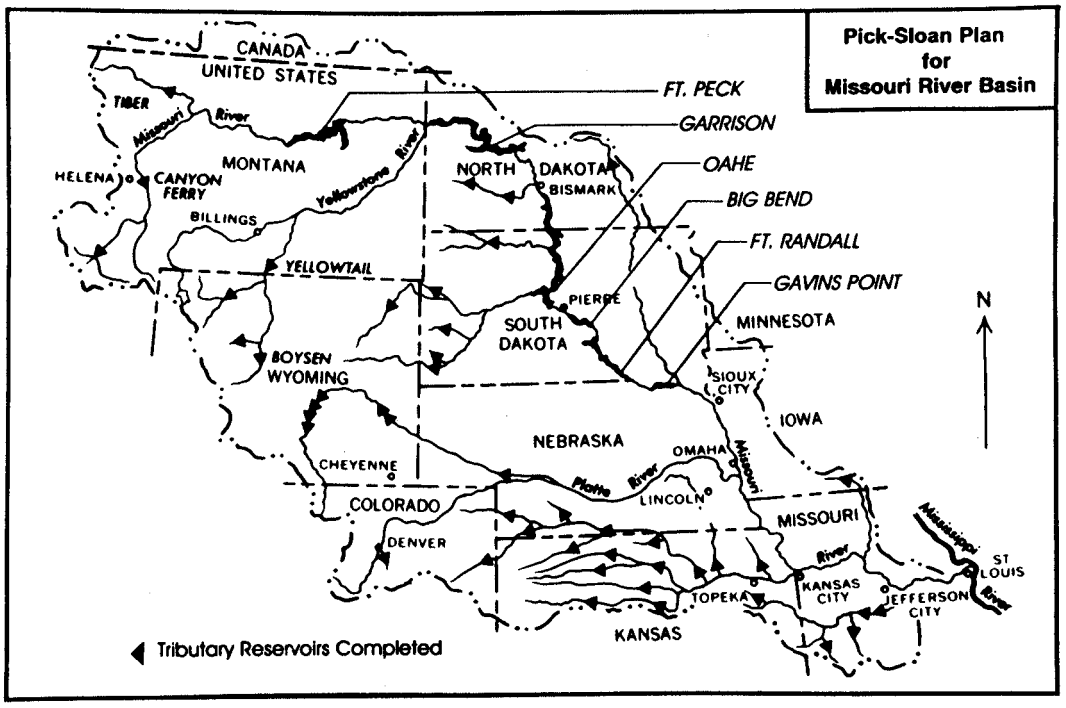
The Pick–Sloan Plan

by Martin Reuss

As American Army engineer units were blowing up bridges, laying mines, and fighting for every inch of territory in the bloody denouement of the German army known as the Battle of the Bulge, Congress was passing legislation that guided the work of many engineer officers when they returned to peacetime civil works activities in the United States several months later. The Flood Control Act of 1944, approved by President Franklin D. Roosevelt on 22 December 1944, authorized scores of projects and established substantial changes in policy. It authorized the Corps to develop recreation sites and directed the Corps to allow states to comment on its proposals and to cooperate with the Bureau of Reclamation on plans for projects west of the 97th meridian. However, there was no more significant part of this act than Section 9, which established the basis for the development of the Missouri River basin. The blueprint for this development was



Pick–Sloan Plan for Missouri River Basin

called the Pick–Sloan Plan, and an examination of its evolution illuminates wartime water resources politics.

Plans for the development of the Missouri River go back to the decades immediately following the Civil War. Perhaps the most important development was the Corps of Engineers "308 Report." A 1926 study, published as House Document 308, provided cost figures for doing multipurpose surveys of the nation's navigable rivers, including the Missouri. Congress formally authorized the surveys, called "308 Reports" in the 1927 Rivers and Harbors Act. In 1934, Captain Theodore Wyman, Jr., submitted a 1,200-page "308 Report" on the Missouri River, which identified numerous potential navigation, flood control, irrigation, and hydropower projects. Even before the report was completed, the Corps had begun work on Fort Peck Dam in Montana, a Depression Era emergency relief project to insure downstream navigation while providing hydroelectric power to the Upper Missouri basin.

