Legally Relevant

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The Future of Water Law in Kansas

> "We face a fundamental choice," Connie Owen, director of the Kansas Water Office, said to a group of state legislators, lobbyists, groundwater managers, and experts who assembled [in Garden City, KS] last summer to debate the future of the region's groundwater, now in steep decline due to overuse by industrial agriculture. "What hangs in the balance is even more than the loss of livelihoods, communities, or an entire region's economy – it is the character of who we want to be as a people."
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> ***– Lucas Bessire, "The Next Disaster Coming to the Great Plains", The Atlantic, (Dec. 26, 2021)***

> "We water guys never confront the hard issues . . . We find a temporary fix and hope we're retired before we have to answer for it. Then if our kids are attorneys, they can make a living sorting it out".
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> ***– Mort Rosenbaum, "America's Water Supplies Are Drying Up", Salt Lake Tribune, May 14, 2001 (quoting Tom Levy, General Manager, Coachella Irrigation District)***

These two quotes represent the quandary that faces Kansas. Changes are occurring to our water supplies that require action. We face difficult choices, and our response tends to be to put it off as best we can so that someone else can deal with it.

In the most recent "Legally Relevant" column (*The Kansas Lifeline*, July 2022) we covered the basics of Kansas water law, the bedrock of which are the dual principles of "beneficial use" and a system of priority of use based on "first in time, first in right" based on date of application; and the nature of a water right as a real property right, the five characteristics of each water right, how rights are maintained, the way they are administered, transferability, etc. Although that summary was extremely abbreviated, the reader as a water system professional or governing body member could use that summary to follow along as the engineers and attorneys discuss the system's water rights issues.

This column will discuss the future of water law in Kansas. Much has been written in recent years (and the pace of these writings is only increasing) as changes are rapidly occurring in states like Kansas that use the prior appropriation doctrine. These articles tend to have two things in common: they concern the changes occurring in the environment and in society more than they do the law; and they raise more good questions than good answers. This column is no exception.

What's wrong with Kansas water law?

Criticism of the Prior Appropriation Doctrine (PAD), and thus the Kansas Water Appropriation Act (KWAA), comes from changes of circumstances and shortcomings in the PAD/KWAA.

Concerning beneficial use:

The PAD/KWAA encourages beneficial use, and discourages "waste". But it makes no qualitative distinctions as to "how beneficial" a particular use may be relative to other beneficial uses. From a societal standpoint, most of us would agree that no use of water is more important than that by humans to drink, cook and wash. But the PAD/KWAA does not distinguish that important use from others with a less vital purpose – watering of a golf course for instance.

The same is true of economic value. A Google server farm, costing billions of dollars to build, helping support a business worth 1.5 trillion dollars, uses a considerable amount of water – but only about the same amount needed to grow 350 acres of high-yielding irrigated corn in western Kansas. Yet the PAD/KWAA make no distinction in the "benefit" of these two uses.

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Political and economic power is currently the only means to move water rights from less beneficial societal and economic uses to more beneficial ones. Cities, in particular, have been relatively effective in using both political and economic power to get the water rights needed to meet their needs. Obviously, a company like Google has no problem in buying the water rights it might need for its operations. But most users – many RWDs for example, lack that kind of political and economic might.

From the beginning of the settlement of western Kansas, the thirst for water was great. Shown below is a portion of Soule's Canal near Dodge City in Ford County, which was an attempt to divert spring and summertime-time flows of the Arkansas River upstream of Ingalls. The goal was to deliver water to farms of nearly level ground north of Dodge City. The canal was 96 miles long, going as far as Spearville, and was constructed from 1884 to 1889. It was a failure due to large variances in river flow, porous soils through which the canal was constructed and no management for maintenance. Note that the canal was constructed where Santa Fe Trail ruts still remain.

Photo Credit: Bill Johnson, University of Kansas (date unknown), and the Kansas Geological Survey Photo Library, used with permission for non-commercial use.

Concerning priority of use based on the time of application

In times of shortage, if strictly enforced, the PAD/KWAA is harsh, even cruel, as a senior right holder may demand that a junior right holder's use be curtailed or even stopped entirely to allow the senior right holder the full use of the permitted water. The PAD is a system that, in the abstract, is not geared to sharing in times of shortage.

This aerial photo shows a livestock facility in Grant County, likely designed for housing and feeding hogs. A waste lagoon is on the site. This relatively new facility uses water under a water right that likely only authorized irrigation use before the facility was built. (See the center-pivot irrigation system located in the upper-right of the photo.) With most of western Kansas closed to new appropriations of water, the approval of a change of a water right is required before a "more beneficial" use of water can be authorized, regardless of the type of use proposed. The Kansas Pork Association statistics show that approximately 1,000 hog farms existed in Kansas in 2018, and only 150 of these farms produced 99 percent of the pork sold to processors and consumers.
Photo Credit: Bill Johnson, University of Kansas (date unknown), and the Kansas Geological Survey Photo Library, used with permission for non-commercial use.

