FIGURE 1. Lock and Dam No. 1 under construction, 1916. St. Paul District, Corps of Engineers.

Chapter 5

Transforming the River II: Commerce, Navigation Improvements and Hydroelectric Power, 1907-1963

By May 19, 1907, when the *Itura* steamed through the Meeker Island Lock and Dam, the Mississippi River through the MNRRA corridor had been altered in striking ways. Still, the river followed its cycles. As the spring runoff waned, the river fell and the wing dams and closing dams below the Minnesota River's mouth directed the flow to the Mississippi's main channel. As the river continued falling, mud flats extended farther and farther out from the shores. If a drought occurred, the river dropped so low that channel constriction became ineffective and people could wade across the river. At St. Anthony, the falls would slow to a trickle, unless the Corps released water from the Headwaters Reservoirs. Then the river might rise by a foot to a foot and one-half. No navigation structures blocked or constricted the river between St. Anthony Falls and the Crow River, and through this reach the Mississippi's natural cycles were more evident.

Between 1907 and 1963 most semblances of the natural river would disappear. A series of new locks and dams would reshape the river's physical and ecological character. In 1913 the Coon Rapids Dam created a 600-acre pool, with an eight-foot head against it, for hydroelectric power. In 1917 the Corps completed Lock and Dam 1 *(Figure 1)* and in 1930 Lock and Dam 2 at Hastings. The Corps replaced the Lower Hydro Station Dam in 1956 with the Lower St. Anthony Falls Lock and Dam. And in 1963 the Corps completed the Upper St. Anthony Falls Lock, stretching the 9-foot channel and head of navigation 4.6 miles farther upstream.

The river still rises to its natural level during floods but cannot fall to its normal low water stages. No one can wade across the Mississippi River from Minneapolis on down. Only in two short reaches would this be possible today: somewhere between the head of navigation and the Coon Rapids Dam and above the Champlin Bridge, where the impounding effects of the Coon Rapids Dam disappear. This chapter looks at who built the dams and why. *(Figure 2)*

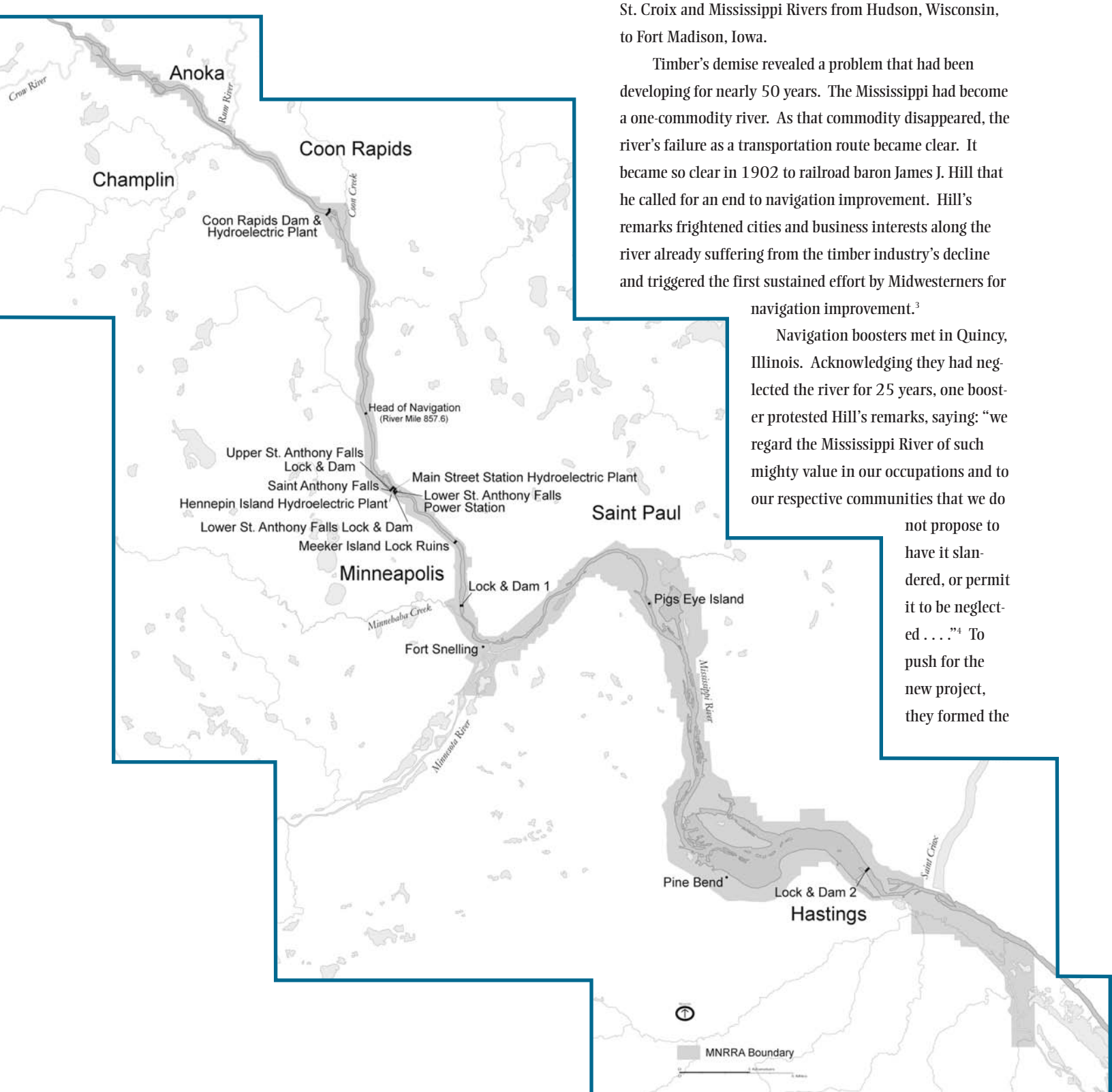
The 6-Foot Channel

Despite the Corps' efforts with the 4½-foot channel, river traffic declined. By 1880 the heyday of steamboating had passed. Railroads had taken most of the grain and passenger traffic away, and by 1890 timber rafting remained the only significant commerce.[1] Timber products dominated the upper river's traffic from the 1870s to the first decade of the twentieth century. Timber shipping, however, fell with the white pine forests of western Wisconsin and northern Minnesota. At its peak, between 1893 and 1894, the lumber industry employed about 100 raft boats and 100 sawmills on the upper Mississippi River *(Figures 3 and 4)*. The number of sawmills dropped to 80 by 1900, 36 by

FIGURE 2. (Below) By 1963, locks and dams defined the Mississippi through most of the MNRRA corridor. In only two small reaches, at the corridor's far northern end, could the river fall to its natural low stages.

FIGURE 3. (Top right) Timber raft and raftboat near Wabasha Street Bridge in St. Paul, 1878. Minnesota Historical Society.

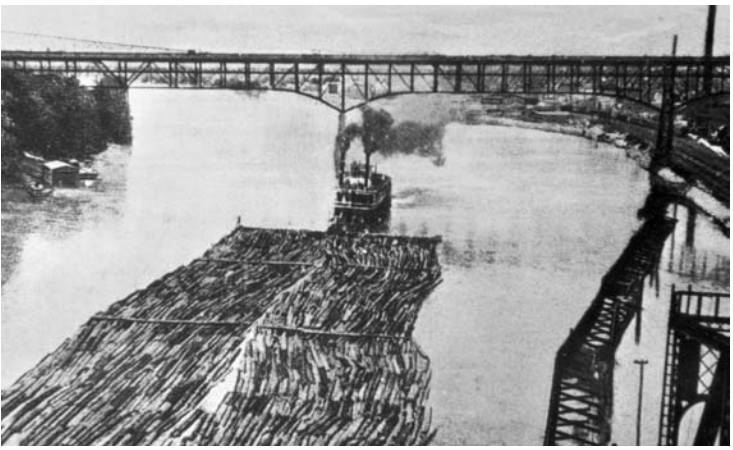
FIGURE 4. (Bottom right) Stereoscopic view of C. A. Smith lumber mill above St. Anthony Falls, 1885. Photo by Underwood and Underwood. Minnesota Historical Society.



1903, and 1 by 1913. Raftboats followed a similar decline. Of more than 100 raftboats plying the upper river in 1893, 86 remained in 1900, 20 in 1906, and only four in 1912.[2] In 1915, the last lumber raft floated down the St. Croix and Mississippi Rivers from Hudson, Wisconsin, to Fort Madison, Iowa.

