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OUR WHOLE FUTURE IS BOUND UP IN THIS PROJECT:

THE MAKING OF THE BUFORD DAM

by

LORI COLEMAN

Under the Direction of Dr. Clifford Kuhn

ABSTRACT

Twentieth Century Americans witnessed the construction of numerous massive dams that controlled the flow of rivers across the country. Many of these dams were built by the U.S. Army Corps of Engineers to improve navigation and to provide inexpensive electricity and flood control. This paper will seek to shed light on Georgia's current water crisis by analyzing the initial purposes behind the building of Buford Dam in North Georgia, investigating how water supply issues were addressed in the first half of the twentieth century, and exploring how expectations of the Chattahoochee River changed over time due in part to metropolitan Atlanta's population growth. This paper will show that Atlanta area leaders secured appropriations for Buford Dam primarily to obtain a reliable water supply and additional electricity for their burgeoning community.

INDEX WORDS: Atlanta, Buford Dam, Chattahoochee River, Corps of Engineers, James C.

Davis, Navigation, Richard B. Russell, Jr., Water supply, William B.

Hartsfield

OUR WHOLE FUTURE IS BOUND UP IN THIS PROJECT: THE MAKING OF THE BUFORD DAM

by

LORI COLEMAN

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts in the College of Arts and Sciences Georgia State University

OUR WHOLE FUTURE IS BOUND UP IN THIS PROJECT:

THE MAKING OF THE BUFORD DAM

by

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Committee Chair: Clifford Kuhn

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Electronic Version Approved:

Office of Graduate Studies College of Arts and Sciences Georgia State University December 2008

DEDICATION

To my mom and dad. My mom has been a voracious reader since she was a child and has passed on her love for reading to future generations. She has been a wonderful example to me and has always supported me in whatever I have done. My dad did not read his first book cover to cover until he was twenty years old. But he persevered through multiple college degrees to become a great educator of young people and an outstanding example of determination, hard work, and wisdom.

ACKNOWLEDGEMENTS

This paper would not have been possible without many individuals who offered input and contributed in other ways. Clifford Kuhn has been extremely patient with me in my slow but steady progress and has shared his vast stores of knowledge of all things Atlanta. I have found my spirits lifted through his medley of water metaphors. This paper has only come to fruition because of his guidance. Ian Fletcher has been a constant ally and mentor. He has inspired me with his gentle influence and steady sacrifice for his students. Robert Baker has invested time in several of my projects. His praise and confidence in me came in times of need. I have also appreciated all of the other professors at Georgia State University with whom I have spent my "days off"—Joe Perry, Charles Steffen, Lauren Ristvet, and Emily Brock. The research staff at Emory, Georgia State and the University of Georgia have been helpful and courteous, particularly Kathy Shoemaker, at Emory's Woodruff Library. Mary Frances LaChance, Karen Huggin, and Geri Slaght have buoyed my spirits throughout the project. Most of all, I appreciate my family for their support. My four children, Spencer, Nathan, Carver, and Erin, in no particular order, have constantly urged me on. My parents have stood by me and constantly encouraged me and even volunteered to help edit the manuscript. My husband, Gary, has been my ever-faithful friend and confidant, willing to hear me jabber on and on about a large pile of rocks that sits in a river's path near Georgia Highway 20.

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INTRODUCTION

"...the mastery of the natural world became inextricably tied to a desire for progress....To be sure, greater command over water, over nature in general, had its positive points—rising living standards for some, more comfort and convenience. But there is a troubling side to this aggressive, manipulative posture toward the natural world—we have been lulled into thinking that nature can be dominated at will, seduced by our seemingly invincible ability to conquer the environment. It is...an attitude we may rightly suspect to be little more than an illusion." (Steinberg, 271)

Residents of Georgia hope that the year 2007 will go on record as the year Lake Lanier, the reservoir behind Buford Dam, reached its lowest point. In November 2007, hundreds of private and public boat docks at Lake Lanier sank deep into the mud, far away from the nearest trace of lake water. Because of the low lake levels, metropolitan Atlantans were advised that they might not have enough water for drinking by the spring of 2008. Many in Alabama and Florida argued that Buford Dam releases had been planned solely to manage downstream navigation, flood control, and power production; but users in Atlanta insisted that one of Buford Dam's purposes was to provide water to North Georgia.

All three states disagreed over how much of the Chattahoochee River was allocated to each locality; parties argued over which users were deemed most important—municipalities, industries, or endangered species; and the public criticized the Army Corps of Engineers for the way it managed releases from Buford Dam. When concerned citizens attempted to determine why Corps officials were still releasing heavy flows from Buford Dam in November 2007, when lake levels were at record lows, they were told that downstream river levels needed to be

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¹ See J. C. Wren, "Lake Lanier Georgia Statistics," 24 March 2008, http://tinymicros.com:8080/lanier/ (24 March 2008). Lanier's lowest point on record is 1,050.79 feet, which was reached in November, 2007.

maintained in order to protect endangered mussels and sturgeon in Florida's Apalachicola Bay.² Since the Chattahoochee, Flint, and Apalachicola rivers connect to form the Apalachicola-Chattahoochee-Flint river system, or ACF, water levels that are released from Buford Dam affect the entire stretch of the river system to the gulf. These issues and the serious drought that struck Georgia combined to prompt an aquatic catastrophe of serious and complex dimensions.

While rivers were already heavily utilized in the first part of the twentieth century, water requirements were much simpler and localities primarily used water for limited industrial needs, sewage treatment, and drinking. Today, Georgia residents demand water for many uses.

