

## Environmental Flows for the Caddo Lake Watershed and Cypress River Basin 2016



Photo: John Winn

**Background:** The Environmental Flows Project was initiated in 2004 by the Caddo Lake Institute, the Nature Conservancy (TNC), U.S. Army Corps of Engineers (USACE) and the Northeast Texas Municipal Water District (NETMWD). This Project was started after a law by the Texas Legislature prohibited new water rights for protection of flows in rivers, lakes and bays. Instead, the State proposed and then enacted in 2007 a law (Senate Bill 3) to provide a process for setting aside water for instream flows in Texas.

Details for this Project are available at [www.caddolakeinstitute.us](http://www.caddolakeinstitute.us).

**Goal and Objectives:** The Project seeks to assure adequate environmental flows to sustain the ecological, recreational and economic values of rivers, streams and lakes in the Caddo Lake

watershed. There are currently four objectives of the Project:

1. State Recognition or Protection of the Recommended Flow Regimes: The Project has pursued two options 1) the adoption of “environmental flow standards” for the Cypress River Basin by the Texas Commission on Environmental Quality and 2) the inclusion of the recommendations as the environmental water needs or goals in the regional water plan for northeast Texas and, thus, the state water plan. This second option was obtained with the adoption of the 2016 regional and 2017 state water plan.

2. A New Release Rule for Lake O' the Pines: The Project seeks agreements with the USACE and NETMWD for a changes in water control plan for Lake O' the Pines, which would provide the releases needed to meet the recommended flow regimes downstream to Caddo Lake, when water is available. A five year agreement was reached in 2011 for an experimental revision to the control plan. That agreement included a commitment by CLI to monitor the changes that result from the new release patterns to determine if they are accomplishing what was predicted. The objective now is a permanent change in the water control plan for Lake O' the Pines.

3. Additional Strategies to Provide Water for Environmental Flows: Because the flow regimes for Big Cypress Bayou and to Caddo Lake could not be met during drought conditions, an increase in storage at Lake O' the Pines and other strategies need to be developed to provide the additional water.

4. Adaptive Management: The Project also seeks to establish and maintain a long-term monitoring program to provide the information needed for the periodic evaluations and revisions of the flow recommendations. The initial monitoring program has been established.

**The Process to Date:** Based on the consensus of scientists and the stakeholders who attended the 2004 orientation meeting, the Project has relied on the methodology developed for the Sustainable Rivers Program of the Nature Conservancy and USACE, with consideration of the report of the National Academy of Sciences for the State of Texas. The process has also been adjusted to be consistent with work under both Senate Bill 2 and Senate Bill 3 programs. After a series of meetings and multiday workshops from 2004 to 2006, the Project established an initial set of environmental flow regimes. Field work was then begun to test the recommendations, and some of the flow regimes were revised in 2008. A consensus on the current recommendations was reached and was the basis for the 2011 agreement with USACE and NETMWD for the experimental changes to the release patterns from Lake O' the Pines. Monitoring of the effectiveness of the releases began in 2011 and continues.

The next workshop is scheduled for December 2016.