Timber's demise revealed a problem that had been developing for nearly 50 years. The Mississippi had become a one-commodity river. As that commodity disappeared, the river's failure as a transportation route became clear. It became so clear in 1902 to railroad baron James J. Hill that he called for an end to navigation improvement. Hill's remarks frightened cities and business interests along the river already suffering from the timber industry's decline and triggered the first sustained effort by Midwesterners for navigation improvement.[3]

Navigation boosters met in Quincy, Illinois. Acknowledging they had neglected the river for 25 years, one booster protested Hill's remarks, saying: "we regard the Mississippi River of such mighty value in our occupations and to our respective communities that we do not propose to have it slandered, or permit it to be neglected . . . ."[4] To push for the new project, they formed the



Upper Mississippi River Improvement Association (UMRIA).[5] Unlike the efforts behind the 4- and 4½-foot channel projects, 6-foot channel boosters established a concerted movement to win approval for their project and proposed to meet annually.

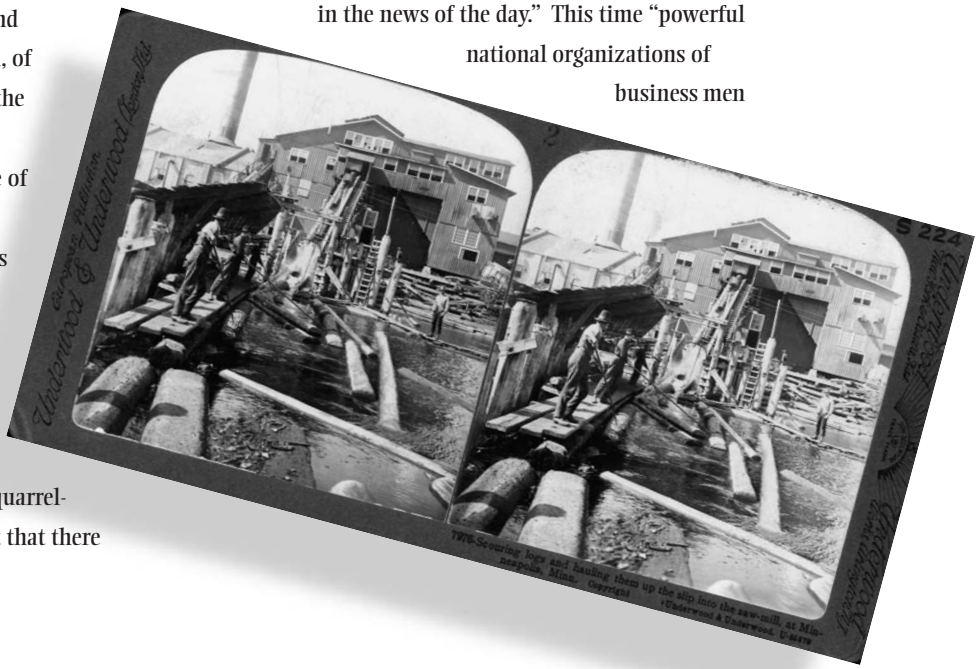
The UMRIA's task was daunting. While they tried to excite merchants and farmers throughout the Midwest to use the river, they failed. For the first two decades of the new century, farmers enjoyed a period of prosperity so strong some agricultural historians call these decades the golden age of American agriculture.[6] Farmers and merchants away from the river enjoyed moderate rail rates. So, early on, neither group pushed for the 6-foot channel.

Congress questioned the project. Rivers and Harbors Committee member Joseph E. Ransdell, of Louisiana, explained the problem. Speaking to the 1906 UMRIA convention, he reported that the Congress had granted the committee an average of $19.25 million per year over the last decade. Waterway boosters had projects before Congress totaling $500 million, and the Corps had already approved these projects. Consequently, he complained, "The work given to us is that of elimination, to cut off here, to slaughter there, to twist and to squirm around the difficulty and to do a little quarreling too."[7] But the problem, he insisted, was not that there were too many projects; rather, Congress did not place the right priority on waterway development. Navigation projects, he argued, needed to be put on a par with other major programs, such as the army, navy, post office and pensions. Instead of $19.5 million averaged over a number of years, he called for an annual appropriation of $50 million.[8]

The National Context

If the UMRIA hoped to vie with hundreds of projects, totaling hundreds of millions of dollars, America's attitude toward river and harbor spending would have to change. The UMRIA could not do this on its own. Only a national movement could generate the support needed to make Congress and the American public alter their priorities. Two such movements were under way. The first was a national waterways movement, focused specifically on navigation improvements. The second, the Progressive movement, was far broader and encompassed many aspects of American life, from business practices and urban government to the most efficient use of the country's natural resources.[9] Both movements reflected changes occurring in the nation's attitude toward waterway development and both movements are represented by structures in the MNRRA corridor.

Paralleling the new and more rigorous review of waterway legislation, a "remarkable reversal" occurred in the public's attitude toward rivers and harbors projects between 1895 and 1912. Such projects had been largely ignored by the press before 1895, except for being criticized as pork barrel. After 1895, they became "very much in the news of the day." This time "powerful national organizations of business men



and leading politicians, supported by the full might of the press" backed the navigation movement.[10]

During the latter years of the nineteenth century and early years of the twentieth century, the United States "witnessed a new enthusiasm for the improvement of its navigable streams. Communities throughout the country seemed to catch a vision of the unlimited possibilities for local economic growth which cheaper transportation could create."[11] Strongly supported by urban merchants and manufacturers, shippers fought to strengthen the Interstate Commerce Commission's power to regulate railroad rates and actively promoted inland navigation projects. As the movement gained strength, "The interests of merchants and manufacturers soon became merged with the larger interests of the entire community, as local and regional waterway publicity groups and newspaper editors warned that the future growth of the community itself depended on cheaper transportation." Support for waterway improvement grew so intense that it became an issue of "local patriotism." Many politicians recognized a windfall and eagerly capitalized on this demand.[12] One reason for the new attitude was rail rates had begun rising.[13]

The new enthusiasm reached the Mississippi River. "A GREAT public movement has arisen in the Mississippi Valley," W. J. McGee proclaimed. Born in Dubuque County, Iowa, McGee would become President Roosevelt's principal voice for multiple resource water development. The national navigation movement had begun, McGee said, a decade or two before when unfair railroad practices drove the packet boats out of business. The problem worsened as shipping costs increased and shipping facilities for river traffic decreased. As production from mines, factories and farms mounted, the problem grew into a crisis. McGee contended that "the discontent has grown into a movement akin to revolt on the part of the millions of farmers, small manufacturers, and retail dealers in the interior." Placing the movement in a sectional context, McGee argued that the Midwest now demanded "recognition of the rights of the interior as against those of the seaboard."[14]

Evidencing a new interest in waterways, important waterway organizations emerged during the first years of the new century. One sought an intercoastal water route from Boston to the Rio Grande River, in Texas. Navigation boosters along the Mississippi and Illinois Rivers formed the Lakes-to-the-Gulf Deep Water Association to call for a deep channel from Lake Michigan, through the Illinois River, to the Mississippi. And boosters from St. Louis to the Twin Cities established the UMRIA. The National Rivers and Harbors Congress, created by boosters from around the country in 1901, attempted to unify these efforts.[15]

After sputtering for several years, the Rivers and Harbors Congress hosted a conference in Washington, D.C., on January 15 and 16, 1906. The Congress reorganized and elected Rivers and Harbors Committee member Joseph Ransdell as its president. UMRIA President Thomas Wilkinson accepted a seat on the board of directors. The organization's "object and purpose," he reported to the 1906 UMRIA meeting, was to teach people about the significance of the country's waterways "and to create such a strong public sentiment, in favor of larger and more regular appropriations by Congress for river and harbors improvement, that will induce Congress to appropriate, at least, 50 million dollars annually for that object, instead of the beggardly amount now appropriated, . . ."[16] Only a national organization, he declared, could secure the funding needed for waterway improvements. The UMRIA immediately joined the Rivers and Harbors Congress, paying a $100 fee. Over the next two years, the Congress gained members from 33 states and a membership of some 30,000.[17] Its members included "commercial, manufacturing, waterway and kindred associations, commercial firms and public spirited individual citizens."[18] Farmers remained notably absent from the list.

