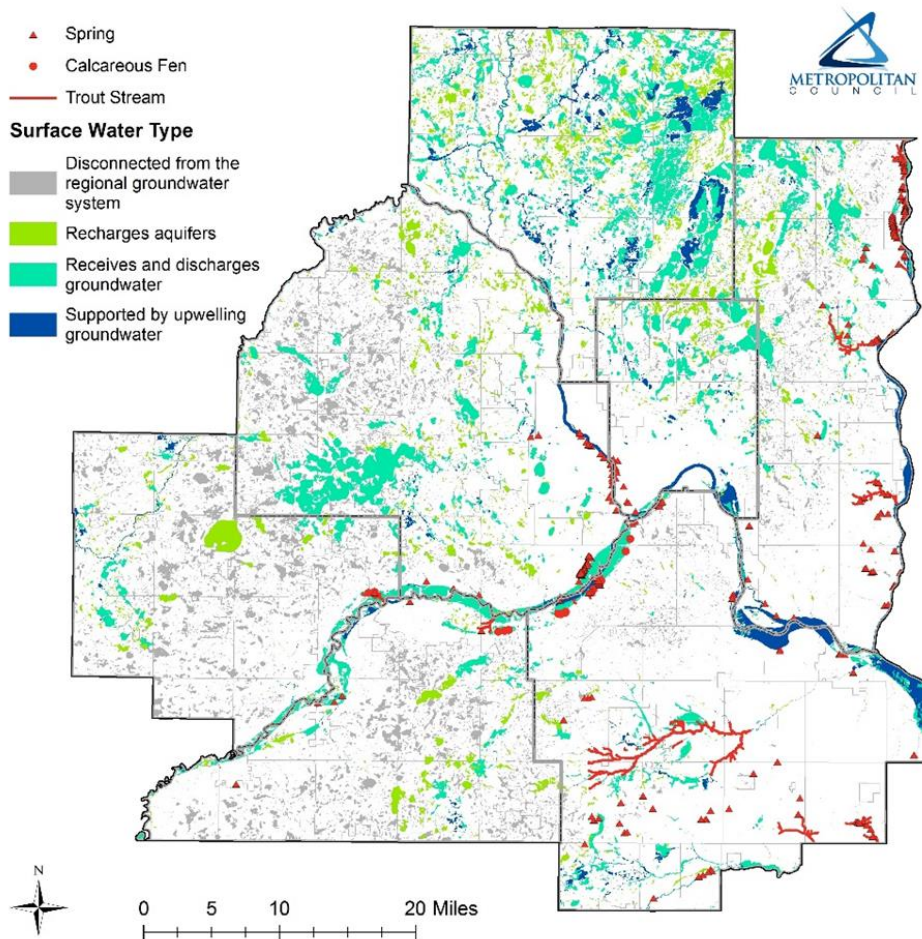
# Summer vs. Winter Water Use



State Water Use Data System, Minnesota DNR



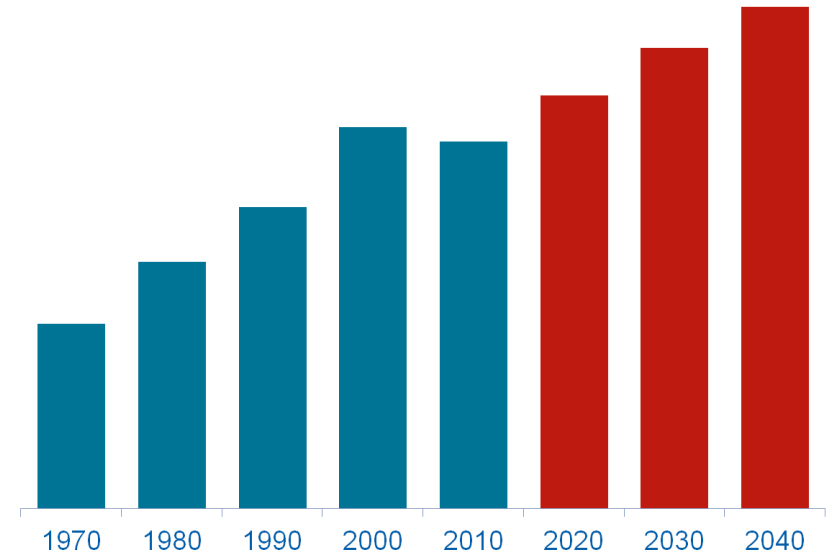
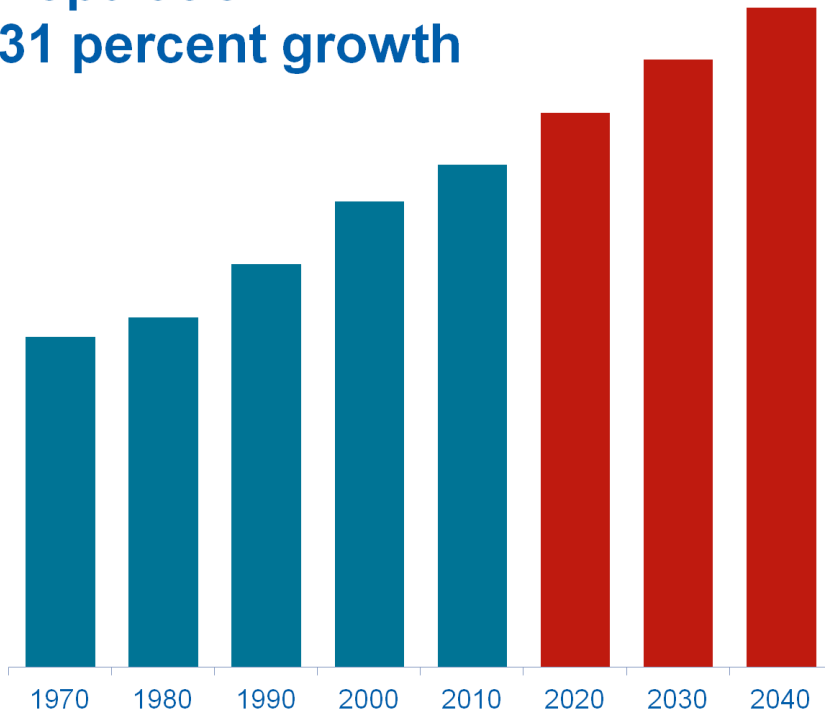
# Aquifers & Surface Waters Interact