Communities not only expect to have enough water for manufacturing, drinking, and flushing, but also for swimming, watering lawns, boating, and other leisure activities. Local residents and industries are not the only groups who desire water from the Chattahoochee. The EPA also requires that Chattahoochee flows are maintained at certain levels in order to support endangered species at multiple locations on the ACF. These federal regulations, some passed as early as the 1960s, place an additional burden on already over-taxed rivers.

As Georgia's burgeoning population has used the Chattahoochee's water for a variety of purposes since the early twentieth century, Corps' designs for ACF water projects have attempted to fulfill residents' and industry's desires. Current difficulties regarding water supply and water regulation of the Chattahoochee in Georgia partially stem from the development (or some might say over-development) of the river. This paper will analyze the initial purposes behind the Corps' building of Buford Dam, investigate how water supply issues were addressed

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² Unknown to most residents was the fact that high river levels also needed to be maintained to support downstream private power plants. See Florida Department of Environmental Protection, "Apalachicola-Chattahoochee-Flint River System (ACF) Timeline of Action," 17 March 2008, http://www.dep.state.fl.us/mainpage/acf/timeline.htm (24 March 2008).

in the first half of the twentieth century, and explore how expectations of the Chattahoochee River changed over time due in part to metropolitan Atlanta's tremendous population growth.³

The Corps of Engineers initially proposed Buford Dam in order to regulate flows on the Chattahoochee to facilitate transportation along the ACF between the Gulf of Mexico and Columbus, Georgia. In the late 1930s, Corps engineers recognized Buford's potential to produce inexpensive electricity. Later, engineers hoped Buford would control flooding downstream. Lastly, when Atlanta leaders became involved in the Buford project, engineers and local authorities determined that the dam was necessary in order to ensure reliable water supplies to Atlanta.

Engineers addressed Buford's capacity to supply water to Atlanta almost as an afterthought to the initial plans. When the Bureau of the Budget attempted to cancel the Buford project in 1947, key Georgia leaders who sought to guarantee that Atlanta would have sufficient water supplies, reenergized Corps' plans for Buford and guided the project through the appropriations process. The Atlanta Freight Bureau was perhaps one of the first groups in Atlanta to promote Buford Dam. Later, political leaders such as Atlanta Mayor William B. Hartsfield, Congressman James C. Davis, and Senator Richard B. Russell, Jr., rode the Buford wave and provided a torrent of support for the dam. Other corporate and government leaders also sponsored legislation for the project. In spite of the Budget Bureau's negative recommendation, the year 1947 became a watershed for the dam's progress as many in Atlanta championed the project until it was completed.

³ It is important to note that ACF flow requirements changed dramatically after groundbreaking EPA legislation was passed in the 1970s. All of the dams on the river system were impacted as federal officials attempted to improve water quality and support numerous endangered species. The myriad ways in which EPA legislation affected the ACF is beyond the scope of this work, but would provide fruitful topics for research in the future.

Political and corporate participation in the Buford project by Georgia elites offers insight into Georgia political culture in the 1940s and 1950s. Business and government leaders were highly cooperative during that period and they maintained a heavy hand in spurring growth in Georgia. Significant development in Atlanta came from a top-down approach during this era.

This paper will examine the collections of several Georgia elites because of their powerful influence on the Buford project. The James C. Davis collection, held by Emory University, is a treasure trove for scholars studying Georgia in the late 1940s and 1950s. Davis was elected to Congress in 1946 and maintained scrupulous records of his activities. Most of his records have been categorized in the usual manner; however, Davis's extensive materials on Buford Dam remain unprocessed and are a treat for scholars. This paper would not have been possible without Davis's collection, which contains documents over an extended period from varied individuals throughout Georgia. The William B. Hartsfield and Richard B. Russell collections, at Emory and the University of Georgia respectively, include valuable information regarding Buford Dam and water projects in general. The Herman Talmadge collection at the University of Georgia was also beneficial.

I have appreciated Robert Coughlin's *Lake Lanier: A Storybook Site* and his extensive research on the construction of Buford Dam. Coughlin worked for the Army Corps of Engineers and therefore was able to obtain access to material which scholars would have been denied. Coughlin's painstaking research on land purchases for Buford Dam was particularly helpful. While our approaches and conclusions may differ, his study is thoroughly-researched and well-presented.

Certain oral interviews were completed as part of the research for this paper. Cecil M.

Quinley of the Corps of Engineers was kind enough to take me on a tour of Buford Dam and to

describe the hydroelectric capabilities of the facility. Joel Seymour, with Southeastern Power Authority (SEPA), instructed me on some of the unwritten nuances of utility politics and pointed me to fruitful paths regarding utility research. Neill Herring, an environmental lobbyist for the Sierra Club, advised me on issues dealing with Georgia Power, the Southern Company, and midtwentieth century Georgia politics. All of these interviews provided necessary background material for ideas presented in this paper.

Georgia politics in the 1940s was primarily a white men's drama in which non-whites and women only occasionally graced the stage. These white men, for the most part, sought cooperative relationships that fostered interaction and negotiation. Leaders typically obtained a broad consensus for infrastructure improvements like upgraded roads and sewage, water supply, and electrical systems. Georgia's financial and industrial growth in the 1940s began primarily at the top of the ladder, and corporate and political leaders frequently petitioned the federal government for a greater share of the nation's resources in infrastructure development.

Official Georgia politics thus involved an elite segment of society during the 1940s and to a modern audience appears to have neglected some important topics. One topic that is missing from the historical record of well-known politicians, Corps officials, and the conversations of most Americans at that time, was our modern understanding of "environmentalism." Today, many individuals are concerned with human activities that dramatically alter the natural world. Many recognize that nature's bounty is finite and that some human alterations to the natural world are irreversible. These ideas were simply not discussed in the 1940s as they are now. The few existing examples that were found in the above collections have been referenced in this paper.

