Missouri River Restoration at Issue

The Missouri Parks Association has taken a leadership role in rallying an array of conservation organizations in support of Corps of Engineers efforts to return the Missouri River to a more natural condition, beginning with a project affecting Arrow Rock State Historic Site.

The Missouri River story is a saga of truly Byzantine twists and turns, as misguided attempts to "improve" the river proceeded through the 20th Century. The U.S. Army Corps of Engineers sought to accommodate farmers, navigation interests, and politicians by providing increased control of the river through levees, revetments, and wing dikes that deepened, narrowed, and stabilized the river channel. Little value was seen in the natural state of the river — meandering through its floodplain, flooding annually, constantly eroding its banks, and carrying more than enough sediment to earn its sobriquet, the Big Muddy.

ENCLOSURE 1 – 2011 ORIGINAL JAMESON ISLAND CHUTE PROJECT

Unknown to these early manipulators of the river was the fact that having carried so much sediment for eons past, the river's fishes and wildlife species, much of its vegetation including its cottonwoods and willows, and even its very hydrology had become adapted to its muddy waters and constantly forming and reforming shallows and sandbars. When Congress adopted the massive Pick-Sloan Plan to build dozens of dams on the river and its tributaries, and the Missouri River Bank Stabilization and Navigation Project in 1945, which straightened and channelized the lower river from Iowa and Nebraska through Missouri, the river's sediment load soon was cut to less than 20 percent of what it had been previously, as measured at Hermann, Missouri.

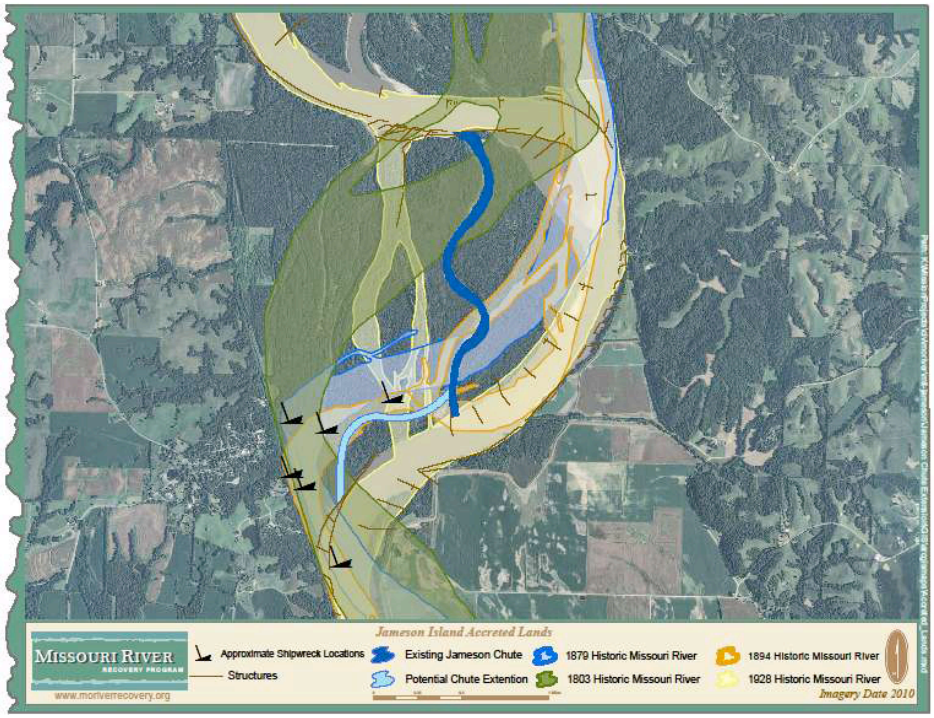
There were other changes, too. By the 1970s with the river stabilized and its chutes eliminated, most of the hundreds of islands had accreted to the mainland. Adjoining farmers organized to build even more levees along the new shorelines at the far side of the former islands, to protect their new-found land from flooding. The Missouri Department of Conservation in a 1974 study of channel changes documented the loss of more than 45 miles of river and 98 percent of the surface area of islands in Missouri alone. The commercial fishery was almost extinct. Meantime, with much of the river's floodplain no longer available to accommodate high flows, the height and destructiveness of floods greatly increased.

More recent studies have documented a loss of more than 522,000 acres of riverine fish and wildlife habitat as a result of these river "improvement" projects, and more than 300,000 of those acres have been lost in Missouri alone. Fifty-one of 67 native fish species are now uncommon or decreasing, cottonwood reproduction has largely ceased, and aquatic insects key to the survival of native species have been reduced by 70 percent. Declines of three native species listed as threatened or endangered under the federal Endangered Species Act—the least tern, the piping plover, and the pallid sturgeon—have been attributed to Corps engineering of the river. The bank stabilization project is now recognized as perhaps the most destructive of ecosystem values as any in the history of federal river management, and the state of Missouri has been its greatest victim.