# Regional Forecast: Continued Growth and Prosperity

Population:  
31 percent growth

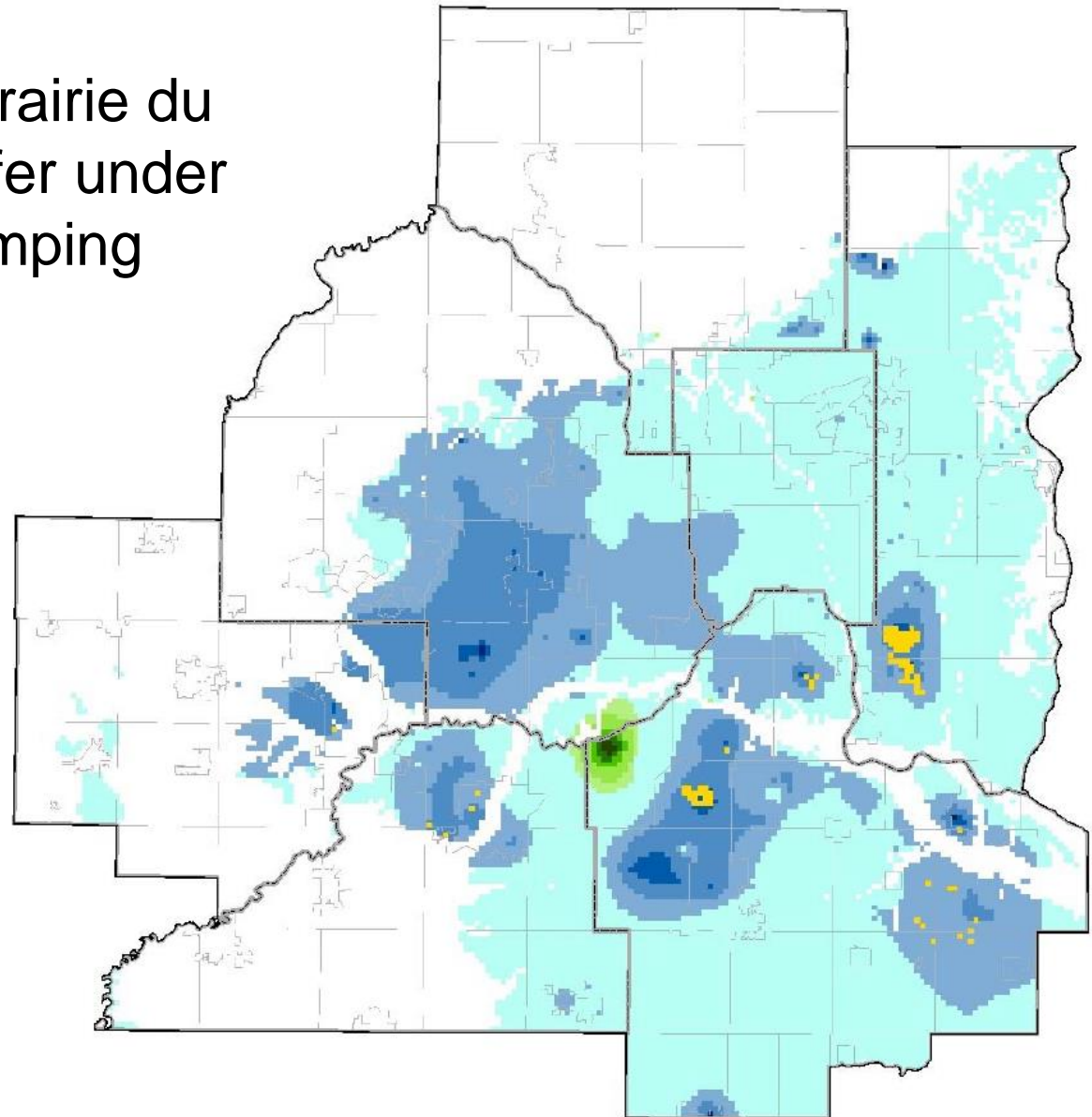
Employment:  
37 percent growth