In March 1943, rapidly melting snow in the Dakotas resulted in major flooding along the Missouri. Omaha, Nebraska, suffered the most. Congressmen from flooded districts introduced resolutions calling for yet another survey of the basin in order to prevent similar destruction in the future. The House Committee on Flood Control approved a resolution on 13 May that directed the Corps to prepare the new survey, just as another flood was cresting on the Missouri. Colonel Lewis A. Pick, Missouri River Division Engineer, was assigned the task in accordance with standard procedures. He completed his report in 90 days. Thirteen pages long, but borrowing heavily from the "308 Report," it proposed three groups of projects. The first group included 1,500 miles of levees on both sides of the Missouri stretching from Sioux City to the mouth of the river. The second group included reservoirs on the tributaries, and the third group called for five more dams on the main stem of the river.

On 31 December 1943, the Chief of Engineers, Major General Eugene Reybold, sent the Pick plan to the Bureau of the Budget. Included with the report were comments from various federal agencies. Generally, the Department of Agriculture and the Federal Power Commission supported the plan. Bureau of Reclamation Commissioner Harry W. Bashore was less enthusiastic. His detailed comments

emphasized his concern that the agency with the "dominant interest" in a multipurpose project should manage the project after consultation with other agencies. Clearly, he was thinking of the bureau, at least for the projects above Sioux City where, Bashore observed, domestic, agricultural, and industrial uses of water would be more important than navigation. The commissioner also criticized specific proposals in the Corps' report, such as Garrison Dam on the Missouri and large dams on the Yellowstone River. Reybold accepted Bashore's point that the dominant interest needed to be identified, but proposed that the Corps retain control of the main stem Missouri River reservoirs. The Chief of Engineers argued that the Corps, which had substantial flood control responsibilities, was the appropriate agency to regulate dams with flood control benefits.

In fact, the many purposes of these main stem reservoirs were bound to cause legal, political, and engineering problems. It was always difficult to reconcile flood control operations, which required low levels in the reservoirs, with navigation operations, which required relatively high levels in order to release water during dry spells. The addition of potential irrigation, water supply, and hydropower operations further complicated the matter. The Pick plan did not offer much guidance either. It was a report to the House Flood Control Committee and was intended principally as a flood control plan. There was very little in the report about the relationship between flood control, upper basin water use, and navigation. The omission was critical. Congress was then considering the authorization of a 9-foot navigation channel between Sioux City and the mouth of the Missouri (thereby increasing the depth of the authorized project by 3 feet), but neither navigation nor flood control could be considered in a political vacuum. Pick had implicitly raised many issues, but left it to others to supply the answers.

Bureau of the Budget Director Harold D. Smith criticized the shortcomings of the Pick plan when he returned the plan to the Secretary of War on 16 February 1944. Among other things, he noted that Pick had not attempted to reconcile his plan with Bureau of Reclamation studies of upper basin needs, that power potential was ignored, detailed analyses of tangible benefits were missing, and the report did not

address the 9-foot channel then being considered. In summary, the plan was not in accord with the program of the President.

Bureau of the Budget objections were not of much concern to the House Flood Control Committee. The very day that Smith returned the document to the War Department, the Committee opened hearings on the plan, even though the study had not been formally communicated to the legislative branch. This circumvention of the executive branch caused understandable anxiety among Corps officers, but Committee Chairman William M. Whittington assured them that "We will assume responsibility."

The plan, with Bureau of the Budget objections, was finally formally sent to the Flood Control Committee on 28 February. No sooner had Whittington begun the hearings than he ran into opposition from the Upper Missouri basin states. Governors Lester C. Hunt of Wyoming, Sam C. Ford of Montana, and John Moses of North Dakota insisted that the Pick plan and the 9-foot channel bill be considered together. As Ford put it, "The issues which disturb the Upper Missouri River basin states are so interwoven in the two bills that they cannot be understood or solved without consideration of some of the features of both bills." In short, upper basin representatives were adamant supporters of multipurpose development. A 9-foot channel would require more water from upstream, consequently threatening an adequate water supply for irrigation and other beneficial consumptive purposes.