Demonstrating the national waterway movement's political strength and popularity, members of Congress had openly pushed for its rebirth. As Captain J. F. Ellison, secretary of the National Rivers and Harbors Congress, reported: "The re-organization of the National Rivers and Harbors

Congress as it now exists, was by the direct request of more than a majority of the Rivers and Harbors Committee of the House of Representatives."[19] Chiefs of Engineers, Secretaries of War and Presidents of the United States would attend and speak at the meetings.[20] In what would be a clear conflict of interest today, Representative Ransdell had become its president and many other Representatives and Senators sat on its board. Of the 1906 Rivers and Harbors Congress meeting, McGee proclaimed: "It is safe to say that during the past quarter century no other body of delegates produced so deep an impression on the legislative and executive branches of the Government."[21] More so than the UMRIA, the Rivers and Harbors Congress would bring the need for navigation improvements on the upper Mississippi River to national attention.

The Progressive Movement • Paralleling the growing strength of the national navigation movement, another far broader movement was gaining momentum in America: the Progressive movement. While it would not affect the 6-foot channel project effort as directly as the waterway movement, it was critical to the context in which the effort occurred. It also helped define the evolution of hydroelectric power in America, and, consequently, the future of the Meeker Island Lock and Dam, Lock and Dam 1, and the Coon Rapids Dam.

Scholars disagree about the causes and agendas of the Progressive movement, but they agree that between 1890 and 1920 something fundamental changed in American society, and Americans responded in new and unique ways. Whether in city slums or city halls, in the management of corporations or the management of the federal government, in the use of forests or waterways, Americans sought to bring order to their rapidly changing lives through scientific and technical rigor.[22] Conservationists within the Progressive movement attempted to reshape how Americans approached their natural resources.

Scholars also disagree over the national conservation movement's dominant themes. Some have seen it as an attempt by activists to stop big businesses from selfishly taking the nation's natural resources. Historian Samuel Hays, leading another school, suggests that "Conservation, above all, was a scientific movement, . . . Its essence was rational planning to promote efficient development and use of all natural resources."[23] Progressive conservationists wanted professionally trained foresters, geologists, economists and experts from other appropriate disciplines to determine how the nation used its public resources. They did not want these resources consumed through political and economic manipulations that were inefficient and wasteful. They did not object to big businesses using the country's natural resources; they objected to unplanned and wasteful consumption.

Beginning with the federal development of irrigation, they initiated a broad campaign for the multiple use of natural resources, especially water resources. Waterways, they insisted, could be used for hydroelectric power, flood control, navigation, and irrigation. Why build dams for navigation, they asked, and not consider the hydroelectric power potential? Some conservationists hoped to preserve untainted large parts of the nation's wild and scenic areas, but they were a small minority. A growing realization that America's natural resources were finite motivated most conservationists.

Hydroelectric Power • The development of hydroelectric power awakened Americans to the multiple uses that the country's rivers and streams could serve and directly affected projects on the upper Mississippi River. Hydroelectric power represented a spectacular new power source, with implications for national and regional economic development. Whoever obtained the best sites stood to make millions of dollars and gain the economic clout to dictate the growth of cities and regions. To Progressive conservationists, hydroelectric power meant more than using waterways to their fullest. It offered a way to pay for all waterway projects but, if developed unwisely, it represented the waste of a valuable natural resource.

By charging rent for the use of dam sites, conservationists hoped to finance navigation improvements without appropriations from Congress. For this reason, Hays argues, "Hydroelectric power provided the financial key to the entire multiple-purpose plan."[24] Conservationists charged that Congress had been giving away hydropower sites for little or no fee and had been granting indefinite or inordinately long leases for those sites. They argued that the water power of a site belonged to the people of the country, and those who developed it should pay a fee. As a very few large firms had won many of the best sites, conservationists worried that those firms would soon monopolize the country's hydroelectric power. Conservationists tried to establish a policy to remedy these problems.[25]

Conservationists and their opponents generally agreed that the government had the right to charge power companies for the use of government-built dams in navigable rivers. Since the government had built the dam at the public's expense, the public had the right to be reimbursed by a company using the dam to generate power.[26] Disagreement came over sites in navigable rivers where the government had not yet built a dam. In these cases, states' rights advocates, power companies and the Corps argued that private citizens or companies had the right to build a dam and power plant and should not have to pay any fees. They insisted that the state, not the federal government, had the authority to establish fees or set time limits for the use of such sites.[27] Theodore Roosevelt and other leading conservationists disagreed *(Figure 5)*.

In 1903 Roosevelt sent a warning to Congress, when he vetoed a bill granting a private company the right to build a hydroelectric dam on the Tennessee River at Muscle Shoals, Alabama. Observing that requests by individuals and companies to build dams in navigable streams had increased tremendously, he asked Congress to develop a standard policy for reviewing and distributing grants to hydroelectric power developers. The Muscle Shoals bill would have given a grant without fair competition, although it did provide for Corps review and for "reasonable charges. . . ."[28] Nevertheless, Congress continued to approve projects with few requirements.[29]

FIGURE 5. President Theodore Roosevelt. Minnesota Historical Society.

Responding in part to Roosevelt, but more so to deal with the increasing volume of requests for hydropower grants, Congress passed the General Dam Act of 1906. The Act required that Congress approve each project and that those receiving grants adhere to a limited set of conditions. While the Act did not explicitly require fees or set time limits, conservationists insisted that the act gave the Corps authority to require both. Corps leaders, backed by Secretary of War William H. Taft, held that the Act only granted them the authority to evaluate dam projects for their effect on navigation. Consequently, Roosevelt ordered the Secretary of War and the Corps to accept his views. He could not, however, convince Congress to back him.[30] The feuding continued for the next 14 years and directly affected the development of hydroelectric power at Lock and Dam 1. Roosevelt and his conservationists had aroused the

American public to the issues surrounding the hydroelectric power development and further stirred American awareness about the use and development of water resources.

Through their efforts, conservationists recognized the need to maximize the benefits of the nation's waterways for the American public. Given the growing popularity of the national waterways movement, conservationists hoped to capture the support of navigation boosters to make multiple-purpose water planning a reality.[31] They recognized that most boosters cared only for their own projects, and conservationists began an effort to broaden those interests.

W. J. McGee became one of the administration's most active proponents of a multiple use program for the nation's waterways and, according to Hays, the conservation movement's chief theorist. McGee helped found the Geological Society of America and the National Geographic Society, becoming its president from 1904 to 1905. He became president of the American Anthropological Society in 1911. McGee left the Bureau of Ethnology, in Washington, D.C., in 1903 to head up the anthropological exhibits for the St. Louis Exposition and became director of the St. Louis Public Museum. While he was in St. Louis, navigation improvement caught his attention.[32]

McGee laid out his multiple use program for the nation's rivers, especially the Mississippi, in a 1907 article entitled "Our Great River." After a resounding endorsement of navigation improvements, McGee pleaded with readers to consider more than navigation. As a key prerequisite to navigation improvements, the country had to reduce the massive amounts of sediment flowing into the Mississippi and its tributaries. To reduce the sediment load, states within the watershed had to preserve their forests, and farmers had to begin practicing soil conservation. And before they began developing the Mississippi and its tributaries for navigation, they had to consider urban water supply, hydroelectric power, irrigation, canals and reclamation. The individual states and the federal government had to work together to develop a comprehensive plan.[33] The plan would include all the related branches of science and would treat the river as an interdependent system.[34]

Together, the Progressive conservation movement and the national navigation improvement campaign brought waterway issues into the everyday life of Americans as never before. In this context, Congress passed the Rivers and Harbors Act of March 2, 1907, authorizing the 6-foot channel project, and residents of the Twin Cities would reconsider the Meeker Island and Lock and Dam No. 1 projects.

Water Over the Dam

The *Itura* steamed into the new Meeker Island Lock on May 19, 1907, but as new as the lock was, history had passed it by. Between 1894, when Congress authorized the Meeker Island project, and 1907, when the Corps completed it, hydroelectric power came of age. At the beginning of the 1890s, most Americans viewed hydropower as a curiosity, but the opening of the Niagara Falls hydropower plant in 1894 changed this.[35] Residents of the Twin Cities observed the transition firsthand. In 1882 the Minnesota Brush Electric Company opened the first hydroelectric power station in the United States on Upton Island at St. Anthony Falls. Although it had a limited generating capacity and few customers ready to employ its power, the station heralded the coming of hydroelectricity. Between 1894 and 1895, the Minneapolis General Electric Company built its Main Street Station at St. Anthony, and in 1897, the Pillsbury-Washburn Company completed the Lower St. Anthony Falls dam and hydroelectric plant, providing power to Thomas Lowry's Minneapolis Street Railway Company *(Figure 6)*. These projects and successful long distance power transmission demonstrated the practicality and value of hydroelectricity and allowed the power of the falls to reach far beyond the river.