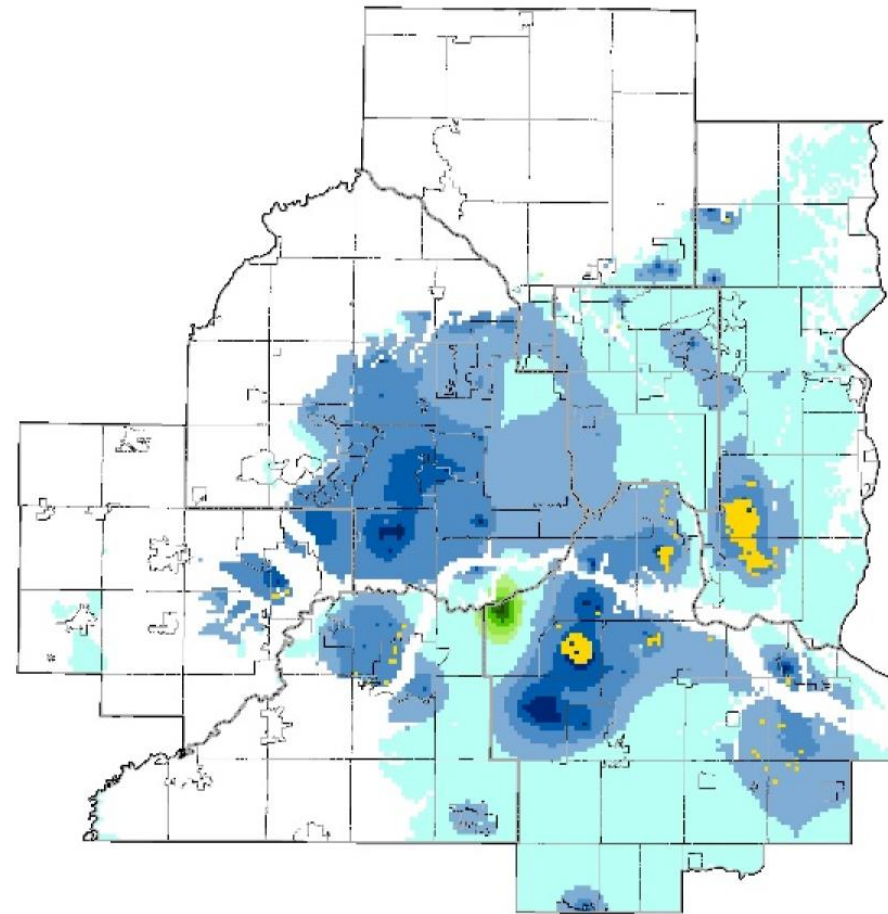
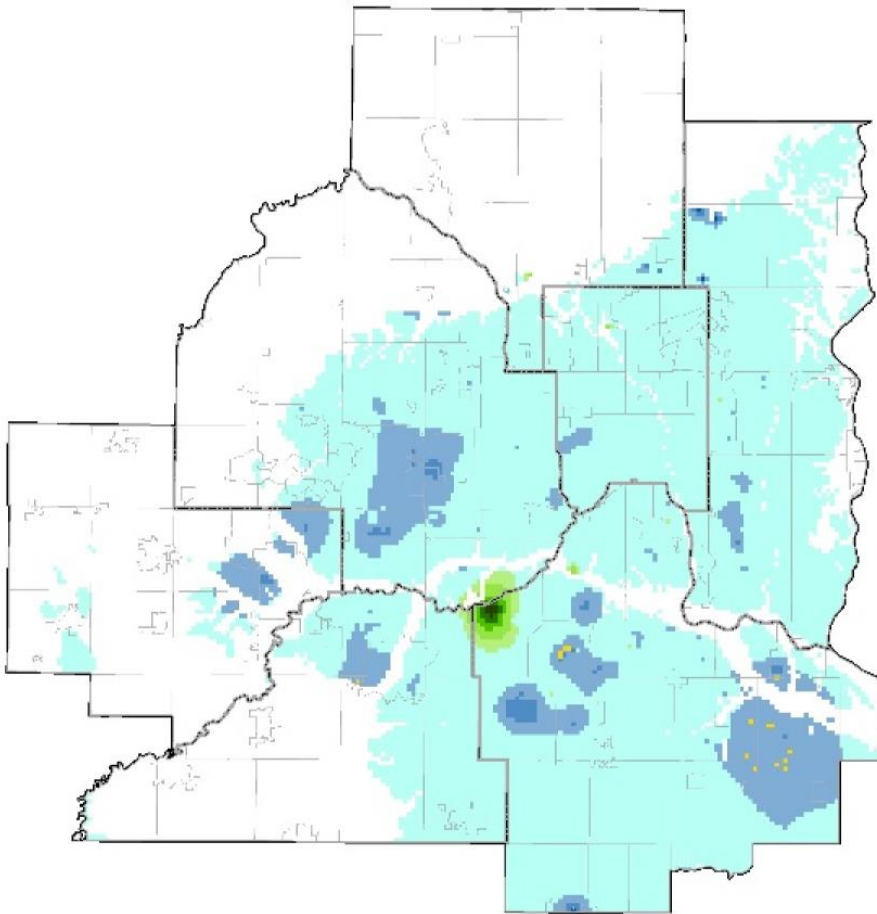
# Future What-if Scenarios: Increased Reliance on Groundwater to Meet Demand

