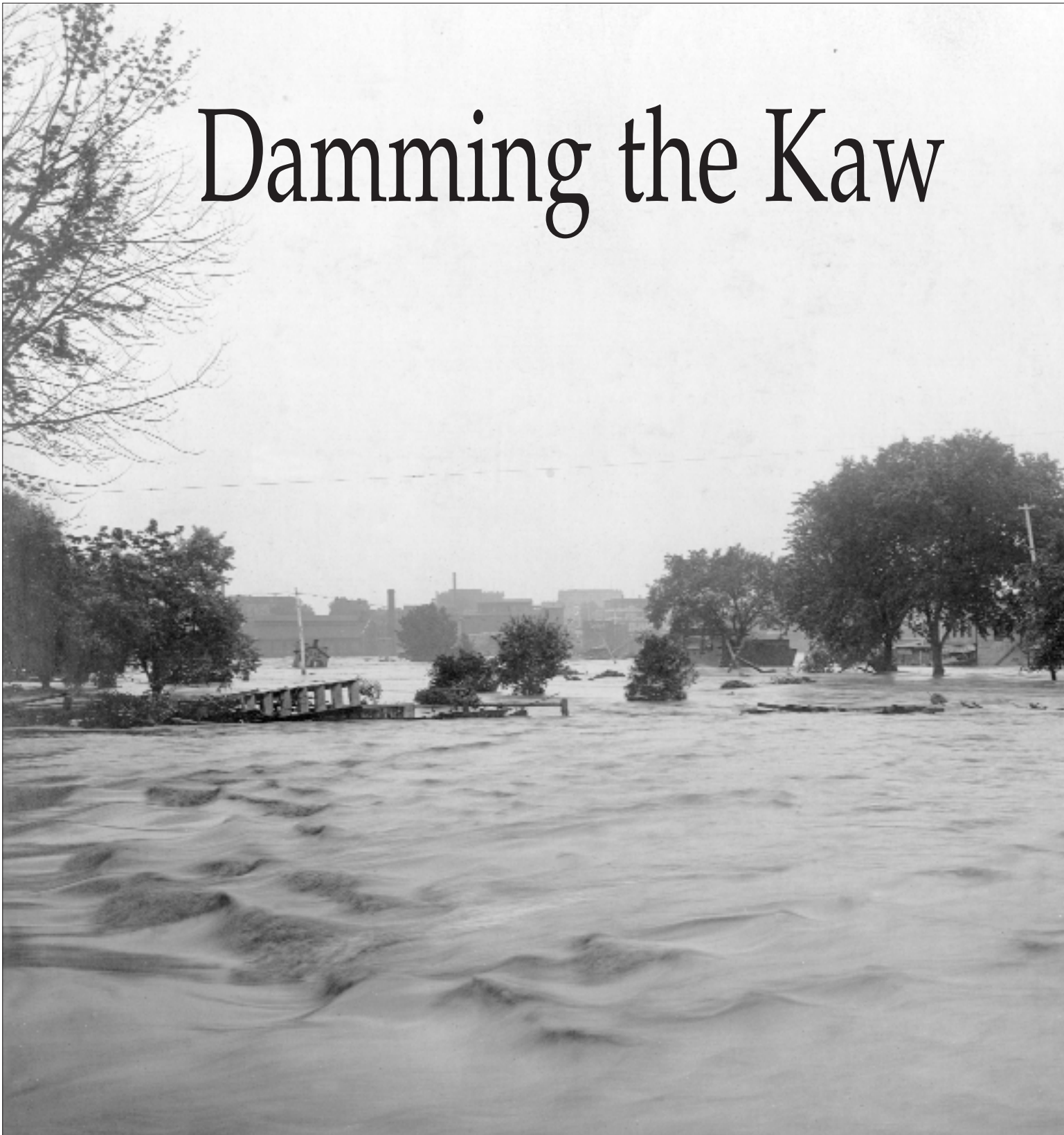


Damming the Kaw



The disastrous flood of 1903, photographed here in Lawrence, created a public outcry about controlling the Kansas River.



The Kiro Controversy and Flood Control in the Great Depression

by Dale E. Nimz

Inspired by the Great Depression, drought, and the perennial threat of flooding, advocates of a plan to dam the Kansas River in 1933 promised twelve thousand jobs, a “real lake,” and complete flood control for downstream cities. To kick off a desperately needed program of economic recovery in Kansas, President Franklin D. Roosevelt’s administration proposed to spend forty-five million dollars for the “biggest lake project ever undertaken in Kansas—damming the Kaw eight miles above Topeka to make a flood control reservoir from just above Kiro to Manhattan.”¹ Building the project in northeast Kansas on an important tributary of the Missouri River accomplished several goals envisioned by New Deal planners. The Kiro Dam (as it was called) would protect agricultural lands and cities in Kansas, store water for navigation on the Missouri River, and reduce flooding on the Mississippi River.

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1. “Huge Kaw Dam In Progress,” *Topeka Daily Capital*, May 16, 1933.

Kansas History: A Journal of the Central Plains 26 (Spring 2003): 14–31.



This 1933 map of the Kansas River, by the Army Corps of Engineers, designates the proposed Kiro Dam site, eight miles northwest of Topeka.

Regional planning for flood control began with the debate over this depression-era proposal.² Public support for the Kansas River dam split into three factions based in different areas of the state. Although the policy of controlling rivers has been accepted as inevitable, the history of the biggest “Kansas lake” that wasn’t built shows how policy changed through competition among different groups with different interests. At a time of widespread insecurity, the Kansas River dam represented an ambition for the control of nature through engineering that grew for the next thirty years.³

2. Discussion of an engineering solution to the problems of the Kansas River basin dated back to the public outcry after the great flood of 1903. Before the New Deal, however, flood control was primarily a local problem, and the Army Corps of Engineers maintained that levees were the only solution. After levees failed in the terrible Mississippi River flood of 1927, flood control reservoirs gained credibility. See Martin Reuss, “Andrew A. Humphreys and the Development of Hydraulic Engineering: Politics and Technology in the Army Corps of Engineers, 1850–1950,” *Technology and Culture* 26 (1985): 1–33. In “Kansas and Water: Survival in the Heartland,” in *Politics in the Postwar American West*, ed. Richard Lowitt (Norman: University of Oklahoma Press, 1995), 108–9, historians James Sherow and Homer Socolofsky concluded that the 1927 Mississippi flood prompted Congress to devise a plan that required flood control structures on tributaries of the Mississippi. In Kansas, however, a public debate over dams and reservoirs began with the Kansas River dam proposal.

3. Historians have interpreted the development of water in the West in sharp contrast. For example, Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West* (New York: Oxford University Press, 1985), argued that the alliance between agribusiness, corporations, and federal agencies developed water resources in an undemocratic

After the legislative action of the New Deal’s First Hundred Days, the newly created Public Works Administration (PWA) began to provide unemployment relief through public building programs. If approved by the president, the Kiro Dam would be funded as an emergency PWA project contributing to the nation’s relief and recovery. Damming the Kaw depended on the precedent set by famous New Deal water engineering projects in the West. At the 1935 dedication of

Boulder Dam in Nevada, Roosevelt described the ambitious goal of “altering the geography of a region” to serve the common good.⁴ Gigantic water engineering projects such as Hoover (Boulder), Grand Coulee, Shasta, Bonneville, and Fort Peck Dams made development of the West and its natural resources more a national goal instead of a regional problem.⁵

process while destroying the ecological integrity of western rivers. He warned, “the West set itself the target of achieving nothing less than total control, total management, total power” (p. 266). As journalist Marc Reisner, *Cadillac Desert: The American West and its Disappearing Water* (New York: Viking Penguin reprint, 1987), 175, described the New Deal public works program in the West: “what had begun as an emergency program to put the country back to work . . . grew into a nature-wrecking, money-eating monster that our leaders lacked the courage or ability to stop.” Other western historians such as John Opie and Norris Hundley have insisted that water development improved nature for human benefit.

4. William G. Robbins, “Franklin D. Roosevelt and the Emergence of the Modern West,” *Journal of the West* 34 (April 1995): 43–44. At Boulder Dam on September 30, Roosevelt said, “Ten years ago the place where we are gathered was an unpeopled, forbidden desert. . . . The transformation wrought here in these years is a twentieth-century marvel. We are here to celebrate the completion of the greatest dam in the world, rising 726 feet above the bed-rock of the river and altering the geography of a whole region.” “The National Benefits of This Project Will Be Felt in Every One of the Forty-Eight States,” in *Public Papers and Addresses of Franklin D. Roosevelt*, vol. 4, comp. Samuel I. Rosenman (New York: Random House, 1938), 397.

5. See Robbins, “Franklin D. Roosevelt and the Emergence of the Modern West,” 47. Earlier steps in the development of flood control and water management policy included the appointment of an Inland Waterways Commission in 1907 by President Theodore Roosevelt to study the

Flood control policy changed dramatically in the United States during the 1930s. Disastrous floods in several sections of the nation including Kansas in 1935 aroused a demand for protection culminating in the Flood Control Act of 1936. What had been a local responsibility since the founding of the republic finally became a federal objective.⁶

Public discussion of plans to dam the Kansas River and its tributaries began during a drought, but the prospect of flood control took precedence. Kansans had been convinced by a series of floods that controlling the river was necessary. Floods that were several feet lower than the great Kansas River flood of 1903 still overflowed the river's banks in 1904, 1905, 1907, 1908, and 1909. There were five flood crests in 1915 and another flood in 1927.⁷ These unpredictable natural events demonstrated that the existing levees were not adequate to protect the railroads, developing industrial districts, and towns of the Kansas River valley.

