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Monthly Water History in Kansas

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January

- **January 1, 1945**--The Kansas Water Appropriations Act became law on this date. The Act sets out the basic responsibilities of the Chief Engineer of the Division of Water Resources, Kansas Department of Agriculture, in administering the laws governing the conservation, use, development, and management of the water resources residing within Kansas, including the laws governing water rights, minimum streamflows, and diversion.
- **January 1, 1969**--Regulated storage began in Waconda Lake behind a 15,275-foot-long, compacted earthfill dam on the Solomon River in Mitchell County, north-central Kansas. The lake is used for flood control and as a municipal and industrial water supply for the city of Beloit about 12 miles downstream. The lake also supplies three rural water districts. The lake is managed by the Bureau of Reclamation in Grand Island, Nebraska.
- **January 1, 1970**--The National Environmental Policy Act was enacted. The act established a broad national framework to protect our environment. The basic policy of the act to assure that all branches of government give proper consideration to the environment prior to undertaking any major federal action that significantly affects the environment; to promote efforts which will prevent or eliminate damage to the environment; and to enrich the understanding of the ecological systems and natural resources important to the Nation.
- **January 16, 1967**--Storage began in Milford Lake behind a 6,300-foot long earth and rock dam on the Republican River northwest of Junction City, central Kansas. Milford Lake has 15,600 acres in permanent pool storage. The lake is used for flood control, conservation, and recreation and is managed by the U.S. Army Corps of Engineers, Kansas City District.

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February

- **February 17, 1948**--Storage began in Kanopolis Lake behind a 15,360-foot long earthen dam on the Smoky Hill River near Salina, Kansas. The lake is used for flood control, water supply, public recreation, fish and wildlife habitat, water conservation, and sedimentation. Kanopolis Lake is one unit in a system of lakes in the Smoky Hill and Kansas River Basins. The lake is operated by the U.S. Army Corps of Engineers, Kansas City District, in tandem with upstream Cedar Bluff Reservoir, a Bureau of Reclamation project, to regulate flows in the Smoky Hill River Basin. A portion of the lake storage is used to provide water to Post Rock Rural Water District, which in turn, supplies many Kansas farms and communities in the area.

- **February 18, 1985**--Kansas House Concurrent Resolution 5010 officially endorsed the planning process of the Kansas Water Office, known as the State Water Plan, and requested the State's water agencies to submit legislation to implement the proposals contained in the plan. In 1985, basin advisory committees were established for the State's 12 major river basins to advise the Kansas Water Office and the Kansas Water Authority on local water issues.
- **February 26, 1968**--Storage began in Marion Lake behind a 8,375-foot long dam on the Cottonwood River 46 miles north-northeast of Wichita, Kansas. The 6,210-acre lake provides flood control, water supply, and public recreation and is managed by the U.S. Army Corps of Engineers, Tulsa District.

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March

- **March 3, 1879**--The United States Geological Survey was established on this date in the closing hours of the final session of the 45th Congress, when the bill appropriating money for sundry civil expenses of the Government for the fiscal year beginning July 1, 1879, was signed by President Rutherford B. Hayes. Included in the bill was provision for a new agency in the Department of the Interior, charged with responsibility for "classification of the public lands, and examination of the geological structure, mineral resources, and products of the national domain." Clarence King was appointed the first Director of the new Survey by President Hayes.
- **March 15, 1960**--Storage began in Toronto Lake behind a 4,712-foot earthen dam on the Verdigris River southeast of Yates Center in Woodson County, southeastern Kansas. The 2,660-acre lake at conservation pool is managed by the U.S. Army Corps of Engineers, Tulsa District, and is used for flood control, water supply, water-quality control, fish and wildlife enhancement, and recreation.
- **March 15, 1962**--Storage began in Tuttle Creek Lake behind a 7,500-foot earth and rock dam on the Big Blue River north of Manhattan in Riley, Pottawatomie, and Marshall Counties, northeastern Kansas. The 12,350-acre lake at multipurpose pool is managed by the U.S. Army Corps of Engineers, Kansas City District, and is used for flood control, public recreation, fish and wildlife conservation, low-flow augmentation, and water-quality control.
- **March 16, 1964**--Construction began on a 7,750-foot earth and rock dam on the Delaware River northwest of Perry Kansas in Jefferson County, northeast Kansas. Behind the dam, 11,150 surface acres of multipurpose pool form Perry Lake, the 4th largest lake in Kansas. The lake is managed by the U.S. Army Corps of Engineers, Kansas City District, and is used for flood control, municipal and industrial water supply, public recreation, and fish and wildlife enhancement.
- **March 17, 1966**--Storage began in Elk City Lake behind a 4,840-foot earthen dam on the Elk River northwest of Independence in Montgomery County, southeast Kansas. The 4,440-acre lake at conservation pool is managed by the U.S. Army Corps of Engineers, Tulsa District, and is used for flood control, water supply, recreation, fish and wildlife enhancement, and water-quality control.

