

## A Brief History of Government Navigation and Natural Resource Management on the Upper Mississippi River System\*

In *The Public Historian*, David Glassberg wrote that, "By and large tourists look for novelty in a landscape, what is not back home, whereas local residents look at the landscape as a web of memory sites and social interactions." The Upper Mississippi River has a rich human and ecological history which is enjoyed by local residents along its shores, as well as visitors from afar. The "Mighty Mississippi River" is both a local gem and a worldwide icon.

The following pages outline some of the past Federal government involvement on navigation, legislation and management practices on the river. While much of the story is about the Corps of Engineers and commercial navigation, it also addresses the complexity of managing for the incredible natural resource values inherent in the river. An example of the desired dual purpose can be found in the Upper Mississippi River Management Act of 1986 (P.L. 99-662) which states: "To ensure the coordinated development and enhancement of the Upper Mississippi River system, it is hereby declared to be the intent of Congress to recognize that system as a nationally significant ecosystem and a nationally significant commercial navigation system. Congress further recognizes that the system provides a diversity of opportunities and experiences. The system shall be administered and regulated in recognition of its several purposes."

The *Virginia* became the first steamboat to navigate the entire Upper Mississippi River (UMR) in 1823, making it from St. Louis to St. Paul, and with the trip a new commercial transportation artery was born. During the next three decades river traffic grew rapidly without much change to the river, aside from forest harvest along the corridor. By 1857 over 1,000 steamboats arrived in St. Paul each year. This expanded river access made it possible for Iowa's population to grow from less than 200,000 in 1850 to nearly 700, 000 by 1860.

Although the river was quite dangerous to navigate during this era due to fallen trees and snags below the surface, sandbars usually posed the most consistent obstacle to passage. During low water conditions the river consisted of scattered "deep" pools separated by shallow sandbars which spread across the river channel profile. "Deep" water under these conditions was considered anything over 3 feet.

In 1871, funds were appropriated by Congress for the Corps of Engineers (COE) to improve navigation on the Mississippi River above the confluence with the Ohio River. Most of the initial COE activity on the channel involved keeping the river clear of snags. On occasion, the COE was also authorized to conduct dredging operations. By 1878, the COE had begun work on maintaining a four-foot channel to Minneapolis by building wing dams to narrow the channel and concentrate scouring flows.

As early as 1882, unpatented islands in the Mississippi River below Cairo, Illinois were withdrawn by the Secretary of the Interior at the request of the Secretary of War to serve the interests of navigation. The COE has been authorized to maintain channels of varying depths since the 1880's. The COE believed that by withdrawing islands from disposal by the Federal government, the islands would be used by all navigating on the river, or could be removed as

necessary to maintain a navigable channel. In 1891, a similar request was made for the removal of islands in the Mississippi above Cairo. The islands were temporarily withdrawn by the Secretary of the Interior on April 10, 1891. Withdrawal protected the islands from private ownership and maintained them in a relatively undisturbed state. Later these islands would be among the first lands included in the Upper Mississippi River Wildlife and Fish Refuge.

By 1900, conservationists were trying to maintain and restore wildlife of the river and urged the Bureau of Fisheries of the Department of Commerce and Labor to begin fish rescue operations along the Upper Mississippi. This effort was expanded to include the propagation of freshwater mussels in 1908, when Congress provided funding for the establishment of a biological station in the Mississippi Valley. The UMR and its floodplain flats had been a particularly fertile habitat for numerous freshwater fish, mussels, fur-bearing animals and migratory birds. These same lands and waters were considered wastelands for agriculture, homesteading and industrial development. The dominant uses of the area were sport and commercial fishing, mussel harvesting for the pearl and button industry, hunting and furbearer trapping. But by the 1920's, the UMR Valley was being threatened by over-hunting, pollution and drainage of the surrounding wetlands.

The initial concept and support for protecting the northern reaches of the UMR from further degradation came from the Izaak Walton League of America, which was founded in 1922 in Chicago, Illinois. The organization's first major project was to campaign for the creation of a federal refuge along the river between Rock Island, Illinois, and Wabasha, Minnesota for the preservation of the habitat beneficial to their favorite sport fish, the smallmouth black bass. This reach was well suited for black bass because it was a swift flowing, generally shallow portion of river. Congress passed a bill providing for the creation of the Upper Mississippi River Wildlife and Fish Refuge on June 7, 1924.