President Roosevelt was sympathetic about the problem. He wrote Representative Joseph J. Mansfield, Chairman of the House Rivers and Harbors Committee, "In order to make it clear that the Congress intends to safeguard the upstream states against unreasonable withdrawals of water for downstream developments, I believe the bill should contain a definite declaration that the beneficial use of water in the upper basin shall not be affected by the proposed lower basin improvements."

The fundamental question was how to distribute the water equitably among the Missouri River states, but another issue nearly as controversial was the extent of federal authority to regulate navigable waters. Recent Supreme Court

decisions, especially *United States v. Appalachian Electric Power* (311 U.S. 377), had asserted a broad federal plenary power over navigable waters. The high court concluded that the Commerce Clause of the Constitution legitimately could cover related activities such as flood control, hydropower, and watershed development. More than that, in *State of Oklahoma v. Guy F. Atkinson Co.* (313 U.S. 508), the Supreme Court affirmed that federal jurisdiction over navigable rivers included headwaters and tributaries. These rulings appeared to negate long-standing state laws under which water had been appropriated and used for beneficial consumptive purposes. The actual or potential exercise of federal jurisdiction threatened traditional practice, throwing into question water rights throughout the Missouri basin. The situation was particularly difficult because federal navigation powers were even more firmly rooted in the nation's history than were state water laws.

The House Flood Control Committee acknowledged the concerns of the upstream states and recommended that no new demands be made on the river's water and that some planned main stem storage be transferred to tributary sites. Then the bill was reported favorably to the full House. The House proceeded to approve both the 9-foot channel bill on 22 March and the Pick plan on 9 May 1944. Upper basin interests thereupon turned their attention to the Senate, where the western states traditionally enjoyed more power, especially on water matters.

Senator Joseph C. O'Mahoney of Wyoming led the fight in the Senate on behalf of the upper basin states. He was an avid proponent of national planning and multipurpose water development. Four days before the House passed the Pick plan bill, O'Mahoney introduced into the Senate the long awaited Bureau of Reclamation plan for the development of the Missouri basin.

The bureau had been working on the plan since 1939, but expedited it after Pick produced his proposal. The man in charge of the survey was W. Glenn Sloan, assistant director of the bureau's office in Billings, Montana. Sloan's plan was intended to be comprehensive and to address all the various beneficial uses of water in the basin. It's philosophy was utilitarian: "The greatest good to the greatest number."

W. Glenn Sloan and Major General Lewis A. Pick.

The bureau assumed that farming would remain the primary regional economic base and recommended doubling the amount of irrigated land, adding 4.76 million acres to the 4 million already being irrigated, and supplying supplementary water to another 5.47 thousand acres. Sloan also proposed building 17 power plants to generate about 4 billion kilowatt-hours annually. He rejected the Corps' recommendation to build a dam at Garrison on the main stem and instead proposed that more dams be built on the headwaters. The plan called for 90 dams in all. He did concede that his plan would reduce navigation water at Sioux City "by somewhat less than half the original stream-flow" but thought the allocation of water between navigation and irrigation was a political decision better left to Congress.

The two plans, Pick's and Sloan's, were subjects of much discussion and critical analysis in the Missouri River basin in the summer and fall of 1944. Only the war itself stimulated more interest. Within Congress, the House Flood Control Committee considered the Pick plan, while the Rivers and Harbors Committee debated the 9-foot channel project. The Senate Commerce Committee considered both the Pick and Sloan plans. Since the Sloan plan was formally presented only a few days before the House Flood Control Committee endorsed Pick's plan, the Sloan plan received only a cursory overview on the House side, although some highlights had already been presented in committee hearings. When O'Mahoney presented the Sloan plan to the Senate Commerce Committee, the Bureau of the Budget had not decided whether the plan was or was not in accord with the program of the President. Therefore, the bureau withheld advice in this regard. Secretary of the Interior Harold Ickes thought the Army and Bureau of Reclamation plans could

be reconciled. The Corps of Engineers, however, promptly took issue with the bureau's proposal to construct flood control dams far upstream. The agency also thought it unwise to construct the Missouri–Souris diversion, a large-scale irrigation project, before the other needs of the basin were satisfied.