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April

- **April 15, 1999**--Marks the anniversary of the launch of Landsat 7. The satellite has captured more than 200,000 scenes of the Earth from U.S. and foreign ground-receiving stations, providing stunning detail of the Earth's surface. The satellite is proving to be a major resource for information about the land mass of the planet and builds on previous satellite data, providing

curcial long-term record of the Earth's land surface. In addition to environmental research, Landsat data is used by customers worldwide in the government, commercial and educational communities for applications in areas such as forestry, agriculture, geology, oceanography, land mapping, and geographic research. The USGS assumed complete mission operations responsibility for Landsat 7 from the NASA on January 12, 2001.

- **April 17, 1907**--The first water-quality statutes for Kansas (K.S.A. 65-164 et seq.) were enacted on this date. The statutes address State and Federal water-quality standards and permitting process and requirements for municipal and industrial discharges, including sewage, and for public water-supply drinking-water standards.
- **April 20, 1949**--Storage began in Fall River Lake southeast of Eureka, Kansas. The 6,015-foot long earthen dam in Greenwood County controls the Fall River, creating a 2,350-acre lake that is used for flood control, water supply, water conservation, and sedimentation control.
- **April 22, 1970**--Earth Day was officially celebrated for the first time in the United States.

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May

- **May 28-June 6, 1935**--Flooding in late May and early June in the Republican and Pawnee River Basins followed intense storms of northeast Colorado, northwest Kansas, and southwest Nebraska resulted in 10 lives lost and flood damage or destruction of 400,000 acres of farmland. Damages included 12,000 head of livestock lost and 3,000 homes destroyed or badly damaged.
- **May 7, 1937**--The first water-rights purchase statute for the State of Kansas (K.S.A. 65-164 et. seq.) was enacted. The statute addresses authority for State grants to purchase water rights not to exceed 80 percent of the total cost of the purchase price for the right.
- **May 15, 1941**--The Rural Water District Act (K.S.A. 82a-601 et. seq) was enacted. The act establishes and sets out the requirements for the formation of rural water districts, including but not limited to, taxation, and bond issuance of finance construction of improvements necessary to provide water supply to members.
- **May 3, 1956**--Storage began in Webster Reservoir near Stockton, Kansas. The compacted earthfill dam in Rooks County controls the South Fork Solomon River in northwestern and north-central Kansas, creating a 3,766-acre lake that is used for flood control and irrigation of approximately 8,500 acres of farmland.
- **May 18, 1989**--The Environmental Protection Grant Program started on this date. The program provides for State grants to local health departments or other local entities for the development and implementation of local environmental protection plans and programs.