Combined with the national interest in conservation, this awakening to hydroelectric power led residents and business interests in the Twin Cities to question why they had wanted two locks and dams immediately downstream from St. Anthony Falls. Laying aside their longstanding

feud, they began working together to convince the Corps and Congress that the project should be reviewed and revamped. Congress, going through a similar awakening, and the Roosevelt administration, with its strident emphasis on conservation, readily supported the change.[36]

In the River and Harbor Act of June 25, 1906, Congress created a commission to examine the river's hydropower potential between Minneapolis and St. Paul. The commissioners held a preliminary meeting in the capital city on March 28, 1907, to study data in the Corps' St. Paul District office and visit the sites. They did not meet again until September 26, when they completed their report and forwarded it to Alexander Mackenzie, now a brigadier general and the Chief of Engineers.[37]

Disappointing hydroelectric power boosters, the commissioners determined that the low head, or short fall, at Locks and Dams 1 and 2 would not permit the economic development of hydroelectric power.[38] Someday, they speculated, higher energy costs and demand from the Twin Cities' growing population would make the power gained from low-head dams more valuable. Then, the hydropower capacity of the two sites would be worth capturing. Twenty to 25 years in the future, they suggested, the cities could even consider building a single high dam downstream of Lock and Dam No. 1.[39] The Board's report reassured Minneapolis that it would remain the head of navigation and that St. Paul would not get hydropower.

The commission's report did not quash interest in developing water power at the locks and dams. The river's steep slope and narrow gorge at Lock and Dam 1, and the fact that the site lay within the major metropolis on the upper Mississippi River above St. Louis, made it the ideal undeveloped hydroelectric site on the river. And, just before the commission's first meeting, Congress changed a major premise that the commissioners failed to consider; it authorized the 6-foot channel project.

FIGURE 6. De la Barre's "folly." Lower St. Anthony Falls Dam and Hydroelectric Station, completed in 1897. St. Paul District, Corps of Engineers. The Twin City Rapid Transit Company steam powerhouse is at the far left. University of Minnesota Steamplant is at the far left.

Locks and Dams 1 and 2 had been designed for a 5-foot channel, so the Engineers had to reassess the design of each. Whatever they decided, the project's cost would increase. Now the expense of starting over could be compared to the

cost of modifying the structures. And as the dams would have to be one foot higher, their hydropower potential would increase.[40] Because of these changes and continued public pressure for a high dam, Congress, in the River and Harbor Act of March 3, 1909, authorized the Corps to examine the projects' hydropower potential again. In the spring of 1909, pending the outcome of this study, the Corps suspended work on Lock and Dam No. 1. As of June 30, the Corps had spent $1,149,453 on the two locks and dams.[41]

To undertake the new study, the Corps appointed a board of engineers that included Majors Charles S. Riche, Francis R. Shunk and Charles Bromwell. The board considered two issues. First, they analyzed whether the Corps could easily and cheaply adapt the 5-foot project to the 6-foot project. Second, they reevaluated the hydropower capacity of the river between Minneapolis and St. Paul. The board considered the navigation issue first and quickly concluded that, with minor changes, the existing project would provide an adequate 6-foot channel.[42]

Developing hydroelectric power raised more difficult concerns. The board concurred with the first study that the low dams could not generate power economically (even with the additional foot of height created by the 6-foot channel project). Only a high dam would make hydroelectric power economical, a high dam built at the Lock and Dam No. 1 site.[43] By redesigning Dam No. 1 for a 30-foot raise, the Engineers estimated they could generate 15,000 horsepower.[44]

To construct the new dam, the board considered two options. The Corps could build the dam alone or it could build the dam in partnership with a private or municipal party. Recognizing the merits of a high dam, the board noted that a single lock and dam would save operating and maintenance costs, would require only one lockage, and in providing a 9-foot depth would not have to be modified under future navigation projects. They also recognized that the Corps could use the rent gained from the hydropower of a high dam to construct and operate the new facility, and the federal government would have an endless surplus of power. But holding to standard policy, the board determined that the Corps could not build a high dam alone, if the reason for building it was only to capture the hydropower.

After extolling the advantages of a high dam to Minneapolis Mayor James C. Haynes, St. Paul District commander Major Shunk explained that "Now comes the difficulty. The United States has no business to meddle with water-power, and must confine its attention strictly to features affecting navigation. . . ."[45] If the Engineers built the project alone, they would have to justify it for navigation. Had the Corps not completed Lock and Dam No. 2 already, the board declared, it could have recommended one, government-built lock and dam. Since the two low dams would secure the depth needed for navigation, it concluded that some other party would have to pay the extra cost of building a high dam.[46]

On the morning of June 9, 1909, the board held a public hearing in St. Paul to determine who might support and finance the dam. Representatives from St. Paul and Minneapolis attended and strongly favored the change. To their surprise, the State of Minnesota also showed interest in the project. To their dismay, private companies also appeared and backed the high dam.[47] Interest by private companies frightened the cities and became a key issue at the meeting.

The Corps fueled worry over private development. Board member Major Shunk told representatives from the cities that the board "would listen to proposals from outside interests to pay all extra cost necessary to raise the dam to such a height as would produce desired power."[48] Hoping to get the hydropower generated by a high dam cheaply, city and state representatives worried that the government would start a bidding war, and they "bitterly denounced" the "attitude of the government in permitting such a prospect. . . ."[49]

Encouraged by the Corps' position, private companies attended the public meeting. A. W. Leonard, manager of the Minneapolis General Electric Company, reported that his

firm could submit a proposal within 60 days and would pay the government the extra cost of constructing a high dam, estimated at $230,000. Paul Doty, representing the St. Paul Gas Light Company, contended that a private enterprise could develop the water power better than the state or municipalities. In response, representatives from the cities insisted that the federal government should favor them, because the water power was a natural resource that belonged to the cities and the state. They asked the board to grant them time to prepare a proposal, which would take much more than 60 days.[50]

Demonstrating their interest and their worry, Minneapolis, St. Paul and the state met after the morning session to discuss a strategy for developing the river's hydropower potential. They formed a nine-person commission, with three members from each party, to prepare a proposal to share in building a high dam. Constitutional requirements, however, prevented them from offering a definite proposal until after the next legislative session in two years. The state's constitution prohibited it from issuing the bonds needed to build the project, and the city charters of Minneapolis and St. Paul barred them from making expenditures for such purposes.[51] While the state's ability to amend its constitution was in doubt, both cities planned to revise their charters. The board, in submitting its report to the Chief of Engineers, noted that "it is the opinion of the mayors of the two cities, of representatives of the city councils, and of all the representative citizens who spoke at the hearing that there will be no difficulty in obtaining legislative action modifying the charters at the next session of the state legislature."[52] Both cities passed resolutions favoring the project.[53]

After evaluating its options, the Corps' board dismissed working with a private company. It based this decision on the reaction of Minneapolis and St. Paul to private development. The board believed it "abundantly evident" that the two cities, which owned much of the land above the dam site, would not relinquish it to a private company. Proposing to work with a private company, the board concluded, "would be equivalent to recommending against a high dam . . . ."[54] The two cities would rather see the power go to waste, the board reported, than let a private firm develop it.[55]

Having eliminated construction by the federal government alone or in concert with a private company, the board elected to work with the Twin Cities to build the new high dam. It believed that the cities would change their charters because of the strong support displayed by the citizens and governments of the two cities. In a dramatic turnabout, Minneapolis and St. Paul agreed to split the cost of building the new structure and to share the hydropower. Minneapolis even agreed to advance St. Paul's share. On the basis of this overwhelming interest, the board recommended that Congress modify the navigation project to raise Dam No. 1 to 30 feet.[56]

W. L. Marshall, the new Chief of Engineers, endorsed the board's recommendations but made an important change. Contrary to the standard Corps position, he urged Congress to fund the entire project. The "construction of such a lock and dam by the Government is feasible, practicable, and legal under existing conditions," he asserted.[57] Sharing the costs with a nonfederal partner, he warned, had proven "conducive to friction and misunderstanding, and often attended serious complications . . . ." If the government paid the full cost, he argued, then it could keep complete control of the waterpower.[58]

Marshall bolstered his position with other arguments. Even though the Engineers had completed Lock and Dam No. 2 and had finished much of Lock No. 1, he speculated that Congress might authorize a deeper project in the near future. The high dam would easily accommodate a project of seven, eight or nine feet. While the new structure would cost some $230,000, he contended that the hydroelectric power generated at the new dam would pay this cost and supply power to other federal offices in the Twin Cities. Once the Engineers built the power station, the government, he proposed, could run it or lease it to a private company or municipality.[59]

