Environmental Flows for Caddo Lake and its Tributaries

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Background

The Cypress Basin Flows Project was initiated in 2004 by the Caddo Lake Institute and the Nature Conservancy (TNC) in partnership with U.S. Army Corps of Engineers and others. This project was started after the State made the decision that no new water rights would be granted for protection of flows in rivers, lakes and bays. Instead, the state proposed, and has now enacted, a law (Senate Bill 3) to provide a process for setting aside water for instream flows in Texas.

Goal and Objectives

The project seeks to assure adequate instream flows to sustain the ecological, recreational and economic values of Caddo Lake and its watershed.

To reach its goal, the Project has these objectives:

1. A reservation by the state of sufficient water to reach the goal: The Project seeks a basis for a consensus among the scientists and stakeholders to present to state policy makers for a reservation, or "set aside," of water for the watershed.

2. A new release pattern for the dam at Lake O' the Pines: The Project will also provide a technical basis for a change in the operations of Lake O' the Pines by the Corps of Engineers and the Northeast Texas Municipal Water District to maximize the opportunities to obtain the environmental flows in Big Cypress, the largest tributary to Caddo Lake, while assuring flood control, water supply and the other purposes of the reservoir.

3. Adaptive management for the long term: The Project will continue to obtain new information and refine environmental flow regimes based on experimentation, research and further analysis.

Progress

Based on a series of meetings with natural resource experts from Texas and elsewhere and with the stakeholders in the watershed, the Project has resulted in "Building Blocks" or recommendations for instream flow regimes to provide for variations in annual and seasonal flows that will best protect fish and wildlife that are dependent upon a healthy ecosystem. An adaptive management approach has been used, where draft Building Blocks are developed, tested in the field, and adjusted as a better understanding of the flows and their values are developed.

The Project is relying upon 1) recommendations of the methodology developed by the National Academy of Sciences for the State of Texas on protection of environmental flows; 2) the experience of the TNC-Corps of Engineers Sustainable Rivers Program in other parts of the country; and 3) several recent Texas laws on environmental flows. Much of the scientific work needed to reach the objectives has been completed.