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June

- **June 1844**--"Big Water" as it was referred to in Indian legend, was a severe flood resulting from a large storm that affected most of north-central and northeastern Kansas. Depths of floodwater reached 10 feet in much of the affected area. Property damage was minimal because the flood happened before permanent settlement of the area.
- **June 30, 1953**--The Kansas Watershed District Act was enacted on this date. The act establishes watershed districts to construct, operate, and maintain "works of improvement: on streams to assist in managing floodwater, erosion and sediment damages that occur in the watersheds of rivers and streams in Kansas".
- **June 25, 1977**--The U.S. Environmental Protection Agency's Safe Drinking Water Act went into

effect on this date. Provisions of the act set health standards for microbiological contaminants, 10 inorganic chemicals, 6 organic pesticides, turbidity (or murkiness) and radiological contamination. These are the first health-related drinking-water standards to apply to virtually all public water systems coast to coast.

- **June 14-15, 1981**--On the afternoon of June 14, a series of intense thunderstorms produced from 5 to 20 inches of precipitation in about 12 hours north of Great Bend. The storm affected about 300 square miles of tributaries to the Arkansas River upstream from Great Bend. The resulting runoff produced peak discharges on June 15 that were 1.5 to 3 times the discharge having a 100-year recurrence interval and caused about \$42 million in damage.
- **June 29, 1981**--Storage began in El Dorado Lake behind a 20,930-foot long rolled earthfill dam on the Walnut River 2 miles northeast of El Dorado, Kansas. The U.S. Army Corps of Engineers operated lake is used for flood control, water supply, water-quality control, and recreation.

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July

- **July 1, 1974**--The Western Kansas Weather Modification Program began. The Kansas Water Office (KWO) administrates the provisions of the Kansas Weather Modification Act which authorizes it to licence and issue permits for the cloud-seeding program (hail suppression and rainfall augmentation) of the Western Kansas Groundwater Management District No. 1. KWO also authorizes licenses and issues permits for other cloud-seeding programs that may operate in adjacent States and areas of Kansas that are close to the primary target area.
- **July 1, 1981**--The Kansas Water Office (KWO) was established. The KWO is the water planning, policy, and coordinating agency for the State of Kansas. It prepares a State plan of water resources development, management, and conservation, reviews all laws, and makes recommendations to the Governor and Legislature for new or amendatory legislation. KWO administers the Kansas Water Plan Storage Act, the Kansas Weather Modification Act, and the Water Assurance Act. It also reviews the plan of any State or local agency for the management of water and related land resources of the State.
- **July 1, 1983**--The Kansas Water Transfer Act was enacted. The act sets out the State's review procedures of applications for transferring water in quantities of more than 2,000 acre-feet for uses at a point outside a 35-mile radius from the point of diversion.
- **July 1, 1985**--The Multipurpose Small Lakes Program Act went into effect on this date. Provisions of the act authorize State financial participation for engineering and construction costs of multipurpose small lakes involving flood control, public water supply, and recreation benefits.
- **July 10-13, 1951**--Above-average precipitation in May and June 1951 and a 5-day rainstorm in July 1951 caused major flooding in more than one-half of Kansas. In some locations floodwaters reached depths of 15 to 20 feet. Total damage from the floods was unprecedented. Nineteen people lost their lives, 1,100 people were injured, and damage to property was established at 2.5 billion (about \$17 billion in 2000 dollars). To view the USGS commemoration of the 1951 floods in Kansas visit our Web site: <http://ks.water.usgs.gov/Kansas/waterwatch/flood.1951/>
- **July 22-27, 1993**--Above average precipitation fell in parts of Nebraska, Kansas, Missouri, Iowa, and Illinois during the 1992-93 winter, spring, and summer months causing major flooding. Damage to property was estimated at \$20 billion, and 48 people lost their lives because of the regional flood. In Kansas, discharge on the Kansas River was the largest since 1951, with peak flows of more than 85,000 cubic feet per second.