This paper examines a dam that was approved in the 1940s and built in the 1950s—a dam that was built to manipulate the flow of a river. Regardless of whether politicians recognized it in the 1940s, dams have a substantial impact on their surrounding environments. Since then, many scholars have documented the irreversible changes that dams impose on the surrounding ecosystems. As this paper asks readers to look at the past in order to inform their future decisions regarding water management, it is necessary for readers to be aware of the impact of large dams.

Patrick McCully, in *Silenced Rivers*, emphasizes some of the environmental hazards produced by dams. Most dams prevent natural flooding downstream. This natural flooding is important to the environment because it supports numerous species and deposits precious nutrients in the soil of riverbanks. Aquatic species can become less diverse and soils can lose their productivity when water levels are controlled. When engineers fill reservoirs, the diverse habitats of upstream riverbanks and floodplains are drowned. Deep water behind dams and water released from dams have little absorbed oxygen to offer aquatic animals. In addition, water released from dams is too cold for many native species to breed and for the eggs of certain species to grow and hatch. ⁴ Trees and other plant life submerged below reservoirs can release large doses of methane gas and CO₂. ⁵ Fish in reservoirs can absorb dangerously large doses of mercury. Reservoirs cause the salinity in river water to rise significantly. Dams prevent many fish species from swimming upstream to spawn. Dams have even been known to trigger earthquakes. ⁶ Jacques Leslie, in *Deep Water*, goes so far as to suggest that the excessive weight of water supported by dams on the earth has changed "the earth's rotation, the tilt of its axis, and

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⁴ Patrick McCully, Silenced Rivers: The Ecology and Politics of Large Dams (London: Zed Books, 1996), 31.

⁵ In fact, some believe that dams built in subtropical areas can produce more CO₂ gas than coal plants. See, McCully, 38.

⁶ Ibid, 112.

the shape of its gravitational field."⁷ While it is difficult, even today, to understand precisely what impact these immense structures have on the natural world, government and corporate leaders of the 1940s were mostly ignorant of many of the consequences of significant river modification.

Not only does dam construction create environmental hazards, but it can also trigger social injustice. Leslie suggests that many countries build dams without adequate consideration for the people who will lose their homes when reservoirs are filled. Leslie notes that those most seriously affected are often the poor and those who have no voice in governmental decisions. Although hindsight allows people of today to critique earlier practices, it is critical to note that the Corps and most individuals involved in major water projects in the 1940s and 1950s were scarcely concerned about the negative social impact of dams. While it is not within the scope of this paper to offer details and interviews of those who were displaced as Lake Lanier was filled, these interviews would be extremely valuable and, if analyzed, could show what groups of people were most affected and how they were impacted.

Certainly it is true that many have benefited from Corps water projects either through improved navigation, access to inexpensive electricity, protection from floods, or an assurance of a reliable water supply. However, such immense projects often have negative social repercussions besides displacement. Donald Worster, in *Rivers of Empire*, suggests that government water management reduces the amount of freedom each individual retains over his ability to provide basic sustenance for himself. ⁹ Worster traces the water use of the Papagos, Spanish-Americans, and the Utah Mormons in his book and suggests that restricted management

⁷ Jacques Leslie, *Deep Water: The Epic Struggle Over Dams, Displaced People, and the Environment* (New York: Farrar, Straus and Giroux, 2005), 4.

⁸ Leslie, 14

⁹ Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West* (New York: Pantheon Books 1985), 333.

of water has historically led to despotism. Worster believes that water management should be decentralized and that if small groups manage their own water they will be more aware of the limited amount of water in their area. He suggests that people would then be better able to restrict water use to within nature's limits and be less likely to promote growth and use beyond what the area could sustain.

It is ironic that Buford Dam's storage reservoir was named after the distinguished nineteenth-century Georgia poet, Sidney Lanier. His poem, "The Song of the Chattahoochee," gloried in the meandering ebb and flow of the river. Worster regrets that rivers lose their natural movement and character as people attempt to control and utilize waterways using dams, locks, and other invasive technology. He suggests that with these technological modifications, "there is no freedom for nature itself, for natural rivers as free-flowing entities with their own integrity and order... the modern canal...is not an ecosystem. It is simplified, abstracted Water, rigidly separated from the earth and firmly directed to make food, fill pipes, and make money." ¹⁰

Theodore Steinberg, in *Nature Incorporated*, suggests that modern industrial capitalism encourages certain relationships not only between laborers and factory owners, but also between man and his environment. Steinberg believes that industrial capitalist culture encourages men to assume that nature's resources exist in order to be controlled, and that nature is a "reservoir of productive potential awaiting the contriving hand of humanity." Steinberg demonstrates that nineteenth-century New England laws evolved to place an economic value on the industrial

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¹⁰ Worster, 5.

¹¹ Theodore Steinberg, *Nature Incorporated: Industrialization and the Waters of New England* (Cambridge: Cambridge University Press, 1991), 70. Steinberg traces how natural resources acquired economic value. He quotes David Ricardo as saying, "Labor acts upon materials furnished by Nature; but Nature is gratuitous in her gifts and it is only when acted on by man that her productions acquire value in his estimation." (quoted in Nathan Appleton, *Labor, Its Relations in Europe and the United States* Compared (Boston, 1844).

potential of river and lake water. ¹² In a similar way, twentieth century Corps engineers attempted to quantify the economic value of river systems and to modify their natural character to maximize productive potential.