To compensate for some of the degradation, Congress authorized a series of mitigation plans, beginning in 1986 and culminating in 2007 with the Missouri River Ecosystem Restoration Program, with appropriations of $50-70 million per year, the majority of which was intended for restoration efforts in Missouri. The Corps was authorized to buy floodplain land from willing sellers and to partner with other federal or state agencies to design, construct, and manage projects. Goals included developing shallow water pools, emergent sandbars, and bottomland forest habitat, often by reconstructing chutes through accreted bottomlands, thus recreating former islands and more natural hydrologic function.

Officials of the Missouri Department of Natural Resources (which also operates the state park system) had long sought such a mitigation program and were pleased to cooperate with it, probably owing in part to the more than twenty state parks and historic sites along its great rivers. Some, like Big Oak Tree, Trail of Tears, Arrow Rock, Van Meter, Lewis and Clark, and Big Lake, had been acquired early, before the worst of the bank stabilization. Others, like Towosahgy, Wakonda, Confluence, Katy Trail, and Weston Bend were acquired more recently, after the rivers were already channelized. Some of these parks and sites were degraded or less representative of the natural and cultural heritage of Missouri as a result of the changes and could potentially benefit from land acquisition and restoration projects in partnership with the Corps.

Arrow Rock is a case in point. The historic town was named for its dramatic bluff along the Missouri River, identified as *pierre a fleche* in early French records. Its cherty bluff was known to the Indians, noted by Lewis and Clark on their journey up the Missouri, and traders headed for far Santa Fe crossed the river on the ferry there. When the 1834 Huston Tavern was purchased by the state in 1923 with additional lands soon thereafter, Arrow Rock became Missouri's first state historic site. But after the river shifted to the far side of its floodplain during a 1904 flood and the BSNP hardened its channel there, Arrow Rock sadly lost its historic connection to the Missouri River.



As a result of the massive flood of 1993, however, Congress authorized the Big Muddy National Fish and Wildlife Refuge and the U.S. Fish and Wildlife Service subsequently acquired the former Jameson Island, now accreted to the mainland on the Arrow Rock side of the river, for a unit of the new refuge. Jameson became an obvious site for a cooperative restoration project, and in 2006 the Corps, under a general permit from MDNR, began constructing a chute in order to restore fish and wildlife habitat and some semblance of more natural hydrologic function, including future meanders of the chute.

But when the chair and other members of the Missouri Clean Water Commission, an independent citizen commission assigned to MDNR with oversight over water quality certification under the Clean

Water Act, realized that the Corps was discharging sediment directly into the Missouri River (as provided in the original plan), they raised concerns about water quality, Gulf of Mexico hypoxia, and a "permitting double standard," since developers were required to prevent erosion from construction sites owing to storm water runoff. The Corps initiated soil and water testing at the site that showed no contaminants that would exceed state water quality standards. But the commission, unsatisfied, then issued an order declaring sediment a pollutant in the waters of Missouri and prohibited any further discharge of sediment from any habitat restoration projects "now or in the future."

Stunned by the commission's order, the Corps halted further construction on Jameson and asked the National Academy of Sciences for an independent review of the role of Missouri River sediment in river ecology and restoration, its implications for water quality and coastal restoration in the Gulf, and the effects of Corps restoration projects with respect to sediment and nutrients. Meanwhile, unable to mount any new projects in Missouri, the Corps stopped acquiring lands in Missouri and diverted funds to Iowa, Nebraska, and Kansas, where restoration has reportedly proved quite popular among conservationists and farm groups alike.

The entire controversy played out in the commission and the press in a one-sided way. No one defended the Corps of Engineers' efforts on Jameson Island or explained the role of sediment in the Missouri River and as it moved on downstream to the Gulf. American Rivers and the National Audubon Society, national organizations that had worked on Missouri River issues for decades, seemed to be tired and discouraged, and for many, the Corps was an agency they loved to hate anyway. Missouri organizations, including MPA, seemed unaware of the issue and its implications or regarded it as none of their concern.