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August

- **August 4, 1954**--Small Watershed Program was enacted to help communities protect, improve and develop watersheds. Bee Creek Watershed District in Chautauqua County was one of the first watershed dams constructed. As of 2002, there have been approximately 1,500 watershed lakes built in Kansas
- **August 1, 1972**--Storage began in Melvern Lake behind a 9,700-foot long rolled earthfill dam on the Marais des Cygnes River near Melvern, Kansas. The U.S. Army Corps of Engineers operated lake is used for flood control, water supply, fish and wildlife conservation, water-quality control, and recreation.

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September

- **September 1, 1964**--Storage began in John Redmond Reservoir behind a 21,790-foot-long earthen dam across the Neosho River in Coffey County, east-central Kansas. The reservoir is used for flood control, water supply, water-quality control, and recreation. Contributing-drainage area for the reservoir is 3,015 square miles. John Redmond Reservoir is operated by the U.S. Army Corps of Engineers, Tulsa District.
- **September 12-13, 1977**--Two severe storms on successive days in the Kansas City metropolitan area resulted in as much as 11 inches of rainfall in 24 hours and peak discharges having recurrence intervals greater than 100 years on most streams that flowed through the area. Twenty-five lives were lost, and damage was estimated at \$50 million.
- **September 15, 1955**--Storage began in Kirwin Reservoir behind a 12,646-foot-long earthen dam across the North Fork Solomon River in Phillips County, north-central Kansas. The reservoir stores water for flood control and irrigation of 11,500 acres in the Kirwin Unit of the Missouri River Basin project. The Kirwin Unit has brought economic stability and improved agricultural production along the Solomon River, but its primary importance remains flood control. From 1955 to 1996, the Kirwin Dam prevented an estimate \$76 million in damage to property, of which \$55 million would have resulted from the 1993 flood alone. Kirwin Reservoir is operated by the Bureau of Reclamation, U.S. Department of the Interior.
- **September 19, 1981**--Storage began in Hillsdale Lake behind a 11,600-foot-long earthen dam across Big Bull Creek in Miami County, northeastern Kansas. The lake provides flood control, water supply, water-quality control, fish and wildlife habitat, and recreational opportunities. Hillsdale Lake controls downstream flow of water from a 144-square-mile drainage area. As part of the Osage River Basin System of lakes, Hillsdale also contributes to flood protection on the Marais des Cygnes, Osage, and Missouri Rivers. As a water-supply source, the lake can provide 17.3 million gallons of water each day for municipal and industrial needs of surrounding communities of Spring Hill and Gardner. Hillsdale Lake is operated by the U.S. Army Corps of Engineers, Kansas City District, and the Kansas Department of Wildlife and Parks manages the associated State Park.
- **September 25-28, 1973**--Abundant precipitation produced flooding in parts of Kansas. Eleven inches of rain fell during the 4 day period, and several locations reported precipitation in excess of 7 inches on September 26. The flooding was most severe in south-central Kansas along the Rattlesnake and Cow Creeks, in central Kansas along the Smoky Hill River and its tributaries, and in north-central Kansas along the Republican River and tributaries.

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October

- **October 6, 1964**--Storage began in Keith Sebilus Lake behind a 6,450-foot earthen dam on Prairie Dog Creek, 2.5 miles southwest of Norton in northwest Kansas. Water is released for the municipal needs of Norton, and releases for irrigation purposes are diverted by the Almena Diversion Dam, about 11 miles downstream.
- **October 9, 1964**--Storage began in Council Grove Lake behind a 6,500-foot earthen dam on Neosho River near Council Grove in east-central Kansas. The lake is used for flood control, water supply, and recreation.
- **October 18, 1963**--Storage began in Pomona Lake behind a 7,750-foot earth and rock dam on Hundred and Ten Mile Creek near Quenemo in Osage County, Kansas. The 4,000-acre lake is used for flood control, conservation, and recreation.
- **October 18, 1967**--The gates of Glen Elder Dam closed on this date to begin impoundment of Waconda Lake on the Solomon River in Mitchell County, Kansas. Glen Elder Dam is an earthfilled structure 15,275 feet long and the lake has 12,602 acres of surface area. Glen Elder Dam is one of the key flood control features in the Kansas River Basin and provides a high degree of flood protection to the lower Solomon River Valley. Waconda Lake also provides municipal and industrial water for Beloit, 12 miles downstream, and three rural water districts.

