

# 1995: 800 Series

In this season, *Sunflower Journeys* visits the twelve major river basins of Kansas, presenting three water-related stories associated with that region each week. Continuing with the theme of Water in Kansas, subsequent programs will pursue a variety of topics, all relating to the ever-important presence, or lack thereof, of water in our state.



## #801: “Water in Kansas”

*Water is an important resource in Kansas, especially to farmers who rely on irrigation to grow their crops.*

**Thinking about Water:** The season premiere begins with an historical review of attitudes towards water in Kansas. Professor of history at Kansas State University, Jim Sherow joins us to sort out changing perspectives on the role of water in our lives.

**Water Law in Kansas:** Law professor Myrl Duncan from Washburn University and John Peck from the law school at the University of Kansas provide an overview of water law in our state.

**Kansas Water Plan:** Stephen Hurst, Director of the Kansas Water Office, and David Pope, Chief Engineer with the Division of Water Resources, present the Kansas Water Plan’s strategy for water management.

## #802: “The Kansas/Lower Republican River Basin”

**Pawnee Village:** The Republican River derives its name from the Republican band of the Pawnee Indians. *Sunflower Journeys* visits the restored site of a former Pawnee village along the Republican River. Curator of the Pawnee Village Museum, Richard Gould explains what the wealth of historical artifacts uncovered at this site tell about the Pawnee. Retired state archeologist Tom Witty discusses how the Pawnee adapted their way of living to the natural water resources.

**Agriculture & Atrazine:** Learn why some farmers are participating in a voluntary program intended to reduce runoff of agricultural chemicals. Dale Lambley of the Kansas Board of Agriculture and Mike Pope from the US Geological Survey discuss how the program works and why it is beneficial. Lobbyist for the Kansas Natural Resource Council and the Kansas Sierra Club, Bill Craven remarks on the hazards of agricultural chemicals in our streams and lakes.

**Stream Sampling:** *Sunflower Journeys* joins a group of Berryton school children as they learn how to monitor the quality of local streams. Part of a program being developed by the Kansas Department of Health and Environment, the stream monitoring offers school children an opportunity to develop a stronger sense of stewardship towards our natural resources.

## **#803: “The Smoky Hill/Saline River Basin”**

**Dust in the Ditches:** Constructed near Hays on the Smoky Hill River in 1951, Cedar Bluff Reservoir incorporated a system of canals to distribute water to area farmers. John Ratzlaff, professor of geo-sciences at Ft. Hays State, describes the construction of the Cedar Bluff irrigation district. Harold Krauss, an Ellis County farmer, relates how the canals—now dry because of declining supplies in the reservoir—have affected farming in this region.

**Heartland Mill:** Visit a marketing outlet for organic crops in Marienthal, Kansas. Community owned and operated, Heartland Mill markets a variety of flour and other products made from organically grown grains. Mark Nightengale, general manager of this commercial enterprise, explains why organic farms may be using less water. Wes Jackson, president of The Land Institute in Salina, discusses why organic farming may be just one step towards maintaining agriculture in the semi-arid plains of western Kansas.

**Water Transfer, Hays:** Learn how the city of Hays plans to acquire water from a distant ranch. After purchasing the Circle K Ranch in Edwards County south of Kinsley, the city intends to construct a pipeline to import water from the ranch. John Peck, professor of law at the University of Kansas, describes the legal framework of such water transfers. Marjorie Scheufler, Edwards County Commissioner, and Richard Wenstrom, a farmer in Edwards County, describe the local reaction to the proposed water transfer.

## **#804: “The Cimarron River Basin”**

**Heart of the Dustbowl:** The extended drought of the 1930s left a large segment of southwestern Kansas without vegetation or topsoil. Farmers Pat and Hazel Murphey from Protection, Kansas, recount their experiences as they endured the famous “Black Sunday” dust storm of 1935. Noel Ary, director of the Kansas Heritage Center in Dodge City, explains why changes in farming practices minimize the chances of a recurrence of the Dustbowl.

**Energy for Irrigation:** *Sunflower Journeys* explores energy and irrigation as we visit Hugoton, where the largest natural gas field in the U.S. was discovered in the early 1920s. John Clark, professor of history at the University of Kansas, relates how the natural gas field facilitated irrigation and the development of large-scale farming in the region. Larry Kepley, a Hugoton area farmer, recalls the boom of irrigation, and explains why his wells are producing less water each year.

**Ogallala Task Force:** In 1992, the Kansas State Board of Agriculture appointed a task force to address the problem of the depletion of the Ogallala Aquifer. Steve Irsik, a Gray County farmer and chairman of the Ogallala Task Force, describes the strategies developed by the task force to help extend the life of this limited resource. Sam Forrer, a Ulysses banker, and agronomist Jim Schaffer offer their perspectives on the importance of the aquifer to the local economy.