Song of the Chattahoochee celebrates the river's downward course from the North Georgia hills to the plains of southern Georgia. In Lanier's poem, the Chattahoochee River is tempted by the beauty and tranquility of the Upper Piedmont to "abide Here in the hills of Habersham." But, the river gently refuses to linger and rushes to "water the plain" on its course to the gulf.

Today the Chattahoochee's course to the Gulf of Mexico has been disrupted by the construction of at least fourteen dams along its path and the 200-mile stretch of the Chattahoochee from West Point, Georgia to Chattahoochee, Florida has nine dams alone. These dams have impeded the Chattahoochee's natural flow but have boosted Georgia's economy and have encouraged growth by providing electric power, steam cooling, water supply, navigational improvements, and other benefits to Georgia residents.

Georgia has grown immensely since the 1940s, particularly the Atlanta metropolitan area. Supporting this population demands a reliable water supply—water that is derived from the Chattahoochee River. Atlanta area growth has proceeded at an astonishing pace and many wonder whether development has accelerated at a rate that has outpaced available water resources—particularly during drought years. It is the author's hope that we better understand nature's limits and the complex New Deal and post-World War II political processes that were

¹² One of the significant cases Steinberg discusses is *Hayes v. Waldron* (1863). The text from the case reads, "So long as an appropriation of water promoted the welfare of the whole community, it was permissible to take whatever quantity was needed and to cause damage to some individual interests…The language here opened the way for factory owners…to consume significant quantities of the state's water resources." Steinberg, 147.

created to manage natural resources. In doing so, I hope that we will gain a greater appreciation of the Atlanta area's precious resources and seek to use them with greater care.

This paper consists of three chapters. Chapter one offers background information on federal water projects and hydropower during the New Deal. It also presents a discussion of some of the broad changes that occurred in Georgia in the early twentieth century. Chapter one concludes with the results of the Corps' analysis of the ACF in the 1930s.

Chapter two examines life in Georgia during the 1940s and focuses on some of the developments that occurred in Atlanta during and immediately after World War II. This section details the changing attitudes that political leaders and Corps officials held toward the ACF and a North Georgia Dam.

Chapter three examines the massive political mobilization that resuscitated the Buford project and made it a reality. The chapter also details discussions between federal and local government agents and corporations as they negotiated for control over river water. Finally, chapter three explains what Corps engineers and others involved believed to be the "environmental" impact of Buford Dam.

Atlanta leaders and Corps engineers knew that Buford Dam would contribute electricity, improved navigation, and recreational opportunities. However, Atlanta elites were particularly concerned that Buford Dam be built in order to provide a sufficient water supply to support their city. The Chattahoochee River could not provide metropolitan Atlanta with enough water to support a half million people during the mid 1920s drought. As our population approaches six million, it is imperative that we understand the immense expectations that we have imposed upon our over-burdened waterway.

CHAPTER 1. BACKGROUND

A little TVA lies idly in our hands¹

A. Federal Water Projects and Hydropower

Buford Dam, one of many federally-funded dams, was built on the Chattahoochee River in Georgia in the 1950s. The reservoir created by the dam was named Lake Sidney Lanier, after celebrated Georgia poet Sidney Lanier who wrote *Song of the Chattahoochee*. The Chattahoochee River is part of the Apalachicola-Chattahoochee-Flint River System (ACF) with Atlanta being decidedly the largest city along the system.² The Buford project followed the course of many early twentieth-century rivers and harbors projects.

In the 1930s and 1940s, Congress approved numerous federally-funded dams that were proposed and designed by the Army Corps of Engineers. These dams were built in order to boost defense and provide dependable navigation, inexpensive hydroelectric power, and flood control to rural and metropolitan communities across the United States. By 1940, the federal government had spent nearly three billion dollars on rivers and harbors projects.³ At the time, many viewed transportation on inland waterways as a viable low-cost option. Barges and towboats could hold vast amounts of heavy products, they were easy to load and unload, and were a relatively small investment compared to railroads. Barges were also a low-cost option because barge owners were not required to maintain channels and rights-of-ways as were railroad operators, and barge owners paid only minimal taxes for waterway usage.⁴ Many railroad supporters were frustrated by the extent to which the government subsidized inland waterway development. Some

¹ Quote by J. R. Bachman, Bachman to Hartsfield, July 29, 1941, folder 17, box 29, series III, WBHC.

² The Chattahoochee River is referred to as part of the ACF River System in federal legislation.

³ Robert R. Young, "A National Transportation Policy," *Law and Contemporary Problems*, 12, No. 3 (Summer, 1947): 635.

⁴ Ralph L. Dewey, "The Transportation Act of 1940," *The American Economic Review*, 31, No. 1 (Mar., 1941): 19.

suggested that "[river] users pay nothing whatever to reimburse the Government for the navigation cost" as railroad companies did, and complained that "the hidden costs [of inland waterways] which are borne by the taxpayers are not revealed." While water projects and dams in particular provided economic stimulus and inexpensive electricity to local communities, they were also expensive to build and triggered intense battles over federal appropriations.