Within a few years of the Upper Mississippi River National Wildlife and Fish Refuge's creation, the Corps of Engineers became highly involved in the process of developing the current day commercial navigation channel in the Mississippi River upstream from the confluence of the Missouri River. The demand for greater shipping use of the river, largely a result of post World War I rail rate increases, created the demand for a deeper channel through the farm belt all the way to the Minneapolis grain elevators. Congress approved the Nine-Foot Channel Project, provided funding, and between 1930 and 1940 twenty-six locks and dams were constructed from Alton, Illinois to Minneapolis, Minnesota.

After construction and when operational, the Nine-Foot Channel Project greatly increased commercial traffic and drastically altered the type of habitat along the river and within the refuge. Most of the lands in the Upper Mississippi River National Wildlife and Fish Refuge were submerged by the navigation pools created by the locks and dams. The project changed nearly everything about the river and existing wildlife refuge. It created new habitat conditions throughout the system, and it created new public land opportunities downstream of the existing refuge from Rock Island south to the Missouri River.

Both the Bureau of Biological Survey (BBS) and the COE had recognized the damage to wildlife which was resulting from the first locks and dams, such as that constructed at Keokuk in 1913. The pools that formed behind the dams slowed flowage and decreased the oxygen level in the water. Silt on the river bed killed some aquatic animals, such as mussels and food sources for fish. Vast areas that had previously dried seasonally and grew a variety of plants were transformed into permanent pools. In addition, because the locks and dams were unequipped to facilitate fish movement, a dozen species of migratory fish were affected by the Nine-Foot

Channel Project. Consequently, both commercial fishing and mussel harvesting were dramatically decreased. On the other hand, both agencies recognized that new aquatic habitats were created and that in spite of the above problems, it would be many years before new habitat values would be overtaken by those problems.

Although it would not help solve the problems associated with dam construction, a partial solution considered by the BBS and COE to help address the conflicting Congressional directives was for the COE to purchase the lands to be flooded and transfer those lands not required to manage navigation to the Bureau for wildlife management purposes.

In 1931, Acting Secretary of Agriculture, R.W. Dunlap, initiated negotiations with Patrick J. Hurley, Secretary of War, to develop a working agreement between the two agencies, and an informal agreement was achieved. The first formal documentation of an agreement between the BBS and the COE is provided by three executive orders issued by President Roosevelt between September, 1935 and October, 1936. The executive orders were issued at the request of the Secretary of War and the Secretary of Agriculture. These executive orders differed only as to which lands were reserved to the refuge. The orders reserved COE lands.... "for the use of the Department of Agriculture as a breeding place for migratory birds, other wild birds, game animals, fur-bearing animals, fish and other aquatic animal life and for the conservation of wild flowers and aquatic plants, to be administered as a part of the Upper Mississippi River Wildlife and Fish Refuge." The executive orders noted that the lands "are primarily under the jurisdiction of the War Department" and conditioned the reservations with the right of the COE to pursue its activities without interference.

A 1940 executive order (No. 8331) reserved additional COE lands for refuge use, which by then was under the administration of the Department of the Interior. Other than changing the names of the responsible administrative authorities it used substantially identical language as that of previous executive orders to allow the War Department to retain use of the river for navigation, while reserving COE lands for conservation use by the Refuge.

By the 1940s, the U.S. Fish and Wildlife Service (FWS), previously the BBS, and the COE recognized that a more structured arrangement between the agencies was necessary to facilitate the transfer and administration of COE owned lands within the refuge. Coordination of the land transfers were facilitated by Executive Order Number 9146 that vested the authority to withdraw or reserve public lands in the Secretary of Interior. To help clarify their relationship to these federally owned lands, the COE and FWS began to plan for cooperative use in late 1941 by classifying the lands and preparing a written agreement. Negotiations were held from 1941 through 1945 between the FWS and the COE, which were successfully concluded with the signing of the first cooperative agreement on May 15, 1945.

From this first interagency agreement to today's arrangements, the COE retained the right to administer timbering programs on all lands it had originally purchased. However, the Forest Cover Act of 1961 requires forest management plan of the COE be compatible with the wildlife management actions on cooperative agreement lands. The COE retains primary jurisdiction for forestry management on lands they originally purchased, even if management of the lands have been transferred for other purposes, such as for resource stewardship by other agencies.

