



To: Richard Lowerre, Caddo Lake Institute
From: Herman R. Settemeyer, P. E., Partner RSAH2O, LLC
Subject: Red River Compact Analysis - Cypress River Basin

Red River Compact (Compact) and the Caddo Lake Watershed Environmental Flows Project (Project)

This Project seeks to assure the environmental flows, with seasonal variability, necessary to sustain the ecological, recreational, and economic values of the Cypress River Basin and in particular the Caddo Lake watershed. Water level fluctuations at Caddo Lake may be necessary to ensure the sustainability of a sound ecological environment. As such, changes may be required to the operations of Caddo Lake and upstream reservoirs, primarily Lake O' the Pines.

This memo addresses which changes fall within the terms and conditions of the Compact and the Red River Compact Commission (Commission) rules. It also examines how changes or amendments to the Compact could be accomplished.

Conclusions

The Compact provides Texas the unrestricted right to the use of all water above Lake O' the Pines, Marshall, and Black Cypress dam sites. See attached map. Texas, via the Texas Commission on Environmental Quality (TCEQ), alone has the authority to administer this water via its statutes, rules, and permitting process. Thus, any changes to the operation of Lake O' the Pines reservoir release, both in amount and timing, would not be in conflict with the Compact or require any Commission action.

Practically speaking, the only restriction the Compact currently imposes on Texas' use of water from the Cypress River Basin is from Caddo Lake during the periods when Caddo Lake is not spilling. Texas and Louisiana each have rights to 50% of the water in the lake when it is not spilling. Those rights are limited by a maximum total and maximum monthly diversion amount during a drawdown period. These restrictions are described in more detail below.

The Compact and Commission rules were developed with a Caddo Lake conservation capacity and spillway elevation of 168.5 feet above mean sea level (msl). While the Compact provides for the enlargement of Caddo Lake and additional conservation capacity, Commission rules would need to be amended to reflect any changes. Moreover, it is reasonable to assume that any change to the Commission rules would have to be with the agreement of both Texas and Louisiana; Oklahoma and Arkansas would also have to concur.

The Compact does not specifically address a reduction in the conservation capacity of Caddo Lake. Thus, it might be possible for such a change to occur with approved Commission rules.

Changes to the Compact would require approval by statute in each state, as well as approved federal legislation. Thus, that is a very difficult and lengthy task to accomplish. The Compact has never been amended. Changes to Commission rules can occur by Commission action, however those changes must be consistent with the Compact.

Red River Compact – Purpose

The Compact is an agreement (contract) between the states of Texas, Oklahoma, Arkansas, and Louisiana that equitably apportions the waters of the Red River and its tributaries. The Compact, enacted in 1978, is both state and federal law and is administered by a Commission consisting of two commissioners from each state and a federal chairman.

Red River Compact Commission – Role

The interstate Commission consists of the federal chairman, two commissioners from each state, and designated technical and legal advisors. The federal chairman has no right to vote. The Texas commissioners consist of one commissioner appointed by the governor, with Senate ratification, and the Executive Director of the TCEQ, who is by statute one of the Texas Commissioners. All water use in each of the states must be in accordance with the Compact.

The Commission is responsible for the proper administration of the Compact. The Commission has the power to, among other things, adopt rules and regulations governing enforcement of the Compact. The Commission may also make findings, recommendations, or reports in connection with carrying out the purposes of the Compact; including whether a state is in violation of any provision of the Compact. Any action concerned with the administration of the Compact or any action requiring compliance with specific terms of the Compact requires six concurring votes. If a proposed action of the Commission affects existing water rights in a state, and that action is not expressly provided for in the Compact, eight concurring votes are required. For example, if the Commission changed the monthly diversion amounts from Caddo Lake during a drawdown period, eight votes would be required. If the Commission was voting on where to host a Commission meeting, six votes would be required. The six or eight vote requirement for Commission action has been an issue of significant discussion.

The Commission meets as necessary to carry out the appropriate business of the Compact. The Commission normally meets annually in April.

Red River Compact and Commission Rules

The rights of Texas and Louisiana to the waters flowing into Caddo Lake are specified in Article VI of the Compact, specifically Article VI, Section 6.03, Subbasin 3. In 1989, the Commission adopted Rules and Regulations to compute and enforce Compact compliance for this Subbasin. The Commission, to date, has never determined either state to not be in compliance.

