

# REALLOCATION OF WATER STORAGE IN LAKE LANIER

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## INTRODUCTION

The Corps of Engineers has worked with the State of Georgia and metropolitan Atlanta governments since the early 1970's to identify long term water supply sources for the Atlanta area. Corps' studies culminated in a decision in 1988 to reallocate storage in Lake Lanier to water supply. Over the last two years this proposal has become embroiled in controversy between upstream and downstream interests and the three states in the basin. This paper will provide a brief history of the events leading to the present controversy.

## BACKGROUND

In 1972 the U.S. Army Corps of Engineers undertook what was then known as an "Urban Study" of the Atlanta Metropolitan area pursuant to a Senate Public Works Committee Resolution. The study considered a number of urban water resources problems. An interim report (Corps, 1978) on the study recommended further consideration of several long term water supply alternatives. After additional study a report (Corps, 1981) recommended authorization of a re-regulation dam. A re-regulation dam was identified because first, it would be able to provide higher weekend releases which would allow for growth in river withdrawal amounts and, second, the re-regulation dam would allow the water presently passed through Buford Dam on a continuous basis to be used for peak power generation. This would produce a gain in power benefits which would offset the power loss due to direct water supply withdrawals from Lake Lanier.

Other alternatives such as raising Lake Lanier or dredging Morgan Falls reservoir were also considered but were less economical than the re-regulation dam. The Corps report was forwarded to Washington for inter-agency review. The Office of Management and Budget determined that there was no legal authority for the Federal Government to construct a single purpose water supply project. Despite this determination the re-regulation dam was authorized in the Water Resources Development Act of 1986. By late 1987 further studies

(Corps, 1987) revealed that reallocation of storage was very close to the re-regulation dam economically. The Corps briefed Georgia State officials and water supply interests about the outcome of the studies. Given that the re-regulation dam had many uncertain features of costs, environmental effects, mitigation needs, and many potential opponents, the reallocation alternative now appeared to the project sponsors to be a much more desirable and expedient solution. (Stevens, 1988) An additional factor which further supported the favorable consideration of the reallocation alternative was the precedent of the major reallocation of hydropower storage at Lake Texoma on the Red River.

This change in direction necessitated the development of a reallocation report designated PAC for "Post Authorization Change" report. (Corps, 1989) A complicating factor arose because the drought experience of the mid-1980's caused a much greater awareness and concern for water among the many interests in the basin. The prior studies of the re-regulation dam addressed only the effects on the flow regime in the reach of river between Buford Dam and Peachtree Creek of shifting release patterns during the week.

Corps re-regulation dam studies (Corps, 1978, 1981, 1987) assumed that weekday releases from Lake Lanier had only to be spread-out over weekend hours to make sufficient firm flow available for withdrawals. The studies presumed that there would be no change in the total monthly or weekly release patterns to assure the 2010 year river withdrawals between Buford Dam and Peachtree Creek. These earlier studies did not address the actual system-wide operation of the Chattahoochee Basin projects, including Lake Lanier during an extended drought.

## DROUGHT IMPACT

However, the drought raised awareness of the various upstream and downstream water resource interests not only of the water supplies impacted by the drought but also the entire gamut of water management throughout the basin. Instead of discharging the design yield of the

project of about 1700 cubic feet per second, the Corps considerably reduced outflows from Lake Lanier to preserve recreational access and other reasons. Average annual releases or calendar year 1988 from Lake Lanier were only about 1055 cubic feet per second--which equates to 485 MGD for waste assimilation flow and 197 MGD for water withdrawals. When this 197 MGD is compared with the 2010 withdrawals from the river, projected to be an average annual demand of 378 MGD, there is serious concern about how Lake Lanier and, for that matter, the entire basin would operate and be affected by a severe drought with the future water supply demands that would exist in 2010.

