



Large-volume water users

Adopted April 20, 2026

Summarized Policy Statement

In response to a recent increase in interest from prospective large-volume water users and demonstration of clear need for a coordinated response, the Clean Water Council recommends that the State of Minnesota implement the following actions to protect groundwater across jurisdictional boundaries and for future generations:

- Enhance regional groundwater models.
- Increase intention around siting and design of new facilities with respect to water supply.
- Incorporate large-volume water users as considerations in existing state, regional, and local water plans.

These actions are expanded upon under “Recommendations”, beginning on page 3.

Problem Statement

Minnesota is a water rich state. However, water is not an unlimited resource. Large increases in water use can impact individuals, businesses, communities and ecosystems. Of particular concern are potential increases in the presence of large water volume users in Minnesota, or those using more than 100 million gallons of water per year or one million gallons per day. Much attention has been directed towards the siting of new hyperscale data centers that can withdraw up to 1-5 million gallons of water per day - the equivalent of a small city. Quality can also be impacted, as pumping of large volumes of water can change groundwater chemistry through changing flow patterns and mobilizing contaminants such as arsenic, manganese, and others. Private well interference and quality changes can create hardship for users and financial risks for municipalities. Additionally, accessing and transporting large volumes of water to support new facilities and managing the subsequent wastewater streams can create challenges for local infrastructure capacity, leading to additional financial and planning implications for a community. The addition of multiple large-volume water users within a single community (or adjacent communities) can therefore create significant impacts on local and regional groundwater sustainability, local water quality, groundwater-dependent waters, ecosystems, and future availability of groundwater.

Water for domestic consumption is considered by the State of Minnesota as the highest priority use ([Minn. Stat. §103G.261](#)). The prioritization of uses is an important safeguard, ensuring that water is available for domestic consumption (public and private), especially in the event of an emergency. Water appropriation requests from proposers of new data centers have caused concern that this statute could be circumvented, that or water suppliers could feel pressure to continue to provide supply in the event of an emergency longer than they should.



Municipalities and communities also may not have access to sufficient information to comprehensively evaluate proposals. In order to understand potential risks, reviewers need to be able to know how much water would be needed to supply the proposed large volume water user, what that volume of pumping would mean for local groundwater or surface water quantity and quality, how climate trends or changes could influence availability for all users, what the cumulative impact could be, and more. Unfortunately, this information is often not available or not available at the scale necessary, do not include planned-but-not-built developments, or are not made available in a way to support informed decision making and a prioritization of water in considering proposals. Higher resolution models and more accessible and appropriate risk-assessment tools are needed.

Proposals can also be too early in design to contain sufficient information about water need, and nondisclosure agreements can limit transparency. Even if higher resolution models and tools are available, lacking this information makes it hard for any evaluation to be relevant.

Communities and the State need data that are at a relevant scale, include planned developments, incorporate understanding of water quality conditions and impacts of changes in groundwater flow, considers an uncertain future, and more.

Given the resources listed above and more, we have information and tools available to enhance decision making. While we can build on top of that, much of the work can simply be leveraged. For instance, some groundwater models exist for the metro region and other parts of Minnesota at greater risk of over withdrawal. These models and other tools can inform safe water yield thresholds. However, as a state, we do not yet have a good way to understand the cumulative impact of large-volume water users everywhere or assurances that this information is consistently leveraged between plans and jurisdictions.

Audience and Purpose

The Clean Water Council has a statutory role to foster coordination and cooperation as part of the Clean Water Legacy Act. The Council is interested in protecting groundwater across jurisdictional boundaries and for future generations. The Council encourages improved data sharing, local government capacity building, and broader intergovernmental collaboration. The Clean Water Council is interested in understanding risks associated with overuse or contamination of water from large-volume water users, and in addressing the potential gaps in the statewide, regional and local decision-making processes.

The purpose of this document is to identify policy recommendations and investments that address potential environmental and social problems associated with large-volume water users in Minnesota, including those already permitted and operational. We acknowledge that large volume water users also raise concerns related to energy, air pollution, long-term economic development, and other issues. However, the Council within its charge is interested predominantly in the implications specific to water.



Fortunately, work in recent years has better equipped Minnesota to respond to the influx of interest from large-volume water users. The following tools or resources have been developed as a result of Clean Water Fund investments, and can be leveraged and expanded upon to meet the challenge:

- Groundwater Restoration and Protection Strategies have built on statewide monitoring information to identify strategies to protect and restore groundwater quality and quantity
- One Watershed, One Plan has elevated groundwater as an issue on regional scales across the state, drawing attention to need for protection and restoration
- The DNR has engaged in aquifer monitoring for water supply planning across the state, with specific attention to areas of concern
- Modeling and planning for Little Rock Creek Area Water Use Conflict
- Planning and technical support for the three Groundwater Management Areas
- Staff in the Twin Cities metropolitan region have been researching and planning around water sustainability and have worked to cultivate intergovernmental relationships:
 - Metro Model 3 (Metro Model 4 in the works)
 - Multi-community Wellhead Protection Plan pilot
 - Subregional water planning collaboratives
 - Metropolitan Council commissioned research paper on large-volume water users, due in early 2026, that will have a checklist guide for cities to use

The Environmental Quality Board also developed a new Groundwater Report in 2025 that provides great detail and content, providing recent updates on current science, challenges, risks, and needs. This document can help provide background and insights as the state works to address the increased interest from large volume water users.