Conversely, the opposition, including the Missouri Levee and Drainage District Association, the Farm Bureau, and navigation interests, did not rest. They continued to lobby public officials at federal as well as state levels and, with no effective counter to their efforts, they succeeded. By 2011, members of the Missouri congressional delegation won approval of amendments to prohibit further Corps expenditures on the Missouri River Ecosystem Restoration Plan along the entire length of the river. They also tried but failed to prevent funding for ecosystem restoration projects in other states, but the cessation of the broadly participatory planning process and the likelihood of repeated efforts by the Missouri delegation to prevent funding for restoration anywhere along the river sent shockwaves through those upriver who cared about restoration efforts.

In the spring of 2012, MPA members began to hear from colleagues in upriver states that the entire Missouri River restoration concept was threatened by actions of the Missouri congressional delegation. And a few weeks later they learned that the Corps was renewing its effort to seek approval of a redesigned Jameson Island project. The issue was taken up at the April MPA board meeting, and it being obvious that neither the Jameson project nor the threat to the entire river restoration program was receiving attention from Missouri environmental organizations, MPA adopted a resolution in support and began talking with government officials and rallying support among other conservation groups.

The first meeting soliciting public comment on the Jameson project, held April 17 at Arrow Rock, revealed the magnitude of opposition to a more natural river. More than a hundred people appeared to vociferously oppose the Corps' preferred alternative and to support the Clean Water Commission's order prohibiting discharge of sediment to the river. Only three people, one each from MPA, Missouri River Relief, and Friends of Big Muddy, favored the Corps proposal. Corps officials' explanation that their proposal followed recommendations of the 2011 National Academy of Sciences report on sediment management fell on deaf ears. Likewise, the fact that four federal agencies—U.S. Fish and Wildlife Service, Environmental Protection Agency, National Park Service, and Corps of Engineers—all supported the restoration efforts to recreate a more natural river.

A May 2 meeting of the Clean Water Commission went better. Eight conservation organizations including Audubon Missouri, the Coalition for the Environment, the Conservation Federation, and Sierra Club as well as MPA supported the Corps project. Meanwhile, the Corps announced a 60-day extension of the comment period, as requested by the entire Missouri congressional delegation (citing the busy spring planting season). The commission chair announced that a special meeting would be held June 11 to take formal testimony. So everyone and more—especially more farmers—gathered again in June to repeat the process.

At its July meeting, the commission extended its deadline for issuing a decision another 60 days and directed DNR staff to work with the Corps to develop a 401certification proposal acceptable to both agencies. The Corps proposed a slightly narrower chute and sidecasting of the top 36 inches of material with less deposition of material directly into the river during construction. In September, DNR staff requested yet another 60-day delay. Then, the day following the November elections, with several newer commissioners who had not been involved in the 2007 order declaring sediment a pollutant apparently inclined to support the Corps proposal, the commission voted to rescind its earlier order but, again at DNR staff request, asked staff to develop a draft certification and put it out for public comment, in effect a fourth 60-day delay.

When DNR staff recommended certification with 19 conditions, the first of which required removal of the top three feet for permanent storage outside the project area, a requirement to which the Corps and the Fish and Wildlife Service took exception as contrary to the project's aim to restore more natural hydrologic function, MPA and other conservation organizations recommended approval of the certification *without* the first condition.

The day before the January MCWC meeting, DNR staff stunned the Corps, the commission, and other stakeholders with a one-paragraph letter announcing that, because of continuing disagreements, it would not be issuing any certification for the project. During prolonged questioning at the meeting the next day, it appeared that DNR staff now did not believe certification was even required and was simply passing the ball to the Corps to proceed as it thought best within the limits of the law, though there was no indication what had caused the strange shift. The commission, perturbed but recognizing that it had at least rescinded the objectionable 2007 order declaring sediment a pollutant, upheld the staff on a 4-3 vote. What the Corps would do and how this new turn of events would affect the future of river restoration in Missouri remained unclear.

Meanwhile, in the politically charged U.S. Congress, delays and uncertainty cloud the future of Corps of Engineers appropriations and authorizations for restoration. Members of the Missouri delegation continually seek to eliminate restoration planning and greatly reduce project funding, and in April four Missouri representatives filed legislation to remove "fish and wildlife" from the authorized purposes for which the Corps manages the Missouri River. MPA will continue to advocate for the Corps' Jameson proposal and other restoration along the great rivers in Missouri and for removal of the offending Missouri amendments. The stakes for Missouri State Parks and the entire Missouri River could not be higher.

Box (in right pane): What You Can Do

Write, call, or talk with your U.S. representative and senators in the Missouri congressional delegation about the importance of cooperative restoration projects for the health of the Missouri River. They need to know that they have constituents who care about restoration of Missouri's Great Rivers. Check the MPA website and watch for further alerts about developments either in Congress or in Missouri.