One of the primary reasons the federal government subsidized southern inland waterway projects during the first half of the twentieth century was to counteract high freight rates in the South and to stimulate economic growth in that area.⁶ In the late 1800s barge owners suffered from competition with railroads as railroads generated most commercial and industrial transportation business. Barge traffic only rebounded during the early twentieth century due to critical government legislation such as the Long and Short-haul Section of 1910, the Panama Canal Act of 1912 and the Transportation Act of 1920.⁷

The Army Corps of Engineers was, and still is, ultimately responsible for most inland waterway improvements. Engineers with the Corps are federal employees who report to Congress and the President through the Secretary of War. The Army Corps of Engineers (ACOE) was created on March 11, 1779. Engineers in the Corps primarily built roads and forts during the Revolutionary War. The Corps was dissolved after the war ended, but on March 16, 1802, Congress authorized the President to reestablish the Corps. During the nineteenth century,

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⁵ Young, 635. It is important to note, however that railroads were also given substantial assistance with initial construction costs in the form of land grants and labor assistance. See, Dewey, 20.

⁶ Regarding discriminatory freight rates, Numan Bartley suggests that, "absentee ownership of southern transportation and industry drained profits away from the region and produced the discriminatory freight rates and basing-point pricing policies that limited southern development." See Numan V. Bartley, *The New South: 1945-1980* (Baton Rouge: Louisiana State University, 1995), 3. Atlanta also suffered from competition with other Southern towns that had more competitive rates. Nashville, Charlotte, Birmingham, Charleston, and Savannah all offered lower rates. See Nat Welch, *Ninety Years Young: The History of the Georgia Freight Bureau*, 1902-1992 (Atlanta: Georgia Freight Bureau, 1995), 85.

⁷ Dewey, 18. Dewey notes that the rail policy of long-and-short haul discrimination helped force non-rail competitors out of the market.

Corps engineers explored the countryside and built fortifications for protection.⁸ The Corps is now a branch of the Department of the Interior and is headed by the Chief of Engineers. The Chief of Engineers is a three-star General and a staff officer at the Pentagon. He is expected to oversee both civil and military works.⁹ Currently, the Corps employs approximately 34,000 civilian and 650 military men and women and has eight US divisions and forty-one districts. ¹⁰ Today, the Buford project falls under the South Atlantic Division and the Mobile District.

While the scope and organization of the Army Corps of Engineers has evolved over time, the Corps has consistently overseen non-military projects such as civil works (flood, hydropower, navigation, and recreation), disaster assistance, and humanitarian projects. One of the main duties of the Corps is to implement rivers and harbors legislation. Rivers and harbors legislation in 1890 and 1899 gave the Secretary of War and the Corps of Engineers control over most eastern United States dam projects. Corps engineers have consistently sought to bridle the natural ebb and flow of rivers in order to promote dependable navigation, to produce electricity, and to prevent costly flood damage to homes and businesses.

In 1928, Congress passed the Flood Control Act after the Great Mississippi River flood of the previous year. This act gave the Corps authority to build "outlets, floodways, and levees" in order to prevent major flooding.¹² The Corps believes that this program has prevented over \$100 billion in flood damages. Because flood control projects are often very expensive,

¹² Ibid.

⁸ "The History of the Corps of Engineers." http://www.wood.army.mil/MUSEUM/History/en_hist.htm (27 March 2008).

⁹ Phone conversation with E. Patrick Robbins, Chief, Legislative & Public Affairs, US Army Corps of Engineers, Mobile District. 31 March 2008.

¹⁰ "How the Corps is Organized." http://www.usace.army.mil/who/#Organized (27 March 2008).

[&]quot;Within its current regulatory program, the Corps of Engineers has authority over work on structures in navigable waterways under Section 10 of the Rivers and Harbors Act of 1899..." See, Office of History: US Army Corps of Engineers. "The US Army Corps of Engineers: A Brief History." 26 November 2007, http://www.hq.usace.army.mil/history/Brief/index.html (27 March 2008). Many western United States projects were given to the Bureau of Reclamation.

Congress, through the 1936 Flood Control Act, required Corps engineers to demonstrate that a water project's economic benefits outweighed its costs. One of the ways engineers increased the expected value of dams and gained substantial benefits to offset the costs of expensive water projects was to construct hydropower production facilities at the base of large dams. In 1944, Congress passed the Flood Control Act that gave the Secretary of Interior authority to market the power that was produced at federal hydroelectric facilities. These facilities, in a large measure, offset the significant costs that were incurred during construction. ¹³ In fact, on average hydroelectric sites repaid about 65% of dam costs. ¹⁴

During the 1930s, many in the United States promoted public electricity production.

When Franklin D. Roosevelt was governor of New York, he wanted to use the St. Lawrence
River to produce electricity for individuals and small businesses. Roosevelt sought to spread
publically-produced electricity across the state and to lower the price of electricity for
consumers. Those involved in the project were frustrated that reliable estimates of private
electricity production costs were not readily available. Over time, the Power Authority of the
State of New York researched electricity production costs and published its findings in the Giant
Power Studies. When Roosevelt later became president, he sought more opportunities to extend
electrification to rural areas. Roosevelt created the Tennessee Valley Authority (TVA) in 1933,
in part to provide inexpensive power to non-corporate customers—states, municipalities, and
cooperatives. Several initial test cases with TVA-produced electricity in Mississippi, such as
Alcorn County Electric Power Association, Pontotoc Electric Power Association, and Prentiss

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¹³ Southeastern Power Administration, "SEPA: About Us", no date, http://www.sepa.doe.gov/ Overview/?c=2> (April 15, 2008), 8.

