

Valuing Water in Kansas: Supply, Quality, Demand Complicate the Math when it Comes to Assigning a Value to Water in the State

The question sounds simple enough, but the answer is a challenge.

What is the value of water in Kansas?

"The reality is that if I asked all of you this question, you would say it's priceless," said Tracy Streeter, director of the Kansas Water Office. "It's intrinsic value is priceless. But until you are looking at water scarcity, it's worth nothing."

Streeter delivered a presentation during the 2018 Kansas Rural Water Association Annual Conference about the State of Kansas' attempts to better understand how much worth is assigned to our water.

"Even experts disagree on what factors to take into account," Streeter said. It's even more difficult in a state like Kansas, where water quality and quantity vary dramatically depending on the location.

The Kansas River, for instance, flows from Junction City to Kansas City, and typically experiences good flows. WaterOne, the water utility that serves much of Johnson County, has intakes on both the Kansas and Missouri Rivers – "a seemingly endless supply," Streeter said.

On the western side of the state, in Groundwater Management District 1, people who have lived on farms are finding that their water wells are running dry. They're relocating to towns or making other accommodations

to find a steady water supply, Streeter said.

"I bet those folks who are moving their houses and piping water place a higher value on water than someone living in Overland Park today," he said.

"Another question figures in to the discussion," Streeter said. "What's more important, water quantity or water quality?"

"I say it's quantity," he said. "If you don't have it, it doesn't matter what the quality is. When you're up against it, you take whatever you can get, treat it and use it."

There are examples where dollar amounts are applied to water – but those are "what we pay for it, not what it's worth," he said. Streeter provided some examples, including:

- ❖ The average Kansan spends \$6.51 per 1,000 gallons of tap water. Of that cost, \$0.06 goes to the State Water Plan Fund; the remainder toward treatment and distribution.

- ❖ In 2002, the city of Colby purchased irrigation rights for 320 acre-feet of water from one farm for \$2,256 per acre-foot. In 2009, Dodge City purchased water rights totaling 1,465 acre-feet from three farms for an average price of \$2,265 per acre-foot. These prices illustrate the market price of water, Streeter said.

- ❖ There is a water bank in Kansas, in Groundwater Management District 5 in central Kansas. Streeter described it as a "kind of brokerage firm" for water transactions. Each transaction also carries with it a requirement for water conservation. A buyer can sign a lease for a certain amount of water for one year at a time, Streeter said. The average value of water traded in the water bank is \$78.04 per acre feet. "This is really our only true value we have for knowing how water is trading on a daily basis," he said.



- ❖ The Kansas Water Office also is involved in pricing the water it sells wholesale to municipal and industrial customers from reservoirs in which the office owns water

storage. Some contracts from the 1970s capped the rates at \$0.10 per 1,000 gallons. New contracts in 2018 offer variable rates to customers at \$0.39 per 1,000 gallons. The water office is only charging what it needs to cover their own costs, Streeter said, but those older fixed rates are presenting a challenge to do just that.

- ❖ The recently completed project to dredge John Redmond Reservoir in Coffey County to remove silt and provide more storage space for water cost about \$20 million. Other reservoirs are facing similar needs to find storage space – and price tags in the tens of millions of dollars to remedy those issues, he said.

- ❖ Streeter quoted a KRWA rate survey that showed Kansas residential water rates ranging from \$1.40 to \$17 per thousand gallons, an average of \$6.51 per thousand gallons. Rural water district rates range from \$1 to \$22.90 per thousand gallons, an average of \$9.10 per thousand gallons.

"It will be increasingly important to think about the value of water going forward," Streeter said, citing the example of Cape Town, South Africa, which imposed strict restrictions on its water users when supplies nearly ran out earlier this year – not to mention having good data to inform conversations about funding water projects.

"If we understand what the true value is before we have to, aren't we better off? Can't we be prepared for it?" he asked.



Tracy Streeter, Director, Kansas Water Office.