The Compact provides Texas the right to all water above Marshall, Lake O' the Pines, and Black Cypress dam sites. Only Lake O' Pines has been constructed. The Compact does impose limits on Texas' use of

inflows below these dam sites and above Caddo lake, but the rules adopted by the Commission indicate that until both Marshall Reservoir and Black Cypress Reservoir have been constructed, it would be virtually impossible for Texas to deplete runoff into Caddo Lake in excess of that authorized by the Compact.

Regarding Caddo Lake, the Compact provides each state the unrestricted right to use fifty percent of the conservation storage for the impoundment of water for state use, provided that supplies for existing uses from Caddo Lake, on date of Compact, are not reduced. The Commission has adopted rules providing that whenever water is spilling over the existing spillway at 168.5 feet above mean sea level, each state may divert water without restriction. Further, the Commission rules provide that when Caddo Lake is not spilling over the existing spillway, the total consumptive use by each state shall not exceed 8,400 acre-feet during the time the lake is not spilling, provided that neither state shall divert more than 3,600 acre-feet during any one month or 4,800 acre-feet during any two consecutive months. The Compact also provides that if Caddo Lake is enlarged, Texas and Louisiana shall each have the right to fifty percent of the conservation capacity of the enlargement, unless the two states negotiate a different percentage.

Environmental Provisions

Article XI of the Compact addresses pollution within the Red River Basin. Specifically, Section 11.01 recognized that increased growth and water demands could lead to a diminution of water quality which could result in adverse environmental and other impacts. The Compact affirmed the role of the states in these matters, but recognized that the maintenance and enhancement of the water quality in the Red River Basin may require the cooperative action of all states. These type of water quality provisions are somewhat unique to this Compact, and are not commonly found in most interstate compacts on water. Article XI provides an opportunity for the Commission to identify environmental projects within the Red River Basin and work with federal agencies to help secure funding or other actions to help address projects designed to reduce the causes of pollution or the impacts on the environment. The Compact specifically provides the Commission the power to cooperate with the United States, states, and other entities (for example Caddo Lake Institute) in programs for abating and controlling pollution and natural deterioration of the water of the Red River basin and to recommend reasonable water quality objectives to the states. There is no reason the Commission could not work to identify problems and projects to address such issues.

Potential Role of the Compact on the Caddo Lake Watershed Environmental Flows Project

In 2011, the Compact Commissioners were briefed on the work of the Caddo Lake Watershed Environmental Flows Project by the Fort Worth District of the Army Corps of Engineers and the Caddo Lake Institute (CLI). CLI updated the Commission on the work in 2016. To date, all work by the Project has been within the scope of Compact and the rules of the Commission. Were the Project to initiate an effort to change the dam elevation at Caddo Lake, the Compact Commission would need to be included. Any action by the Commission would depend on the changes proposed. Proposals for lowering Caddo Lake for cypress regeneration, invasive species management or other purposes, through pumping when the lake is not spilling, would also be subject to the limits in the Compact and current Commission rules.

While the Compact may provide another route to federal and state assistance for the Project, no effort to do so has been pursued. There is also no precedent for such cooperation. The Commission does consider the environmental impacts of projects, such as improvements to navigation, but to date, the Commission has not ventured into activities focused primarily on environmental protection or enhancement. With limited funds and its historic role, the Commission is not currently poised to work on such efforts. However, if the

Commission determined that there was sufficient cause, it could expand its current scope of work. Texas Commissioner, Bill Abney, has discussed water quality issues in the waters covered by the Compact with members of the Texas congressional delegation and may have some interests in expanding the role of the Compact Commission.

Recommendations

Caddo Lake Institute should continue to keep the Commission informed and invite the Commission to participate in their workshops or forums. Any proposed action that could have implications regarding the Compact or Commission rules should be brought to the attention of the Commission well in advance of any implementation of the action. Even if an action will not have implications for the Compact or require rule changes, it is best to ensure the Commission is aware of such changes and understands what changes are occurring.

Herman R. Settemeyer, P. E. served as the Texas Engineer Advisor to the Red River Compact (as well as the other Texas River Compacts) from 1987 to 2012.