Sepaler Power Association, "2004 Annual Report" 2004 www.sepa.doc.gov/files/Sepaler-2004www.sepa.doc.gov/files/Sepaler-2004<a href="www.sepa.gov/files/sepa.gov/files

County Electric Power Association proved successful at providing low cost electricity to cooperatives.¹⁵

Roosevelt hoped that as the federal government produced energy on its own and sold it to rural customers, officials could gain a more realistic understanding of the cost of energy production. He wanted federal energy production facilities to be a yardstick to measure private utility costs and to facilitate federal monitoring and regulation of private utilities. In 1936, Congress determined that 90% of domestic farms had been denied access to electricity by private companies. ¹⁶ Private companies had practiced what some called cream-skimming. This process occurred when private utilities installed lines only where population densities were high enough to ensure certain profits on the company's investment. ¹⁷ Roosevelt established the Federal Power Commission (FPC), now the Federal Energy Regulatory Commission, to further monitor private power companies and to encourage them to extend their service into rural areas. The FPC also attempted to pressure private utilities into lowering their rates in these areas. However, private companies only slowly extended their service and were reluctant to lower costs.

The Rural Electric Administration (REA) was created in 1936 to accelerate the spread of electricity to rural areas. In 1936, Roosevelt's administration authorized \$410 million in low-rate loans "for construction and operation of generating plants, electric transmission and distribution lines, or systems for furnishing electric energy to persons in rural areas who are not receiving central-station service." Officials with the REA based their hopes for success on the thriving

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¹⁵ Morris Llewellyn Cooke, "The Early Days of the Rural Electrification Idea: 1914-1936," *The American Political Science Review*, 42, no. 3 (Jun., 1948): 444. Cooke was one of the first administrators of the REA.

¹⁶ John M. Carmody, "Rural Electrification in the United States," *Annals of the American Academy of Political and Social Science*, 201 (Jan., 1939): 82.

¹⁷ For more information on cream-skimming and other similar activities, see Antonia H. Chayes, "Restrictions on Rural Electrification Cooperatives," *The Yale Law Journal*, 60, no. 8 (Dec., 1951): 1436.

¹⁸ Vincent D. Nicholson, "The Rural Electrification Act of 1936," *The Journal of Land and Public Utility Economics*, 12, no. 3 (Aug., 1936): 317.

TVA cooperatives.¹⁹ However, the TVA only supported a limited area in the Southeast and in 1940, only half of the homes in Georgia had electricity.²⁰

Officials heralded the advantages of rural electricity, and boasted that, "the drift of youth from the country to the city may be permanently halted as rural life is made more attractive..."

Supporters predicted that communication throughout the nation would be transformed "by the acquisition of one or more radios by nearly every farm family securing electric service....bringing to the farm family's fireside the voices of presidents and dictators and a world-wide selection of entertainment and advertising."

Many electric membership corporations (EMCs) relied on electricity that was produced at federally-built and managed dams. Georgia Electric Membership Corporation, the organization that oversaw Georgia's electrical cooperatives, stated that they "and the rural electric cooperatives of the state have supported the construction of...great navigation, flood control, hydroelectric 'yardstick' and recreation project[s] for many years."²²

The Department of Energy's Power Marketing Administrations (PMAs) marketed the power that was produced at federally-owned dams. REA legislation required that PMAs delivered federally-produced power to local electrical cooperatives and municipalities at wholesale rates pursuant to requirements in the REA's preference clause.²³ PMAs were allowed

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¹⁹ "TVA: Electricity for All," no date, http://newdeal.feri.org/tva/tva10.htm (10 June 2008).

²⁰ Christopher Sellers, *Unsettling Ground: Suburban Nature and Environmentalism*, unpublished, manuscript, 18.

²¹ Carmody, 87.

²² "Serving the Interest of over 240,000 Electrified Farms in Georgia," *Rural Georgia, The Statesman,* Atlanta, Georgia, no date, box 30, series I. Early Office, subject file, "Rivers and Harbors," Herman E. Talmadge, Senatorial Papers, Herman E. Talmadge Collection, Richard B. Russell Library for Political Research and Studies, University of Georgia Libraries, Athens.

²³ The preference clause states that the Administration "shall give preference to States, Territories, and subdivisions and agencies thereof, municipalities, peoples utility districts, and co-operative, nonprofit, or limited dividend associations." See, Carmody, 82.

to sell any excess electricity to private utility corporations like Georgia Power.²⁴ The PMA in Georgia is the Southeastern Power Administration (SEPA). SEPA, established in 1950, purchased electricity from federal water projects and sold low-cost electricity to its preferred customers, the small rural cooperatives (EMCs) and municipalities. Today, two of the largest cooperatives in Georgia are Oglethorpe and Municipal Electrical Authority of Georgia (MEAG).

Not all Americans supported the REA. Some disliked exorbitant federal investments and believed that the government should allow private utilities to provide services to rural areas, even though private utilities only sluggishly brought lines to rural areas and they typically charged farmers high rates. Large private utilities, like Georgia Power, would have seen electrical cooperatives (and the federal hydroelectric facilities that supported them) as competitors that were strengthened by federal loans and were offered wholesale electrical rates in order to reduce costs to the consumers.

Corps' dams produce vast amounts of electricity. In fact, according to the Corps, it is "the largest owner/operator of hydroelectric power plants in the United States and one of the largest in the world." The Corps has seventy five plants that can produce nearly 100 billion kilowatthours of electricity per year and can support about ten million households. In fact, the Corps produces about one quarter of the country's hydropower. Corps engineers relied on substantial hydropower profits to finance their aggressive plans for inland waterway improvements during the early twentieth century.

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²⁴ Georgia Power is a subsidiary of the Southern Company. Southeastern Power Administration, "SEPA: About Us." Currently, the largest cooperative in Georgia, in fact, the largest in the United States is Oglethorpe Power Corporation. Oglethorpe was established in 1974 by a number of small Georgia EMCs (electric membership corporations).