On August 15, 1930, Lieutenant Colonel R. C. Moore, U.S. Army Corps of Engineers, convened a meeting in Topeka to obtain "an expression of opinions" as to what should be accomplished along the river. Following congressional instructions, the engineers were collecting information to prepare a comprehensive plan for the Kansas River basin. These management plans for the nation's rivers became known as the "308" surveys.⁸ Nearly a hundred engineers, city officials, farmers, chamber of commerce repre-

subject of water resources. The commission recommended that the federal government undertake a coordinated program of multipurpose river development under the control of a permanent commission appointed by the president. Congress refused to authorize a permanent commission. The Flood Control Act of 1917 established important precedents for the 1936 Flood Control Act. Funds were appropriated primarily for flood control, and Congress authorized the Army Corps of Engineers to undertake surveys for flood control improvement. See Joseph L. Arnold, *The Evolution of the 1936 Flood Control Act* (Fort Belvoir, Va.: U.S. Army Corps of Engineers, Office of History, 1988), 12–15.

6. For the development of flood control policy during this period, see Arnold, *The Evolution of the 1936 Flood Control Act*; Beatrice H. Holmes, *A History of Federal Water Resources Programs, 1800–1960* (Washington, D.C.: Economic Research Service, U.S. Department of Agriculture, 1972); Howard Rosen and Martin Reuss, eds., *The Flood Control Challenge: Past, Present, and Future* (Chicago: Public Works Historical Society, 1988). During the New Deal two parallel efforts in river basin planning took place: the "308 surveys" undertaken by the Army Corps of Engineers and the reports by the national resources planning organizations appointed by the Roosevelt administration. See Holmes, *A History of Federal Water Resources Programs*, 18.

7. Robert L. Branyan, *Taming the Mighty Missouri: A History of the Kansas City District Corps of Engineers, 1907–1971* (Kansas City: U.S. Army Corps of Engineers, 1974), 44.

8. Named after the description in 69th Cong., 1st sess., 1926, H. Doc. 308, the "308" surveys began to define the environmental problems and proposed solutions for each major river basin. See Arnold, *The Evolution of the 1936 Flood Control Act*, 16.

sentatives, and drainage board members attended from Topeka; Manhattan; Kansas City, Kansas; and Kansas City, Missouri.

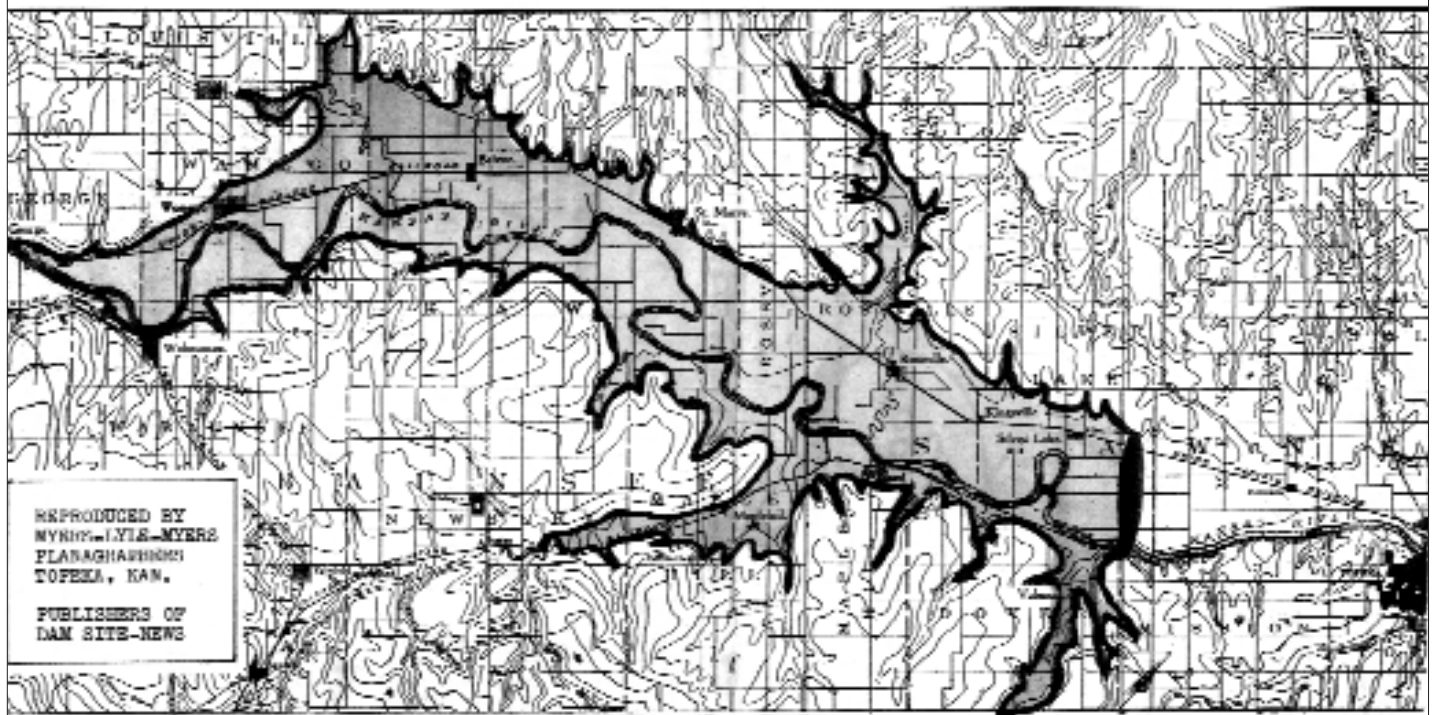
At the public meeting, Congressman U. S. Guyer, a member of the House Flood Control Committee from Kansas City, Kansas, promised to present a bill providing for the control of the Kansas River floods based on the army engineers' report. Under legislation in effect at the time, the federal government would pay one-third and Kansas would pay two-thirds of the cost of flood control works. However, George S. Knapp, chief water engineer for the state of Kansas, argued that developing the water resources of the state for conservation, particularly for irrigation, would be of greater value to farmers than "to base future river plans upon the idea of preventing more floods."⁹ Knapp expressed a long-term perspective on storing water for irrigation that was overlooked in the immediate economic crisis. Flood control offered a more dramatic, more immediate reason to ask for financial and technical assistance.

Although basic information had been needed since the disastrous 1903 flood, the army engineers finally completed a "308" report for the Kansas River basin on August 21, 1931, and presented it to Congress in 1933. Primarily the work of district engineer Captain Theodore Wyman Jr., the survey considered fourteen reservoir sites on tributaries of the Missouri River south of Rulo, Nebraska, and, finally, recommended only three dams (two in Missouri and one in Kansas). These were Arlington to be built on the Gasconade River, Chillicothe on the Grand, and Kiro on the Kansas. As Wyman insisted, the Kiro Reservoir site was "ideally located to control the flow of the Kansas River not only for the protection of agricultural lands and municipalities along the Kansas River but also for the amelioration of floods on the Mississippi and Missouri rivers."¹⁰

9. "Plans to Curb Kansas River Are Discussed," *Topeka Daily Capital*, August 15, 1930.

10. Wyman served as Kansas City district engineer from October 1930 to January 1934. See Robert L. Branyan, *A History of the Kansas City District Corps of Engineers, 1907–1971* (Kansas City: U.S. Army Corps of Engineers, Kansas City District, 1974), 66. The Kansas River dam site (also known as the Kiro site) was located approximately eight miles upstream from the city of Topeka, state capital of Kansas. Originally, Wyman proposed that the site could be developed to store a maximum of 5,200,000 acre-feet of water with a surface area of 116,000 acres. However, such a reservoir would have flooded U.S. Highway 40, the main lines of the Union Pacific and Rock Island railroads, sections of primary state roads, and "wholly or partially flood several towns." See "Kansas River, Colo., Nebr., and Kans.," 73d Cong. 2d sess., 1935, H. Doc. 195, 132–33.

Territory Affected by Government's Proposed \$45,000,000 Control Reservoir in Kaw Valley



A map published in a 1933 issue of the *Dam Site News* shows the lands along the Kansas River that would be affected by the Kiro Reservoir.

News of the proposed Kansas River dam broke with a banner headline in the May 16, 1933, *Topeka Daily Capital*, "HUGE KAW DAM IN PROGRESS." After the specific proposal for Kansas was announced, a decision turned on the outcome of competition between building two great dams in the West. The Kiro Dam was only a part of a flood control program for the entire Mississippi valley that included "a big reservoir at the head of the Missouri" near Fort Peck, Montana. However, the assistant secretary of war and former governor of Kansas, Harry Woodring, hinted that mid-western states had not participated in federal public works expenditures as much as other regions and deserved their share. Woodring announced that the Kansas River proposal

assures the Middle West of a definite place in the new public works program . . . what pleases me greatly is the president's assurance that all streams in the Mississippi will be considered in the flood control program. This will give the Kaw valley and Kansas City much needed flood protection—and some unemployment relief.¹¹

According to newspaper reports, construction of the Kansas River dam at Kiro would form a lake about forty

miles long and at places more than four miles wide. The earth-fill dam would be approximately 2.5 miles in length and 150 feet high. But the project would require re-routing the Union Pacific and Rock Island railroads as well as U.S. Highway 40 and Kansas Highway 10. Towns directly affected included Silver Lake, Rossville, Kingsville, St. Marys, Belvue, and St. George on the north side of the river and Wabaunsee, Maple Hill, Willard, and Valencia on the south side.¹²

Such a bold change immediately provoked both strong support and passionate opposition. As a *Topeka Daily Capital* editor reviewed the project:

Kansas, which was left out of the reforestation plans of the New Deal and consequently started to bring pressure on Washington to obtain a share of the conservation program for flood prevention, suddenly discovers that Washington contemplates a far reaching development of the Kaw valley. . . . President Roosevelt's assurance that he has this project and

11. "U.S. Includes \$45,000,000 Lake Project at Topeka," *Topeka Daily Capital*, May 16, 1933.