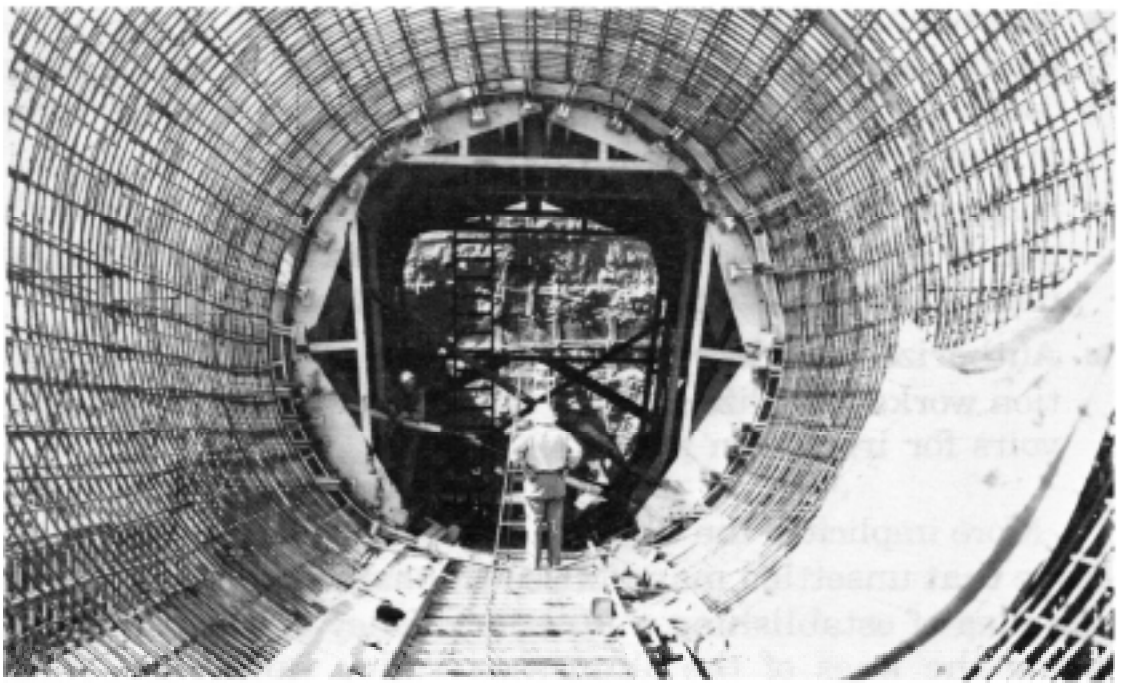
As debate continued, western senators became increasingly anxious that their states have the opportunity to participate in the planning for the Missouri River basin and that some general policy be established on water priorities in the region. Along with Senator Eugene Millikin of Colorado, Senator O'Mahoney introduced several far-ranging amendments to the legislation being considered by the Senate Commerce Committee. These amendments were put into final shape at a water conservation conference held in Chicago on 7–8 September 1944. The major organization at the conference was the National Reclamation Association. In summary, the reworked amendments:

- Recognized the interests and rights of states in determining the development of watersheds within their borders.
- Required that federal water resources plans be reviewed by the affected states.
- Established that domestic, municipal, stock water, irrigation, mining, and industrial uses of water in arid regions (west of the 98th meridian) of the Missouri basin have priority over downstream navigation uses.
- Authorized the Secretary of War to make contracts with public and private concerns for domestic and industrial uses of surplus water in flood control reservoirs.
- Authorized the Secretary of the Interior to build reclamation works to utilize surplus water from flood control reservoirs for irrigation projects.