²⁵ US Army Corps of Engineers, *Hydropower: Value to the Nation*. Produced by the U.S. Army Corps of Engineers: The Institute for Water Resources (Alexandria, VA), in partnership with the Hydroelectric Design Center and the Hydropower Analysis Center (Portland, OR), Fall 2001.

B. Georgia in the 1930s

In the 1930s Georgia communities lacked many advantages such as inexpensive electricity and transportation that they would gain later in the twentieth century. In fact, in 1938, Roosevelt labeled the South, "the Nation's No. 1 economic problem." However, the South was on the threshold of an economic upswing. During the 1930s, government and industry leaders in Georgia worked together to promote growth in Georgia's major cities and, particularly, in the city of Atlanta.

At this time, thousands of rural Georgians were moving from country farms to the city. Clifford Kuhn states that, "washed-out land, plummeting cotton prices and the boll weevil combined to create a major agricultural depression in the Black Belt South...." and notes that 1930 was the first year that more Georgians lived off the farm than on. ²⁷ Pete Daniel suggests that Georgia's lack of surplus control, the migration of many blacks to the North, the Mississippi floods, and the Depression led to a "collapse of the agricultural market" in the South. 28 Georgia leaders sought to redirect Georgia's agricultural laborers into industries that would bring needed funds to the state.

Production and labor in the South were also going through great transition due to the New Deal. J. Wayne Flint notes that the actions of the federal government contributed to less disparity in wages, the growth of unions, less anti-union activity, and "strengthened industrial democracy and civil liberties."²⁹ In the 1930s, Atlanta aggressively built roads and better water and sewer systems.

²⁶ National Emergency Council, Report on Economic Conditions of the South, quoted in Frank Friedel, The "New Deal, Southern Agriculture, and Economic Change," in James C. Cobb and Michael V. Namorato, Ed, The New

Deal and the South (Jackson: University Press of Mississippi, 1984), 33.

27 Clifford Kuhn, Harlon E. Joye, and E. Bernard West, Living Atlanta: An Oral History of the City, 1914-1948 (Athens: University of Georgia Press, 1990), 87.

28 See Pete Daniel's "The New and Southern Labor," in Cobb, 39.

²⁹ Wayne Flint, "The New Deal and Southern Politics", in Cobb, 94.

In the 1930s, Georgia Power rates were higher than many families could afford. Frank Friedel notes that electricity rates were so high that, "kerosene lamps [still] lit farmhouses" in rural Georgia. In fact, the South had the lowest percentage of electrified farms in the country. While 70% of farms on the west coast had electricity in 1937, only about 10% of farms in the South were electrified. South were electrified.

However, patterns were starting to change. Gradually, during the 1930s and 1940s, more Georgians began to receive inexpensive electricity. Commonwealth and Southern Corporation, parent company of Georgia Power and Alabama Power in the 1930s, noted that electrical service was beginning to spread to a greater proportion of people in the South. The company was proud to note that refrigerator purchases increased from 7,604 in 1933 to 22,514 in 1934. People bought 2,049 electric stoves in 1933, and 8,656 in 1934. Life in Georgia was changing and the South was on the eve of an industrial transition of its own.

Although southerners frequently resisted federal intervention in state affairs, many

Georgia boosters sought wealthy investors who would spend their dollars in the state and they

considered the federal government a promising potential investor. In particular, Georgia

politicians knew that federal monies spent on Georgia water projects would encourage growth in
their communities, spread the advantages of electricity, and win them loyalty from their

constituents. When the Wilson Dam was built in 1924 in Alabama, southerners appreciated the
inexpensive electricity and fertilizer it produced and realized that not all federal involvement was

³⁰ Frank Friedel, "The New Deal, Southern Agriculture, and Economic Change," in Cobb, 24.

³¹ Warren H. Marple, "An Appraisal of Edison Electric Institute's Statistics on Farm Electrification", *The Journal of Land and Public Utility Economics*, 14, no. 4 (Nov., 1938): 472.

³² F. A. Newton, "The Commonwealth and Southern Objective Rate Plan," *The Journal of Land and Public Utility Economics*, 11, no. 2 (May 1935): 121. The company notes that during this same period, Georgia Power Company's domestic consumption rose from 796 to 879 kw. hrs.—a huge increase.

negative.³³ Friedel notes that, "considerable money moved into the South during the depression, helping improve conditions there, not only through relief projects and crop benefits, but also [through] the building of TVA dams and transmission lines, and other public works."³⁴ In fact, between the years 1933 and 1939, the federal government invested nearly \$800 million in Georgia through New Deal programs.³⁵ Federal water projects, through rivers and harbors legislation, held great promise to the South in the 1930s.

C. Corps Analysis of the ACF Waterway

The Corps had been involved with the ACF river system for many years. In 1828 and 1831, the Corps had removed obstacles from the river to allow vessels to proceed unobstructed. In 1874, Congress asked the Corps to dredge a six-foot deep, 100-foot wide channel to allow larger vessels to travel between the mouth of the Apalachicola in the Gulf and Columbus, Georgia on the Chattahoochee River.³⁶

In the early twentieth century, Army Corps officials in the division headquarters in Mobile, Alabama, collected information on Georgia, Alabama, and Florida water needs on the ACF river system. They studied the economic feasibility of water projects and the surrounding geography in the project area. Powerful interests influenced Corps and Congressional decisions, and geographic constraints made modifications to the project necessary. In preliminary reports, engineers quantified the financial benefits they believed the improvements would generate (as far

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³³ For southern responses to Wilson Dam see, Friedel, "The New Deal, Southern Agriculture, and Economic Change," 21.

³⁴ Ibid, 31.

