NEW SAVANNAH BLUFF LOCK AND DAM - THE COMPLEXITIES OF DECIDING THE FUTURE OF AN OLD STRUCTURE

William Bailey

AUTHOR: Physical Scientist, U.S. Army Corps of Engineers, Savannah District, 100 West Oglethorpe Avenue, Savannah, Georgia 31402-0889.

REFERENCE: Proceedings of the 2001 Georgia Water Resources Conference, held March 26-27, 2001, at the University of Georgia. Kathryn J. Hatcher, editor, Institute of Ecology, the University of Georgia, Athens, Georgia.

Abstract. The New Savannah Bluff Lock and Dam is managed by the Savannah District of the U.S. Army Corps of Engineers. Since commercial navigation hasn't used the lock since 1979, the Lock and Dam hasn't served its authorized purpose for over twenty years. The Corps is obligated to reduce its maintenance costs whenever it can, so it recently conducted a study to determine what should be done with this aging and deteriorating structure. As it evaluated the functions that the structure presently provides, the picture became more complicated. Industries now use the upstream pool as a source of water for their operations. Private residences line the shore of the upper pool, attracted by the waterfront view. Local governments have similarly placed public developments along portions of the shore. The community holds annual speedboat races on the stable pool, bringing visitors and their dollars to local businesses. On the environmental side, the higher stable water surface in the pool now supports wetlands along the shore where they didn't exist before. The landside portion of the dam is highly used by fishermen. The area immediately upstream and downstream of the dam regularly attracts fishermen in boats, when no other boaters can be seen fishing that reach of the river. Regulatory discharge permits have been issued based on the pool being there. Yet removal of the structure would provide substantial benefits to fisheries by removing an impediment to migratory pathways and restoring the free-flowing character of a piedmont river. What initially appeared to be an easy decision – What to do with an old, deteriorating, structure that is a financial burden and no longer serves its authorized purpose – quickly became complicated. Savannah District struggled through its evaluation and sent its recommendation for removal of the structure to its higher headquarters for ultimate submission to the U.S. Congress. However, before Congress received the report, they authorized the Corps to rehabilitate the structure and add a fish passage feature, all at full Federal expense, and then transfer the structure to a local government. Will Congress fund these actions? Stay tuned...

INTRODUCTION

The U.S. Army Corps of Engineers manages a small dam and navigation lock that crosses the Savannah River near Augusta, Georgia -- the New Savannah Bluff Lock and Dam. The Corps recently conducted a study to determine what should be done with this aging and deteriorating structure. This paper summarizes the Corps' evaluation and the public input it received during the process that resulted in a decision concerning the fate of this aging structure. The process provides an example of how a compromise was reached between the often conflicting desires of organizations and individuals for the use of public resources and water resource projects.

BACKGROUND

The New Savannah Bluff Lock and Dam (NSBL&D) is now over 60 years old and needs substantial repairs. As a steward of Federal lands and finances, and since the project has not served its authorized purpose of assisting commercial navigation for over twenty years and is a continual drain on maintenance funds, the Corps decided to evaluate what should be done with this aging and deteriorating structure over the long term. How much would it really cost to restore the structure? What purpose does the structure serve now? Would it be better if the structure were removed? This paper summarizes the Corps' evaluation and the public input it received during the process that resulted in a decision concerning the fate of this aging structure.

EVALUATION PROCESS

The Corps began its Section 216 Disposition Study in July 1998. It evaluated the structural integrity of the

lock and dam, determined the repairs that would be needed to bring the structure back to its original operating condition, and estimated the cost of those repairs. The Corps also considered the potential for future use of the project for commercial navigation, as well as the functions that the structure presently serves in the area. The agency met with representatives of local governments to determine if there was any interest by any other governmental organization in taking over the ownership and operation of this project. Savannah District documented its findings in a draft report in December 1999 and made it recommendations in a final report in September 2000.

FINDINGS

Initially the outcome appeared to be rather clear cut. Since no commercial navigation had used the structure for over 20 years, it no longer provided the service for which Congress had the structure built. Therefore, the Corps should not spend any additional funds to restore a project that was no longer needed. However, as one considers the functions that the structure presently provides, the picture became more complicated.