12. Kiro was a hamlet located on the main line of the Union Pacific Railroad three miles east and one-quarter mile south of present Silver Lake. The original depot was built about 1890; a grain elevator was constructed about 1896. See Blaine Crow, *A Community Survey of Silver Lake Rural High School District* (Silver Lake, Kans.: Mirro Print, 1925). "Flood Control," *Topeka Daily Capital*, May 17, 1933; "It Would Give Topeka Biggest Artificial Lake," *ibid.*, May 16, 1933.

others in the Mississippi Valley under consideration emphasized two flood control plans, one near Fort Peck on the upper Missouri in Montana and the other the Kaw river, but that he looked with more favor on the Topeka or Kiro reservoir than on the one in Montana. . . . The Kansas project is part of a general conservation program which is of grandiose magnitude, opening the Missouri to navigation for more than a thousand miles, a complete flood control and land erosion program for the Mississippi Valley and opening the Mississippi to ocean-going ships from its mouth to St. Louis.¹³

This editor recognized the significance of a Kansas project as a leading component of the New Deal program to revitalize the economy through the efficient utilization of the nation's natural resources. As Roosevelt said in a September 17, 1937, speech, "in our generation a new idea has come to dominate thought about government—the idea that the resources of the Nation can be made to produce a far higher standard of living for the masses, if only government is intelligent and energetic enough in giving the right direction to economic life."¹⁴

By proposing multiple purposes to justify the Kiro Reservoir's high cost, the Army Corps of Engineers introduced political contradictions that divided the project's supporters and enraged the opposition. Opposing the Kiro Dam, an editor for the *Topeka State Journal* deplored the proposal "to convert the most fertile section of Kansas into a mudhole reeking of fish." That writer proclaimed, up and down the valley, "amazement turned to cries of protest, still growing in volume at the idea of such destruction for the glorification of Missouri river transportation, subsidized at public expense."¹⁵ Indignantly, the editor warned:

Missouri river navigation enthusiasts will never be able to sell the dam to eastern Kansas as a flood control measure. Kansans know that the same flood control can be had with smaller dams on tributaries of the Kaw river at considerably less expense, making far fewer persons homeless and inundating land of much less value. . . . Its level would be constantly changing, according to the demands of those Mis-

13. "The Kansas River Flood Control Project," *Topeka Daily Capital*, May 17, 1933.

14. Cited in Richard Lowitt, *The New Deal and the West* (Bloomington: Indiana University Press, 1984), 212.

15. "Topeka Yields to Montana," *Topeka State Journal*, May 17, 1933.

We're going to save our Kaw Valley . . .

if there's any way in the world of doing it. Forty-two years ago this coming August our Mr. O. B. Larson founded this store and since that time we have taken an active part in everything that has been done for the betterment of Wamego and this community.

We believe in the farms and homes of this community—we believe in the good people of the Kaw Valley.

We believe that our record through the years entitles all of us to the right of existence.

In the past we have prospered in "good times" as you prospered—and suffered in "bad times" as you have suffered.

And so in this fight to save our farms, our homes and everything that is dear to us, we join you.

We will do everything that is possible to avert this tragedy that proposes to exile us from our homes, our farms and our friends.

Expressing adamant opposition to the Kiro Dam, articles and advertisements, such as this ad by Larson and Sons published in the Wamego Record, May 25, 1933, frequently appeared in local newspapers.

souri river shippers, and much of the year the lake would be a concentrated collection of mud flats.¹⁶

Farm owners and town residents whose property was threatened were adamant opponents. Residents of St. Marys, Rossville, and Wamego held public meetings to express their indignation, and their leaders proclaimed that the towns would be seriously damaged. Opponents estimated that the cost of land and improvements to be destroyed by the lake would total more than the estimated cost of the project. One editor concluded that the lake would destroy the means of livelihood and affect between twelve and fifteen thousand persons, while "some of the best parts of Shawnee, Wabaunsee, and Pottawatomie counties would be lost to production and taxation."¹⁷

16. "Oppose Big Lake," *ibid.*

17. *Ibid.*



Kansas senator Arthur Capper supported the Kiro Dam, believing its construction would put people back to work and protect businesses and property owners from the devastation of future flooding.

If the Kiro Dam is built, "it will be over the strenuous protests of the people who will be driven from their homes," reported the *Topeka Daily Capital*. Kenneth Doyle, editor of the *Wamego Reporter*, declared that the residents of the town would sue the government in every available court before allowing their business district to be ruined. Banker E. C. Gresser and editor Peter Navarre of the *Rossville Reporter* insisted, "we will fight to the last ditch before allowing Rossville to be wiped off the map." At the same time, these protesters asked why the engineers did not go farther upstream and build dams where "land is cheaper and so many people would not be driven off the most productive area in Kansas." Sites for reservoirs could be purchased for half the money in the hills along the Blue, Republican, Saline, Solomon, and Smoky Hill Rivers.¹⁸

Despite the initial hostility, many Topeka business leaders and property owners appreciated the economic potential of a nearby dam and reservoir. Because of the direct commercial benefits as well as the flood protection for their community, Topekans led the "Kiro Dam Association." W. C. Ayers managed the campaign to promote public support, and W. O. Myers edited the *Dam Site News*, a tabloid designed to inform and reassure area residents. The *News* publicized a meeting held at the Topeka Auditorium July 20, 1933, to hear Captain Wyman explain the proposed

18. "Six Towns Plan Strenuous Fight on Lake Project," *Topeka Daily Capital*, May 17, 1933; "Opinions Differ on Proposed Reservoir," *ibid.*

project. The association also presented "Kiro Dam Pictures" at the Jayhawk Theater in downtown Topeka. As advertised, these images included the dam site near Kiro as well as color pictures of the Bagnell Dam in Missouri and the "beautiful lake it created, which will give one an idea of what the lake created by the Kiro Dam will be like." Pictures of the great 1903 Kansas River flood illustrated the necessity of flood control.

Meanwhile, Kansas senator Arthur Capper reassured several thousand unemployed Topekans at the City Park that newspaper reports leading the people to believe the dam would not be built were erroneous. The *News* blamed newspapers such as the *Kansas City Star* and "power interests" for opposing the dam and spreading pessimism.¹⁹ On July 22 Senator Capper explained to the crowd that the New Deal "is really an effort to find a system that will work and put men back to work at living wages. It is sailing uncharted seas; many of the plans are experimental. We are on our way and hoping for the best."²⁰ For those laborers Capper addressed, the most important New Deal program was the National Industrial Recovery Act, which could provide funds for the Kiro Dam.

For the next several months the Kiro Dam proposal stimulated debate and political controversy up and down the Kansas River basin. Excitement flared after September 29, 1933, when the army engineers recommended the immediate construction of the Fort Peck Dam along with levees and flood ways to protect Kansas City. Land for Fort Peck could be obtained without public resistance, but the engineers understood that the endangered stockyards, packing houses, and industries located in the Kansas River floodplain at Kansas City had to be protected. Designed to be 230 feet high, 12,000 feet long, and impound twenty million acre-feet of water, Fort Peck Dam would provide more than four times as much area for flood control and navigation storage as the proposed Kansas River project. By October 1933 it was evident that only one gigantic water project in the Missouri River basin was likely to be constructed.

19. "Senator Capper for Kiro Dam," *Dam Site News*, July 25, 1933.

20. "Capper Praises Unemployed for Great Patience," *Topeka Daily Capital*, July 23, 1933. During his administration, President Hoover pushed the flood control work on the Mississippi ahead as an unemployment relief measure, uniting work relief with flood control in a manner that the New Deal would continue throughout the 1930s. See Joseph L. Arnold, "The Flood Control Act of 1936: A Study in Politics, Planning, and Ideology," in *The Flood Control Challenge*, ed. Rosen and Reuss, 22.



Kiro Dam Mass Meeting

Topeka Auditorium
 -- 8 o'clock --
Thursday Evening
July 20th' 1933
Capt. Theo. Wyman Jr.
 will tell you about the
Kiro Dam

You are urged to attend this meeting - Hear and see explanation and pictures of this Gigantic Project by army engineer in charge of surveys.

18,000 - 22,000 - backs to us side!

The Dam Site News encouraged local residents to hear district engineer Captain Theodore Wyman Jr. explain the benefits of the Kansas River project.

