

Key Water Policy Issues

For Consideration by the
Legislative Water Commission

Presented by the
Interagency Coordination Team



Minnesota
Pollution
Control
Agency

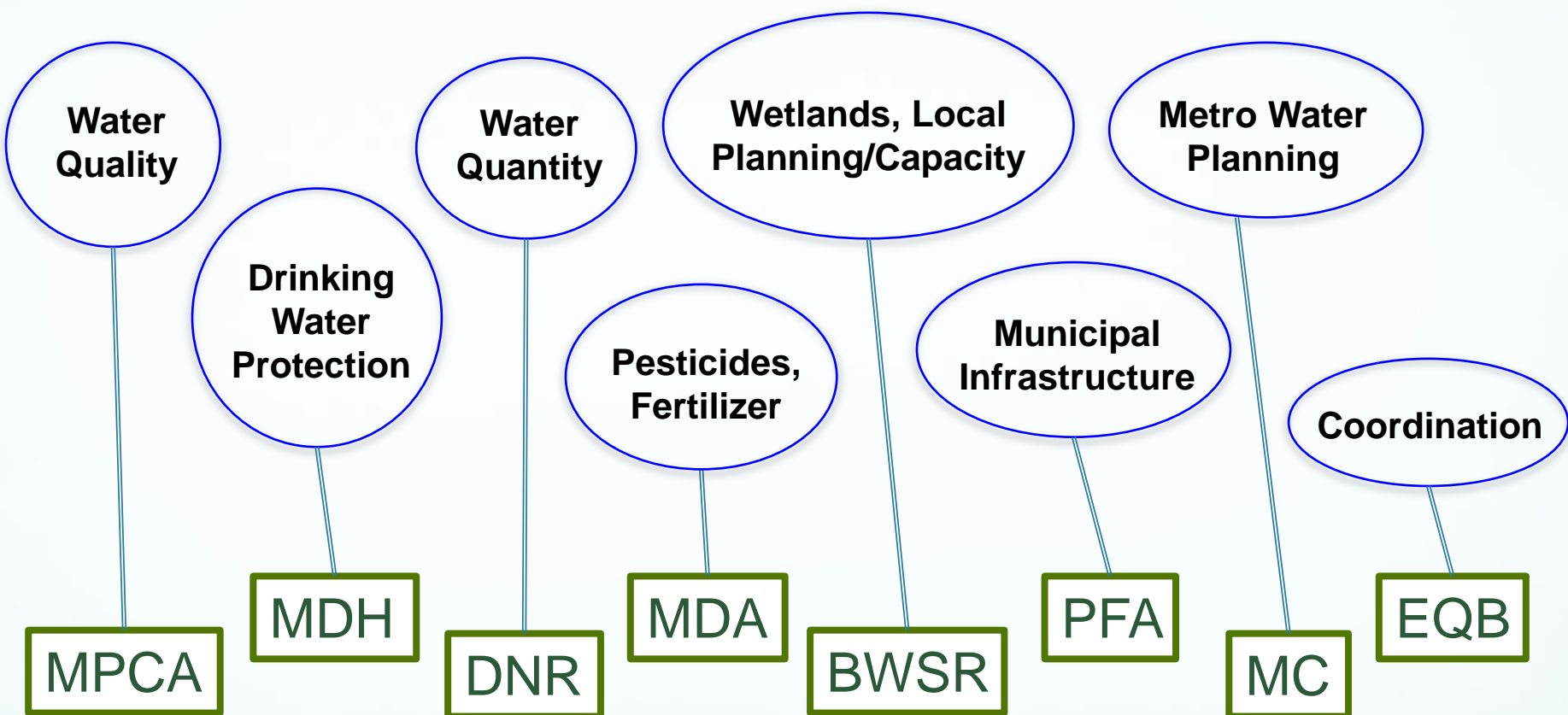


Water Resources Center

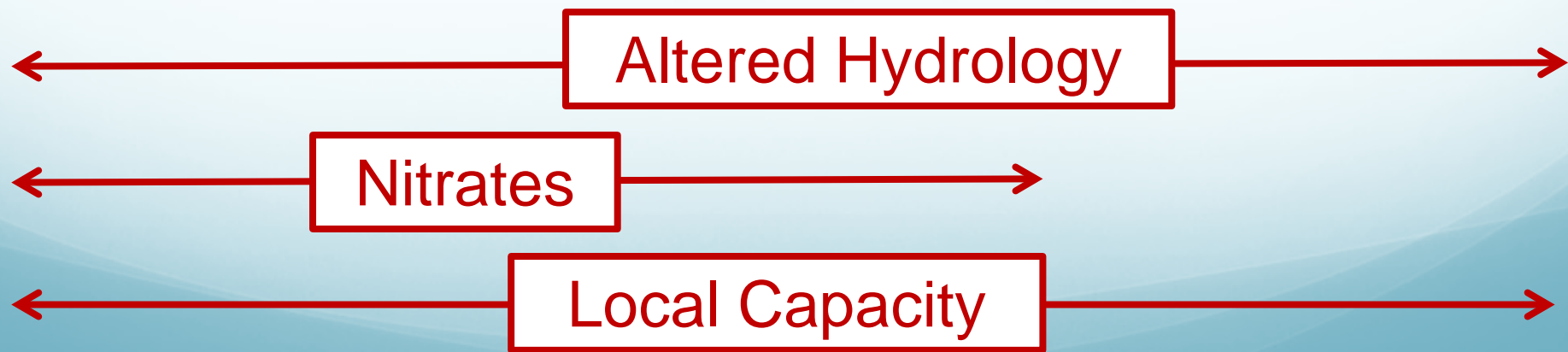
UNIVERSITY OF MINNESOTA
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ROLE



