

Shared Stories of the Kansas Land A Reader's Theater Project

Who Owns the Water?

In 1880, windmills and river diversion projects dotted the Kansas landscape, redirecting water to crops and homesteads. By the turn of the 20th century, legislators were already tackling water rights issues, including a battle with Colorado over the Arkansas River that continues to this day. Interstate compacts and new water use laws have taken shape, but since then, industrialized farming practices and urban expansion have dramatically changed water needs in Kansas. Meanwhile, increased human use has posed threats to water resources, including underground aquifers, rivers and streams, and reservoirs.

The *Who Owns the Water?* reader's theater script was created using excerpts from historical letters, promotional materials, legal documents, interviews, as well as other sources. Following the reading, participants will have the opportunity to discuss how historic water usage informs Kansans' future relationship to the land, and the rights of rural and urban water consumers.

Please Note: Regional historians have reviewed the source materials used, the script, and the list of citations for accuracy.

For More Information:
Kansas Humanities Council

www.kansashumanities.org



Introduction

Instructions: The facilitator can either read the entire introduction out loud or summarize key points.

In 1880, windmills and river diversion projects dotted the Kansas landscape, redirecting water to crops and homesteads. Yet by the turn of the 20th century, legislators were already tackling water rights issues, including a battle with Colorado over the Arkansas River that continues to this day. Industrialized farming practices and urban expansion have dramatically stressed water resources, including underground aquifers, rivers and streams, and reservoirs.

Today's water concerns are a far cry from the abundant surface and groundwater sources that were promoted in the 19th century when railroad settlement agents and town boosters worked to bring people to the High Plains of Kansas. Once settled, however, Kansans realized they needed to divert water for their crops and homes.

City officials, wildlife preservationists, and sportsmen, in addition to farmers and ranchers, also have strong opinions about how water should be used in Kansas. As Wichita pumps water from the Equus (pronounced *Ek-wus*) Beds and the Cheyenne Bottoms' diverts water from the Arkansas River, many argue that agriculture—a key economic driver—is most deserving of this diminishing natural resource.

Depletion of the Ogallala Aquifer also sparks fear that the current generation of plains farmers will lose their irrigation water. The Kansas Water Office has proposed a 50-year vision for water use and improvements to water sources and technology. Technological solutions first proposed a century ago—such as the building of a grand aqueduct to carry water from the Missouri River to western Kansas—have resurfaced despite enormous costs. As this script shows, humankind has yet to completely conquer the western environment.

Group Discussion Questions

Instructions: The facilitator should pose one or more of these questions in advance of the reading of the script. At the conclusion of the reading, participants can return to the questions for consideration.

1. How do cultural attitudes and beliefs underscore Kansans' use of water for agriculture, urban development, and recreation?
2. What impact did Kansans' water use have on the land itself? How have the water resources of Kansans in turn shaped human life in Kansas?
3. How do we reconcile immediate, short-term needs for water in the fields and cities, as well as in wildlife habitats, with long-term sustainability in Kansas?
4. Does the public have a right to water?

Script

Instructions: Each part will be read out loud by an assigned reader. Readers should stand and speak into a microphone when it's their turn. The source of the quote should also be read out loud (this is the information bolded beneath each quote).

NARRATOR *Episode One – The Desert Becomes a Garden?*

Upon his explorations through western Kansas in 1820, Major Stephen H. Long proclaimed the region the “Great American Desert.” He deemed the flat, arid, treeless plains “almost wholly unfit for cultivation, and of course uninhabitable by a people depending upon agriculture for their subsistence.” For a republic built upon family farmers, this was a damning conclusion. Decades later, those wishing to promote the settlement of the Great Plains had to reframe this image of western Kansas. Railroad land agents highlighted the region’s water resources, as well as its potential for agriculture and industry. The desert had become a well-watered garden.