That possibility prompted the question posed by the *Topeka Daily Capital* to its readers, "do you prefer a forty-five- to sixty-five-million-dollar dam and beautiful lake near Topeka or an eleven-million-dollar dike system at Kansas City?" An editorial answered:

President Metzger has determined to call the directors of the chamber of commerce together and with their approval appoint a special committee to consider the Kiro dam project and make a report. There should be no question of the action of the chamber. It should throw all its influence behind the project. . . . Washington, however, is not going to listen to its engineers and foist this or any other public work on this area against its will. If there is no sentiment for it where the work would be done, the money spent and the immediate benefits received, it will drop out of the program.²¹

The Topeka Chamber of Commerce expressed strong support for the construction of the Kiro Dam through petitions signed by businessmen representing the retail and wholesale mercantile, industrial, and manufacturing interests of Topeka. Since Kansas City leaders wanted flood protection, the *Capital* insisted, "it is essential that Topeka get busy in earnest at once if it wants to land that outstanding government project."²² Directors of the Topeka chamber unanimously voted on October 2 in favor and authorized their president to go to Washington to lobby for the project. At a special meeting, state engineer George Knapp asserted the national significance of the Kiro project as part of

a giant system of flood control for the entire lower Missouri and Mississippi river valleys. The dike system on the lower Mississippi had reached its zenith. Whatever else is to be done to protect the lower reaches of that valley must come thru reservoirs on its tributaries. The Kiro dam was selected as one of the important projects by the engineers of the war department.²³

Knapp insisted that the logical place for a Kansas River dam was at Kiro because it could be built at less cost than

21. "Which? Kiro Dam for Topeka—Or Dikes for K.C.?" *Topeka Daily Capital*, September 30, 1933; "Topeka and the Kiro Dam," editorial, *ibid.*

22. "Topeka Business Men Petition for Kiro Dam Support," *ibid.*, October 1, 1933.

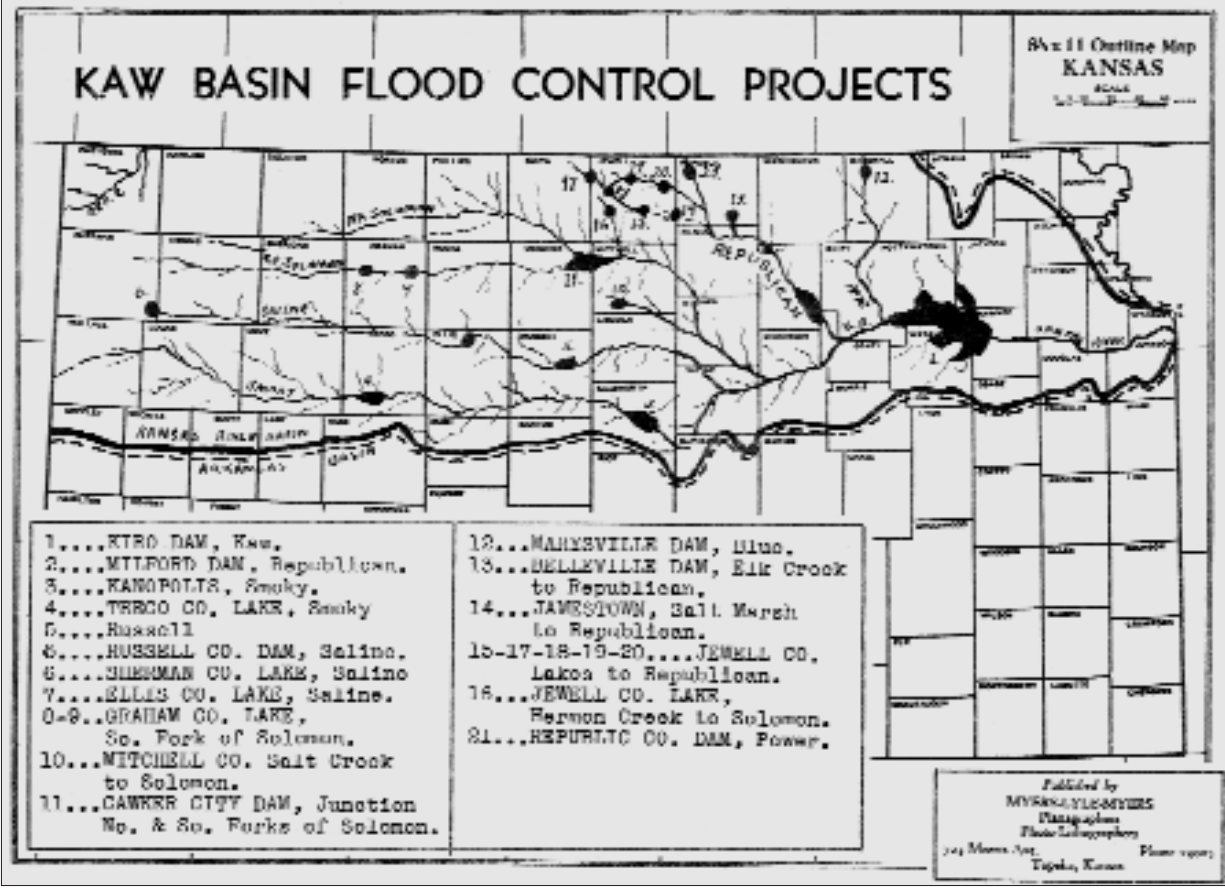
23. "C. Of C. Backs Kiro Dam with Full Strength," *ibid.*, October 3, 1933.

a series of tributary dams. Dams built on the tributaries would not protect Topeka, Lawrence, and Kansas City—the major towns of the Kansas River valley—during a great flood.²⁴

When a group of senators from Missouri River basin states and representatives of the Missouri River navigation association met with Roosevelt on October 5, he appeared favorably impressed with a request for the immediate appropriation of sixty million dollars for construction of the Fort Peck project. As Montana governor Frank H. Cooney stated, "there is no further question that the Fort Peck Dam will be constructed." Soon after the meeting on October 17 Captain Wyman, the designer of the Kansas River dam, and several members of his staff left Kansas City for a visit to Fort Peck to help prepare plans for the huge project. On October 23 construction began with the clearing of trees from the Montana dam site.²⁵

24. *Ibid.*

25. "Roosevelt for Dam," *ibid.*, October 6, 1933; "Confident of Big Dam," *Kansas City Times*, October 6, 1933; "Wyman to Ft. Peck Site," *ibid.*, October 18, 1933.



At an October 6 meeting the Kaw Valley Basin Flood Control Association called for reservoirs on the five major tributaries of the Kansas River together with a dam at Kiro. This map designating the proposed sites was printed later that same month in the Dam Site News.

Meanwhile, Kansans organized the Kaw Valley Basin Flood Control Association. Partisans of the various water proposals met in Salina on October 6 "to line up the entire state in a single plan for flood control." The group called for "one flood storage reservoir on each of the five main tributaries of the Kaw River, together with a dam on the Kaw River at Kiro to provide flood storage for the area below the dam on the tributaries; the entire program to be approved and constructed simultaneously." Soon after this announcement, the *Kansas City Times* reported, "fear that Kansas may realize little out of the public works funds in the way of employment appears gradually to be drawing some of the divergent elements together."²⁶ To participate in the dam-building bonanza, Kansans had to agree on one single plan. All of the three billion dollars in the emergency public works fund was to be allotted by January 1, 1934.²⁷

Instead, representatives from different sections of the state supported three different proposals. First, Kansas City

leaders gave up on the Kiro project and lobbied for immediate protection of their threatened industrial districts. With property assessed at eighty million dollars menaced by floods, they reluctantly supported the army engineers' eighteen-million-dollar plan for levees, bridge raising, and channel clearance near the mouth of the Kansas River. Second, residents of Topeka, Lawrence, and the adjacent sections of the Kansas River valley held out for construction of the Kiro Dam because it would protect their property.²⁸ Third, leaders of the Kaw Valley Flood Control Association asserted the interests of residents upstream from the Kiro Dam. They did not intend to stand by and "see the major part of the federal funds Kansas might expect to get, dumped in one place downstream. Towns and country on the Blue, the Republican, the Saline, and the Smoky Hill also have floods . . . and the Kiro dam would not cure them."²⁹ Representatives lobbied for all three alternatives in Washington, D.C. In a gesture of solidarity on October 21,

26. "A Basis for Kaw Unity," *Kansas City Times*, October 19, 1933; Chief of Engineers, U.S. Army Corps of Engineers, *Annual Report* (Washington, D.C.: Government Printing Office, 1934), 842.

27. Title II of the National Industrial Recovery Act of 1933 included an unprecedentedly large peacetime appropriation for planning and construction of public works. Historians Charles and Mary Beard, writing in 1939, described it as "the enormous sum of \$3,300,000,000." See Beard and Beard, *America in Mid-passage* (New York: Macmillan, 1939), 239.

28. In a radio address broadcast on October 19, 1933, Topeka mayor Omar B. Ketchum described the debate: "Kansas still has no well prepared or systematic plan of flood control and water conservation other than that which has been prepared by army engineers in an effort to find a solution for the Mississippi situation. . . . There is little doubt that this one large reservoir will be followed by others in the western part of the state and so it behooves the people of Kansas to present a united front and work for what is good for any section of Kansas." "The Kiro Dam and Flood Control Problems of Kansas," *Dam Site News*, October 21, 1933.
29. "A Basis for Kaw Unity."

the chambers of commerce of Topeka; Lawrence; Kansas City, Kansas; and Kansas City, Missouri, endorsed the construction of the Kiro Dam as a part of a flood control system for the entire Kansas River basin.³⁰ But in a few days the temporary unity broke down.