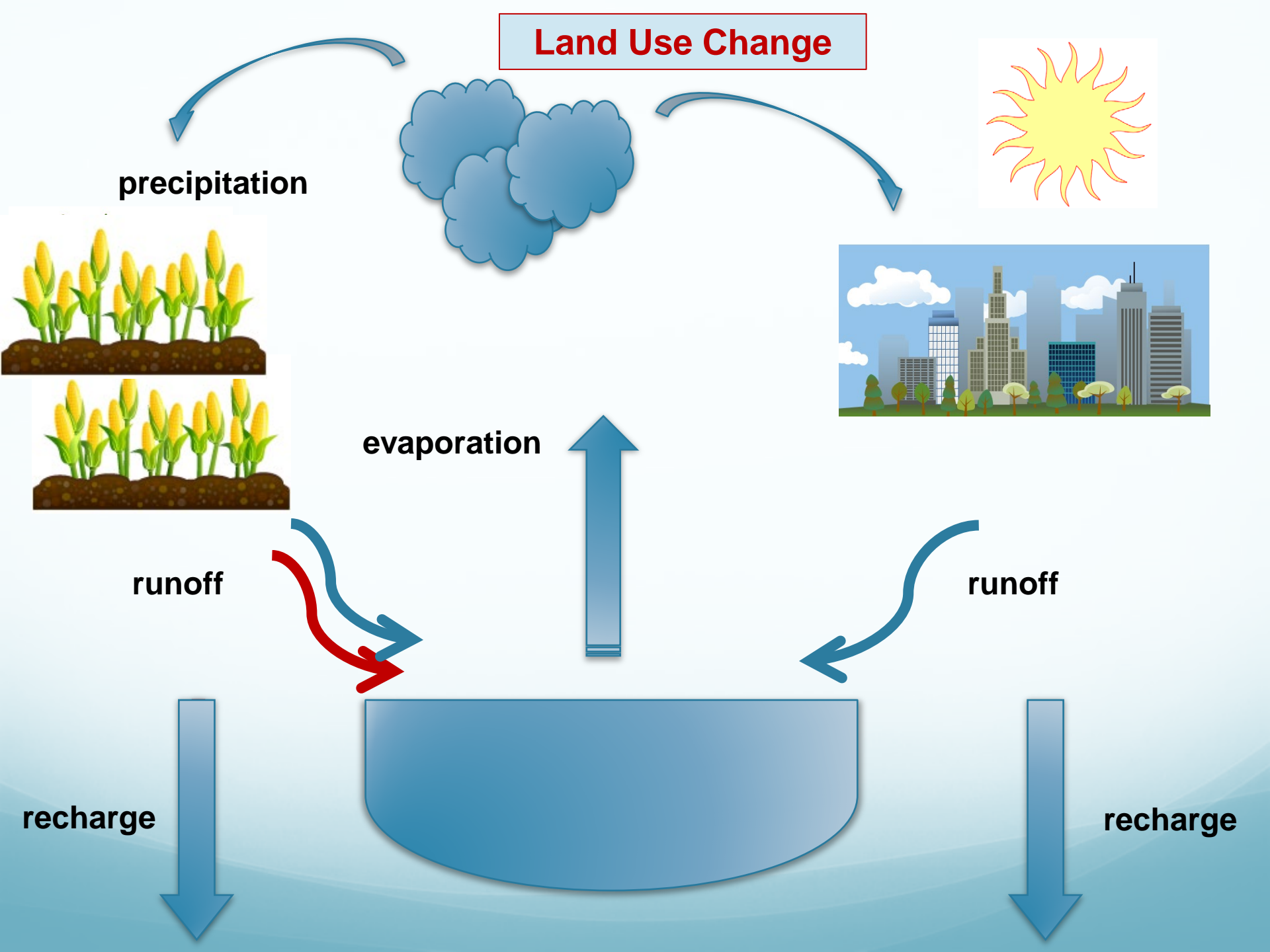
ISSUE



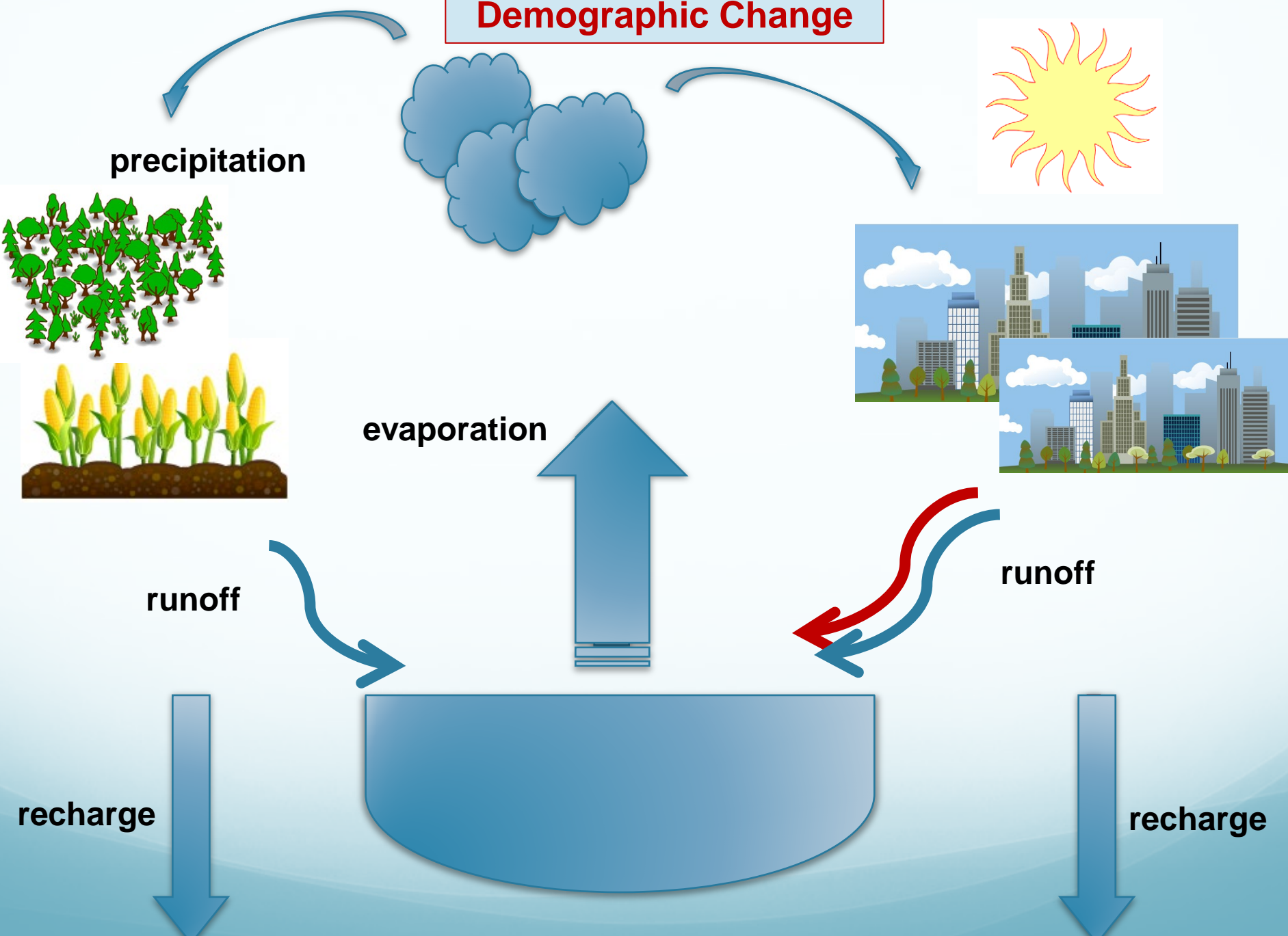
MN Water Management



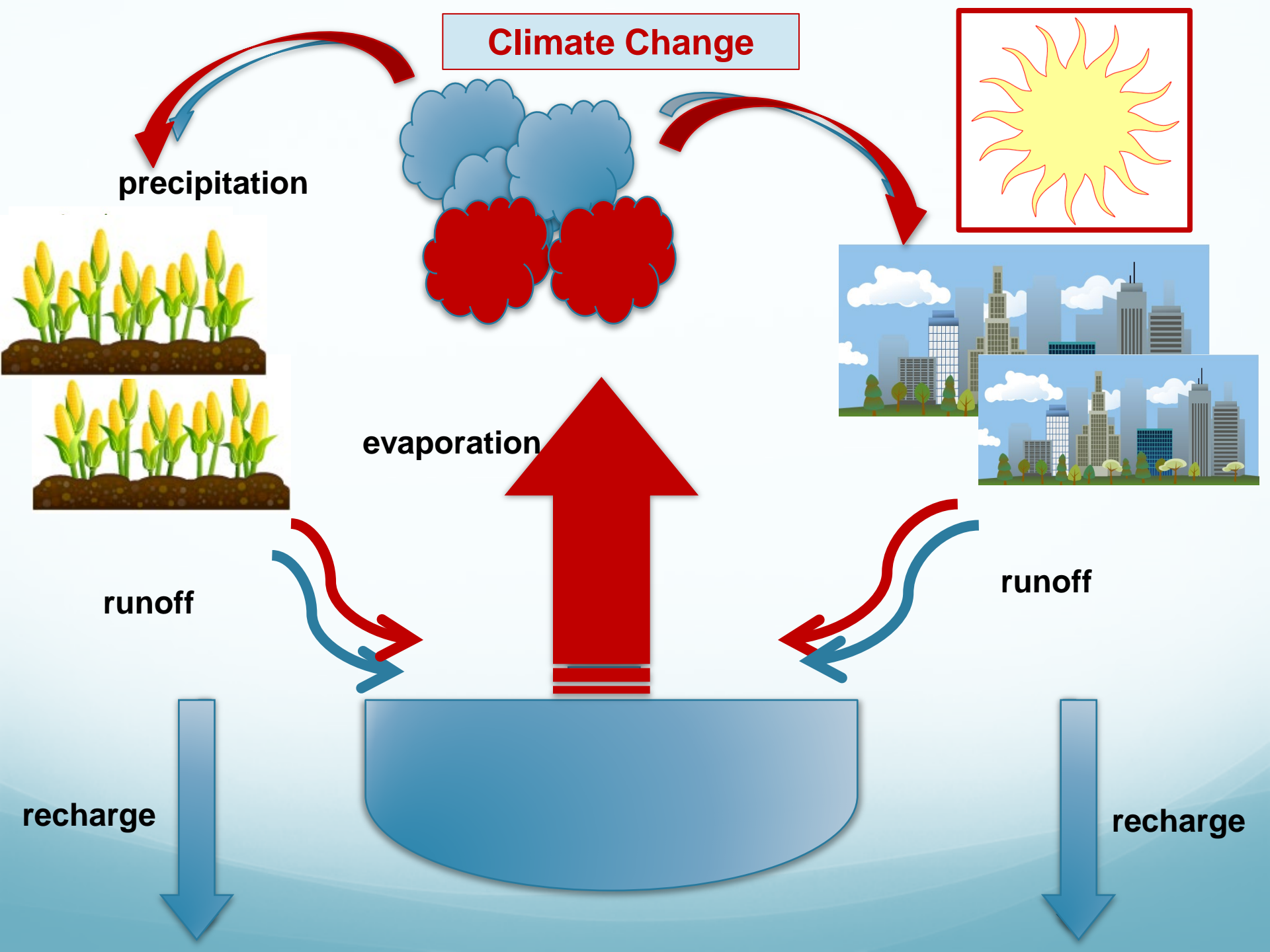
Land Use Change



Demographic Change



Climate Change



MN Water Sustainability Framework

- Inspired by the Clean Water, Land, & Legacy Amendment
- A 25-year plan to protect, conserve, and enhance the quantity and quality of the state's groundwater and surface water
- An approach to manage the state's water resources that is
 - Sustainable
 - Comprehensive
 - Integrated



State and National Water Issues

- Sustainable water supply of good quality
- Excess nutrients and conventional pollutants
- Contaminants of emerging concern
- Land and water connections
- Ecological and hydrologic integrity
- Water – energy nexus
- Economic issues
- Social aspects of water governance



Five Main Policy Categories

- Water Quality
 - Excess nutrients, sediments
 - Contaminants of Emerging Concern
- Water Quantity
 - Supply - Surface water-groundwater interactions, cumulative effects
 - Demand – reuse, leaking infrastructure, conservation
- Altered Hydrology and Ecology
 - Tile drainage, drained wetlands
 - AIS, loss of ecological services
- Infrastructure Finance and Planning
 - Gap in funding, SRF lending capacity not keeping pace with needs
 - “Right” balance among local, state, and federal funding for SRF
 - Funding for reuse and surface water drinking water infrastructure
 - Planning for climate change
- Governance and Coordination Barriers
 - Different scales used in land vs water planning
 - Water-Energy nexus
 - Local capacity and accountability

