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**Understanding Water Sustainability in Minnesota**  
A 2030 water demand & supply analysis  
Environmental Quality Board and Department of Natural Resources  
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**Introduction**

Adequate supplies of clean water provide the foundation for a healthy Minnesota economy, healthy ecosystems and a high quality of life. We need to understand where water may be sufficient to meet future demands and where it may not. Otherwise, Minnesota's economy, environment and quality of life, generally, may be put at risk in the future.

**Purpose**

Understand surface and ground water availability and demand to help us manage water supplies for the long term future and to better plan for future development

**Benefits**

- Bring attention to what we know and don't know about water supplies
- Help local and state governments make better-educated decisions about water allocation and future development
- Help policy-makers develop laws to manage water on a sustainable basis, and fund their implementation
- Help to understand the need for an EQB 2007-09 priority for statewide water sustainability

**Deliverables**

- Information and maps that highlight areas that may face limits to growth, i.e., where sustainable water use may be at greatest risk, or that require more information before any such judgments can be made
- Recommendations of policy and procedure to eliminate the barriers to routine analysis of water demand and supply
- Elements of an information system for comparing demand and supply, today and in the future
- Scenarios and assumptions for what kind of use might be "sustainable"
- A compilation of what we know and what we don't know about demand and the availability of water supplies



### **Methods**

- Employ an advisory group of interested parties (EQB, DNR, USGS, Met Council, MDH, MGS, DEED ...)
- Review the literature on what other states are doing or have done
- Determine past water use and estimate future trends and demand for each category of use (recognizing that water use will vary depending on climate conditions of a given year)
- Estimate water availability by aquifer, watershed and/or county/region
- Compare water supply and demand to identify potential trouble spots

### **Information needs**

- Population projections and residential water use trends
- Employment projections and non-residential water use trends
- Irrigated agricultural land projections and trends in water use
- Power generation levels and water consumption trends
- Climate information (seasonal temperatures/precipitation; annual temperature/precipitation trends; climate change implications; etc.)
- Water availability estimates by water source
- Water system connections and the implications of increased demand