The Council also recognizes the need for legislative and policy action to address the challenge of large-scale water users. As such, the memo includes recommendations for agencies, legislators, and other elected officials who oversee policies, procedures, permitting, and resource allocation as they relate to water resources and potential threats to water quality and quantity.

Water in aquifers, like water on the surface, does not adhere to jurisdictional boundaries. Decisions in one community impact the communities around it, and vice versa. As demonstrated above, large-volume water users impact both groundwater quantity and quality. Whether we look at individual proposals or cumulatively, we do not have the tools to fully understand regional impact. Regional planning support for cities and intergovernmental collaboration is needed to help manage for regional impact.

At the end of the 2025 legislative session, the State Legislature set new expectations for pre-application and early coordination with the Department of Natural Resources for any new data centers. This provides an opportunity to discuss the regulatory framework, but also do an assessment of possible locations under consideration and share resource concerns, trends, other wells, etc. While this can help to address some siting concerns and support private industry and communities in making early informed decisions regarding data centers, additional action with



regard to all large-volume water users is needed to safeguard water availability for today and the future.

Recommendations

In response to a recent increase in interest from prospective large-volume water users and demonstration of clear need for a coordinated response, the Clean Water Council recommends the following actions to protect groundwater across jurisdictional boundaries and for future generations:

1. Enhance regional models.

- a. The Department of Natural Resources and Metropolitan Council should continue to develop and enhance regional groundwater models in order to better understand current conditions across the state, the influence of new proposals, and cumulative impacts on water supply, aquifers, and groundwater dependent surface waters and ecosystems. Ensure these regional models factor in forecasted population growth and climate change.
- b. The Department of Natural Resources should modernize the Statewide Drought Plan to incorporate threats from extreme drought fueled by climate change and address triggers for groundwater conservation based on risks to groundwater supply.
- c. The Department of Natural Resources should collaborate with neighboring states, Tribal governments, and Canada to more fully reflect and manage water conditions where activities have the potential to impact surface water and groundwater quantity and quality in Minnesota.

2. Increase intention around siting and design of new facilities with regard to water supply.

- a. Local utilities and municipalities should coordinate with the Minnesota Department of Employment and Economic Development and the Minnesota Department of Natural Resources (and the Met Council, where appropriate) on the siting of new facilities from a groundwater availability and water supply perspective. First Stop is a good example for data centers.
- b. The Department of Natural Resources should continue to coordinate with the Minnesota Department of Health from a chemistry and water quality perspective in reviewing permit applications.
- c. Governmental units conducting environmental review should require proposers of a new large-volume water use to publicly disclose anticipated water use as a part of the review process.



- d. The Metropolitan Council and Department of Natural Resources should develop a framework or tool to aid the public and private sector in better evaluating water risk and/or more strategically site or design large-volume water use industries.
 - e. Encourage co-location of large-volume water uses with wastewater treatment facilities or other beneficial industries, and consider opportunities for recharge of treated discharge.
 - f. Local permitting authorities should require proposers of a new large-volume water use to incorporate water efficiency mechanisms such as closed loop geothermal systems and water reuse.
- 3. Incorporate large-volume water users as considerations in existing state, regional, and local plans.**
- a. The state agencies and local government units should include large-volume water users as considerations in Groundwater Restoration and Protection Strategies (GRAPS) and the development or amendment of comprehensive watershed management plans (One Watershed One Plan or other approved plans). Groundwater use and discharges to surface waters from data centers should be of particular interest. Encourage amendments for comprehensive watershed management plans in areas which have recently seen an increased interest from developers.
 - b. State, regional, and local governments as well as water suppliers should include large-volume water users as considerations for municipal planning efforts, more closely aligning land use decisions with water supply and protection plans, including local and regional Wellhead Protection Plans, Water Supply Plans (including emergency preparedness plans), Local Water Plans, and Local Comprehensive Plans in the metro area.
 - c. Local planners should coordinate with the Minnesota Pollution Control Agency, and Metropolitan Council Environmental Services when appropriate, on wastewater discharge.
 - d. Water suppliers and the Department of Natural Resources should integrate groundwater risk assessment models into coordinated emergency response plans to address the concern of over-allocation of water to particular uses.
 - e. When new land use decisions allowing for large-volume water users are proposed, the Department of Natural Resources should review impacts on high-priority current and future water use; Minnesota Department of Health should be engaged for review of Drinking Water Supply Management Areas, water chemistry and private well considerations; and, in the metro area, the Metropolitan Council should review whether impacts to water availability will require a change to population forecasts



or service availability. These local planning resources should be informed by statewide risk management plans including the Statewide Drought Plan.

- f. The Metropolitan Council, Department of Natural Resources, and Department of Health should work with the League of Minnesota Cities, and the Coalition of Greater Minnesota Cities, Minnesota Association of Townships, and other interested entities for proactive outreach and training opportunities regarding planning for and responding to interest from new large-volume water users, as described in other bullet points in this document.