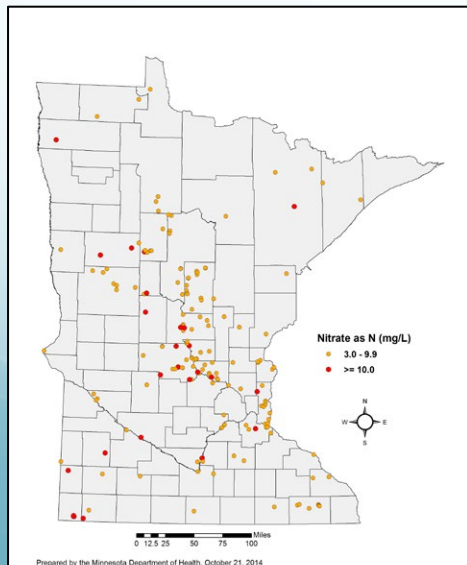
Five Main Policy Categories

- Water Quality
 - **Excess nutrients, sediments**
 - Contaminants of Emerging Concern
- Water Quantity
 - **Supply - Surface water-groundwater interactions**, cumulative effects
 - Demand – reuse, leaking infrastructure, conservation
- Altered Hydrology and Ecology
 - **Tile drainage**, drained wetlands
 - AIS, loss of ecological services
- Infrastructure Finance and Planning
 - **Gap in funding; balance among local, state, and federal funding for SRF**
 - Funding for reuse and surface water drinking water infrastructure
 - Planning for climate change
- Governance and Coordination Barriers
 - **Different geographic and time scales used in land vs water planning**
 - Water-Energy nexus
 - Local capacity and accountability

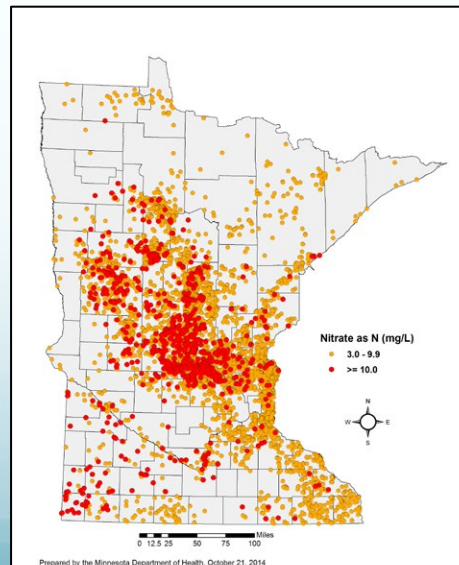
Water Quality

- **Problem:** Excess nitrates in surface and groundwater are increasing
- **Programs:** Monitor public water supplies (MDH), vulnerable private wells (MDA), and surface waters (MPCA); Develop nutrient reduction plans and goals (MPCA, MDA)
- **Gaps:** lack of demonstrated framework to deal with non-regulated non-point sources, especially from private lands