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



# Future What-if 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)

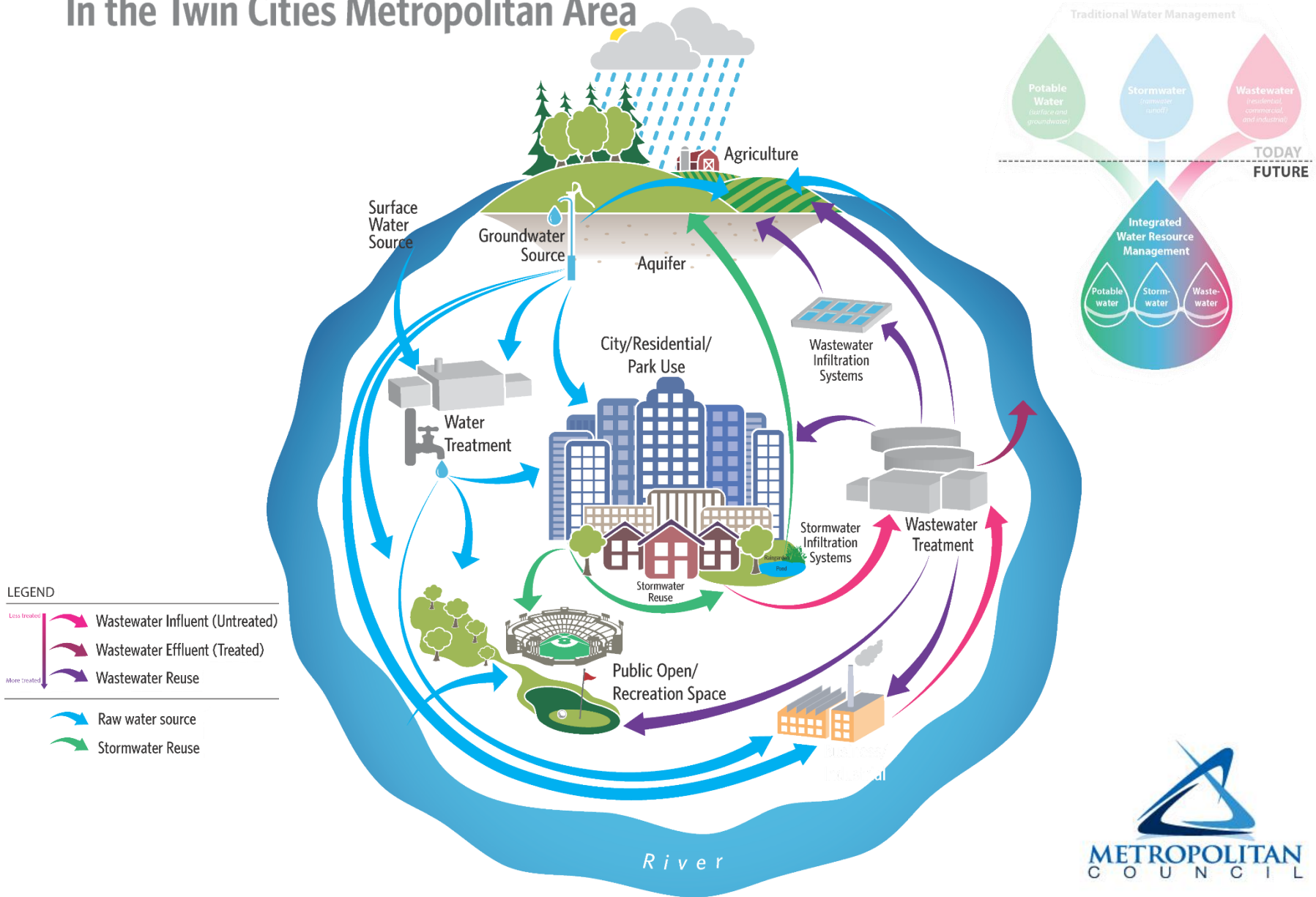


# Master Water Supply Plan

- **IS** a regional planning document that provides information about
  - Key current and future water supply issues in the region; and
  - Potential approaches to address these issues
- Provides guidance for local and regional plans and investments
- **IS NOT** a system plan with regulatory requirements for local water suppliers