Late in October 1933 the Kiro Dam proposal was presented to the Mississippi Valley Committee, a national resources planning team preparing a comprehensive natural resources management program for the region.³¹ At the time Senator Capper claimed that the dam “will provide complete protection against the periodic and destructive floods of the Kansas River, and is the only method which will give such protection to the entire population of the Kansas Valley.” Most important, the delegation insisted that “Kansans want a lake.”

The people of Kansas are hungry for the sight of a broad sheet of water. This longing is a subconscious reaction to the knowledge that our supplies of water are limited and that the possible population and the economic development of the state of Kansas and the trade territory of the Kansas Citys is ultimately limited to the amount of water available. The time is not far distant when our population like those of Los Angeles and New York, will find it increasingly difficult to obtain an adequate supply.³²

A few weeks after the Kiro proposal was presented, R. J. Paulette, chief engineer for the Public Works Administration for Kansas, called for an “unprejudiced” study of the Kiro Dam and other projects before a final decision. In a public statement December 15 he questioned both the army

engineers and the members of the Kaw Valley Basin Flood Control Association. Apparently, Paulette believed that independent engineers could make an impartial judgment and thus resolve the competition among the three different interest groups. According to Paulette, the army engineers had studied the matter entirely as a flood control and navigation problem from the standpoint of the lower Kaw River valley and the larger rivers of the Missouri–Mississippi system. Local farmers and property owners in the Kaw Valley Association were interested chiefly in water conservation and flood control measures for the benefit of Kansas alone. In Paulette’s words, “a combination of the essential features of the programs proposed by both organizations would be a better solution of the problem from every point of view.”³³ Although Paulette’s suggestion was not carried out, he anticipated the arguments for comprehensive river basin planning later developed by the New Deal’s Mississippi Valley Committee and National Resources Planning Board.

Despite the attempts at compromise among Kansans and the lobbying in Washington, D.C., the Kansas River proposal was rejected. Major General E. M. Markham, chief of army engineers, concluded that the Fort Peck Reservoir would “provide adequately for all reasonable prospective navigation needs and since adequate flood protection can be provided more cheaply by other methods, the construction of the Kiro reservoir cannot now be justified.”³⁴ The total flood-control benefits for the Kiro Reservoir were estimated at sixteen million dollars, or less than one-third the cost of the project. General Markham argued:

it is clearly the better policy to provide such storage at the headwaters of the main stream where no valuable agricultural land, developed towns, railroads, and highways will be destroyed by the improvement, and where the benefits from the storage will be extended to the entire stream and not to its lower portion only.³⁵

33. “Asks New Study of Kaw,” *ibid.*, December 16, 1933.

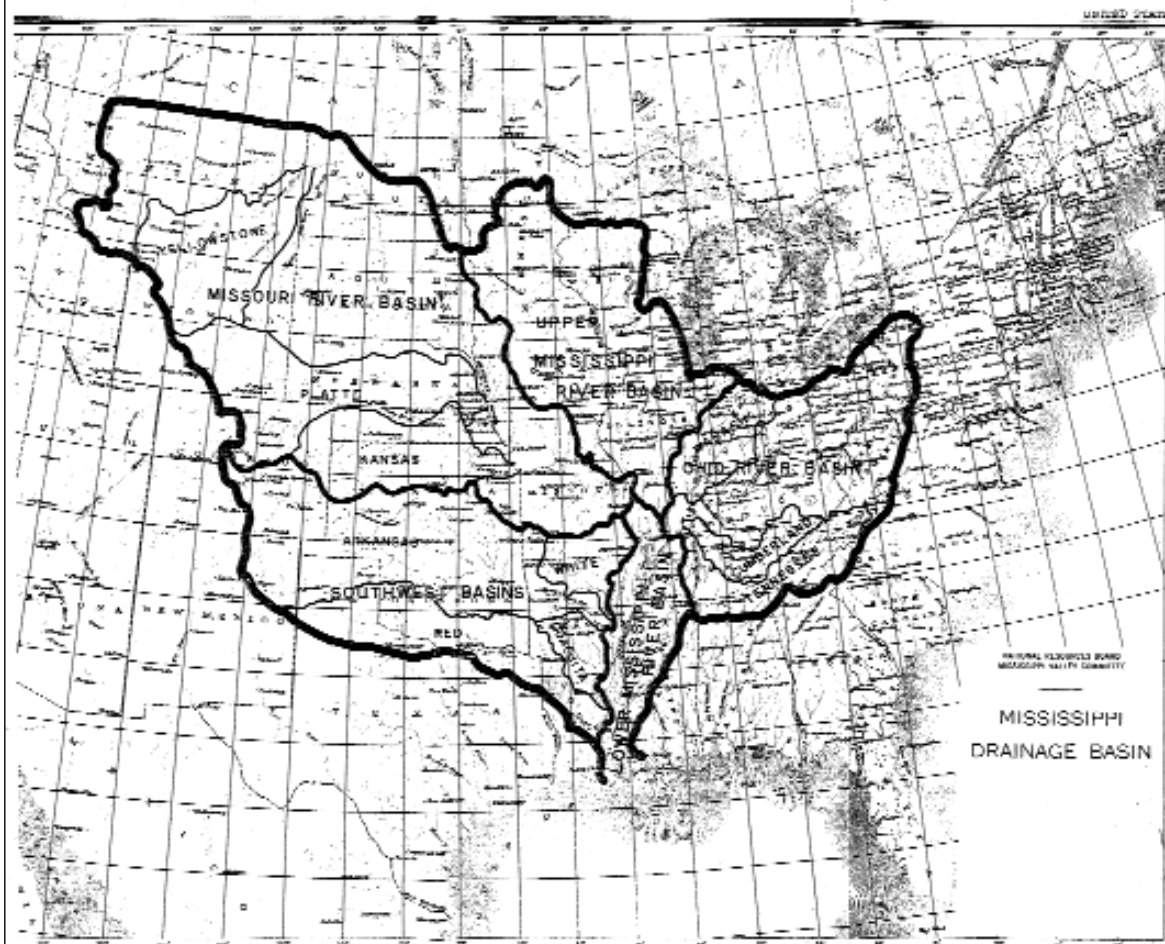
34. “Kiro Dam is Out,” *Kansas City Star*, January 14, 1934; *see also* “Kansas River, Colo., Nebr., and Kans.,” 73d Cong., 2d sess., 1935, H. Doc. 195.

35. For the Kansas City metropolitan area, district engineer Wyman expected that the development of industry and air, rail, and water transportation would increase the value of improvements in the floodplain and so the possible disastrous consequences of a flood like that of 1903 made the cost of reservoir protection worthwhile. Wyman calculated the estimated construction costs of flood control in the Kansas River basin and compared that with an estimate of damage to be prevented. For the 1931 benefit–cost analysis, *see* “Kansas River, Colo., Nebr., and Kans.,” 73d Cong., 2d sess., 1935, H. Doc. 195, 123. For the policy statement, *see ibid.*, 135.

30. “Representatives of Four Cities Endorse Kaw Flood Control Plans,” *Dam Site News*, October 21, 1933.

31. In a January 10, 1934, letter to Senator George W. Norris of Nebraska, President Roosevelt wrote: “a committee, known as the Mississippi Valley Committee, has recently been appointed under the Public Works Administration for the purpose of studying and correlating projects involving flood control, navigation, irrigation, power, reforestation and soil erosion in the Mississippi drainage area.” *See* Edgar B. Nixon, ed., *Franklin D. Roosevelt and Conservation, 1911–1945*, vol. 1. (Washington, D.C.: Government Printing Office, 1957), 240. As stated in the report, “land, water, and people go together. The people cannot reach the highest standard of well-being unless there is the wisest use of the land and water.” *See Report of the Mississippi Valley Committee of the Public Works Administration* (Washington, D.C.: Government Printing Office, 1934), 3. To coordinate a greatly expanded public works program, Roosevelt established the National Planning Board on July 20, 1933. It was renamed the National Resources Board on July 1, 1934; the National Resources Committee on June 8, 1935; and the National Resources Planning Board on July 1, 1939. This board was abolished on August 31, 1943. *See* Marion Clawson, *New Deal Planning: The National Resources Planning Board* (Baltimore: Johns Hopkins University Press, 1981), 40.

32. “Kiro Dam Brief In Today,” *Kansas City Times*, November 2, 1933.



In 1934 the Mississippi Valley Committee proposed an ambitious plan for the development of all natural resources throughout the Midwest. Within the designated Mississippi Drainage Basin, not only flood control but soil protection, power development, land use, forestation, and transportation would be improved.

Established in the Kiro Dam controversy, this principle eventually guided the program for reconstruction of the Kansas River basin. Following Markham's recommendation, President Roosevelt authorized the beginning of construction on the Fort Peck Dam.

Even after their initial defeat, supporters of the Kiro Dam made another attempt to win approval. In a special August 21, 1934, issue of the *Dam Site News*, the editors explained that they had acquired evidence that "three newspapers, one man connected with the government and the leaders of the opposition in the valley had received money from certain interests to fight the project. These leaders of the opposition pretended to fight the project for purely sentimental reasons." To counteract the so-called conspiracy, the *News* called for the people of Kansas to write President Roosevelt at once:

through the efforts of Harry Woodring it [the Kiro Dam] has again been placed before the President for consideration. We have been asked to present the proposition once more to the people of the Kaw valley with the assurance that if they will again request the President to order the dam constructed (now that the opposition has been discredited). Mr. Woodring will use his influence to secure this great national

project for Kansas and ask that the work be started immediately.³⁶

At the same time, four chambers of commerce representing the river towns of Topeka; Lawrence; Kansas City, Kansas; and Kansas City, Missouri, approved another resolution asking for the immediate approval and initiation of the Kiro Dam project. Businessmen cited five important reasons, including their belief that "the people of Kansas are hungry for the sight of a broad sheet of water." Besides reprinting the resolution, editors of the *Dam Site News* reported that "the few formerly opposed or indifferent toward the dam now pray it will be started immediately in order to relieve the depressing condition caused by drought and unemployment."³⁷ But the depression and drought in Kansas were not enough to unify local support for the Kansas River project.