To answer the concerns of upstream and downstream interests the Corps has modeled the entire basin to determine the effects of operations for future water supply. One consideration in this modeling is to what degree the uncontrolled flows that originate in the region between Buford Dam and Peachtree Creek can be used to meet future water demands. The river management system the Corps jointly developed with the Atlanta Regional Commission was included in the model. Even in a drought year, there is significant intervening runoff in the winter and spring to contribute to supplying river withdrawals. The simulations revealed that the water supply could be provided with the current operational guidelines with only a few feet greater drawdown than has occurred historically and almost no change to downstream flow regimes.

A series of public meetings held in November 1989 provided the public an opportunity to voice concerns about reallocation. Numerous concerns were raised, not just with the reallocation proposed in the PAC report, but with the cumulative effects of further developments of water supply, quantity and quality of return flows, and various issues revolving around long-term management of water resources in the basin.

### COMPREHENSIVE STUDY

Following briefings of the region's Congressional representatives the Corps prepared a plan wherein a comprehensive study of the regions' water resources needs would be accomplished while meeting the short term water supply needs of north Georgia. Conceptually, the comprehensive study is intended to meet the water management needs of the States involved. In fact the states would largely define the agenda and scope of the study. The study is funded as a part of the Operations and Management budget of the Corps of Engineers. The Corps worked with the states during the first half of 1990 to try to reach an agreement to move forward with these two efforts.

The parties did not reach agreement and in June 1990 the State of Alabama filed suit in federal court against the

Corps of Engineers. The suit seeks to stop the Corps of Engineers from reallocating storage to water supply in three federal North Georgia lakes: Carters, Allatoona, and Lanier. The suit alleges a number of areas of harm to Alabama, most of which are presented in terms of violations of the National Environmental Policy Act. The lawsuit linked all the proposed reallocations in the Coosa and Chattahoochee basins and alleges that the Corps has not adequately considered the long term, cumulative impacts of all ongoing reallocations on the citizens of Alabama.

Subsequent to the filing of the suit a number of parties sought to intervene. The cities of Gadsden and Montgomery, Alabama; the Alabama Wildlife Federation, the State of Florida, the State of Georgia, and the Atlanta Regional Commission and others filed motions to intervene.

Following a period of negotiations during the summer, Alabama and the Corps filed petition to postpone action on the litigation on September 19, 1990, to allow more time for the states to reach agreement on a memorandum-of-understanding. (MOU)

The purpose of the memorandum-of-understanding is to provide increased water supplies for the Georgia areas needing additional water through 1995 while setting up the framework for the accomplishment of the comprehensive study. As of early February 1991 litigation action was still suspended and the memorandum had not yet been signed.

### OUTLOOK FOR SETTLEMENT

It is impossible to say how long it may be before the issue of future water supply is resolved. The personal observation of the author is that there are many strongly felt viewpoints among state representatives and the various interested parties. The views are founded on principle and are more difficult to resolve than misunderstandings about specific water management actions. If one looks to the interstate water conflicts that have been resolved, there are examples of the resolution of issues taking years.

The issue of reallocating storage for future water supply for north Georgia remains a contentious and controversial undertaking. Proposed reallocations of minor amounts of storage in Carters and Allatoona Reservoirs have added to the concerns of downstream interests. Not only has the reallocation of storage been under scrutiny but also ancillary issues such as long-term basin water management, consumptive water loss, water quality of return flows, cumulative effects of future water supplies, and equity of growth between regions have become issues of concern. The regional water supply reservoir program has been incorporated into the controversy because of the unfortunate coincidence of having the first such reservoir be the Tallapoosa River

project. The resolution of these concerns and issues seems to be almost beyond negotiation among informed and rational parties. The resolution of this controversy has the potential of establishing new standards of interstate water management in the East. However, it will take a considerable amount of hard work, compromise, and time to reach a resolution. The ultimate resolution of reallocating storage and future basin water management may be months away.

#### LITERATURE CITED

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