# Integrated Water Resource Management

In the Twin Cities Metropolitan Area



**2005**

**Legislative  
Mandate**



**2010**

**Master Plan  
Complete**



**2015**

**Master Plan  
Updated**



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

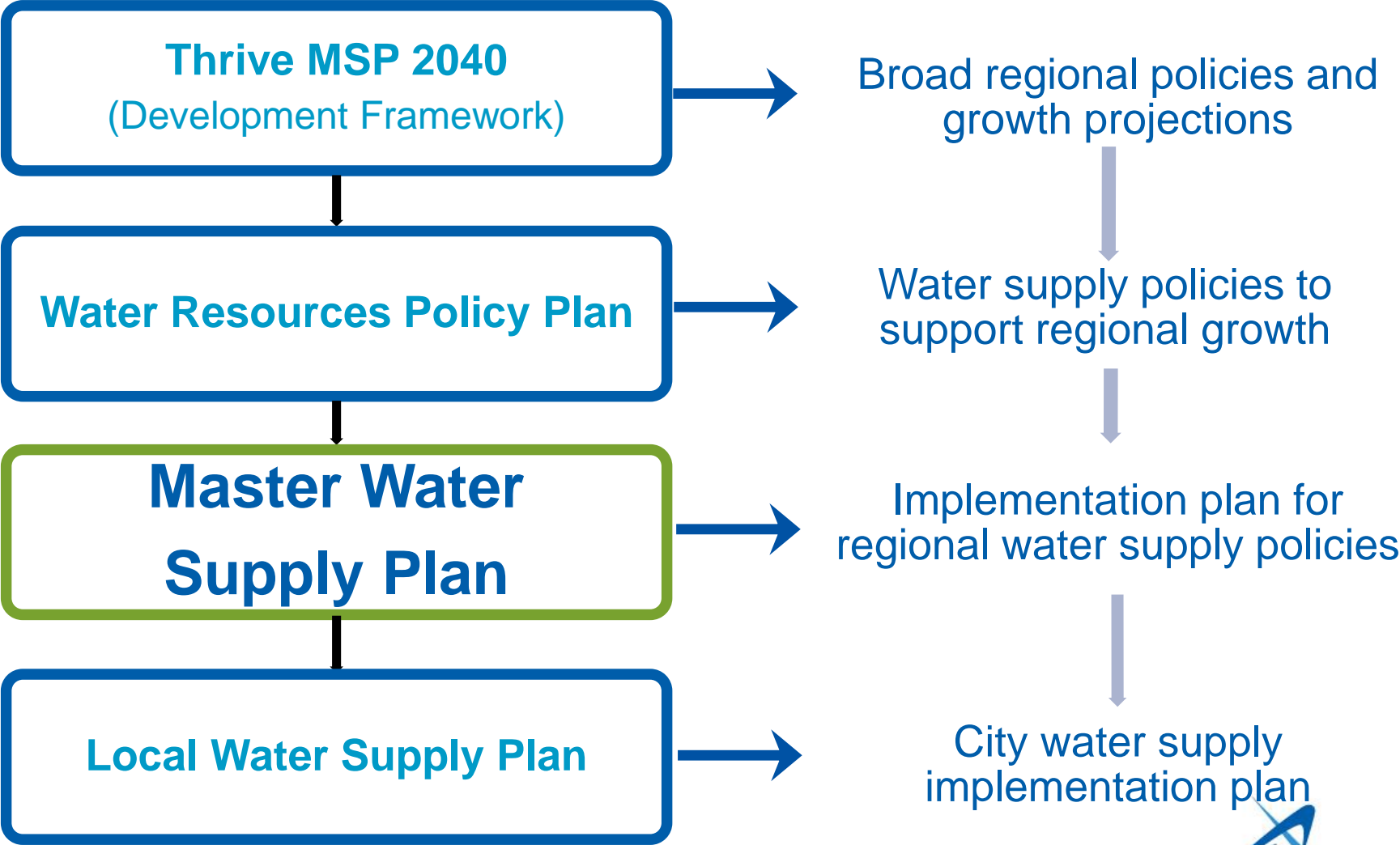


**Thrive &  
Water  
Resources  
Policy Plan**

**Local  
Planning  
Begins**



# Metropolitan Water Planning Process



# Water Sustainability Goal

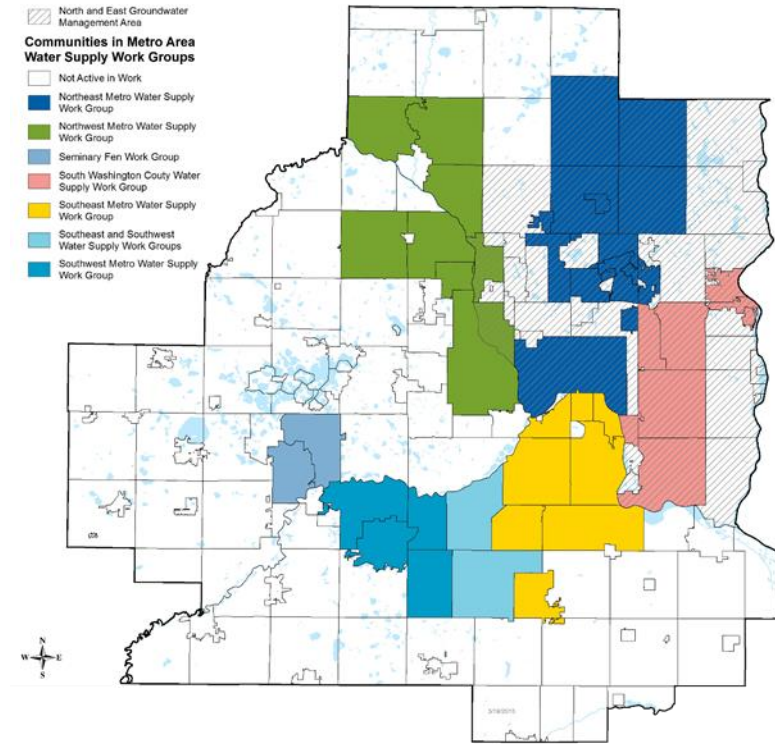
That the region's water supply is sustainable now and in the future