While the army engineers concentrated on construction of the unprecedented Fort Peck Dam, civilian planners

36. "The Kiro Dam Now on President's Desk," *Dam Site News*, August 21, 1934.

37. "Resolution of Four Cities," *ibid.* Assistant Secretary Woodring met on August 8 with 150 men—all supporters of the Kiro Dam proposal—at the Hotel Jayhawk in Topeka.

on the Mississippi Valley Committee also rejected the Kiro Dam proposal. They said that the dam “is impracticable because of the excessive cost of flowage rights and because of the fact that its construction would endanger a high culture on land of great fertility.” In a report submitted October 1, 1934, the committee admitted that “while technically less effective than the proposed Kiro Reservoir, the Milford and Tuttle Creek Reservoirs seem to have compensating advantages.” For example, the tributary sites contained no main-line railroad trackage; the narrowness of the reservoirs would permit farming on the bottoms on a possible average of nine years out of ten; and fewer towns and fewer homes would have to be moved.³⁸ In other words, the tributary reservoirs would provide flood control without destroying the local communities.

Still, the Mississippi Valley Committee warned, “greater Kansas City has the most serious flood problem in the Missouri Basin, if not in the United States; provision for its adequate protection constitutes the most urgent water project of any kind in the Missouri Basin.” For that reason, the committee recommended that an immediate investigation be made of “the practicability of lowering flood peaks on the Kansas River through the Milford and Tuttle Creek reservoirs, and of combining such regulation with flood protection by means of levees at Kansas Cities and other municipalities on the Kansas River.”³⁹ Members of the committee justified federal spending for flood control, particularly during the economic crisis. Federal benefits from flood control were associated with the protection of interstate transportation, the protection of that part of the nation’s food supply dependent on Kansas City’s great meat-packing industries; and the protection of life and health in a crowded metropolitan area. Considering these benefits, the committee recommended that the federal government contribute a minimum of 30 percent of the cost of flood control or more.⁴⁰

In its path-breaking report, the Mississippi Valley Committee offered a more ambitious plan for development of all the natural resources of the Middle West than

the individual flood control projects proposed by the Corps of Engineers in the Kansas River “308” survey. In an editorial, the *Kansas City Times* commented that the “valley plan” was

long-range planning of such scope as to challenge the liveliest imagination and to arouse no small amount of questioning. It has to do not simply with navigation and flood control on a broad scale, but with soil protection, power development and transmission, land use, forestation, and transportation—in reality, with much of the basic agricultural, industrial, and entire economic life of the people in the central area of the United States.⁴¹

Most New Deal water planners and President Roosevelt believed that floods were exacerbated by soil erosion.⁴² The idea that controlling erosion would control floods was debated for the next twenty-five years, but scientists eventually concluded that the great floods, which caused the most damage, could not be prevented by upstream soil conservation. By considering the development of land and water together, the Mississippi Valley Committee report also expressed a new ambition, a scale of control of natural resources that would take decades to realize.

A final blow to the Kiro Dam proposal came when the Fort Peck and Kansas River projects were compared in 1935. In the “Comprehensive Report on Reservoirs in the Mississippi River Basin,” the army engineers estimated that the proposed Kansas reservoir would be almost three times as expensive per acre-foot of water. While the Fort Peck reservoir was designed to contain 1.5 million more acre-feet of water, the cost of the Kansas reservoir was estimated at \$61,000,000 and the Fort Peck project at only \$28,507,000. The main difference was the expense of railroad and highway relocation in the Kansas River valley as well as other damages. That cost was estimated at more than fourteen million dollars for the Kansas project and nothing for Fort Peck. Only a year later, however, the pro-

38. *Report of the Mississippi Valley Committee*.

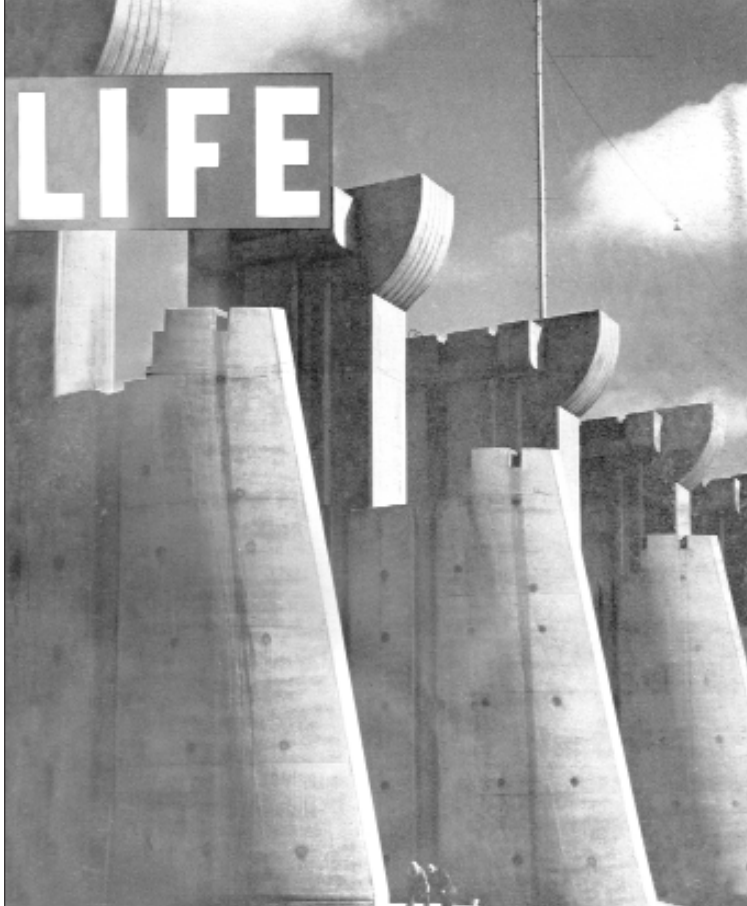
39. *Ibid.*, 167, 169.

40. For funding, *see ibid.*, 3. The Mississippi Valley Committee recommended that the states of Kansas and Missouri investigate the creation of a “comprehensive interstate conservancy district” as the local agency to provide the local share of funding. *See also* “Kaw Valley Too Well Developed For Kiro Dam,” *Topeka Daily Capital*, December 27, 1934.

41. “Vital Phases of a Valley Plan,” *Kansas City Times*, December 27, 1934.

42. The *Report of the Mississippi Valley Committee* stressed the belief that erosion in upstream valleys meant serious flooding as rivers emptied into the tributaries of the Missouri–Mississippi system. For the New Deal resource planners, solutions for the dust storms ravaging the Great Plains and river basin management were related aspects of a fundamental environmental problem. *See* Lowitt, *The New Deal and the West*, 41.

LIFE



A final blow came to the Kiro Dam proposal in 1935 when its costs were compared with those of the Fort Peck Reservoir in Montana. In November 1936 the massive Fork Peck Dam made the cover of Life magazine.

jected cost of the monumental Fort Peck project climbed to 84.2 million dollars.⁴³

With the demise of the Kiro Dam proposal, the army engineers reverted to their time-tested methods of flood control. In their recommendations for the 1936 Flood Control Act, the army engineers still favored a high levee plan to protect the Kansas City area. This plan proposed raising the levees an additional twelve feet. Bridges and railroad rights-of-way also would have to be raised. The cost was estimated first at fifteen million and later at fifty million.⁴⁴ Without a Kansas River dam, the debate over how to protect Kansas City from floods went on for the next seventeen years.⁴⁵

43. U. S. Army Corps of Engineers, "Comprehensive Report on Reservoirs in Mississippi River Basin," submitted to Congress August 2, 1935 (Washington, D.C.: Government Printing Office, 1936), 47; see also R. G. Skerrett, "A Mountainous Earthen Dam," *Scientific American* 154 (June 1936): 306.

44. "A Flood Engineer Next," *Kansas City Times*, December 27, 1934.

45. Joint Committee on Flood Protection of the Chamber of Commerce of Kansas City, Missouri, and Kansas City, Kansas, Chamber of Commerce, "A Survey of the Economic Aspects of Flood Protection on the Kansas and Missouri Rivers in the Kansas City District," submitted to the Missouri Valley Committee of the National Resources Board, Washington, D.C. (October 1934).

Business and industry leaders of Kansas City wanted a flood control solution that would avoid raising the levees. When the Missouri Valley Committee acknowledged the urgency of flood control for Kansas City, it suggested that metropolitan leaders organize a Kansas City flood planning committee. In its first publication, that Kansas City committee admitted that the "local high levee" plan recommended by the army engineers was "most desirable" for protecting both Kansas Citys against floods because of its low cost. That plan consisted of:

channel improvements, raising and in some cases extending bridges, raising existing levees along the Kansas River, and raising the levees and moving them landward along the Missouri River to provide a larger channel with extensive floodways. The protection extends upstream along the Kansas River to a point some nine miles above the mouth, and from the upper end of the Fairfax Drainage District along the Missouri River to the vicinity of the Blue River, approximately 14 miles.⁴⁶

But the overriding disadvantage, according to the committee, was the loss of potential development in the floodplain. The levee plan "involves the conversion of some 8,000 to 10,000 acres of land, constituting a large percentage of all that is now available to the Kansas Citys for major industrial development, into floodways where such development would be permanently prohibited." The army engineers estimated the cost of the high levee plan at \$18,292,850, but the Kansas City committee argued that the cost would be twice that estimate.