## **#805: “The Upper Arkansas River Basin”**

**Beef Empire, Garden City:** *Sunflower Journeys* visits Garden City during the summer festivities of Beef Empire Days. Mary Warren, director of the Finney County Historical Museum, relates the developments that led to the location of huge beef packing plants in southwestern Kansas. Jack Reeve, a retired veterinarian, recalls the circumstances that contributed to the creation of large feedlots, which supply fattened cattle to the packing plants.

**Reeve Cattle Company:** Take a closer look at the Reeve’s family business as we visit Reeve Cattle Company near Garden City. Here, the unlikely combination of cattle feeding, ethanol production, and fish farming partner in a successful business venture. Lee Reeve and Joe Burnside describe the process by which limited groundwater supplies are used throughout the three facets of the business.

**Water Witching:** When the family well ran dry 60 years ago, Albert Wegele of Otis, Kansas, was directed by his father to take a divining rod and find some water. *Sunflower Journeys* joins Albert as he demonstrates the art of “water witching.” Relaxing beside a well his father had “witched” years ago, Emporia State University English professor Jim Hoy talks about his personal experiences with dowsing and the lore behind this practice.

## **#806: “The Upper Republican River Basin”**

**Arikaree Breaks:** *Sunflower Journeys* visits the badlands known as the Arikaree Breaks. Jim McCauley from the Kansas Geological Survey explains how geological forces acted together to form the picturesque ridges and deep canyons of the Arikaree Breaks. Craig Freeman of the Kansas Biological Survey describes how the landscape and the semi-arid climate determine what kind of plant life survives here.

**Conservation Reserve Program:** Learn about a farm program that has successfully slowed the erosion of farmland soils. As the current Conservation Reserve Program (CRP) draws to a close, Keith Kisner from the Rawlins County Soil Conservation Service, explains its goals and the benefits it has produced. Rawlins County farmer A.B. Fisher takes us to some of the land he has enrolled in the CRP and explains why he considers it important to provide for future soil conservation programs in the 1995 Farm Bill.

**Groundwater Management:** The depletion of the Ogallala Aquifer through irrigation is a worsening problem in western Kansas. *Sunflower Journeys* investigates how one group proposes to manage this valuable resource. Wayne Bossert, manager of Groundwater Management District #4, headquartered in Colby, describes a four-pronged approach intended to slow the rate of groundwater depletion.

## **#807: “The Lower Arkansas River Basin”**

**Oxford Mill:** Constructed on the banks of the Arkansas River in south central Kansas in the 1870s, Oxford Mill is one of the few remaining water-powered flour mills in Kansas. Ramon Powers, Director of the Kansas State Historical Society, and Craig Miner, history professor at Wichita State University, discuss the historical significance of Oxford Mill and how its recent restoration has helped revitalize the town of Oxford.

**Cheyenne Bottoms:** Managed by the Kansas Department of Wildlife and Parks, Cheyenne Bottoms is an important stop on the flyway of numerous migratory birds. Jim Koelliker, Professor of Civil Engineering at Kansas State University, relates the challenges of maintaining adequate water levels in this wetland area. David Pope, chief engineer of the Division of Water Resources, explains how Kansas’ water law is continually modified to meet changing water supplies and demands.

**Water for Wichita:** Bill Cather, Wichita City Council member, David Warren, director of Wichita Water and Sewage, and Mike Dealy, manager of the Equus Beds Groundwater Management District, explain why the city’s water resources are running out. They also discuss various proposals that may help solve the forthcoming water crisis in Wichita.

## **#808: “The Neosho River Basin”**

**Diamond Springs:** For travelers along the Santa Fe Trail, Diamond Springs was an important stop where they could replenish water supplies. Jim Hoy, professor of English at Emporia State University, and Dan Fitzgerald, author of *Ghost Towns of Kansas*, talk about the history and legends associated with the spring, which still produces cold, pure water.

**Streambank Stabilization:** In 1993, Neosho County became one of three counties in the state involved in a pilot project to develop riparian area and wetland protection plans. Learn why it is important to preserve these areas. Phil Balch of the State Conservation Commission relates how wetlands are being destroyed, and reports on some of the programs that help landowners restore and protect their wetlands.

**Wolf Creek Power Plant:** Craig Miner, history professor at Wichita State University, describes the role water played in the location of the Wolf Creek Nuclear Generating Station near Burlington. Manager of corporate communications at Wolf Creek, Mona Grimsley outlines how water helps to generate power at Wolf Creek. Brad Loveless, Wolf Creek’s superintendent of resource protection, summarizes the company’s efforts to preserve the nearby aquatic environment.

## **#809: “The Verdigris River Basin”**

**Civilian Conservation Corps:** Created during the Depression, the Civilian Conservation Corps (CCC) provided employment for thousands of young people in Kansas. *Sunflower Journeys* visits with alumni from a CCC work camp near Neodesha. Lloyd Sponholtz, history professor at the University of Kansas, reviews the function of the CCC, which was initiated by President Franklin Roosevelt as part of the New Deal.