## 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

# Local Input is Valuable

- Metro Area Water Supply Advisory Committee (MAWSAC)
- Community Technical Work Group
- Water supply workgroups
  - Regional technical workgroup
  - 6 workgroups, 54 communities
- Public education and outreach
  - Community forums
  - Publications
  - Media
  - Workshops and community events





# Plan Update Public Engagement Process

## Spring 2014

- Kickoff meetings with city staff

## Summer 2014

- Public meetings with elected officials

## Winter 2015

- Public meetings with city staff to preview technical information

## Spring 2015

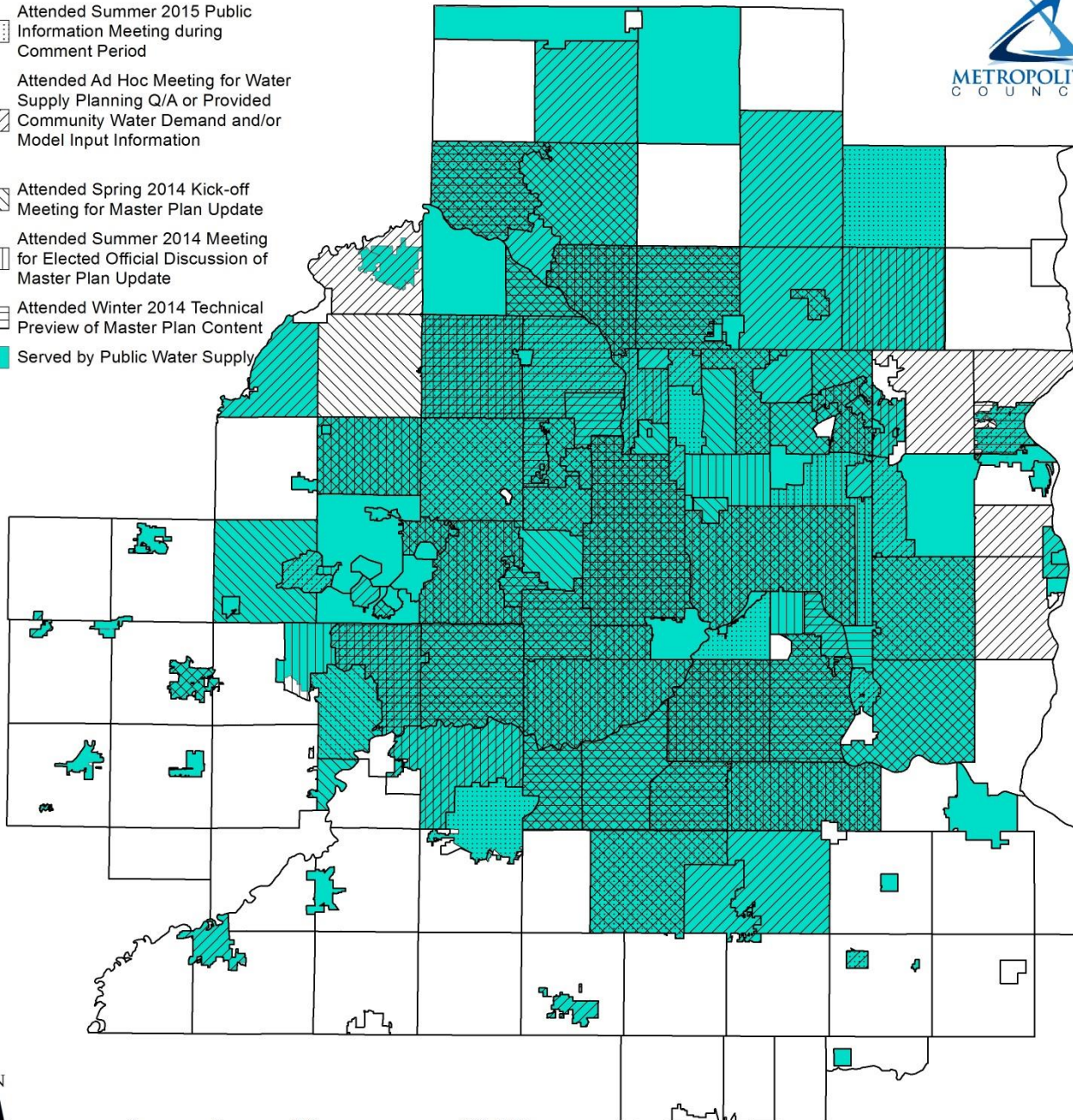
- Community Technical Work Group reviewed technical information and plan content

