



Fast Facts

Chemically treated water pumped into groundwater is a threat to drinking water.

Bacteria and pathogens found in surface water and then pumped down into groundwater pose a significant health risk to hundreds of thousands of Georgians who rely on groundwater to drink.

The General Assembly twice passed a moratorium on aquifer storage and recovery to protect drinking water, which is scheduled to sunset in 2009.

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Protect Well Water

What's at Stake?

Companies have proposed to pump chemically treated wastewater or other surface water down into our pristine groundwater system. This proposal (known as aquifer storage and recovery or ASR) is a risky scheme that can easily contaminate vital drinking water sources for many Georgians.

The General Assembly recognized the risk that ASR posed and has twice placed a moratorium on the practice. However, the Statewide Water Plan, a policy adopted by the General Assembly in 2008 without the force of law, seems to endorse experimenting with the safety of Georgia's water supplies by allowing injection of surface waters into our aquifers. Unless further action is taken, the ASR moratorium will be lifted in 2009.

Challenges

The National Research Council found in 2001 that a proposal for ASR in south Florida posed significant risks to groundwater, including potentially increasing heavy metal concentrations, such as mercury. This report also found that the chemically treated surface water could still contain more bacteria and pathogens and contaminate the groundwater that it is pumped down into. The U.S. Army Corps of Engineers found levels of arsenic that exceeded safe drinking water levels in areas using ASR in South Florida.

Analysis of a project in South Carolina by the U.S. Geological Survey found that less than 25% of the water pumped into an aquifer would be available to reuse. This study also found that pumping water down into the ground did not help to increase groundwater levels in wells near the injection site. These studies indicate that the use of ASR may risk contaminating drinking water for very little recovery capacity.

Before ASR moves forward in Georgia, the National Ground Water Association recommends obtaining answers to many technical, economic and regulatory questions, such as:

- What type and degree of water treatment is necessary to ensure that no pathogens will survive in groundwater? Will disinfection lead to the formation of carcinogenic compounds that will move to broader groundwater areas?
- What information is needed to ensure that the water being recharged is geochemically and microbiologically "compatible" with native ground water? Unanticipated reactions may lead to poor-quality water, biomass formation, pathogen growth, and well clogging.
- What are the energy costs associated with ASR?
- What monitoring will be required to ensure that unforeseen water quality problems do not affect broader groundwater resources? Who will pay for it?
- What are the impacts of ASR on property values? On land use patterns?
- What alternatives exist to augment drinking water supplies? How do they compare with ASR?

Until proven otherwise, pumping chemically treated water into the ground continues to pose a significant health risk and may not provide a consistent, efficient storage mechanism for drinking water.

Next Steps

The General Assembly should permanently place a moratorium on aquifer storage and recovery.