



**CHIEF OF ENGINEERS
ENVIRONMENTAL ADVISORY BOARD
WASHINGTON, D.C. 20314-1000 (CEGW-P)**

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Lieutenant General Robert L. Van Antwerp
Chief of Engineers
441 G Street NW
Washington, DC 20314-1000

Dear General Van Antwerp,

The Environmental Advisory (EAB) was briefed about the Sustainable Rivers Project and related efforts designed to improve ecosystem health and services below Corps dams, while maintaining or enhancing other project purposes. Although, the Corps and its partners have been collaborating on some of these efforts for more than a decade, there are substantial opportunities now to catalyze this collective investment into broader benefits for both human and natural communities across the nation, and to do so in ways that will enhance resiliency to climate change.

Background

During the 20th century, this country invested deeply in its water infrastructure, including dams and levees, and benefitted greatly from the increased flood protection, water supply, navigation, hydropower generation, and recreation. Nevertheless, this same infrastructure has had unexpected or under-appreciated impacts that are now both recognized and understood as adversely affecting rivers, floodplains, and estuaries, as well as the abundant socially and economically valuable goods and services they provide. Considerable changes in the natural seasonal patterns of river flows and extensive disconnection of rivers and their floodplains have degraded the quality of some drinking water supplies, reduced natural flood attenuation, and diminished fish and wildlife habitat and the health of recreational and commercial fisheries. Further, large-scale encroachment into floodplains has not only caused direct impact to river-floodplain systems and the services they provide, but also has significantly reduced operational flexibility of many Corps dams and – increasingly – placed people and communities at risk. This all comes at a time when the nation's infrastructure is aging, social demands for water, energy, food, and flood protection is expanding, and uncertainty due to climate change is increasing.

Discussion

Recognizing an opportunity to address some of the adverse impacts of dams, the Louisville District began working in 1998 with The Nature Conservancy and other partners to review and revise the water control plan for the Green River Dam (Kentucky) to incorporate scientifically-developed environmental flow requirements. These environmental flow requirements were implemented through changes in reservoir releases and were formally adopted in 2006. These

changes not only benefit the environment, but also improved the project performance for flood risk reduction and extended recreational access on the reservoir six weeks each year. Strategic acquisition of downstream floodplain properties by the Conservancy also played an important role in increasing operational flexibility of the dam and enabling coordinated stream bank and floodplain restoration projects.

Based on early successes of the collaboration on the Green River the Corps and Conservancy subsequently launched the Sustainable Rivers Project in 2002. This project now involves work in eight river basins¹ containing 36 Corps dams and has engaged more than 50 partner institutions across the country. During the past eight years of collaboration under the Sustainable Rivers Project (SRP), innovative approaches, methods, and tools have been developed, tested, and refined, and are being constructively applied at an increasing number of Corps dams. Training is available to support district efforts to advance or expand the work, as are state-of-the-art field techniques and computer models.

It is worth noting that more optimal solutions for meeting multiple and complex demands for water are often found by working at the watershed or basin scales and in ways that integrate consideration of river and floodplain management from planning through implementation. Work to date points toward opportunities for further innovation in policy and Corps programs that could substantially improve ecosystem health and services, while reducing future conflict over water management and economic losses due to flooding. Hindrances to further progress include a) insufficient financial resources for implementation at most of the existing SRP sites, b) inadequate authority for districts to carry out integrated planning and implementation of reservoir operations and downstream floodplain projects, and c) a lack of clear and universal expectation that available latitude in existing authorities should be used proactively and assertively to advance the Corps' ecosystem restoration mission.

Recommendations

- 1) Ensure adequate funding in FY11 and future years to support the Sustainable Rivers Project and related efforts, including individual project budget requests and national level funding for the Global Sustainability Program within the Institute for Water Resources;
- 2) Advance national policy and Corps programmatic initiatives by:
 - a. Requesting/supporting congressional authorization for a *National Sustainable Rivers Program* within the Corps that universally enables environmental flow implementation from Corps reservoirs and the integration of reservoir management with downstream floodplain restoration.

¹ The eight sites currently involved in the Sustainable Rivers Project include the Connecticut River (New Hampshire, Vermont, Massachusetts, and Connecticut); Roanoke River (North Carolina); Savannah River (Georgia and South Carolina); Green River (Kentucky); White, Black, and Little Red rivers (Arkansas); Big Cypress Bayou-Caddo Lake (Texas and Louisiana); Bill Williams River (Arizona); and Willamette River (Oregon).

- b. Reviewing existing project authorities to identify possible broader latitude to implement environmental flows and integrate management of reservoirs and their downstream floodplains.
 - c. Conducting a national assessment to prioritize candidate projects to add to the Sustainable Rivers Project.
- 3) Recognize districts that have taken leadership roles to date in advancing the Sustainable Rivers Project and acknowledge the value of their work in developing innovations in water management that benefit the nation's rivers and the scores of communities that depend upon them. Encourage districts to increase involvement in SRP.

The EAB views the Sustainable Rivers Project and related efforts to advance environmental flows and more integrated river-floodplain management as critical for achieving healthier, more resilient human and natural communities. The Environmental Advisory Board thanks you for considering these recommendations and would welcome the opportunity to discuss them with you further.

Sincerely,



James E. Kundell

Chairman

Chief of Engineers Environmental Advisory Board