## Summer 2015


- Public information meetings and public hearing



-  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



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***



# 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***

# Master Plan Content

1. 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. 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

# Local Water Supply Plan Review Process

**PWS/City  
Submits  
Plan**

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

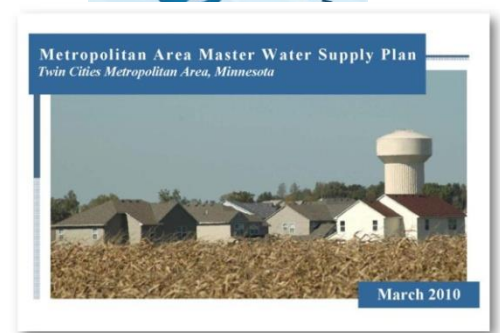
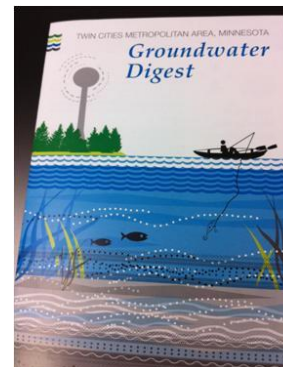
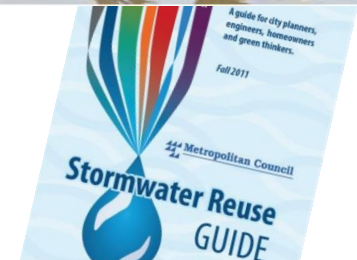
**Council/DNR  
Review**

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

**City Adopts  
Plan**

# Met Council is at Your Service

- Technical studies and assistance
  - Engineering feasibility analysis
  - Groundwater modeling
  - Groundwater optimization analysis
  - Management strategies
- Water conservation
  - Online toolbox for residents and municipalities
  - Industries
  - Grant program (NEW)
- Rainwater harvesting and stormwater reuse
  - CHS Stadium, St. Paul
- Regional and strategic planning



# Water Conservation by Industrial Water Users

	<b>Gedney Pickles</b>	<b>Federal Cartridge</b>	<b>Northern Star Foods</b>
<b>2012 water use (gal)</b>	94,666,800	87,156,500	121,656,000
<b>MnTAP-identified annual water savings (gal)</b>	6,400,000	30,600,000	7,000,000
<b>Annual water savings as % of total use</b>	<b>6.8%</b>	<b>35.1%</b>	<b>5.8%</b>
<b>Annual \$ savings</b>	<b>\$94,800</b>	<b>\$57,480</b>	<b>\$166,300</b>





# Water Demand Reduction Grants

- Goal: *support technical and behavioral changes that improve municipal water use efficiency*
- Funding and Eligibility:
  - *Legacy Clean Water Fund - \$500,000, until June 2017*
  - *Grants to municipalities: \$2,000 to \$50,000*
  - *Municipalities may distribute via grants or rebates*
  - *Metropolitan Council provides 75%, Municipality matches 25%*
  - *Applicants must be municipal water suppliers in the seven-county metro area*
- Selection criteria:
  - *Total gpcd > 90, residential gpcd > 75*
  - *100% groundwater sourced water supply*
  - *High ratio of summer peak to winter use*
  - *Order of applications*