Although the board's report did not show it, at least one of its members agreed with the Chief of Engineers. Major Shunk believed that Congress should authorize the Corps to build a high dam for navigation and to capture the river's hydropower. Shunk even tried to convince businessmen in the Twin Cities to support the project. Like other high dam proponents, Shunk argued that it would be easier to operate, would save time, and could pay for itself. He hoped that if the Twin Cities demonstrated enough demand for the project Congress would authorize and fund it. Displaying a deep-seated Progressive mentality, Shunk insisted "the whole issue was not a legal concern, but a moral matter."[60] In a February 17, 1909, letter to Mayor Haynes, Shunk complained that "There is something wrong about partial measures and technically restricted vision."[61] Officially, however, Shunk supported the position that the federal government had the authority only to regulate navigation and not to build or regulate hydroelectric power dams or plants.[62]

On January 31, 1910, the board submitted its report to the Chief of Engineers. Following Marshall's recommendations, Congress called for a high dam in the 1910 River and Harbor Act, "Provided, That in the making of leases for water power a reasonable compensation shall be secured to the United States . . . ."[63] Thus, the St. Paul District began modifying Lock and Dam No. 1 with federal funding. To ensure safe navigation above the new lock and dam, the Engineers demolished the top five feet of the Meeker Island Dam in 1912.

The Twin Cities could no longer gain direct control of the waterpower, but they still could vie for leasing the power. Congress had allowed the Corps to build only the base for a hydropower station, not the station itself. Section 12 of the 1912 River and Harbor Act granted the Secretary of War the authority to "provide in the permanent parts of any dam authorized at any time by Congress for the improvement of navigation such foundations, sluices, and other works, as may be considered desirable for the future development of its water power."[64] It did not permit the government to develop the water power. Before the St. Paul District completed Lock and Dam 1, in 1917, a debate over the federal government's role in hydroelectric power development entangled the project. Consequently, the power station's base would remain unused for more than six years.

The National Debate Over Hydroelectric Power

While Minneapolis and St. Paul tried to get hydroelectric power at Lock and Dam 1, Congress wrestled with what the federal government's role in overseeing water resource development was, especially as it related to hydroelectric power. It was an issue that deeply divided the country. Lock and Dam 1 and the power station eventually built upon it embody this debate.

To prepare a comprehensive plan for developing the nation's waterways, President Roosevelt established the Inland Waterways Commission on March 12, 1907. Conceived of and headed by W. J. McGee, the Inland Waterways Commission called for a multiple-purpose approach and suggested that a single agency coordinate all water resource projects. In December 1907, Senator Francis G. Newlands introduced a bill to create such an agency. This agency would have had the power to investigate water resource problems, authorize projects, supervise construction, and coordinate the activities of all federal water resource agencies. Roosevelt strongly endorsed the bill.[65]

Not surprisingly, Congress and the Corps opposed Newlands' bill. The Corps generally resisted the multiple-purpose approach, as it threatened the agency's role in developing and managing waterways. Newlands' agency would undermine much of the Corps' autonomy in selecting and building projects. To get the Corps and the War Department to report favorably on the bill, Roosevelt again ordered both to support him.[66]

Many senators and representatives also rejected Newlands' bill. Determining which waterway projects to build and fund was an important and rewarding role for

Congress. Representative Theodore E. Burton, chair of the House Rivers and Harbors Committee and a member of the Inland Waterways Commission, opposed the separate agency and introduced a different proposal. Unable to gather enough support for Newlands' version, the Roosevelt Administration approved Burton's. When Congress further modified the bill, the Administration became disenchanted with it. Although the House passed Newlands' bill on May 16, 1908, it failed in the Senate.[67]

By 1913 Congress had stalled over the government's role in developing waterways. Opponents of the multiple-purpose approach had thwarted the program, and Roosevelt conservationists had blocked unlimited leases at hydropower sites for little or no rent. In 1908, Roosevelt had begun vetoing hydropower projects that did not carry such terms.[68] His successor and old adversary on this issue, William H. Taft, questioned this policy. But Henry L. Stimson, who became Taft's Secretary of War in 1911, "was enthusiastic over the possibilities of using revenue from water power to construct multiple-purpose river works."[69]

In 1912 Stimson convinced Taft to veto the Coosa Dam project in Alabama, because it did not provide for a rental fee. In response, Alabama Senator John Bankhead blocked a proposal by the Taft administration to develop hydropower on the Connecticut River that would have established a standard policy for hydropower development. As a result, the government became deadlocked. "This impasse," historian Philip Scarpino contends, "brought a hiatus to hydroelectric development in navigable rivers, . . ."[70] Not until Congress passed the Water Power Act of 1920 did it establish a policy for national hydropower development, and not until then could the St. Paul District begin considering propositions to build a hydroelectric plant at Dam No. 1.[71]

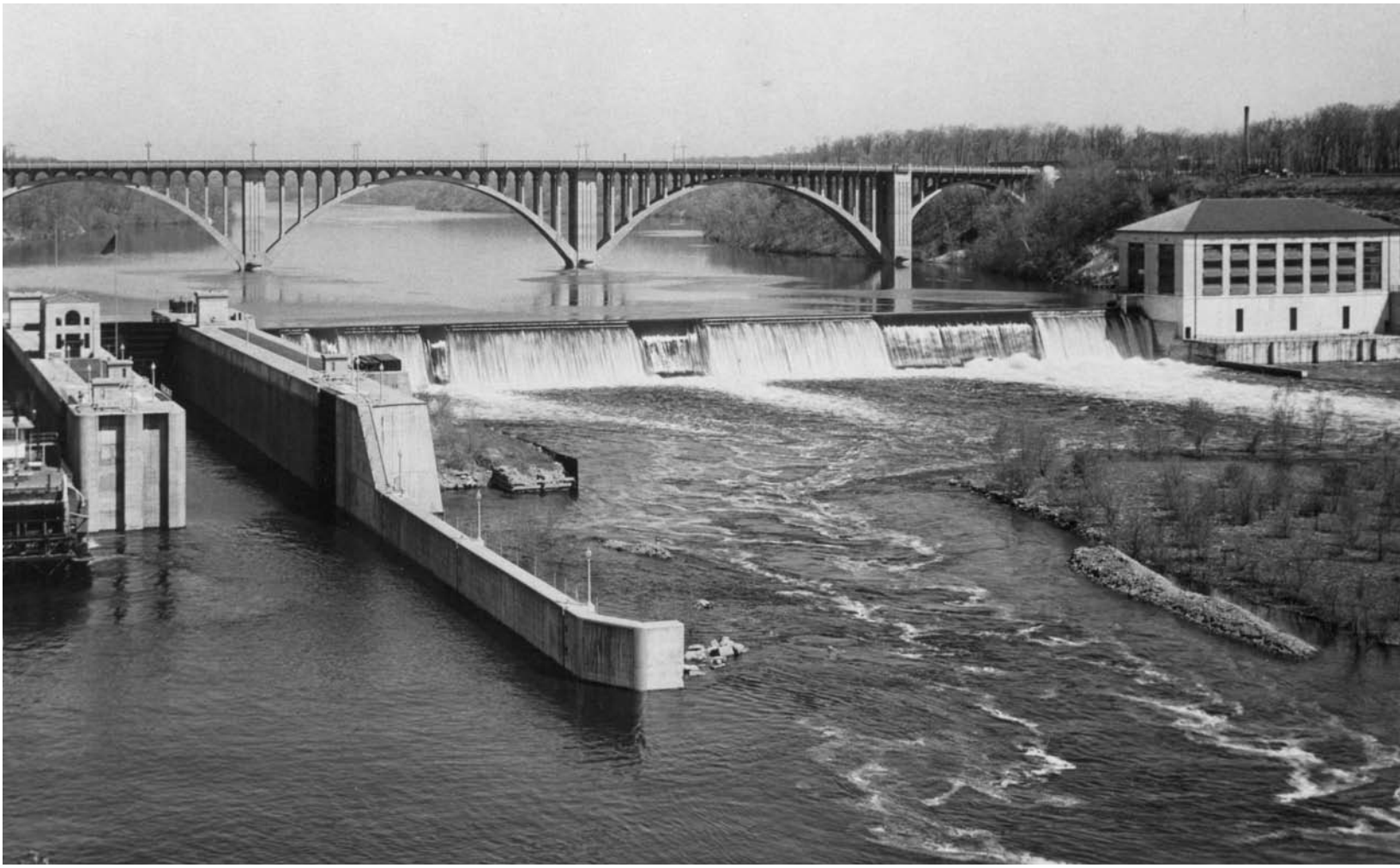
Following the Act's passage, Minneapolis and St. Paul, the Northern States Power Company, and the University of Minnesota submitted proposals for building a power plant at the site, but the Federal Power Commission, which had been created by the Federal Power Act, rejected them.[72] In 1923 the commission finally accepted a proposal backed by the City of St. Paul and submitted by the Ford Motor Company. Ford completed the hydroelectric station in 1924, supplying power to its new truck plant on the bluff above, to the lock and dam, and to others *(Figure 7)*. Finally, 60 years after being first proposed, Minneapolis had its lock and dam and St. Paul its hydropower.

