

Summary: Cypress Basin Environmental Flows Study 2004-2008
Sponsored by the Caddo Lake Institute (CLI) and the Nature Conservancy (TNC)
For more information see www.caddolakeinstitute.us

Major Activities:

1. **Orientation Meeting:** December 2004. (60 scientists and stakeholders.)
2. **First Science/Stakeholder Workshop:** May 2005. (90 scientist and stakeholders.)
3. **Research & Filling Data Gaps:** Fall 2005 – Spring 2008. Field work by USGS, Corps of Engineers, and others.
4. **Planning Meetings** Spring 2006, Spring 2007 & Summer 2008. Meetings at Caddo and Austin to direct research.
5. **Second Science/Stakeholder Workshop:** October 2006. (80 scientists and stakeholders.)
6. **Third Science Stakeholders Workshop:** [Scheduled for December 2-4, 2008, Jefferson, Texas](#)

Major Results:

1. **Bibliography and Summary Report Supporting the Development of Flow Recommendations for Big Cypress.** April 2005, by Tx A&M.
2. **Installation of New Flow Gage on Big Cypress.** Paid for by the Texas Commission on Environmental Quality.
3. **Cypress Basin Hydrology Update.** September 2006. Summary of studies by the Corps of Engineers and others that had not been included in the 2005 report by Tx A&M and expanded to include Little and Black Cypress.
4. **Historic Trends in Fish Community, Cypress Basin.** October 2006, Josh Perkin, Tx State Univ.
5. **Building Blocks.** Flow recommendations for Caddo Lake, Big Cypress, Little Cypress and Black Cypress, based on Texas flows program and the recommendations to Texas by the National Academy of Sciences and focused on evaluations of the hydrology, biology, connectivity, geomorphology and water quality.
6. **Field Studies.** Work in the Caddo Lake watershed based on priorities set in the flow and planning meetings, including evaluations of habitat, connectivity, geomorphology, water quality and flows.
7. **Survey of Elevations and Cross Sections for Big Cypress.** For use in evaluating flow recommendations and to provide input to a new Corps of Engineers' model for flow and elevations..

Key Future Work:

1. **Further Field Work:** By USGS and others on stream flow, connections to wetlands and oxbows, morphology and aquatic biological and habitat assessments to test flow recommendations during different flow conditions.
2. **Further Characterization of the Big Cypress Flows:** Modeling by the Corps of Engineers to define flows and elevations in Big Cypress downstream Lake o' the Pines.
3. **Flow, Nutrient Budget and Sediment Movement in Caddo Lake:** To evaluate the impacts of different inflows and lake levels on the ecology of the Lake.

Major Participants:

1. **Federal Agencies:** U.S. Army Corps of Engineers, U.S. Geological Survey, National Wetland Research Center, & U.S. Fish & Wildlife Service.
2. **State and Local Agencies:** TPWD, TWDB, TCEQ, TSSWCB, La Dept Envi Quality, Cypress Valley Nav. Dist., N.E. Texas Municipal Water District, and the Cities of Jefferson, Marshall, Shreveport & Uncertain.
3. **Professors/Universities:** Roy Darville with East Tx Baptist Univ., several professors and the Texas Water Resources Institute at Texas A& M Univ., Thomas Rainwater with Tx Tech U., Matthew Chumchal, TCU, several professors and graduate students at Texas State U.
4. **Businesses, Non-Governmental Organizations and Landowners:** CLI, TNC, Caddo Lake Area Chamber of Commerce and Tourism, Greater Caddo Lake Assn., Jeffersonian Institute, Texas Conservation Alliance, Environmental Defense Fund, National Wildlife Federation, Sierra Club, Nestle Waters North America, AEP-American Electric Power, Red River Valley Association, and many landowners.
5. **Environmental Professionals:** AEI-American Ecology Inc, HDR Engineering, Bradbury Consulting, Guice Engineering Sciences/Guice Engineering, and Trungale Engineering and Science, Espey Consultants.