**Wild & Scenic Rivers:** We stop by the Caney and Fall Rivers, to learn about the National Wild and Scenic Rivers Act. Larry Zuckerman, an aquatic ecologist from the Kansas Department of Wildlife and Parks, explains the purpose of the act. You will also learn about the Nationwide Rivers Inventory, in which 21 different river segments on 16 different Kansas streams are listed.

**Canoeing in Kansas:** *Sunflower Journeys* takes you canoeing on Fall River with members of the Kansas Canoe Association. John Peck, law professor at the University of Kansas, explains the laws that govern canoeing in Kansas and public access to streams passing through private property.

## **#810: “The Walnut River Basin”**

**Windmill Repairman:** One of the most common sights on the Kansas landscape used to be the windmills that drew water for humans and their livestock. In this story, meet Chuck Jones, who has been in the business of repairing windmills for the past 15 years. Operating out of Benton, Jones’ corner store has been a windmill repair shop for more than 100 years. We also meet the previous owner of the shop, Henry Nelson, who taught Jones the business.

**Industrial Waste Disposal:** Learn how a group of concerned citizens rallied to stop operations in a hazardous waste site that was contaminating the local water. Sarajane, Blaine, and Bruce Bodecker, farmers who live near the site, recall why local residents opposed it. Patrick Craig, who now supervises the site near Furley, describes current operations there, and professor of environmental engineering at KU, David Graham outlines the ongoing dilemma of hazardous waste disposal.

**Drinking Water Treatment:** *Sunflower Journeys* visits the water treatment plant in El Dorado. Drawing its supply from El Dorado Reservoir, the plant provides water to most of Butler County. Richard Porter, director of public utilities, and Kurt Bookout, superintendent of the water treatment plant, describe how the water is purified as it passes through the plant.

## **#811: “The Solomon River Basin”**

**Waconda Springs:** Noted as a sacred spot for the Pawnee and other Plains Indian tribes, Waconda Springs was flooded in 1970 by the waters of Glen Elder Reservoir. In the first story this week, Jim Marshall, who conducted archaeological salvage at many reservoir sites, remembers Waconda Springs and the lore associated with it. Rita Napier, history professor at the University of Kansas, explains why natural sites like the springs were viewed as sacred by native people.

**Cottonwood Ranch:** *Sunflower Journeys* visits an historic sheep ranch near Hill City. Dale Watts, site resource manager and Don Rowilson, site curator, review the history of the Cottonwood Ranch, which was purchased by the Kansas State Historical Society in the early 1980s. Barry Newton, professor at the University of Kansas School of Architecture, discusses the historic significance of the limestone structures, which are currently being restored.

**Critters in the Creek:** Robert Angelo, from the Kansas Department of Health and Environment, explains how high levels of bacteria from livestock wastes can contaminate Kansas streams. James Steichen and Joseph Harner, from Kansas State University, discuss a pilot project developed by K-State that could help livestock producers modify their operations and control runoff into nearby rivers and streams.

## **#812: “The Missouri River Basin”**

**Steamboat Towns:** *Sunflower Journeys* remembers the heavy steamboat traffic that used to travel the Missouri River. Daniel Fitzgerald, museums administrator for the city of Atchison, talks about the reasons for the boom and bust of river towns like Doniphan, which sprang up along the Missouri River in the 1850s.

**Elwood after the Flood:** In the summer of 1993, floodwaters inundated many homes and businesses in Elwood. This story chronicles the impact the flood had this small, northeastern Kansas town. Mayor Sue Bartley and other Elwood residents describe the generous support they received from a variety of volunteers. Since the flood, local residents have been busy rebuilding damaged homes and businesses.

**Engineering the River:** The greatest casualties from the 1993 flood were buildings and farmland located in the floodplain of the river. Paul Johnston from the Omaha division of the Army Corps of Engineers, describes the strategies employed by the corps to keep residents safe from Missouri River floodwaters. Wakefield Dort, geology professor at the University of Kansas, explains why we can never expect to totally control the river’s flow.

## **#813: “The Marais Des Cygnes River Basin”**

**Dingus Natural Area:** *Sunflower Journeys* explores the wooded hills of the Dingus Natural Area near Mound City. Owned by the Nature Conservancy, this deciduous forest provides sanctuary for various species of wildlife. A biologist with the Kansas Department of Wildlife and Parks, Tom Swan joins Mound

City resident Robert Weese for a hike through this area. Botanist Craig Freeman of the Kansas Biological Survey talks about the different plant communities found here.

**Well Water Testing:** We hear about the results of a statewide survey of private water wells. Barry Brooks, who directed this survey for the Kansas Department of Health and Environment, describes the common problems associated with these wells and presents recommendations for protecting wells from various sources of contamination.

**The State of the Water:** We review some of the issues that have been presented in this series of programs, which has examined the status of water resources in Kansas. We hear about the concerns of western Kansas residents who must deal with a declining groundwater supply, and we see how issues of water quality have become the primary concern in eastern Kansas. Focusing on the future, we consider the importance of stewardship in managing our water resources.

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