

## Water trial goes into sixth week

BY RUTH HEIDE

Testimony to conclude

ALAMOSA — The state water trial enters its sixth and presumably final week as protesters to the proposed rules continue with their witness list.

Expert Bruce Lytle spent three days on the witness stand, and he is expected to be followed this week by former Colorado Division of Water Resources State Engineer Dr. Jeris Danielson. The state will then call rebuttal witnesses before the trial to the court concludes this week.

District Judge O. John Kuenhold will then rule on the case which involves proposed rules governing new withdrawals from the confined aquifer of Colorado Division of Water Resources Division III, the San Luis Valley.

Lytle says SLV is sustainable

Lytle testified he found no evidence the Valley's aquifers were in an un-sustainable condition; the Valley merited no special consideration for state rules unique to this basin; and the logical action the state should have taken was to regulate existing uses first, namely what he described as out-of-priority pumping.

"It is my opinion there has been no evidence produced here that indicate a continuing declining trend that would indicate nonsustainability," Lytle testified on Monday.

Lytle said the only data he saw which "remotely implies nonsustainability" was information from Engineer Allen Davey, but he said when he reviewed eight hydrographs of well level changes over time, which Davey had testified about, he found four of those hydrographs indicated a declining water level over time while the other four showed no change or increasing trends in water levels.

Lytle maintained any declining water levels in those wells were related to pumping from a specific portion of the aquifer but did not relate to the sustainability of the entire system. "It's not really indicative of a non-sustainable situation at all," he said. "You can't just take a few hydrographs ... and conclude anything about the Valley itself," he said. "You have to step back and do a regional analysis."

In cross-examining Lytle, attorney David Robbins asked if taking different time periods on the graphs resulted in different slopes, and Lytle agreed. "Yes if you changed the period of record you would get a different slope."

Lytle agreed with Robbins the definition of a sustainable aquifer could be the condition where inflows to the aquifer equal outflows while storage remains consistent over the long term. Lytle maintained water levels could be declining for a time but then reach a new equilibrium. When Robbins asked him if that did not happen, Lytle said "if the water levels continue to decline and never stop then outflow would be exceeding inflow."

Rainfall tells different story

Lytle pointed to precipitation data collected at nine weather stations throughout the Valley between 1950 and 2004. Lytle said although Chief Deputy State Engineer Dr. Ken Knox testified the Valley has been getting drier during the last 25 years, he believed the precipitation data told a different story.

He said only one of the nine weather stations showed a decline in precipitation during that 55-year period, and that station was located at Hermit, near Creede, and reflected less than one inch decline in precipitation in 55 years.

He said the stations at Alamosa, Blanca, Center, Del Norte, the Great Sand Dunes, Manassa, Monte Vista and Saguache showed either flat or increasing trends in precipitation. He said the trends were similar or even wetter during the more narrow

time period of 1978-2000, the time period listed in the state legislation governing the proposed rules.

Robbins pointed out precipitation is not a significant part of the water budget in the Valley, with average precipitation ranging from 6-9 inches a year. Lytle said the weather station at Blanca measured annual rainfall of more than 12 inches in a number of years, Center measured more than 10 inches and Del Norte experienced years of more than 16 inches.

Robbins said far outweighing precipitation in the Valley's water budget are factors such as stream gains and rim recharge.

Unconfined should  
have been included

Lytle in one of his opinions maintained the state rules should have dealt with unconfined as well as confined aquifers. He said although the state legislature did not require the unconfined aquifer to be included in the rules, it would have been the logical thing to do.

He said he heard testimony that regulating new withdrawals in the confined aquifer was the first step, but he believed the state should have first regulated existing uses. He said he believed there has been out of priority pumping of wells when senior surface rights had been cut off, such as the time period of the 2002 drought when groundwater pumping increased from the approximately 300,000 acre feet per year experienced in the 1990's to more than 460,000 acre feet during 2002.

He said he considered that as an expansion of use and referred to the state's moratorium on new wells which was designed to prevent expansion of use. "When use increases by 50 percent I don't consider that to be a very effective means to prevent expansion of use," he said.

Lytle added the expansion of use caused some impact to the surface streams and negatively impacted the ability for those with senior water rights to divert water and also made it more difficult to meet the state's interstate compact obligations. He said in his experience the wells have to provide augmentation to make up for the depletion to the streams.

He said the hydrostatic pressure mandated in the proposed state rules is being maintained for the current out of priority pumping in the confined and unconfined aquifers.

When asked if he believed water could be appropriated in the confined aquifer without materially injuring vested water rights and without the need to replace 100 percent of all withdrawals, Lytle said "Yes, if you prepared a standard plan for augmentation where injuries, out of priority depletions, are replaced."

Responding to wording in the rules that the Valley is unique from a geological and hydrological perspective, Lytle said he found no technical basis for that. He said there is no place exactly like the Valley, but he did not think the Valley deserved special water rules.

Robbins in his questioning pointed out there are other areas of the state including the Denver Basin which also have regulations unique to their situations.