READER 1 Pure Sweet Water is abundant everywhere, and is found in springs and running streams, and when in wells, at a depth of from six to fifty feet . . . Experts confidently predict that the Arkansas Valley is to become as famous for its manufacturing interests as for its agricultural superiority.

Atchison, Topeka, and Santa Fe Railway Company promotional publication, Topeka, July 1877

READER 2 Here is a spot which until lately was looked upon as an impracticable waste, remote from any hope of agricultural or communal development, beyond the possibility of usefulness save as a grazing ground for cattle, a spot apparently slighted by nature and forgotten of man. Look! How the unforeseen comes to pass. See, now, this same tract transformed into a garden spot, yielding crops remarkable even in a state the value of whose farm products in a single year touches \$150 million.

G.E. Tewksbury, *Kansas Picture Book*, published in Topeka, July 1883

READER 3 The universal belief, which until within a very recent period prevailed, that the whole west half of the State could never be utilized for any purposes of production, except the growth of wild or native grasses upon which to graze domestic herds . . . Has gradually given way to the conviction . . . That climatic conditions favorable to agriculture are surely being established throughout the region.

Fifth Annual Report of the Board of Railroad Commissioners for the Year Ending December 1, 1887, Topeka

NARRATOR

Many Kansas settlers and town boosters claimed that “rain would follow the plow.” They were convinced that increasing water diversion for crops would add humidity to the climate and produce more rain. Wet weather in the 1880s upheld these convictions. When dry years eventually came, irrigation technology kept the region productive. Those with the gumption to invest in irrigation infrastructure could certainly make money in the increasingly market-oriented farm system of the United States. Residents of the new “garden” dreamed of a population explosion and a never-ending abundance of water that would allow them to master the climatic challenges of the arid region.

READER 4

Geologists, who have investigated the subject, agree that a large portion of Kansas has beneath the surface inexhaustible supplies of pure cold water at a depth of 10 to 200 feet, available for irrigation purposes. Every investigation affords further evidence of the quantity being unlimited, and its inexpensive pumping and storage in reservoirs for any use are made readily practicable by the modern windmill.

Union Pacific Railway Company promotional publication, Omaha, Nebraska, 1909

READER 1

The irrigation of Arkansas Valley lands has been an accomplished fact for the past 17 years. A sufficient flow of water in the river is available at all times for irrigating purposes, and large meadows of alfalfa cover the valley from one side of the County to the other. Irrigation is practically crop insurance.

Within easy walking distance of the city are numerous tracts of irrigable land now under the ditch. Five acres of this land in the hands of an enterprising young man would make him a fortune if farmed to vegetables.

Lucile M. Thompson, *Souvenir Booklet of Hamilton County and Syracuse, Kansas*, 1909

NARRATOR

The centerpiece for the first irrigation projects in western Kansas was the Arkansas River, which enters Kansas from southern Colorado in Hamilton County and exits into Oklahoma south of Wichita. The river provided surface water and a few feet of sub-surface “underflow” for irrigators. But some Kansans at the turn of the 20th century observed that this water supply was beginning to decline. The neighboring state of Colorado also knew the benefits of the well-watered “garden.” The battle for irrigation water from the Arkansas River became the basis for a monumental U.S.

Supreme Court case, Kansas v. Colorado. Many Kansans wrote to Governor W.J. Bailey in support of the case, and later submitted official complaints for the record, citing lack of water for industrial, urban, and especially agricultural uses.

READER 2

These sagebrush subduers and melon manipulators, proceeded to sequester and steal, to appropriate and apply, the entire flow, known and enjoyed as the Arkansas River . . . to the great damage of the bona fide land-owners [of Kansas]. . . . This unlawful appropriation, though perpetrated in broad day light . . . was a piece of sneak-thieving, so insidiously consummated and withal with such an air of innocent indifference as would have deceived the very elect.