Coupled with the lack of qualitative differentiation among beneficial uses and strains caused by evolving social values and population and economic shifts, the notion of priority of use based on time of application seems ill-suited to the 21st Century.

So where are we?

For all of these shortcomings, commentators generally conclude that, like capitalism, this severely flawed system still looks to be the best system that anyone has yet devised. The answers seem to be that minor changes, along with what is administratively built into the system coupled with evidence of the behavior of users in times of shortage to forcibly enforce their rights, can work better than it would seem that it should.

For cities in particular, the evidence suggests that due to a combination of political and economic might, as well as reasonably effective conservation measures that can be imposed by cities (increasing block water rates, water restrictions, etc.), cities seem to be able to fare reasonably well. Cities can buy water rights, build extensive transmission and storage facilities, and borrow as necessary to finance these expenses. Obviously, this observation may not apply nearly as well to small water systems such as rural water districts.

With their massive storage capacities, the federal reservoirs have dramatically softened the blow of unreliable precipitation and stream flows. Their future in Kansas is uncertain as the reservoirs reach (and often significantly exceed) their design life cycle. But assuming those reservoirs can be rehabilitated through dredging operations (not a foregone conclusion as the cost could run into hundreds of millions of dollars), the benefit they provide in buffering the effects of excessive/inadequate streamflows could extend into the foreseeable future. Given the cost of construction and their need for thousands of acres of land, there seems to be no political will to develop new large scale reservoirs such as we saw in the 20th Century.

Conservation measures, such as water banking, regulation by the Groundwater Management Districts (GMDs), Intensive Groundwater Use Control Areas (IGUCAs), Local Enhanced Management Areas (LEMAs) and others can reduce the role of the "use it or lose it" aspect of the KWAA and more importantly, impose meaningful water use reduction in order to conserve a dwindling resource.

Administration of water rights by the KDA/Division of Water Resources that would result in curtailment of an impairing use is not always swift. It may start to rain and the stream begins to flow before that administration takes effect. Evidence suggests that senior users are actually loath to assert their rights against a junior user. The theory of harsh and swift enforcement is more theoretical than actual.

Where do we go from here?

- The status of the PAD and, at least in broad terms, the KWAA, seem secure. It is too entrenched to discard, and nothing else seems to offer a better, or at least in Kansas, politically acceptable alternative framework for the future.
- The KWAA will need to adapt and evolve. IGUCAs, LEMAs, and increased regulation by the GMDs work around the edges of the existing KWAA principles. The urgency is much greater in some parts of the state than others (Professor Peck wrote in 1995 that there had been a proposal in the early years of the KWAA to, like Gaul, section Kansas off into the East, Central and West, with different rules applying to each – but that idea didn't survive).
- Perhaps the question of where we go from here is best answered by posing other questions:

What will become of the aging reservoirs? Can we build new ones in the future? Are these and other large-scale water storage and transmission projects economically and politically feasible?

What will become of the aquifers? Can their lives be extended long enough to allow for an orderly transition from the irrigation-intensive economy? Or long enough for some other solution to develop? Drought conditions in the west are producing speculation about a massive water project that would capture flood waters from the Mississippi and its tributaries, store it, and then transport it west. Is such talk just a dream? The technological, financial and political hurdles to such a project seem insurmountable, but who knows what is possible if conditions become desperate.

Will it be the answers to these questions that drive the future of Kansas water law, or the other way around?

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The Prior Appropriation Doctrine

The Prior Appropriation Doctrine, with its origins in the hard rock mining regions of California and Colorado, was designed to protect large-scale miners' business investment, and later to encourage development of natural resources in the western US. It is ill-equipped to deal with some of the changes occurring, including the massive shifts in population from rural to urban.

These changes appear in Kansas, sometimes in eye-popping numbers. See the examples in the table below.

US Census Population Data (100-year comparison, 1920 to 2020)

	State of Kansas	Washington County	Finney County	Johnson County
1920	1,769,000	18,000	7,674	18,000
2020	2,938,000	5,500	36,451	610,000
Change %	60%	-70%	475%	3400%

The Washington County decline is typical of rural Kansas counties. Finney county may be an anomaly as widespread irrigation has resulted in a massive increase in the production of livestock feed, thereby supporting large-scale industrial agriculture development. But the astronomical growth of Johnson County is indicative of the rural-to-urban population shift that is occurring not only in Kansas but in every western state using the PAD. Needless to say, all those people need water, a need that didn't exist 100 years ago. Adapting to those changes is one of the most significant challenges facing water supply systems in Kansas.