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November

- **November 1966**--The Kansas and Oklahoma Compact was ratified. Provisions of the compact include dividing equally the waters of the Arkansas River between the two states, promoting the orderly development of the water in the Arkansas River Basin, providing for an agency for administering the water apportionment to which the compacting parties agreed, encouraging the maintenance of an active water pollution abatement program in each state, and seeking further reduction in both man-made and natural pollution in the waters of the basin.
- **November 1-3 1998**--Several USGS streamflow-gaging stations in south-central and east-central Kansas recorded historical peak river stage and streamflows in early November 1998 as a result of a late fall rainstorm during the Halloween weekend. Some locations reported almost a foot of rainfall. The most significant peaks occurred at USGS streamflow-gaging stations on the Arkansas River near Maize, at Derby, and at Arkansas City, the Little Arkansas River near Halstead and Sedgwick, the Whitewater River at Towanda, the Chikaskia River near Corbin, and the Cottonwood River at Marion, near Florence, and near Plymouth. USGS technicians were out in force collecting streamflow data to document this significant flood.
- **November 13, 1950**--Storage began in Cedar Bluff Reservoir behind a compacted earthfill dam on the Smoky Hill River, southwest of Ellis in west-central Kansas. Total capacity of the reservoir is 870,400 acre-feet. The reservoir, which is managed by the Bureau of Reclamation, is used for flood control, irrigation of 6,000 acres, and recreation.
- **November 17, 1964**--Storage began in Cheney Reservoir behind a compacted earthfill dam on the North Fork Ninescaw River in Sedgwick County, south-central Kansas. Total capacity of the reservoir is 566,300 acre-feet. The reservoir, which is managed by the Bureau of Reclamation, is used for supplemental water supply for municipal and industrial purposes in the city of Wichita, fish and wildlife conservation, flood control, and recreation.
- **November 30, 1977**--Storage began in Clinton Lake behind a 9,250-foot earthen dam on the Wakarusa River, 4 miles west of Lawrence in northeast Kansas. The permanent pool of the lake covers 7,000 acres, and the total capacity of the lake is 683,400 acre-feet. The lake is used for flood control, as a supplemental water supply for the city of Lawrence and several rural water

districts, for conservation, and for recreation. Releases are controlled by the U.S. Army Corps of Engineers, Kansas City District.

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December

- **December 2, 1972**--The U.S. Environmental Protection Agency (USEPA) was established on this date. The mission of the USEPA is to protect human health and to safeguard the natural environment--air, water, and land--upon which life depends.
- **December 22, 1944**--The Flood Control Act as amended supplemented by other flood control acts and river and harbor acts, authorizes various U.S. Army Corps of Engineers water development projects. This statute expressed Congressional intent to limit the authorization and construction of navigation, flood control, and other water projects to those having significant benefits for navigation and which could be operated consistent with other river uses.
- **December 28, 1977**--The Clean Water Act (CWA) was signed into law. The CWA is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharge of pollutant waters of the United States. The CWA gives the U.S. Environmental Protection Agency the authority to set effluent standards on an industry basis and continues the requirements to set water-quality standards for all contaminants in surface water. The CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable water unless a permit is obtained. The 1977 amendments focus on toxic pollutants. In 1987, the CWA was reauthorized.
- **December 29, 1964**--Storage began in Wilson Lake behind a 5,600-foot earthen dam on the Saline River, 10 miles north of Wilson in Russell County, central Kansas. The permanent pool of the lake covers 9,000 acres, and the total capacity of the lake is 1,667,000 acre-feet. The lake is used for flood control; irrigation; public recreation; fish, wildlife, and water conservation; and low-flow augmentation. Releases are controlled by the U.S. Army Corps of Engineers, Kansas City District.

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