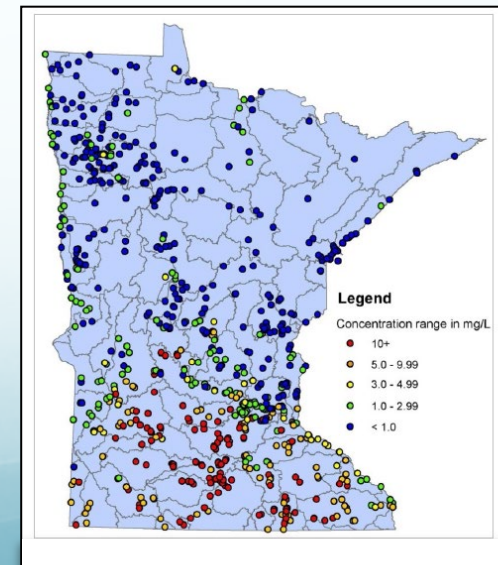
Public Wells



Private Wells



Streams & Rivers

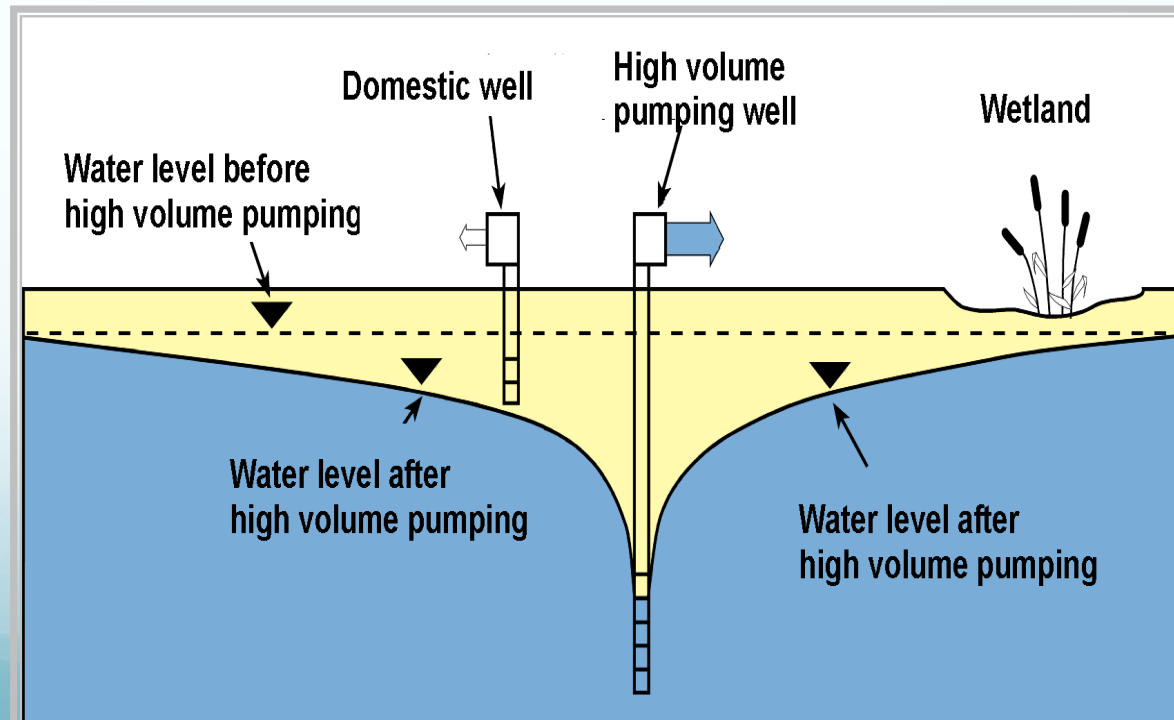


Water Quantity

- **Problem:** our use of groundwater is affecting surface water quantity and quality
- **Programs:** Monitor groundwater use (DNR, MC) and effects on surface water quality (MPCA, MDA); improved permitting and tools for managing groundwater (DNR)

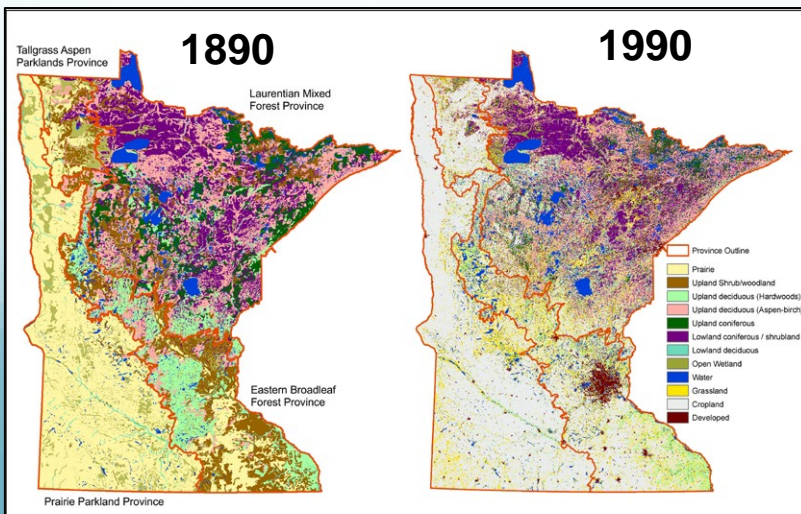
Gaps:

- lack of quantitative knowledge to predict tipping point for when effects occur
- predicting cumulative effects of groundwater withdrawals



