

# Greeley Tribune

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Business

November 29, 2012

## Experts: Better understanding of aquifer needed for better water management

DENVER — Progress has been made, but a better understanding of the region's aquifer remains critical for the future in the South Platte River Basin — parts of which have been labeled by the federal government as “highly likely” to see a “potential water-supply crises by 2025.”

That was the general consensus among groundwater experts who spoke during the first day of the Colorado Aquifer Management Conference on Wednesday.

Much of the discussions during the two-day meeting will focus on the relationship between groundwater and surface flows in streams and rivers — particularly how well-pumping, usually done for agricultural uses, affects surface flows needed downstream by senior water rights owners.

The experts agreed that a better scientific understanding of that relationship could lead to better management practices and help “maximize beneficial use” of the region's water.

Many of the presentations focused on new methods of measuring the timing of how well-pumping affects surface flows, and to what extent. Experts said they're gaining a better understanding of the aquifer from those new methods and models, but added that the complex mathematical equations and other techniques can't take into account the geohydrology, surrounding vegetation, proximity to the river, weather extremes and other factors that make most wells different from one another.

Colorado Supreme Court Justice Gregory Hobbs, the keynote speaker of the day, was among those who emphasized the need for more analysis and data. He said it's needed to make sure the state manages its water as well as possible.

Some groundwater pumpers, including a number of Weld County farmers, favor making changes to how the state manages its aquifers. They believe the state's requirements for augmentation plans — an approved plan to make up for surface-flow depletions caused by groundwater pumping — are too stringent.

Some farmers can't afford enough augmentation water to get their wells pumping again. Thousands of wells are now curtailed or shut down, and some believe the build-up of

groundwater in the basin — 10 million acre-feet of water, according to some estimates, which is eight times more water than is in all of the South Platte Basin's surface reservoirs — could be put to a more beneficial use.

Those farmers were big supporters of a South Platte Basin groundwater study that was approved during last spring's legislative session and is under way. The Colorado Water Institute at Colorado State University is doing the study, which is expected to be complete by the end of 2013.

Hobbs and others stressed that data is also needed to prevent any over-pumping of groundwater in the state.

On more than one occasion, experts brought up the fact that about 40,000 acres of farmground in the San Luis Valley have been taken out of production in efforts to replenish the aquifer there that's been depleted from over-pumping.