

# News Release

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For Immediate Release

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Caddo Lake Institute

## **Lake O' the Pines water to be released for environmental flows study in Big Cypress Bayou and Caddo Lake**

*Pioneering project will help determine methods to ensure adequate water for people and wildlife*

An abundance of water in Lake O' the Pines Reservoir due to recent rains will give scientists the opportunity they've been waiting for to study the impact of water releases into Big Cypress Bayou and Caddo Lake.

The U.S. Army Corps of Engineers, in cooperation with the Northeast Texas Municipal Water District, is expected to begin systematically releasing water from a swollen Lake O' the Pines on Thursday to allow scientists to study how releases at different levels affect the movement of sediments and aquatic life in the Bayou and Caddo Lake. Scientists from the U.S. Geological Survey began placing instruments in Big Cypress Bayou on Tuesday to measure water levels, water quality and other data.

Designed specifically to help restore and protect the rich ecosystem downstream of Lake O' the Pines while assuring adequate water for human needs, these releases are being conducted to test the results of scientific studies over the past year sponsored by the Caddo Lake Institute and The Nature Conservancy.

The release of water from Lake O' the Pines is a major step in a process of studying environmental flows into Caddo Lake that began in 2004 with a series of science-based workshops organized by The Nature Conservancy and the Caddo Lake Institute, with assistance from the U.S. Army Corps of Engineers, Northeast Texas Municipal Water District, several universities and federal, state and local government agencies. Scientists, water managers, agency officials and others interested in the ecological health of water resources from Texas, Louisiana and across the nation gathered in Jefferson with members of the local community to study the process for enhancing water flows to Caddo from Big Cypress Bayou and other tributaries of the lake.

Due to prolonged drought, this is the first time there has been enough water in Lake O' the Pines Reservoir to allow water to be released.

The formal request to the Fort Worth District of the Corps of Engineers for operational changes in the way water is released from the reservoir was sent in an August 2005 letter from Carter Smith, The Nature Conservancy's Texas state director.

“This is an amazing success story, one of broad partnerships involving the entire spectrum of stakeholders,” Smith said. “The coordination between engineers and ecologists being demonstrated in this release of water from Lake O' the Pines represents a fundamental shift in how water is being managed, and a great deal of the credit goes to the Army Corps of Engineers for intrepidly moving this concept forward.

“Caddo Lake is one of our most valuable, most unique and least well known natural treasures in Texas,” Smith added. “It is absolutely fitting that the state's only natural lake be the site of these important environmental flows studies.”

“The Fort Worth District of the U.S. Army Corps of Engineers is proud to work with The Nature Conservancy, USGS, Caddo Lake Institute and other interested partners in being able to make calculated water releases from Lake O' the Pines in order to conduct field observations,” said Paul Rodman, chief of reservoir control for the Corps' Fort Worth District. “Our hope is that by making these water releases at specific times and amounts, the specialists in the field will be able to accurately measure the flows to promote ecologically sustainable water management practices.”

The Corps of Engineers' participation in environmental flows studies at Caddo Lake stems from a partnership with The Nature Conservancy called the Sustainable Rivers Project, a pilot project to protect river ecosystems downstream of multiple dams in 13 states.

Caddo Lake Institute President Richard Lowerre explained the term “environmental flows” as releases of water into Caddo Lake through its tributaries using a formula patterned after the natural conditions to which fish and other animals, plants and humans have become adapted.

“We are not seeking just one flow level, but seasonal variation, because some flood levels, some drought conditions and the timing of different flows are important for fish spawning, cypress tree regeneration, flushing of sediments and nutrients, and management of invasive aquatic plants,” Lowerre said.

The scientists and others participating in the preliminary workshops examined technical aspects of biology, hydrology, hydraulics, geomorphology and water quality – called the building blocks of environmental flows – with the ultimate goal of determining how much water is needed to maintain the ecological health of Caddo Lake and its tributaries as habitat for animals and plants while supplying adequate water for human needs such as drinking water and recreation. The water releases beginning Thursday now offer the opportunity to put their hypotheses to the test.

“We are trying to determine how the timing and amount of releases of water from Lake O' the Pines to Big Cypress Bayou and Caddo Lake can best be used to mimic the natural system that existed before Lake O' the Pines was built,” Lowerre said. “As part of the process, we also must assure adequate water for cities, industries and agriculture and protect against damaging floods. We are confident that with good science we can protect all uses, including water for fish and wildlife, which provides economic benefit from fishing, hunting and other recreational tourism in the area.”

Caddo Lake Institute's Lowerre noted the environmental flows studies are on the leading edge of a new round of planning Texans are undertaking to manage water resources under increasing demand from growing populations. “We are realizing that with increasing competition for water resources, we need to understand how these water systems work to determine how we can make the best use of what we have,” he said.

The State Legislature also is expected to take up the issue of environmental flows this session, with potential legislation based on recently released recommendations from the Texas

Environmental Flows Advisory Committee, which was created to establish a process that will achieve a consensus-based, regional approach to integrate environmental flow protection into the water allocation process while assuring that human water needs are satisfied.

With this in mind, Lowerre said, participants in the environmental flows workshops aligned the process being used to study the Lake O' the Pines water releases with the framework being used to determine statewide environmental flow protection.

Caddo Lake covers 50 square miles, half in Texas and half in Louisiana. Believed to have been created originally by logjams on the Red River, the lake and its surrounding wetlands are a mixed bottomland hardwood forest and shallow bald cypress swamp. Long regarded as one of the best remaining examples of this forest type, the area was declared the United States' thirteenth Wetland of International Importance by the Ramsar Convention, a treaty for protecting exemplary wetland systems signed by more than 150 nations. With its maze of bayous and cypress swamps, Caddo Lake and its surroundings support the richest array of aquatic creatures in the area, with more than 20 mussel species and 90-plus species of fish, including uncommon species such as the paddlefish.

The Conservancy has been working to protect Caddo Lake since the early 1990s and was instrumental in the creation of Caddo Lake Wildlife Management Area. The organization also owns and manages the 1,000-acre Fred and Loucille Dahmer Preserve at Caddo Lake.

The Caddo Lake Institute has been working with the local communities to protect Caddo for the past 15 years.

#### **Sources for reporters:**

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**Texas Environmental Flows Advisory Committee:** Dick Bartlett, member and Caddo Lake resident, (972) 687-4020.

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**The Nature Conservancy** is an international, nonprofit organization that preserves plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. To date, the Conservancy and its nearly 1 million members have been responsible for the protection of more than 15 million acres in the United States and have helped protect more than 102 million acres in Latin America, the Caribbean, Asia and the Pacific. In the Lone Star State, The Nature Conservancy of Texas owns 35 nature preserves and conservation projects and assists private landowners to conserve their land through more than 70 voluntary land-preservation agreements. The Nature Conservancy of Texas protects 250,000 acres of wild lands and, with partners, has conserved close to a million acres for wildlife habitat across the state. Visit The Nature Conservancy of Texas on the Web at [nature.org/texas](http://nature.org/texas).

**Caddo Lake Institute** (CLI) is a non-profit scientific and educational corporation with the mission of protecting the ecological, cultural and economic integrity of Caddo Lake, its associated wetlands and surrounding communities. It was founded by Don Henley of the band the Eagles. CLI is proud of the relations with many people and communities whose goals are protection of this unique treasure that is Caddo Lake – and the success that the joint efforts have brought. See, [www.caddolakeinstitute.us](http://www.caddolakeinstitute.us)