

Fresh water: Are there ample supplies?

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Prior to that date, Wintersmith Lake and a well drilled where the city barn is now located (between Townsend and Stockton), helped supply water to the city.

According to City Attorney Alvin Files, Ada began looking for a better water supply when a new cement company (now Holcim) was proposed in 1906. The plant was completed in 1907 and Ada purchased Byrd's Mill Spring and the land around it in 1911 with water from the spring first reaching Ada on Sept. 5.

During the drought years of the 1950s, the city did several studies of the water situation and in 1959 passed a \$1.5 million bond issue to drill three wells directly into the Arbuckle-Simpson Aquifer and to improve the pipeline from Byrd's Mill to Ada, making it more efficient. A booster station was also added.

The three wells were drilled south of Byrd's Mill Spring.

"If all three wells pumped 24 hours a day, they would produce about 10 million gallons a day from Arbuckle-Simpson Aquifer," Files said.

In the winter, Ada averages using 4 to 5 million gallons a day. During the summer, that increases to 7 to 8 million gallons.

"We try to keep 3 million gallons a day going downstream (from Byrd's Mill Spring)," Files said. "If less than 4 million gallons are going downstream, we turn on the wells to make sure at least 3 million gallons are in the streams."

During the dry years of the late 1970s and early '80s, the water level started dropping, and landowners challenged Ada's water rights.

Files said Ada can legally take 8,700 acre feet of water from the spring per year (2.8 billion gallons).

Ada could take an average of 7.7 million gallons a day but doesn't take that much.

"Last year, we used about 2 billion gallons of stream water the entire year, which was about 6,000 acre feet. We used 179 million gallons of ground water, which was 552 acre feet," he said.

Ada used an average of 5.8 million gallons a day in 2001 from Byrd's Mill Spring and its wells.

The city has separate water rights on the wells.

Ada has a permit for 2 acre feet per acre of ground water. The city owns approximately 10,000 acres of ground water rights and has a permit to use 7,344 acre feet. Last year, Ada used 552 acre feet of water.

Files said the city purchased surface and water rights to 1,268 acres south of the spring last year. Surface and water rights to 545 acres were purchased this year.

Ada earlier purchased water rights to 6,014 acres on the border between Pontotoc and Johnston counties. The city also owns water rights on another 640 acres on the McDaniel property (Section A-IN-6E).

Also to protect the city's water rights and water supply, the city council annexed a 10-foot strip in 1991 surrounding Ada water rights and water supply south of Ada.

Asked how the proposed sale of water from Arbuckle-Simpson Aquifer in the Ada area to west metro area communities near Oklahoma City would affect the Ada-area water supply, Files said nobody really knows.

Seven communities in the West Metro area near Oklahoma City want to pipe 70,000 acre feet of water per year from the Arbuckle-Simpson Aquifer to their area.

"Seventy thousand acre-feet of water per year (just under 23 billion gallons) is a lot of water," Files said. "That's why it is so important to do the study," he said. "We don't think it would be beneficial to the people of this area to take that much water from here and move it up there."

The study Files was referring to is a proposed \$2.7 million, five-year study of the Arbuckle-Simpson Aquifer to determine the quantity and quality of the aquifer ground water and stream water.

That study, requested by the Ada Water Resources Board and Ada City Council, has not been funded to date.

"The study is the first step," Files said. "We need to know the facts so we know what we are working with."

Files said the present state water law should be rewritten.

"Presently, the law doesn't really take into account the aquifer where all ground water and stream water are inter-related. Now they are treated as totally separate things," he said.

Files believes the new law should include input from legal-minded and scientific people, as well as ranchers, municipalities and Native Americans - after the aquifer study is completed.

"The Oklahoma water laws are fouled - convoluted in a sense. The Oklahoma water board is going to have to look at changing the water law," said Jack W. Keeley, Ada engineer and consultant. Keeley has more than 40 years of experience in a wide variety of engineering, scientific and management settings. Most recently he has directed his consulting toward the preparation of educational and information transfer material in the area of ground-water protection and restoration. He has also served as director of research and chief of the ground-water research branch at the Robert S. Kerr Environmental Research Laboratory. He earned national and international acclaim for a research program in the hydrologic, abiotic and biotic processes involved in aquifer restoration.

"Water law and surface water are so hooked together they need to be addressed and regulated together. The East Coast has Riparian English Law, where the landowners own and control the water. On the West Coast, where water is scarce, the water belongs to the state. But in Oklahoma, the landowner owns the water, but can't use it without permission of the state," Keeley said.