M.M. Murdock¹, "An Open Letter to Governor Bailey," *The Wichita Daily Eagle*, 1903

READER 3

Our people feel a special interest in this litigation, for the reason that we use the water from the Arkansas River for manufacturing purposes here, and since Colorado has been using so much of it through these irrigating ditches, we have three or four months in the summer, that we are unable to get a sufficient supply of water to run machinery that now relies upon this power.

Mack Love to Governor W.J. Bailey, representing the Arkansas City Commercial Club, March 17, 1903

NARRATOR

M.M. Murdock took the lead in the citizens' battle against what he viewed as Colorado's "unlawful" appropriation of water and "sneak-thieving." He was one of many Kansans who submitted testimonies regarding the water needs of the city of Wichita.

READER 2

We have not complained particularly against any ditches in Kansas. . . . It was the big corporation ditches of Colorado that convinced us that in a little while we would have no river at all, and the bed would be filled with shifting sands. I am not in favor of anybody destroying the river, and our contention really was to retain sub-irrigation and the navigability of the river and sewerage for the cities along its course.

We could not build a city here or anywhere else without water—without river sewerage. . . . If we could have made the river navigable so that boats could have gone up and down the river, at least as far as to Wichita, that would have fixed the question of freight rates and we would now have a large city of from 100,000 to 200,000 people where now we have only 35,000.

M.M. Murdock, *State of Kansas v. Colorado: Abstract of*

Complainants' Testimony, August 15, 1904

READER 4

In the months of June and July the snow used to melt in the mountains and we got a full flow of water in the river, and we could depend upon that in the bottoms to carry us through the dry season, just when our corn was maturing on the bottoms. . . . We then got this sub-irrigation, which rises and falls with the river. When the river is comparatively dry, we don't see but little of this sub-irrigation.

Our own bottom lands and others similarly situated are not as valuable and productive as they would be if the river had remained as it was during the first fifteen years that I lived here. Crops of corn and potatoes and crops of that kind are not as certain as they were.

John W. Harrison, *State of Kansas v. Colorado*: Abstract of Complainants' Testimony, August 15, 1904

NARRATOR

Despite the compelling testimony, the state lost its case. In his majority brief for Kansas v. Colorado, filed in 1907, Supreme Court Justice (and former Kansas judge) David Brewer created a new legal doctrine that considered the "equity" of water rights. As long as both Colorado and Kansas prospered economically, no loss of rights in Colorado was necessary, even if that disturbed the natural flow of the Arkansas River.

Kansans would have to turn to other water sources to help realize the development they desired. The Kansas Water Appropriation Act of 1945 laid the foundation for using water from deep underground aquifers for irrigation practices, as well as for building dams and reservoirs to store water for municipal use.

READER 3

Unused water cannot widely be held in perpetuity for a common-law owner who may never have use for it, without resulting in underdevelopment, permitting the water to flow out of the state and on toward the ocean, as an economic waste and loss of a valuable natural resource.

George Knapp², rationale for the 1945 Kansas Water Appropriation Law, 1945

READER 1

Our rivers in Kansas have led a pretty lazy carefree existence . . . harnessed to full time jobs by multiple purpose dams and reservoirs these streams can do much to help us in expanding agriculture, business and industry in the state.

"Kansas Rivers to 'Go to Work' When Tamed by Control Program," article in the *Kansas Business Magazine*, January 1946

NARRATOR *The challenges of tapping into underground water resources for agricultural uses soon became apparent. Pumping the Ogallala Aquifer, a deep subterranean lake stretching from Texas into South Dakota and from eastern Wyoming to central Kansas, would deplete a finite resource. Irrigated farmland over the Ogallala Aquifer increased from 2.1 million acres in 1949 to 13.9 million acres in 1997. Scientists have estimated that the three billion acre-feet of water originally in the underground store have been depleted by more than one billion acre-feet. Half of the remainder will remain inaccessible to farmers due to the inescapably high costs of pumping it from such depths.*

READER 4 The vast body of water below the soil is not sufficient to make all the land above it blossom in this new way. Engineers say too heavy use of the water will dissipate the supply and many years would be required for the underflow that feeds the basin to replenish it. Somewhere there must be an end to the pumps that go down if irrigation is to continue as a profitable venture.