The first conference between the COE, FWS, and the states to negotiate general plans for conservation purposes was held in St. Louis, Missouri, on October 17 and 18, 1950. There were two different authorities by which the Corps could transfer lands. The first method being considered had all lands going to the FWS, with the FWS then making further outgrant

arrangements to the States for their management. The second authority permitted the Corps to make direct transfers to the Service and to the States. By late 1951 the Department of the Interior and Department of the Army reached an agreement to dispose of wildlife lands in accordance with the 1946 Coordination Act Amendments. Direct land transfers were resolved simply for Illinois, Missouri and Wisconsin because these states were satisfied with the system already in effect whereby land was first transferred through the FWS. Iowa was at first interested in direct transfers particularly to allow Iowa to develop the Odessa area for hunting. After the FWS clarified to Iowa that the State would obtain control of the same lands under cooperative agreement with the FWS as it would from direct leases from the COE, Iowa dropped its request for direct transfer.

The General Plans all had been executed by the states and forwarded with the COE/FWS Cooperative Agreement to Washington, D.C. by April, 1953 for approval by the Secretary of the Army and later the Secretary of the Interior. Execution of the plans and agreements were delayed by the Secretary of the Army until a national land management plan was approved. On October 3, 1953, the Secretary of the Army approved the General Plans for all five states and forwarded the plans to the Secretary of the Interior. The Secretary of the Interior signed the plans on October 27, 1953. By December, 1953, the General Plans had been completely executed. Signing of the new cooperative agreement between the Service and the COE was completed on January 21, 1954. Additional step-down cooperative agreements were established between the states and the Service for state managed areas.

The 1954 Cooperative Agreement and the 1953 General Plans provided a unified system of administration over COE lands. Only three major categories of land were to exist: "Green lands" were Upper Miss. Act land as part of the original refuge; "Blue lands" were non-transferred COE land; and "Red lands" were those transferred by cooperative agreement. Some project lands were transferred from the Service to the states (Illinois, Iowa and Missouri) for administration.

The cooperative agreement, however, made Nine-Foot Channel Project lands "available . . . for the conservation, maintenance, and management of wildlife, resources thereof, and its habitat thereon, in connection with the national migratory bird management program . . ." subject to numerous conditions and reservations. The Department of Army reserved "all rights . . . not . . . specifically granted . . .", and, of course, no refuge use could interfere with navigation.

With the passage of the 1958 Coordination Act Amendments, all parties agreed that the general plans and cooperative agreement needed to be renegotiated. The 1958 amendments clarified the relationship between the coordination act and other statutory authorities over federal activities regarding waterways.

The 1958 Coordination Act Amendment added section 3(e) which settled the dispute over the relationship between the coordination act and the 1946 Flood Control Act. Section 3(e) stated that "Federal lands acquired or withdrawn for Federal water resource purposes and made available to the states or to the Secretary of the Interior for wildlife management purposes, shall be made available for such purposes in accordance with this Act, notwithstanding other provisions of law." The effect of Section 3(e) was to prohibit the COE from unilaterally issuing public use leases or licenses on land turned over to the refuge for wildlife management.

Prompted by the 1958 amendments to the coordination act, the FWS and COE developed a new system for coordinating public use of COE land with other refuge activities. Section 10 was added to the cooperative agreement whereby the COE retained the authority to develop public use facilities and issue leases in coordination with refuge programs and purposes. Section 6 was

added to require the consent of both the Department of Interior and the Department of the Army before any rights of way for roads, telephone lines, power lines or other uses over either COE or FWS lands. Thus, involvement of both Departments was required for the approval of public uses and grants of rights of way. In addition, the 1963 Cooperative Agreement provided authority to the Service “to prevent and eliminate any trespass or unauthorized use” of property made available through the cooperative agreement.

The 1963 FWS/COE agreement was updated in 2001 to reflect different Corps and Refuge System authorities and policies, as well as to structure improved means of interagency coordination and communications relating to the management of General Plan lands for wildlife management purposes.

\* Most of this historic material is taken from the Mark Twain NWR Complex Comprehensive Management Plan, 2004, much of which was originally prepared by Michael Fairchild, May, 1982, as “*The Legal and Administrative History of the Upper Mississippi River Wildlife and Fish Refuge*”; and to a lesser degree, “*River of History – A historic resource study of the Mississippi National River and Recreation Area*”, by John O. Anfinson, National Park Service, 2003, for the Corps of Engineers, St. Paul District.