The Corps investigated water supply uses and implications of the existing structure. Industries now use the upstream pool as a source of water for their operations. Those industries would have to modify their intakes, possibly including having to find another source of reliable water. The District considered social impacts of the project. Private residences line the shore of the upper pool, attracted by the waterfront view. Would the value of those residences decrease if the pool no longer existed? Local governments have similarly placed public developments along portions of the shore. National economic benefits and recreation impacts were also examined. The community holds annual speedboat races on the stable pool, bringing visitors and their dollars to local businesses. Could those races be relocated nearby so that the community could still obtain the economic benefit of those events? The landside portion of the dam is highly used by fishermen. Is there another place nearby where those fishermen could receive the same fishing experience? The area immediately upstream and downstream of the dam regularly attracts fishermen in boats, when no other boaters can be seen fishing that reach of the river. Would the restored river provide as good of fishing as that presently existing around the dam? The September 2000 Final Disposition Report contained the Corps' quantification of the economic and recreational costs of the various study alternatives.

On the environmental side, the higher stable water surface in the pool now supports wetlands along the shore where they didn't exist before. How many wetlands would be lost compared to how much would exist along the flowing riverbank? Regulatory discharge permits have been issued based on the pool being there. Would those permits have to be revised with lower discharge limits if the river were free-flowing? What would be the cost to the industries of those lower discharge limits?

Yet removal of the structure would provide substantial benefits to fisheries by removing an impediment to migratory pathways and restoring the free-flowing character of a piedmont river. The New Savannah Bluff is the first dam across the Savannah River that a fish encounters as it migrates up the river. It blocks access to the only remaining shoal habitat on the Savannah River. Although the Corps and the City of Augusta try to operate the structure on a limited basis to pass anadromous fish in the Spring, historic habitat upstream of that location is substantially restricted to those species. An endangered species – the shortnose sturgeon – is known to occur in this portion of the Savannah River and the dam stops its upstream spawning migration. The migrations of other Federally managed fishery species, such as striped bass and shad, are also inhibited by the structure. The Robust redhorse – an imperiled fish species protected by the state of Georgia – is another shoal-spawning species that is found downstream of the dam. Restoration of a free-flowing river would restore cumulatively impacted Piedmont riverine habitat and certainly benefit those species of concern. Adding a fish passage structure could reduce the adverse impacts the structure presently has on fishery resources.

What initially appeared to be an easy decision – What to do with an old, deteriorating, structure that is a financial burden and no longer serves its authorized purpose – quickly became complicated. If the structure now served another useful purpose, such as water supply, it could be reauthorized by the Congress and funds expended to allow the structure to provide that service. But for that reauthorization to occur, some local governmental entity needed to step forward and agree to share in the costs of the needed repair work and future maintenance costs.

When the District issued a draft report in November 1999 to obtain public comment, its preliminary recommendation was for removal of the structure. Riverfront homeowners, water supply users and those encouraging economic development and tourism supported restoring and keeping the project. However,

no government agency stepped forward offering to be the non-Federal sponsor for reauthorization of the project. Federal and state natural resource agencies and non-governmental environmental organizations supported complete removal of the structure. The agencies did go on to state that if the structure were to be renovated and continue in operation, that the project needed to include a feature that would allow better fish passage.

CONCLUSIONS

New Savannah Bluff clearly no longer serves the commercial navigation purpose for which it was constructed. However, it is providing economic benefits to upstream communities. It also provides environmental benefits and recreational opportunities. But removal of the structure would result in other environmental benefits and recreational opportunities. Clearly the future of the project would result in tradeoffs among environmental resources, social effects, and project beneficiaries. Local governments were reluctant to begin paying for a service that they had received for free in the past. Without a local sponsor, Savannah District could not recommend restoring the structure and had to recommend its removal.

As the District's recommendation moved its way up through the agency on its way to Congress, individuals made their feelings known to their elected representatives. This eventually led Congress to include this project in the Water Resources Development Act of 2000. The Act authorized the Corps to perform the needed repairs to the Lock and Dam at full Federal expense and then transfer the project to North Augusta and Aiken County, South Carolina. A subsequent Act that contained minor changes to WRDA 2000 included a provision to include construction of a fish passage structure at NSBL&D and raised the estimated cost of the restoration effort.

DISCUSSION

Savannah District regularly has to make decisions on multi-faceted issues. Water resource management is complex and the need to balance several issues or resources is common. The decision about the future of this project illustrates that fact. The Corps doesn't operate in a vacuum but evaluates project impacts on society, the economy and the environment. Without the support of a local government as a project sponsor, the Corps cannot take any new action on a civil works project. Assuming Congress supports its decision by providing funds to implement its stated intent, the conclusion of this issue demonstrates that sometimes the political process can be used to reach what many would label a reasonable resolution to a highly complicated problem.

LITERATURE CITED

U.S. Army Corps of Engineers, Savannah District; New Savannah Bluff Lock and Dam, Section 216 Disposition Study, Final Report; September 2000