In an era when conservation became a fad, destroying a new lock and dam seemed unconscionable. Many people questioned why Congress had authorized two dams rather than one and tried to place blame on one party or another. In a 1910 University of Minnesota thesis on Lock and Dam No. 1, George W. Jevne and William D. Timperley charged that Congress rejected the first bill for a high dam, in 1894, "on the grounds that power development was beyond the scope of the project–waterway improvement."[73] In a similar thesis, three University of Minnesota engineering students repeated this charge and blamed the two-dam project on the rivalry between Minneapolis and St. Paul.[74] Historian Lucile Kane contends that "The lock and dam built near Meeker Island proved to be an embarrassment to the government–a 'shocking blunder' some called it." This "blunder," she says, "weighed heavily on the minds of the engineers responsible for the decision."[75] There is no evidence to support this contention, however.

Major Shunk also faulted intercity politics and defended the Corps. In his February 17, 1909, letter to Mayor Haynes, Shunk, after a long explanation of how Congress and the Corps made rigorous scientific decisions about how best to select and build water resource projects, could only explain the building of two locks and dams in the Twin Cities by saying "such things happen in countries where people have votes."[76] As the Corps had been proposing two or more dams since G. K. Warren recommended a second dam in 1868, the control of those who wanted only low dams must have held sway for a long time.

While a "secret history" may lurk behind the decision to build two structures, the players in this history did not recognize the broad national trends that enveloped them.

FIGURE 7. Lock and Dam No. 1 with Ford Hydroelectric Power Plant. Federal law only allowed the Corps to build the base. Ford completed the hydroelectric plant in 1924. St. Paul District, Corps of Engineers.



The rivalry between Minneapolis and St. Paul and between the navigation boosters and the millers cannot be overemphasized, but it must be placed in a national context. The feuding had delayed the project long enough for hydroelectric power to come of age and for the conservation movement to gain momentum in America. The desire of local hydropower boosters to capture the river's power so it would not go to waste–a desire reflected in American society of the early twentieth century–led Congress to revamp the project, even though it had spent more than a million dollars on it. Building the hydroelectric plant also became entwined in a national debate. Thus, the plant and the lock and dam, as well as the sometimes visible remains of the Meeker Island Lock and Dam, symbolize these important local and national debates.

Lock and Dam No. 2, Hastings

As of 1925 the Mississippi River between St. Paul and Hastings remained the most troublesome reach for navigation. Responding to boosters, Congress authorized a survey of the river from St. Paul to the head of Lake Pepin, in the

River and Harbor Act of March 3, 1925.[77] The Corps was to determine whether locks and dams were necessary to make the river navigable above the lake and review the status of river commerce.

The Corps' report, known as House Document 583, presents a sobering picture of where shipping stood in 1925. "With the exception of an occasional excursion steamer," the report noted, "the only commercial line operating on the upper Mississippi River to the Twin Cities is the River Transit Co., organized in 1922." It provided only irregular service.[78] Twenty-three railroads, grouped into nine systems, including five lines to Chicago, four to Duluth, four to the Pacific Coast and six to the South, served the Twin Cities. Railroads, the Corps flatly stated, adequately served the Twin Cities and would continue to for a long time. "An increase in river transportation," the Engineers determined, "must come from competition with well-organized railway service or from new business which cheaper transportation will bring to the territory."[79]

In its preliminary examination and survey, the Corps broke the river into three reaches. The first ran from Lock and Dam No. 1 to downtown St. Paul. Here, the Engineers reported that they had nearly completed the 6-foot channel. The controlling depth in 1925, however, was only 3.7 feet. The Corps maintained it could have dredged the river to a five-foot depth but did not need to since no traffic used this reach. A second reach extended from Hastings to the head of Lake Pepin. Here the Corps decided that it could easily establish the 6-foot channel by channel constriction and dredging. But in the middle reach, from downtown St. Paul to Hastings, the Engineers were far from completing the 6-foot channel and recognized that it would be impossible to do so with wing dams, closing dams and dredging.[80]

Since Congress had authorized the 6-foot project in 1907, the Corps had undertaken little work between Hastings and St. Paul. In fact, nearly all the constriction works had been built before 1896. Still, the Engineers reported, the reach contained about 300 wing and closing dams. The Engineers estimated that there was "an average of 10 per mile" and declared that the river between St. Paul and Hastings was "probably the most completely regulated stretch of river in the country." Still, the river remained extremely shallow.[81]

Dredging, the Engineers acknowledged, could keep the channel open only temporarily but at a cost to navigation at St. Paul and Lock and Dam 1. They reported that, "As a consequence [of dredging] the low-water surface at St. Paul has been lowered about 1.5 feet."[82] The lower water surface reduced the amount of water over the sill or entry to Lock and Dam 1 below the design depth. Any further dredging, they warned, would make matters worse at St. Paul and Lock and Dam 1. In other words, the Corps had to dredge the channel below St. Paul so much that it lowered the water level at St. Paul. They realized that if they dredged the river enough to maintain a 6-foot channel down to Hastings, they would lose a 6-foot channel at St. Paul. Considering this problem and with little traffic using the river, the Corps had conducted no dredging in this section during 1925. At the end of the season, the low water depth was only three feet. By dredging, the Engineers insisted, they could increase the depth to four feet; still, this was two feet below the required 6-foot channel.[83]

On the basis of its experience and growing demand for a navigable channel, the Corps recommended a lock and dam at Hastings. They estimated the cost at $3,780,310. Congress, the Engineers maintained, should consider the new structure part of the 6-foot channel project. Since channel constriction alone could not create a 6-foot channel, and dredging too much lowered the water surface from downtown St. Paul up to Lock and Dam 1, it became clear that a lock and dam was necessary. As the only large metropolis on the upper river above St. Louis, the Twin Cities provided the justification for the whole effort; all the work below the cities meant little if the navigable channel ended 30 miles downstream.[84]

Accepting the Corps' arguments and lobbying by local boosters, Congress authorized Lock and Dam No. 2 at Hastings in the River and Harbor Act of January 27, 1927.

Congress did not immediately fund the project, however. Consequently, the Upper Mississippi Barge Line Company, an organization that had formed to restore commerce to the upper river, loaned $30,000 to the Corps to undertake the preliminary surveys, design work and borings. Finally, on May 22, 1928, Congress provided funds and ordered the Corps to begin construction. The St. Paul District let a contract to begin work on October 16, 1928. Although the District did not complete Lock and Dam No. 2 until November 30, 1930, the first barges, pushed by the towboat *S. S. Thorpe*, locked through on June 27 *(Figure 8)*.[85]

The reservoir created by Dam No. 2, commonly called Pool 2, has permanently changed the landscape and ecology of the Mississippi River from Hastings to Lock and Dam No. 1. While the river can rise to its historic high stages, it cannot fall to its natural low levels. The wing dams that once studded the river now lie submerged, indicated only by telltale ripples on the water's surface. For 52 years these simple dams had increasingly defined the river's physical and ecological character. They still funnel water down the main channel, but the vast sandbars that had once been trapped between them are gone or no longer visible. The river may look more natural without the wing dams, but it is equally artificial, equally a human artifact.

The 9-Foot Channel

Six days after the first towboat and barges passed through Lock and Dam No. 2, Congress authorized the 9-foot channel project. Under this project, the Corps constructed 23 locks and dams from just above Red Wing, Minnesota, to Alton, Illinois, during the 1930s. All the locks and dams on the upper Mississippi River are now part of this project. Upper and Lower St. Anthony Falls joined the system in 1956 and 1963, respectively. Lock and Dam No. 3 at Red Wing (completed in 1938) creates a reservoir that extends up to the Hastings lock and dam and, therefore, defines the river's landscape in the southernmost end of the MNRRA corridor. For these reasons, we need to briefly examine the history of the 9-foot channel project.