The committee raised five main objections to the high levee plan: the cost would greatly exceed the engineers' estimate, "almost insurmountable construction difficulties" would be involved in raising the Kansas River bridges, and costs due to interference with normal business during construction would cause an "indeterminate, perpetual increase" in operating costs to the railroads, industries, and business concerns affected. The committee insisted that "the future growth and development of the two Kansas Citys would be greatly and permanently retarded by the withdrawal for floodway purposes of the large proportion of their available space for industrial development." Be-

46. *Ibid.*, 49.

sides rejecting the inconvenience and cost of levees, the committee argued that:

on account of the national economic importance of the Kansas Citys from the standpoint of manufacturing and employment, distribution and transportation, and since this immediate flood area has expended approximately \$13,150,000 for flood protection, it is the judgment of the committee that completion of works for the adequate protection of these communities and the flood plain of the Kansas River upstream is a logical federal responsibility.⁴⁷

Not only must development in the Kansas River floodplain be protected, but the federal government should pay for the protection. This viewpoint dominated metropolitan thinking about flood control and drove a wedge between Kansas City leaders, the residents of other Kansas River valley towns, and the tributary valleys upstream.

Not long after the Kiro Dam proposal was rejected, destructive floods throughout the nation in 1935 and 1936 again prompted a public outcry for flood control legislation.⁴⁸ For the first time the Flood Control Act of 1936 declared that “floods are a menace to the general welfare” and determined that flood control was a proper responsibility of the federal government. Congress gave the secretary of war, acting through the army engineers, the formal authority for supervising federal flood control projects provided that “the benefits to whomsoever they may accrue are in excess of the estimated costs.”⁴⁹ The Flood Control Act was a turning point in water management policy.

Congressional representatives who advocated a federal responsibility to prevent damage from floods overcame arguments that such a policy was unconstitutional. Under a strict interpretation of the United States Constitution, flood control was considered a local responsibility because it benefited citizens in particular localities.⁵⁰ Committee dis-

cussion of flood control was based on the detailed “308” reports by the Army Corps of Engineers, but these reports failed to consider any nonstructural solutions such as zoning to prevent floodplain development. The Flood Control Act provided a policy statement but included many compromises and contradictions on the actual implementation of flood control.⁵¹ Ultimately, the 1936 act tended to preempt the more comprehensive program of river basin development envisioned by the New Deal planning committees and President Roosevelt. For the next three decades, the general flood control policy stated in the 1936 act remained unchanged.⁵²

As Congress discussed flood control legislation, the Kansas City flood control committee contracted with independent consulting engineer Frederick H. Fowler on April 1, 1935, to study the best method of controlling the Kansas and Missouri Rivers. After two years of work funded by a twenty-five-thousand-dollar allocation from the Public Works Administration, Fowler presented a flood control plan that emphasized tributary reservoirs to protect Kansas City. In his final report submitted March 20, 1937, he argued that “plans for the solution of the Kansas River flood problem present a clear-cut conflict between river control by reservoirs—far reaching in its effects—as against flood protection by levees purely local in character.” Emphatically, Fowler recommended “river control through reservoirs” because this would allow continuance

among the several states) was extended to flood control. As Frank Trelease has stated, using this structure for a foundation, Congress has built a huge program of river regulation and water control. See Ven Te Chow, *Handbook of Applied Hydrology: A Compendium of Water-Resources Technology* (New York: McGraw-Hill, 1964), 27–32.

51. The Flood Control Act was written hurriedly in a crisis atmosphere to address a complex problem. See Arnold, “The Flood Control Act of 1936,” 23–24. Historian William Leuchtenburg criticized the “ill conceived and wretchedly drafted Flood Control Act of 1936.” He concluded that the act was designed to restrict federal river valley development to the single field of flood control, to hamper any federal power policy, to augment the strength of the army engineers, and to encourage the states to assume as great a share as possible of river basin development. See William Edward Leuchtenburg, *Flood Control Politics: The Connecticut River Valley Problem, 1927–1950* (Cambridge: Harvard University Press, 1953), 96–97.

52. Arnold, “The Flood Control Act of 1936,” 19. The policy established in 1936 and 1938 prevailed for three decades. The goal of a national planning group for water resource projects was deferred until the establishment of the U.S. Water Resources Council under the Water Resources Planning Act of 1965. The council was, in turn, abolished by the Reagan administration in 1981. See Rutherford H. Platt, “Floods and Man: A Geographer’s Agenda,” in *Geography, Resources, and Environment: Themes from the Work of Gilbert F. White*, vol. 2, ed. Robert W. Kates and Ian Burton (Chicago: University of Chicago Press, 1986), 47.

47. *Ibid.*, 50–51, 53–54, 57, 58.

48. A heavy storm during the night of May 30–31, 1935, produced the greatest flood of record (at that time) in the upper part of the Republican–Kansas River basin. In the upper parts of the valley in Colorado and Nebraska, one hundred people were killed. In the lower part of the basin below Junction City, the flood was nearly as great as the flood of 1903. In Kansas ten lives were lost; 1,485 homes and more than 200,000 acres of land were damaged. See Robert Follansbee and J. B. Spiegel, *Flood on Republican and Kansas Rivers May and June 1935*, USGS Water-Supply Paper 796-B (Washington, D.C.: Government Printing Office, 1937), 21, 43.

49. For the full text of the 1936 Flood Control Act, see *U.S. Statutes at Large* 49 (1936): 1570.

50. During the twentieth century the federal responsibility to improve navigation under the Commerce Clause (regulating commerce



Kanopolis Reservoir on the Smoky Hill River became Kansas's first major flood control dam, with construction beginning in 1940. By 1948 Kansans were enjoying recreation on what Kiro Dam supporters once hoped to attain: "a broad sheet of water."

of the normal business and community activities throughout the valley. Following up on the concept of tributary reservoirs, he proposed the construction of Milford Reservoir on the Republican River (storage capacity 1.17-million-acre-feet) and Tuttle Creek Reservoir on the Big Blue River (storage capacity 1.18-million-acre-feet). These would be operated only as detention basins, leaving the land available for cultivation except during extreme floods and avoiding "one of the serious objections raised concerning the Kiro project." Since Fowler estimated the cost of raising the levees at more than thirty-seven million dollars, he insisted that construction of the flood control reservoirs at a cost of more than fifty millions dollars was actually the best solution for Kansas City.⁵³

While Kansas City leaders strengthened their case between 1935 and 1937, senior army engineers decided in the 1935 "Comprehensive Report on Reservoirs" that reservoirs on the tributaries of the Mississippi River were necessary to reduce flood heights on the main river. A few days after the release of Fowler's report, the army engineers discussed their revised flood control plans with valley residents. They listened to public comments in Salina April 6, in Manhattan April 7, and finally in Topeka April 8, 1937. At the Salina hearing Captain Heath Twichell recommended seven reservoirs on the Kansas River tributaries as the most economical means of flood control in central and western Kansas. These would be located at Kanopolis and Cedar Bluff on the Smoky Hill River, Wilson and Russell on the Saline, Nicodemus on the

South Solomon, Kirwin on the North Solomon, and Cawker City at the junction of the two branches of the Solomon. Twichell estimated the cost of these reservoirs at fifteen to twenty million dollars. At the Manhattan hearing, district engineer Colonel P. A. Hodgson told two hundred people that Manhattan could be protected against floods if Milford Reservoir on the Republican River and Tuttle Creek Reservoir on the Blue River were constructed. Actually, levees around the cities would be the cheapest system of flood control, but the proposed reservoir system "would provide protection for a greater area at a comparatively smaller cost."⁵⁴

At the final public hearing in Topeka, a construction plan for the Milford and Tuttle Creek Reservoirs was the main subject. To head off public opposition, the army engineers insisted that Milford and Tuttle Creek would not be storage reservoirs. Instead, the proposed structures would be used as flood detention units—"there would be no permanent lakes at the sites, and farming could be carried on all during the year with the exception of the flood periods." The area of the proposed Tuttle Creek Reservoir would be approximately 45,700 acres and the Milford Reservoir would be 55,700 acres. Together the two tributary reservoirs could collect slightly more water than the despised Kiro project. Engineers also studied four other possible dam sites: on the Vermillion near Onaga, on the Delaware near Perry, on Stranger Creek near Linwood, and one on the Wakarusa near Clinton. However, these sites were ruled out as being economically unfeasible. Finally, under the legislation then in effect, landowners or municipalities along the Kansas River would have to pay the cost of buying the land inundated by the reservoirs or buying flood

53. Frederick H. Fowler, "Kansas River Flood Report to the Flood Protection Planning Committee for Greater Kansas City" (San Francisco: F. H. Fowler, 1937), cover letter 1-3. The estimate for the high levee plan is from *ibid.*, 42.