Don Evans, reporter for the *Kansas City Star*, September 15, 1946

READER 1 When we started out, everyone thought that water was an inexhaustible supply—just a bottomless pit. But the more straws you put in a bucket, the sooner it's going to go dry.

Ed Molitor, interview with Victoria Foth and the Kansas Natural Resources Council, Dodge City, 1988

READER 2 The vast freshwater reservoir beneath the prairie formed 5 million to 10 million years ago as streams draining from the Rocky Mountains deposited water in the clay, sand and gravel beneath the Great Plains. ... The recharge rate for the Ogallala in this part of Kansas is less than 10 percent. So for every 10 inches pumped out a year, less than one inch is replaced, even in the best conditions. Once emptied, it would take 6,000 years to refill the Ogallala naturally.

Lindsay Wise, reporter for the *Kansas City Star*, July 24, 2015

READER 4 When irrigation itself comes into doubt, the question is whether this agricultural heartland, upon which the nation and the world have learned to depend, can be sustained in any acceptable way.

John Opie, *Ogallala: Water for a Dry Land*, 1993

READER 3 People survived out here on dryland farming. I can do it. Here's the cost: My community is going to wither away.

Brant Peterson in Johnson City, Stanton County, interview with Lindsay Wise, the *Kansas City Star*, July 24, 2015

NARRATOR *Episode Two – Conflicts over Water in Modern Kansas*

Continued farming of the Great Plains constitute only one element of the water use debate in Kansas. Urban areas also became a concern in the 20th century, one that drove the creation of more than 25 dam and reservoir systems throughout the state. For cities in western Kansas, the need to present a civilized and “oasis”-like image through the pumping of groundwater for city beautification and domestic use was epitomized best by Garden City, whose very name evoked a culture of technological mastery over water in an arid region.

However, beauty was not the only goal of urban water users. Industry and the growing number of households in cities like Wichita also demanded water. Wichita was determined to pump water from the Equus (Ek-wus) Beds aquifer, an underground reservoir of water near Halstead named for the horse fossils found in the rock. Wichita's demand for water produced a heated debate between city officials and farmers in central Kansas.

READER 2 Neither the Kansas State Board of Agriculture nor the Division of Water Resources, nor George Knapp has any authority . . . to regulate, allocate, distribute, grant or withhold permission to take water by means of wells.

Plaintiffs Petition, *Kansas ex rel. Bernard Peterson v. Kansas State Board of Agriculture*, Kansas Supreme Court Case, September 7, 1943

READER 1 An owner of land owns its surface and underground water by the same title as he owns the land itself . . . The land itself, or any of its parts, is a public resource in the sense that it may be taken for a public use, or the state may prohibit its waste or its use in a manner detrimental to others.

We have no statute which authorizes the Division of Water Resources to regulate, allocate or otherwise interfere with the use and consumption of underground waters.

Justice W.W. Harvey, Kansas Supreme Court, quoted in the *Halstead Independent*, June 10, 1944

NARRATOR *Though the Kansas Supreme Court ruled against the Division of Water*

Resources, the Kansas Water Appropriation Act of 1945 gave that body new authority over water rights decisions. Spearheaded by George Knapp and a committee seeking to make access to water more equitable across the state, the law eased the way for Wichita to use groundwater from the Equus Beds. The city's population and industrial growth gave it a strong claim for the water in a state that prized economic development, but residents of the Halstead area continued to fight the diversion of water.

READER 3

Wichita, and probably several other towns in this area, will need greatly augmented surface supplies in the near future if industry is to be encouraged . . . Wichita may have to develop a "sky is the limit" approach if industrialization is to continue at anything near the rate of experience in recent years.