Despite all the Corps' work on the 4½- and 6-foot channel projects, virtually no through traffic moved between St. Paul and St. Louis by 1918. As the region's need for a diverse transportation system had grown, its shipping options had declined, creating a transportation crisis. Railroad car shortages, the Panama Canal's opening in 1914 and several Interstate Commerce Commission decisions combined with channel constriction's failure to erect, Midwesterners declared, an "economic barrier" around their region. Although the Engineers had built thousands of wing dams and had closed many of the river's side channels, they had been unable to create a dependable navigation channel. All too frequently, droughts and floods made the channel impassable. Rail car

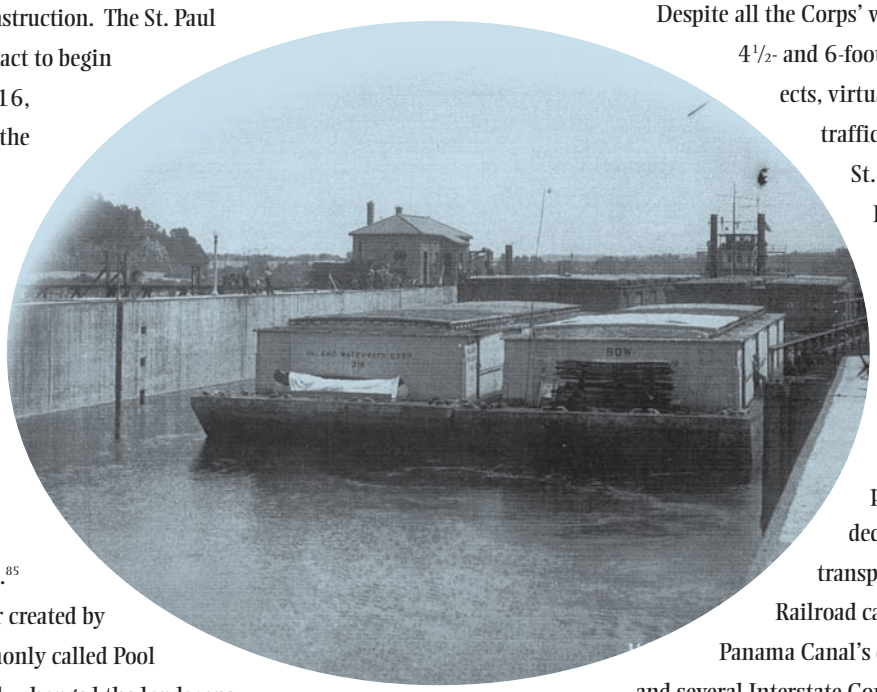


FIGURE 8. First lockage at Lock and Dam No. 2, Hastings. June 27, 1930. St. Paul District, Corps of Engineers.

shortages, occurring in 1906-07, during World War I, and in 1921, caused acute, short-term shipping crises, and pointed out the Midwest's dependence on railroads.[86]

The Panama Canal's opening in 1914 redefined the Midwest's transportation problems. While railroad car shortages had been infrequent, the Panama Canal created a problem that promised to become steadily worse. Economically, the Panama Canal moved the East and West coasts closer to each other while moving the Midwest farther away from both coasts. Businesses could ship goods from New York to San Francisco through the Panama Canal cheaper than Midwesterners could ship goods to either coast by rail.[87]

The transportation crisis climaxed with the Interstate Commerce Commission's (ICC) decision in the Indiana Rate Case of 1922 and the subsequent decisions that upheld it. On October 22, 1921, the Public Service Commission of Indiana and others challenged the Midwest's railroad rate structure. For unfair reasons, they argued, railroads operating out of Illinois and cities along the west bank of the Mississippi River in Missouri and Iowa charged lower rates than railroads running out of Indiana. Railroads running along the river charged lower rates because a 1909 decision by the ICC had upheld the lower rates based upon the potential and reality of waterway competition. In the Indiana Rate Case, the ICC reversed this decision. Now, it stated, "Water competition on the Mississippi River north of St. Louis is no longer recognized as a controlling force but is little more than potential."[88] In effect, the commission declared the Midwest landlocked. On February 14, 1922, the ICC ordered railroads operating along the river to raise their rates, leading to a 100 per cent or greater rise in some Midwestern shipping rates.[89] Appeals by the defendants and waterway advocates delayed the decision's implementation until June 1, 1925.

In response to the growing transportation crisis, Midwestern business and navigation boosters initiated another movement to revive navigation, a movement that surpassed all previous movements. Between 1925 and 1930, they fought to restore commerce and to persuade Congress to authorize a new project for the river, one that would allow the river to truly compete with railroads. It would draw support from the largest and smallest businesses in the valley, from most of its cities, from the Midwest's principal farm organizations, and from the major political parties.

An editorial in the May 12, 1928, *St. Paul Pioneer Press*, entitled "An Inland Empire's Need," captures the region's sentiment best:

> *In common with the impulses of all ambitious peoples, the Northwest's aspirations for growth, for prosperity, for power, find expression in demand for ready access to the sea. With its millions of population, its rich resources, and its unlimited possibilities for commercial growth, this region is like a giant, tied just beyond reach of a nobler destiny, straining at his chains. We are landlocked, a marooned interior, shut in by the barriers of costly overland carriage, to and from the common highway to the world's markets, the sea.*[90]

Responding to this movement, Congress included the 9-foot channel project in the 1930 River and Harbor Act.[91] The Corps built the locks and dams during the Great Depression, providing labor for thousands of unemployed workers. By 1938 the St. Paul District had completed Lock and Dam No. 3, and the Corps would finish the whole project by 1940.

On the basis of their representation of New Era and Great Depression history, Locks and Dams 3 through 26 have been determined eligible for the National Register of Historic Places. Although Lock and Dam No. 3 is outside MNRRA's boundaries, its reservoir defines the river's landscape and ecosystems in that part of the pool within the corridor's boundaries. To interpret the history, landscape and ecology of this part of the corridor requires an understanding of the national significance of the 9-foot channel project.

Fulfilling the Dream: St. Anthony Falls Upper Harbor Project

Navigation advocates in Minneapolis, watching the 9-foot channel project under construction below, recognized that with two more locks and dams they could make their city

the head of navigation. Anxious to fulfill the dream they had held since the 1850s, Minneapolis navigation supporters and their Congressional delegation pushed hard to have the project extended. On August 26, 1937, Congress, with insistent lobbying by Minnesota Senator Henrik Shipstead, granted their wish by enacting the Upper Minneapolis Harbor Development Project. Minneapolis agreed to contribute $1,744,000 to the project for bridge and utility modifications and purchasing land.

The project called for building the Lower St. Anthony Falls Lock and Dam, the Upper St. Anthony Falls Lock, dredging, and modifying bridges and utilities. The project would extend the head of navigation–the farthest upriver barges and tows could be sure of a 9-foot channel–by 4.6 miles. World War II, complex economic and engineering studies and land acquisition delayed construction until 1948, when the Corps began dredging for a 9-foot channel.

Because of the area's fragile geology–made evident by the Eastman Tunnel fiasco (see Chapter 6)–and the density of urban development, the Corps had to devise an innovative design and unique construction methods. In 1939 the Corps built a 1 to 50 scale model of the project site from Hennepin Avenue to the Washington Avenue Bridge at the St. Anthony Falls Hydraulic Laboratory at the University of Minnesota.

Work began on the lower lock and dam during the summer of 1950. To build the Lower St. Anthony Falls project, the Corps removed the existing dam completed by the Pillsbury-Washburn Company in 1897. The new dam tied into the old hydropower station *(Figure 9)*. The Engineers planned to build the project in four years, but because of foundation problems and large floods in 1951 and 1952, it took seven years, opening in 1956.

On November 12, 1949, the Corps broke ground for

FIGURE 9. Lower St. Anthony Falls Lock and Dam under construction, 1956. St. Paul District, Corps of Engineers.

work on the upper lock. This lock, at 49.2 feet, has the highest lift of any lock on the Mississippi River. On September 21, 1963, the towboat *Savage*, pushing a barge loaded with cast-iron pipe, became the first to pass through the lock *(Figure 10)*. Barges and tows could now move from the heart of Minneapolis to the Gulf of Mexico. Minneapolis had fulfilled a dream imagined over 110 years earlier.[92]

Coon Rapids Dam

Like the other dams on the Mississippi in the MNRRA corridor, the Coon Rapids Dam redefined the river's upstream landscape and ecology. Its history–the political, social and economic contexts in which it was conceived of and built–tells important local, regional and national stories. Hydroelectric power developers began considering a dam and electric generating station at Coon Rapids (or Coon Creek Rapids as it was originally known) as early as August 1898. A survey was under way and advocates hoped that the new project would begin by the next year. Thirteen years passed, however, before Congress approved the project and another two before construction began.