More implicitly, the Chicago conference dealt with another issue that unsettled many Missouri basin politicians. It was the idea of establishing a Missouri Valley Authority (MVA) along the lines of the Tennessee Valley Authority (TVA), which would exert some sort of centralized control over the basin's development. Senator James Murray of Montana introduced the first MVA bill on 18 August 1944. It closely followed the TVA act of 1933. Five days later Iowa Senator

Guy Gillette introduced another MVA bill; similar bills followed in the House and Senate over the next month. President Roosevelt predictably threw his support behind the legislation. Within the Missouri River basin, the St. Louis ***Post Dispatch*** trumpeted the virtues of the MVA, and the National Farmer's Union (claiming as members some 141,000 farm families within the basin) threw its weight behind the legislation. On the other side, most officials, particularly those from the upper basin, opposed the idea, fearing loss of control of their own destiny and disliking "big government" in general. When the Chicago conference approved amendments that empowered the Secretary of War or Secretary of the Interior to do certain things, it was not only endorsing priorities, but also the traditional federal structure. State governors wanted to continue to work with the Corps of Engineers and the Bureau of Reclamation, and not with some new organization that would be insulated from the political process.

In Chicago, the politicians decided on overall priorities and procedures, but it was left to the agencies to develop a final compromise plan. This was done in Omaha, Nebraska, on 17-18 October 1944. An interagency group, headed by



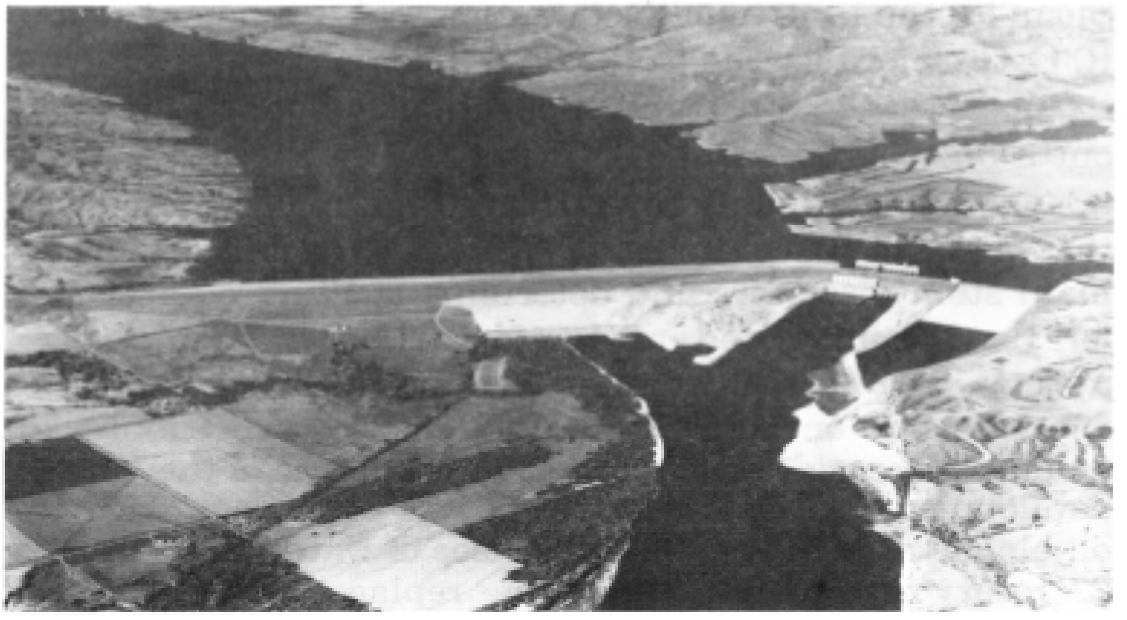
The Oahe Project, Pierre South Dakota, was a major main-stem project of the Pick-Sloan Plan to regulate the waters of the Missouri River. This 1955 view of the interior of the conduit section of downstream portal #6 shows the reinforcing steel in place. *(Omaha District, Corps of Engineers)*

Sloan for the Bureau of Reclamation and Brigadier General R. C. Crawford for the Corps (Pick had been sent to Burma to supervise the construction of the Ledo Road), hammered out a one-page agreement.