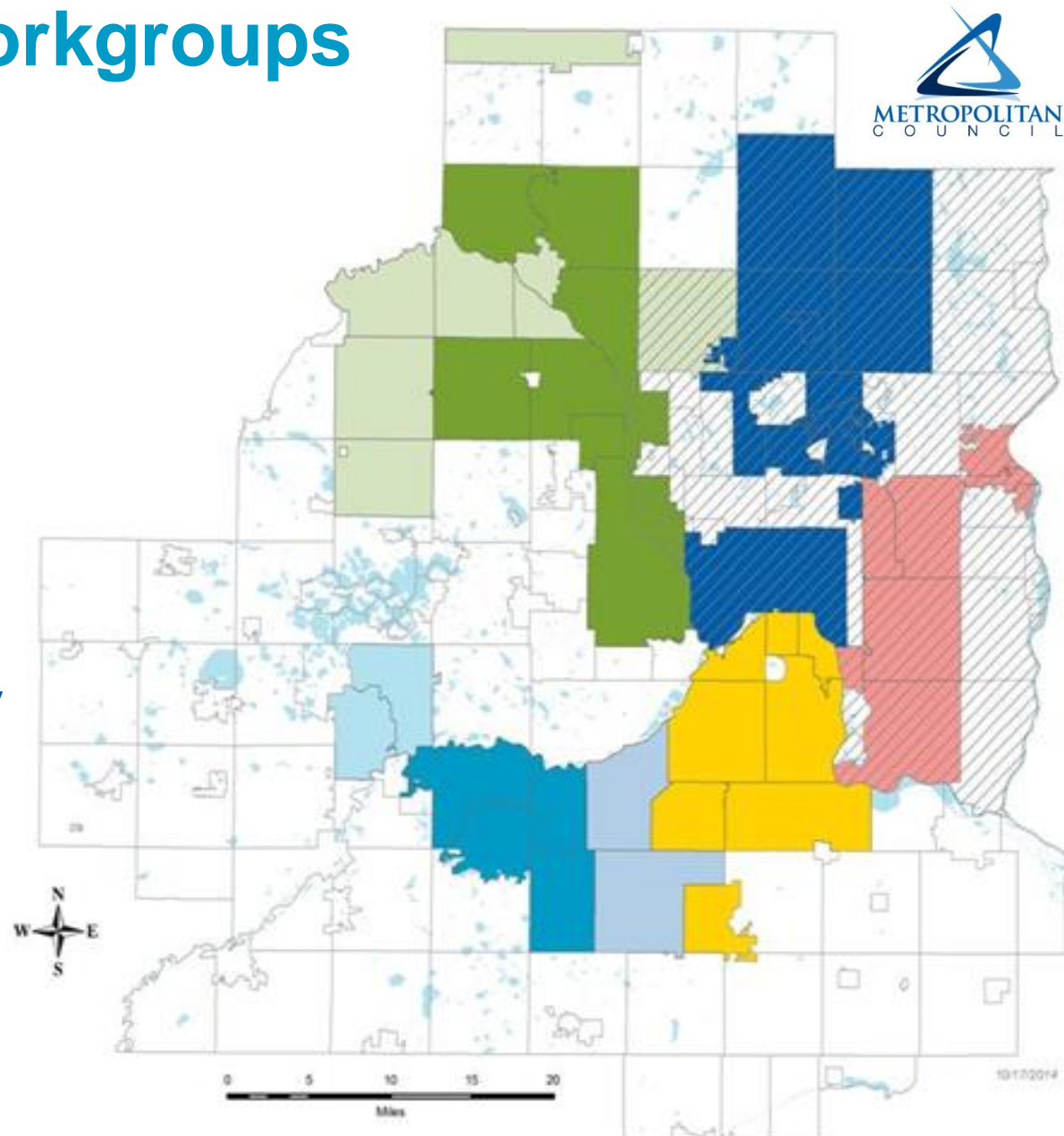
# MAWSAC and TAC

- **MAWSAC 2015 and beyond (*MN Stat., Sec. 473.1565*)**
  - Policy committee
  - Increased membership: 18 members
  - New roles (amended statute)
    - *Approve Master Water Supply Plan*
    - *Select Technical Advisory Committee (TAC)*
    - *Report to legislature*
- **New TAC (*MN Stat.473.1565*)**
  - Scientific and engineering expertise necessary to ensure the region's adequate and sustainable water supply
  - Includes experts in:
    - *Water resources analysis and modeling*
    - *Hydrology*
    - *Engineering, planning, design, and construction of water systems or water systems finance*



# Subregional Workgroups

- North East Metro
- South East Metro
  - Dakota County
- North West Metro
- South West Metro
- Washington County Water Coalition
- Seminary Fen
  - Chaska
  - Chanhassen



# Future Direction

## Region needs to:

- Embrace proactive integrated management of water
  - Conservation
  - Diversify water supply portfolio
  - Maintain and enhance recharge capability
- Integrate local and regional efforts to ensure
  - Sustainability
  - Greatest efficiency
  - Cost effectiveness

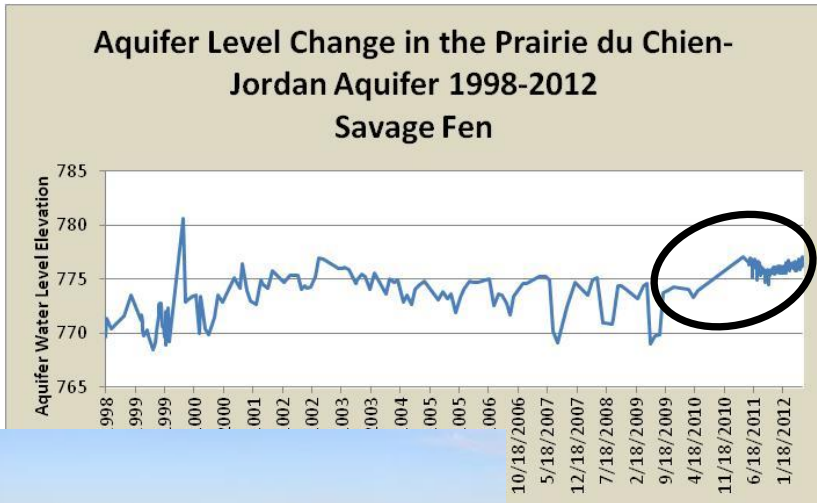


## Council, in collaboration and partnership with stakeholders, will support region's effort by:

- Promoting development of plans and projects that ensure sustainable water supply



# Burnsville- Savage Collaboration



# Hugo Water reuse plans



# Woodbury Water use plans

**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**



# THANK YOU

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