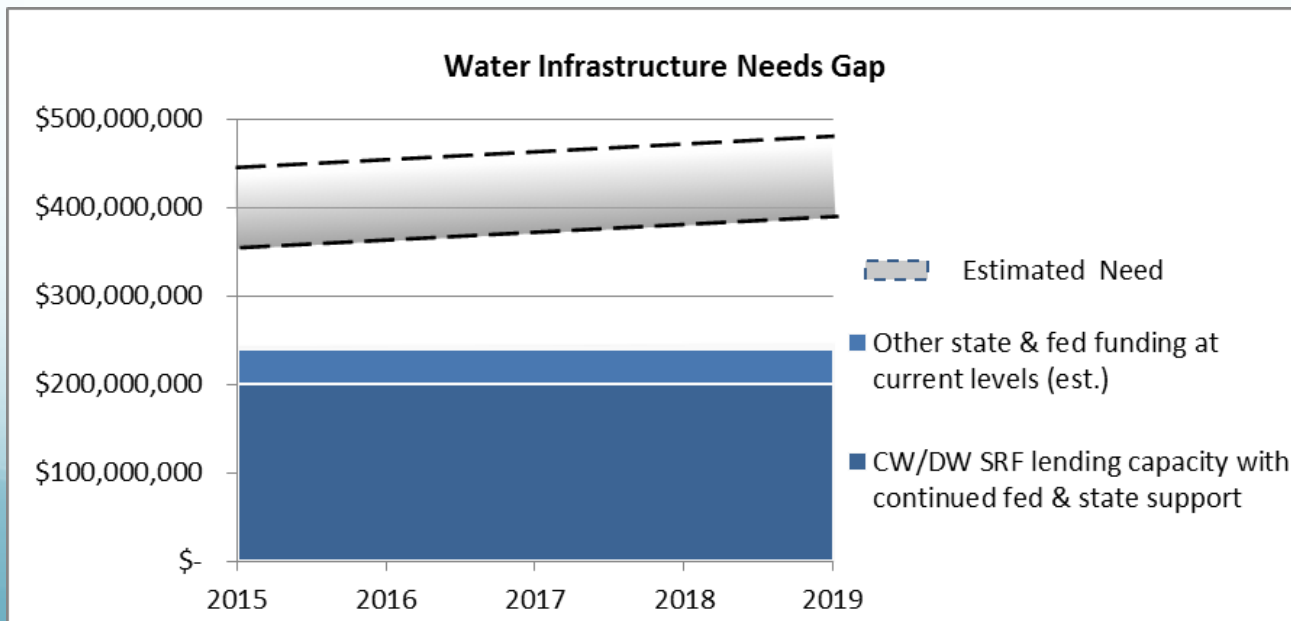
Altered Hydrology & Ecology

- **Problem:** We have significantly altered the hydrologic cycle of the state (land conversion, wetland loss, tile drainage) which affects water quality, flood potential, and aquatic habitat
- **Programs:** Demonstration sites for drainage water management practices (MDA), wetland restoration (DNR/USFWS, BWSR), protection of critical aquatic habitat (DNR, BWSR)
- **Gaps:** No policy framework to address the effects on public waters from agricultural drainage



Infrastructure Finance & Planning

- **Problem:** the gap between projected infrastructure costs and available funds is significant and growing
- **Programs:** State Revolving Fund (SRF) loans, WIF grants (PFA,MPCA,MDH)
- **Gaps:** No plan for addressing this growing problem, or plan for who should pay and how much. Includes municipal drinking water and wastewater, stormwater, and water re-use



Governance & Coordination

- **Problem:** Water planning and land use planning are done at different spatial scales with different time frames
- **Programs:** Water planning is facilitated regionally (MC) and locally (BWSR)
- **Gaps:** land planning is done at the county, city or township level, with no framework for oversight at a larger scale. Effects of land planning on water resources at the watershed scale are generally not adequately considered.



In Closing

- Pleased to follow-up on any aspects of today's presentation
- Pleased to have the Legislative Water Commission to focus on these complex issues
- Look forward to a long-term dialogue
- Committed to investing our time to explain and discuss these issues