The understanding covered questions of jurisdiction and the works to be constructed. The Corps would design the main stem reservoirs and determine storage requirements for flood control and navigation in other multipurpose projects. The bureau would determine irrigation capacities for reservoirs on both the main stem and the tributaries, and both agencies recognized the importance of the "fullest development" of hydroelectric power, consistent with the development of other beneficial uses of water. The bureau's 27 reservoirs on the Yellowstone replaced the Corps' two large dams, and the bureau's plan for a large reservoir at Oahe replaced the low-level dam proposed by the Corps. Finally, the bureau and the Corps reconciled their plans for the Republican River headwaters. With some minor modifications, all the rest of the elements of both plans were accepted, including the Corps' controversial dam at Garrison on the main stem. On 27 November, President Roosevelt sent this agreement to Congress, but again appealed for the establishment of a MVA to oversee the basin's development.

Senator John H. Overton of Louisiana, who chaired the subcommittee considering the flood control and rivers and harbors bills, chose to endorse the Bureau of Reclamation/Corps of Engineers agreement and the revised O'Mahoney–Milliken amendments as well, and he urged the Senate to approve the package without delay. In response, the compromise and the amendments were included in the Flood Control Act of 1944, which passed Congress on 1 December. Overton did not allow the MVA legislation to get out of the subcommittee, and he postponed the bill authorizing the 9-foot channel below Sioux City until the following year; it was routinely passed in March 1945 as part of the regular Rivers and Harbors Act. The "reconciliation" that had occurred the previous October offered the hope to rivers and harbors interests that there would be sufficient reservoir capacity for navigation regardless of irrigation and other demands.

Out of the debates on the Pick–Sloan Plan came legislation that shaped the development of the entire Missouri River



The Fort Randall Reservoir, on the Missouri River at Pickstown, South Dakota, was a major feature of the Pick-Sloan Plan. This aerial view, looking upstream, shows the nearly completed dam in 1955.
(Omaha District, Corps of Engineers)

Valley and literally transformed the landscape of America's heartland. Today, a glimpse at the map reveals the scores of dams, levees, and other water resources projects that are part of the Pick-Sloan Plan. However, these debates affected more than the Missouri River basin. Western concerns that states be offered the opportunity to review federal reports and that state interests be recognized became requirements that applied to the entire country. The subordination of navigation to beneficial consumptive uses applied to all states "lying wholly or partly west of the 98th meridian" and not just to states in the Missouri River basin. The specific authorities given to the Secretary of War to make contracts for the use of surplus waters and to the Secretary of the Interior to market hydroelectric power also are nationwide.

Thus, the December passage of the Flood Control Act of 1944 marked an important step in the evolution of water resources policies and projects. The events surrounding the development of the Pick-Sloan Plan belie the conventional image of a nation at war, putting aside peacetime activities to focus on winning the military struggle. The fact is that a great deal of attention was paid to potential postwar public works projects. As early as the spring of 1943, President Roosevelt had instructed executive agencies to prepare

for postwar activities. The more surprising aspect of the continued interest in water resources development is that plans and policies were not simply dusted off and made ready for use, but that, while engaged in a titanic military struggle, the United States made fundamental and lasting changes in civil works policies and procedures.

Sources for Further Reading

The two major published sources for this essay are Henry C. Hart, *The Dark Missouri* (Madison: The University of Wisconsin Press, 1957), and Marian E. Ridgeway, *The Missouri Basin's Pick–Sloan Plan: A Case Study in Congressional Policy Determination* (Urbana: The University of Illinois Press, 1955).

The Federal Engineer: Damsites to Missile Sites. A History of the Omaha District U.S. Army Corps of Engineers (nd) has a chapter on the Pick–Sloan Plan which is generally correct but has some minor inaccuracies and omissions.

Missouri River Division Historian John Ferrell has written a draft history of water resources development in the Missouri River basin entitled "Big Dam Era." It is comprehensive and concentrates on the formation and relationship of upper and lower basin blocs and coalitions.