William de la Barre, the eminent mastermind of hydropower development at St. Anthony Falls, reviewed the Coon Rapids Dam design for H. M. Byllesby & Company. Overall, de la Barre liked the plans and site location. He concluded that there was no reason why "this water power project should not be carried to a successful completion, and become one of the permanent sources of power for this part of the country."[93]

As construction became imminent, the *Anoka County Union Herald* excitedly reported that engineers and "a crew of several hundred laborers are coming from New York and other places" to build the dam. The paper expected 1,000 workers. When they began arriving, the Northern Mississippi Power Company (a Byllesby subsidiary) established a camp, a "little city," on the Mississippi's east bank

FIGURE 10. Upper St. Anthony Falls Lock under construction, 1961. St. Paul District, Corps of Engineers

in 1913. "Streets were laid out, a store, clubhouse, hospital, office buildings, school, dormitories, new houses, carpenters shops and storehouses were built." As the city met and exceeded the prediction of 1,000 workers, the company added a movie theater, dance hall and billiard parlor.[94]

Then on November 26, 1913, the *Union Herald* announced that the St. Anthony Falls Commercial Club was pressing Congress for a lock in the dam. The Commercial Clubs of St. Cloud and Anoka also backed the lock idea. The lock, potentially, would extend navigation 70 miles upstream. While the dam was already under construction, Congress, as part of its effort to define the role of the federal government in hydroelectric power development in navigable waters, had mandated that dams built in navigable waters have locks. A lock would have to be built at the power company's expense, an estimated $150,000.[95]

Minnesota Representative George R. Smith presented the case for the lock to the Secretary of the Interior and Congress. W. B. Boardman, of the Minneapolis Real Estate Board, claimed that "This water passage would tap much of the richest territory in the state and would make it possible eventually to transport iron ore in barges from the range to Minneapolis." He thought that the addition of one or two more dams upriver would extend navigation to Brainerd. The ore, he predicted, would lead to the growth of smelting and steel industries in the Twin Cities.[96] Boardman's hopes and those of the commercial clubs promoting navigation were dashed by Lieutenant Colonel Charles Potter, the St. Paul District commander. Potter declared the river above Coon Rapids would not be navigable for at least two to five years. Therefore, the power company did not need to build a lock.[97]

The way clear, the company pressed the large crew day and night. They poured 42,000 cubic yards of concrete and over 800 carloads of crushed rock into the project. They built a brick powerhouse on the east side "and fitted [it] with the most modern machinery for development of electricity." By late 1914, the facility was ready to generate power *(Figure 11)*.[98] The fixed-crest dam created a 600-acre pool that extends seven miles upstream to the Champlin Bridge in Champlin. The pool provides a head of eight feet at the dam but gradually thins to the river's natural elevation upstream from the Champlin Bridge.

Once the company completed the project, most of the workers left, and the city that had grown up around it was torn down. The project had not been completed without incident. A local account of the project relates that, "The Father of Waters was harnessed to do the work of man, in spite of strikes, flood waters and even a riot."[99]

Because of increasing maintenance costs and the limited profit generated by the facility, Northern States Power Company (NSP) decided to close the facility in 1966. In 1969 NSP donated the dam and land around it to the Hennepin County Regional Park District. Now Hennepin and Anoka Counties manage the Coon Rapids Dam Regional Park on their respective sides of the river. By 1995 high water and ice had severely damaged the old dam, and the Minnesota Department of Natural Resources condemned the structure. After a series of public meetings, the dam was torn out. As the dam's original foundation was still good, a new dam, completed in 1997, was built on top of it. NSP removed the powerhouse, which has not been replaced.

While no structures associated with the old dam remain, the dam area and the construction site associated with it merit interpretation as part of the early history of hydroelectric power development in Minnesota and the country. The site provides a fascinating look into the social and political history of hydroelectric development in Minnesota.

Navigation and hydropower projects in the MNRRA corridor, from the mid-nineteenth century to the present, have defined the river's physical and ecological character. They have shaped the corridor's economic history, and they have determined how cities in the corridor use the river, whether for the intended purposes or not. Some projects, like channel constriction and the locks and dams, are part of national and regional stories, yet they have their local stories too. And local projects, such as the Coon Rapids Dam and the Meeker Island Lock and Dam, relate to national issues, debates and movements.

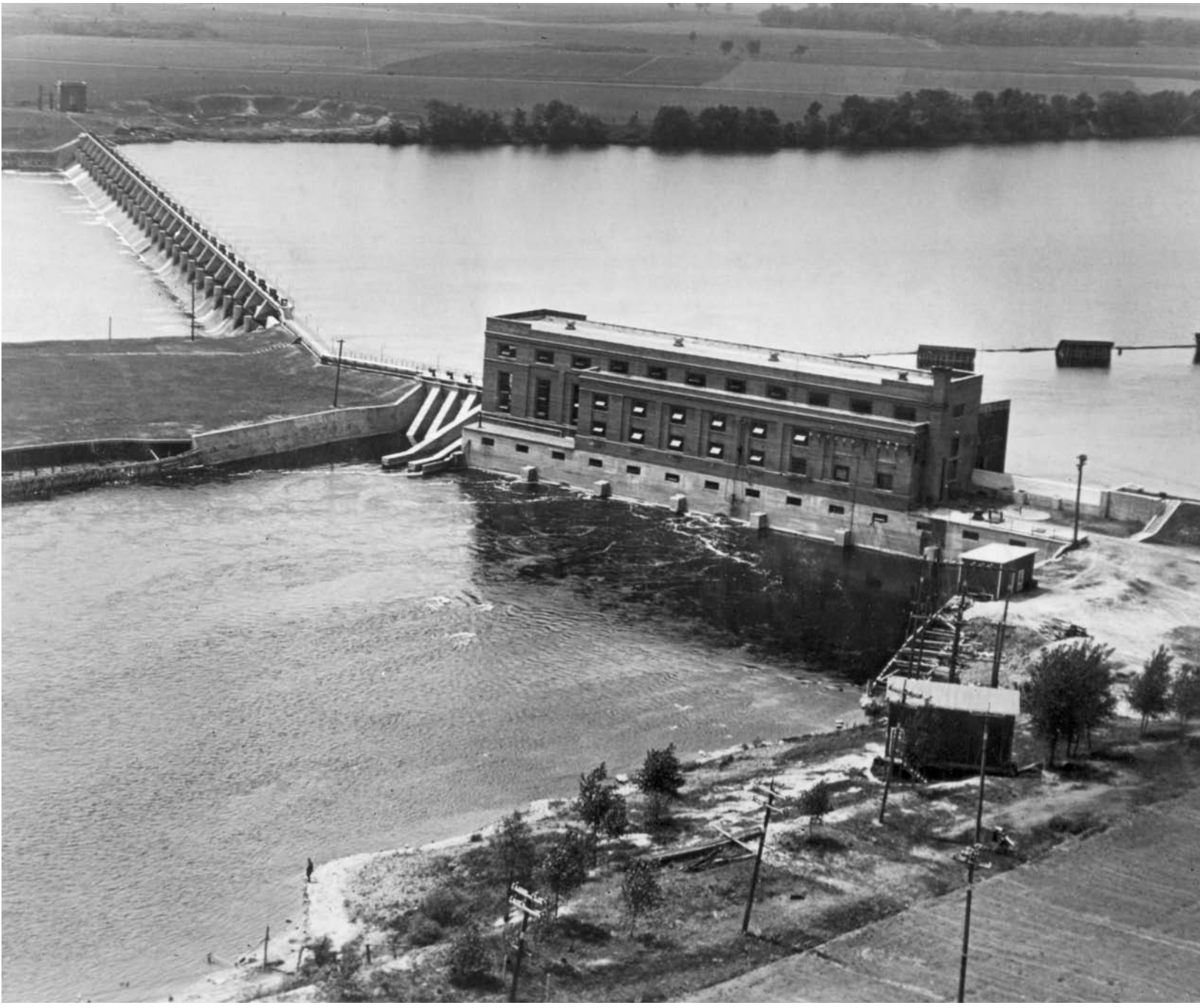


FIGURE 11. Coon Rapids Dam and Power Plant, 1928. Photo by Paul Hamilton. Minnesota Historical Society.