"Giant Canals Possible As City Water Source," *Wichita Evening Eagle*, August 20, 1954

READER 4

We must have additional water, and we intend to get it in an orderly, decent, neighborly fashion if possible. Failing that, we would be derelict in our duty to the citizens of Wichita if we did not pursue every remedy the law permits.

A.E. Howse³, responding to a suit by the Central Kansas Water Conservation Association, Wichita, 1954

READER 1

They come with this \$11 million cross of gold after our water, and they offer us a [crown] of thorns.

Charles Wilson of Burrton, quoted in the *Wichita Evening Eagle*, August 20, 1954

NARRATOR

Wichita won a favorable ruling from the U.S. Supreme Court in 1956, and began pumping from the Equus Beds aquifer. The city added Cheney Reservoir water to its municipal water supply in 1965. By the 1990s, water in the Equus Beds had begun depleting and the city increased the proportion of reservoir water in use to allow the aquifer to recharge. New solutions for supplying water are more and more necessary.

READER 2

An aquifer that provides Wichita with almost half of its drinking water will be refilled with about 65 billion gallons of water from the Little Arkansas River. A five-year, \$5 million study of the river by the United States Geological Survey determined that the water could be used to refill the Equus Beds aquifer if it was treated by the city. City officials have said that without a new source Wichita could face a water shortfall in 15 years. The river water would meet the city's needs for the next 50 years.

Elizabeth Stanton, "Kansas: Drinking Water for Wichita," *New York Times*, January 8, 2002

NARRATOR

The Kansas Water Office recently set five-year goals to maintain an annual balance between groundwater withdrawal and the recharge rate of the aquifer in Halstead. Use of these water resources remains a pressing topic among citizens of the Wichita area.

Meanwhile, the diversion of water for the maintenance of the Cheyenne Bottoms Wetlands also produced controversy.

READER 4

During wet years hundreds and thousands of waterfowl, cranes, snipes, and gulls stopped here on the migration in the spring and fall. This made good hunting for recreation, sport, food and even commercial hunting for the market was carried on. An estimated one half million ducks were killed in 1904.

[In the 1930s] the local sportsmen and Fish and Game Department became active in getting federal aid to make it a permanent lake by digging a ditch to [the] Arkansas River and that way keeping a supply of water.

Frank W. Robl⁴, in the article "The 'Duck Man' Writes About Cheyenne Bottoms," Ellinwood, Barton County, 1958

NARRATOR

Development of the Cheyenne Bottoms into a series of divided lakes in the 1950s was funded largely by federal dollars and hunters' licensing fees. This led to an emphasis on hunting and recreational purposes, although two of the five lakes on the 20,000-acre site are protected. The lack of surface water in the Arkansas Valley in recent decades, however, has prevented the system of pools and diversion technology from always working as designed. A battle between irrigators and recreational users of the Cheyenne Bottoms developed, and even the youngest of Kansans registered their opinions.

READER 3

Governor Finney,
You may already know about the argument between the farmers and the animals in Cheyenne Bottoms. I don't think that farmers have the right to take over animals' homes. Most animals were here before they even came. The farmers aren't thinking very much of the animals that they're killing, but only of themselves and their land. Animals should not be wasted, that's all [we're] doing by killing them is wasting living things. The water is not the farmers', it's the world's. And if they can't grow crops by the amount of rain they get there, they should not be farming in

that area!

Alysia Kysar, Fifth Grader from Liberal, March 19, 1991

READER 1

They tried to paint it as “ducks vs. agriculture,” and we looked at it more as we’re trying to salvage a system, and left unchecked, communities are going to start drying up.