54. "Proposes Reservoirs," *Topeka Daily Capital*, April 8, 1937; "Study Flood Control," *ibid.*

rights on the sites. The federal government would pay only for the actual construction of the dams.⁵⁵

Much of the public meeting was devoted to comments by interested landholders and representatives from Milford, Wakefield, Onaga, Manhattan, Topeka, Lawrence, Kansas City, and other cities. Charles Moore, of the Kiro Dam Association, brought up the Kiro Reservoir project again and argued that it “would cost approximately the same as the [tributary] reservoirs, would condemn a smaller amount of land, and would provide water for irrigation and power as well as flood control for the lower Kaw valley.” Colonel Hodgson answered that the Kiro Dam was considered economically unfeasible, but it was still open to consideration by higher authorities. The meeting concluded with a warning from George Knapp that, “unless a system of reservoirs is undertaken for long-time protection, the Kaw valley might see another flood that would cause more damage than the one in 1903. If we do get another flood of that type, property damage in excess of \$100,000,000 is entirely possible.”⁵⁶

In December 1937, following the Fowler report and the Kansas public hearings on flood control, the Lower Missouri Drainage Basin Committee (successor to the Mississippi Valley Committee) endorsed a plan for flood control reservoirs on tributaries, even though these reservoirs were more expensive than levee improvements. The committee agreed that reservoirs provided protection with the minimum disturbance of the Kansas City industrial district.⁵⁷ This recommendation placated the leaders of Kansas City industry and railroads and confirmed the national trend away from levees toward the new method of flood control reservoirs.

Financing flood control by local property owners and municipalities proved to be impossible during the Great Depression. Most of the projects authorized in the 1936 Flood Control Act could not be started because the states and regions could not provide their share of the necessary



A plan to control flooding on the Kansas River with tributary reservoirs resulted in Milford Reservoir (pictured above in 1964) on the Republican River and Tuttle Creek Reservoir on the Big Blue River.

funds. This pushed a normally conservative Congress to change the cost-sharing requirements established in 1936 for nonfederal contribution of land, easements, and rights-of-way for flood control dams and channel improvements. From that time on, local interests preferred flood control dams and reservoirs built entirely at federal expense.⁵⁸ After 1941, when the costs of reservoir construction, operation, and maintenance were assumed entirely by the federal government, the shift toward reservoirs instead of levees as the most important flood control technology was complete.⁵⁹

Recalling the destructive floods during the years from 1903 to 1935, Kansas leaders voiced support for flood control reservoirs. When state engineer George Knapp testified before the House Committee on Flood Control on April 14, 1938, he admitted that local flood protection through levee districts had been “too small to cope with the broader problems” on Kansas streams. Knapp reported:

My studies have led me to the conclusion that a reservoir system is the only thing that will adequately solve the flood problems in the State of Kansas, and I

55. “Flood Reservoir and Levee Plans Now Before City,” *ibid.*, April 9, 1937.

56. *Ibid.*

57. The Basin Committee reported to the Water Resources Committee of the National Resources Committee appointed by President Roosevelt. Frederick Fowler also served as consultant to this committee. “Drainage Basin Committee Report for the Lower Missouri Basins,” (Washington, D.C.: Government Printing Office, December 1937), 5–6.

58. Platt, “Floods and Man,” 39.

59. Theodore M. Schad, “Evolution and Future of Flood Control in the United States,” in Rosen and Reuss, *The Flood Control Challenge*, 32–33.



“The greatest Kansas River flood of the century” came in 1951, a disaster that finally unified public support for flood control in Kansas. In this photograph, railroads are crippled by floodwaters in Kansas City, Kansas, July 1951.

am convinced that a reservoir system is better adapted to controlling floods on tributaries and headwater streams than a levee system for the reason that the valleys are narrow and the flood crests are very sharp and of short duration. . . . I should like to say that reservoirs on Kansas streams are needed not only from the standpoint of protecting against floods as such, but also from the standpoint of supplementing the low-water flow.⁶⁰

In a corresponding shift, the army engineers recommended to Congress in 1938 that a series of dams be constructed on the Kansas River tributaries above the major metropolitan areas of the basin. Dropping the idea of a dam on the main Kansas River, their new plan emphasized the two key flood control dams proposed in the Fowler report and moved toward the plan for several upstream reservoirs advocated by the Kaw Valley Flood Control Association. By this time the Corps of Engineers accepted the New Deal

60. Comprehensive Flood-Control Plans, Hearings, House Committee on Flood Control, 75th Cong., 3d sess., 1938, 790–91. Some historians have argued that the controversy over water development increased after passage of the 1945 Kansas Water Act. The Water Act was intended to allow the maximum development of water resources in Kansas and provided a central authority, the Division of Water Resources, Kansas State Board of Agriculture, to manage this scarce resource. See Sherow and Socolofsky, “Kansas and Water: Survival in the Heartland,” 106; Robert Irvine, “Water and the Law,” *Kansas History: A Journal of the Central Plains* 19 (Spring 1996): 33–35. Flood control also was an issue that contributed to the change in public opinion and policy.

program of multiple-purpose reservoirs that could provide for flood control, navigation, irrigation, and even hydroelectric power.⁶¹

Congress approved the program of tributary reservoirs in Kansas in the “general comprehensive plan for flood control in the Missouri River” enacted in the 1938 Flood Control Act.⁶² Although Tuttle Creek on the Blue River and Milford on the Republican were authorized, both dams were opposed by local property owners, and Congress did not appropriate construction funds. Of the three reservoirs authorized in 1938, only the Kanopolis Reservoir on the Smoky Hill River was actually initiated in 1940.⁶³

Building a comprehensive system of multiple-purpose dams and reservoirs in the Kansas River basin would require millions of federal dollars spent over the next four decades. A decisive step toward the goal came after the summer of 1943—one of the worst years for national flood disasters for some time—when Lewis Pick, then Missouri

61. Schad, “Evolution and Future of Flood Control in the United States,” 32.

62. House Flood Control Committee Doc. 1, “Report of the Chief of Engineers,” 75th Cong., 1st sess., 1937, cited in 75th Cong., 3d sess., 1938, H. Rept. 2353, 16–17.


63. Comprehensive Flood Control Plans, Hearings, House Committee on Flood Control, 75th Cong., 3d sess., 1938, 806–7. By 1942 the Kanopolis project was 50 percent complete, but Congress suspended construction in 1943 because of the war and work resumed in 1946. See Branyan, *A History of the Kansas City District Corps of Engineers*, 70–71.

division engineer, issued his famous report on flood control. He promoted the plan to the public and presented it to the House Flood Control Committee in 1944. A competitive proposal for the Missouri River basin offered by William Sloan, Bureau of Reclamation, focused on irrigation and reclamation. In October 1944 the proposals were merged in a joint report that incorporated every project in both plans.⁶⁴ Congress finally enacted the Pick–Sloan plan in February 1945, which promised complete control of the rivers in the Missouri River basin, including the Kansas River.

So, in the darkest days of the depression, the army engineers surprised Kansans with the announcement of a gigantic dam and reservoir to be constructed on the Kansas River. Such an unprecedented attempt to engineer flood control failed, but the ambition to control rivers grew stronger. The Kiro Dam was significant because the proposal advanced the method of flood control through reservoirs only six years after levees had been shown to be inadequate. The Kiro controversy determined that several flood control reservoirs had to be built on tributaries, not one big reservoir on the main Kansas River. Finally, the Kiro proposal demonstrated that reservoirs were too expensive for local municipalities and state governments. If large reservoirs were to be built, the federal government would have to pay for this system of flood control.

64. For the Pick–Sloan plan, see 78th Cong., 2d sess., 1944, H. Doc. 474. See also Marian Ridgeway, *The Missouri Basin's Pick–Sloan Plan* (Urbana: University of Illinois Press, 1955), 97. The plan provided for the construction of 316 projects including 112 dams and hundreds of miles of levees and other flood protection structures. See John R. Ferrell, *Big Dam Era: A Legislative and Institutional History of the Pick–Sloan Missouri Basin Program* (Omaha: Missouri River Division, U.S. Army Corps of Engineers, 1993), 179.

Flood control projects were not simply engineering choices but complex political and economic decisions. The history of the “biggest Kansas lake” that wasn’t built shows how policy changed through competition among groups that wanted different projects to meet their particular needs. The Kiro Dam proposal divided upstream and downstream residents, rural and urban Kansans. Failure of the Kiro Dam and opposition to Tuttle Creek Dam delayed the construction of a dam and reservoir system in Kansas until after the greatest Kansas River flood of the century in 1951. Then, the flood control controversy pitted the farmers of the Blue River valley against the army engineers; the urban residents of Topeka, Lawrence, and Kansas City; and even President Harry Truman.⁶⁵ In the end, the farms and small towns of the Blue River valley could not be defended against society’s need to protect downstream industries, railroads, and cities.

That 1951 disaster finally unified public support for flood control in Kansas and committed Kansans to the Pick–Sloan program for the region. By asking for the control of rivers, however, Kansans gave up much of their power to determine local water management policy. From 1933 to 1955 Kansas provided a test case for flood control through engineering. By doing so, the water politics of Kansas contributed to the making of an environmental policy that transformed the rivers of the Missouri basin and the other great river basins of the United States. 

65. Hostile reaction in 1933 set a precedent for the Tuttle Creek Dam controversy in the early 1950s. As a reporter asked, “what was this Kiro dam? It was simply Tuttle Creek set down at a spot seven or eight miles west of Topeka.” See “Kiro Dam Battle 20 Years Ago was Bitter Forerunner of Tuttle Creek Row,” *Topeka State Journal*, June 13, 1953.