Karl Grover, Area Wildlife Manager, Cheyenne Bottoms Wildlife Area, Ellinwood, Kansas, 2015

READER 2

If you've got a forested part of your land, it's considered wasteland for tax purposes, unless it is actively agriculture or actively developed or it's residential, it's considered wasteland. . . . The powers that be consider this wasted land because it's not being farmed. And I think in many ways that was kind of the attitude toward Cheyenne Bottoms by a lot of the folks, that "it's just birds, and you know, who cares." And I don't think that they really understand how much [bird watchers] spend every year. It's literally billions of dollars. And for whatever reason, Kansas hasn't bought into that, psychologically. We have not tapped our special places. . . . It almost buys into this notion that you drive through Kansas at night because there's nothing here to be seen.

Joyce Wolf, Board of Trustees, Audubon Society of Kansas, 2015

— End —

Instructions: The facilitator will now return to the questions found on page 3 for consideration and discussion by the group.

At the conclusion of the event:

- ***The local coordinator will indicate whether the scripts need to be returned.***
- ***The page titled Citations is intended to be a take-home handout for participants.***

Notes:

¹ **Marshall M. Murdock** (1837-1908), formerly the editor of a newspaper in Burlingame, Kansas, moved his family to Wichita and established the *Wichita Daily Eagle* in April of 1872. In his salutatory editorial, he wrote: “To the interests of Wichita, the queen city of the Southwest, the prospective commercial metropolis of this grandly rich domain, the seat of empire and the political centre of what must soon become a densely settled portion of this young commonwealth; as, also, to the material interests and the development of every resource of the people of both county and city, the Eagle will be honestly and earnestly devoted.” A state legislator and director of the Kansas State Historical Society, Murdock was indeed devoted to promoting his state’s interests, as seen here in his vigorous defense of Kansas’s rights to the waters of the Arkansas River. His son, Victor Murdock (1871-1945), also edited the *Wichita Eagle* and became a prominent member of the Progressive Party in the early twentieth century.

² **George Knapp** (1884-1966), as stated by historian James Sherow, “played the pivotal role in how Kansans developed water for economic purposes, negotiated water conflicts with other states, and created laws to regulate the uses of water within the state.” Knapp matured during the age of progressivism and conservation, and was particularly influenced by the utilitarian arguments of the conservation movement. He first began working for Kansas water users in Garden City at the USDA’s Irrigation Investigation Office in 1914, when pump irrigation was becoming popular and people were beginning to advocate for revised water laws. Governor Henry J. Allen appointed Knapp Commissioner of Irrigation in 1919, and in that office he sought to unify water laws across the different regions of the state and to make compacts with neighboring states concerning interstate waterways. In 1927 he was made chief engineer of the Division of Water Resources under the State Board of Agriculture. He served in that capacity for 24 years, during which period he spearheaded the 1945 Kansas Water Appropriation Act and various interstate river compacts, including the 1949 Arkansas River Compact.

³ **Alfred E. Howse** (1908-1986) was a Wichita city commissioner and mayor during the late 1950s, when issues of water appropriation for the city came to a head with the construction of the Cheney Reservoir and pipes to the Equus Beds. He led the charge for tapping this water source, which he considered “underutilized.” As historian Craig Miner put it, “it was a modern, high technology method for solving a modern problem,” and a contest of “industry, growth, urban modernism, and the environment . . . typical of Kansas in the late twentieth century.”

⁴ **Frank Robl** (1896-1976), a farmer near Ellinwood, Kansas, became famous in the 1920s as the “duck man.” He began banding ducks in the Cheyenne Bottoms, located five miles from his home, in 1923. These birds were recovered all over the North American continent. According to the Kansas State Historical Society, in the course of Robl’s work “about 18,842 birds were banded and more than 16,000 of these were ducks. This early banding contributed much to our knowledge of the varying migration patterns, longevity, survival and general life history of our many species of ducks.” Robl’s data underscored the value of the Cheyenne Bottoms as a wildlife refuge, and he served as an ambassador for federal and local projects to protect the habitat and develop the wetlands’ recreational potential for over fifty years.