³⁵ Don C. Reading, "New Deal Activity and the States, 1933 to 1939," *The Journal of Economic History*, 33, no. 4 (Dec., 1973): 794.

³⁶ Army Corps of Engineers, *Apalachicola River Basin Reservoir Regulation Manual: Appendix B, Buford Reservoir, Chattahoochee River, GA*, unpublished, December 1959, B-4.

as improved navigation, electricity production, and flood control) that would offset construction costs. Corps cost estimates for the project increased greatly over time and Corps engineers were inconsistent in their statements about what they considered to be the primary purpose of the proposed water project, particularly in the case of the North Georgia dam.

On April 28, 1936, the congressional Committee on Rivers and Harbors requested that the Army Corps of Engineers determine how the ACF could be best improved for navigational purposes. Tocal and federal groups were both concerned about transportation on the ACF waterway. Business communities in and around Columbus, Georgia hoped to bring larger vessels up the ACF for commercial purposes. Federal engineers noted that "various civic groups...have on several occasions in the past gone to considerable effort and expense in sponsoring the improvement of these waterways."

Representative A. Sydney Camp was one who pressed Federal Power Commission officials to investigate the possibility of constructing hydroelectric facilities on the Chattahoochee River. Frank Lumpkin, of Willcox-Lumpkin Co Insurance in Columbus wrote, When my grandfather moved here in the early days of Columbus, they only had river and stagecoach transportation, the river being the principal means of development of this entire section....For fifty years to my personal knowledge efforts have been made to make it possible to

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³⁷ "Resolved by the Committee on Rivers and Harbors of the House of Representatives, United States, That the Board of Engineers for Rivers and Harbors created under section 3 of the River and Harbor Act, approved June 13 1902, be, and is hereby, requested to review the reports on Apalachicola, Chattahoochee, and Flint Rivers, Georgia and Florida, with a view to determining if the existing projects should be modified in any way at this time." The Secretary of War, *Apalachicola, Chattahoochee, and Flint Rivers, GA. and Fla.* (United States: Government Printing Office, 1939), 2.

³⁸ Ibid, 30.

³⁹ L. R. Morgan, A. Sydney Camps' secretary to Hartsfield, August 29, 1941, folder 17, box 29, series III, Subseries 7, Miscellaneous Subject, William Berry Hartsfield Papers, Manuscript, Archives, and Rare Book Library, Emory University.

renew river transportation...."⁴⁰ Richard Turkey, the executive director of the Columbus Chamber of Commerce stated, "The fight for the development of this river system has been a long one and many of our citizens have entered the fight tirelessly and expended a great deal of money in trying to convince the Congress of the value of the program."⁴¹

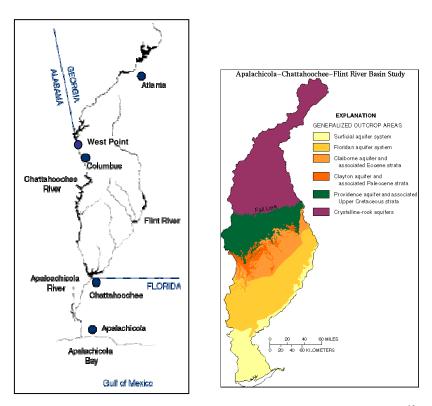


Figure 1. Map and Geography of the ACF River System⁴²

Jim Woodruff, Sr., a wealthy businessman from Columbus, was another individual who promoted development of the ACF. Woodruff received recognition for his labors in 1958 when Jim Woodruff Dam (in Chattahoochee, Florida) was dedicated. At the time reporters stated, "It

⁴⁰ Lumpkin to Russell, June 27, 1947, folder 2, box 2, series xi, River and Harbors, A. Correspondence, Richard B. Russell B. Russell Collection, Richard B. Russell Library for Political Research and Studies, University of Georgia Libraries, Athens.

⁴¹ Turkey to Senator Lester Hill, June 21, 1947, folder 3, box 2, series xi, RBRC.

^{42 &}quot;RiverMap," http://www.ocean.fsu.edu.newsletter/SPR99/Rivermap.gif (September 11, 2008) and

[&]quot;Apalachicola-Chattahoochee-Flint River Basin Study," no date,

http://ga.water.usgs.gov/nawqa/graphics/map.outcrop.gif (August 29, 2008).

was the vision and persistence of this Columbus business leader that brought the dam into being and laid the foundations for a new empire in the valley, one based on utilization of its billion of gallons of wasted waters." ⁴³ Senator Herman Talmadge said that Woodruff's commitment to lower-ACF improvements ushered in "an era offering manifold possibilities for the economic development of the tri-state area." ⁴⁴ GEMC officials stated that "They join[ed] in the chorus of happy congratulations to Mr. Jim Woodruff [and] the many fine organizations whose dreams were finally realized...."

In 1939, when a six-foot channel in the lower-ACF was almost completed, the Army Corps of Engineers sought to increase the channel depth to nine feet and the width to 100 feet between the Gulf and Columbus on the Chattahoochee River and Albany on the Flint River. 46 Larger shipments and different types of products could be shipped via the waterway if the depth of the ACF was increased as the Corps proposed. 47 Businesses wanted to be able to ship petroleum, cotton, sulfur, salt, pulpwood, and logs on the river, in addition to the sand and gravel that primarily constituted barge traffic in the 1930s. 48 The Corps also proposed that locks and dams be built in certain locations on the river to assist with navigation. Dams would control the level of the river to ensure sufficient water level even in low flow periods. The report stated,

flow regulation for the improvement of navigation and the development of power would be obtained by the construction of six storage-power dams, three on the Chattahoochee River and three on the Flint River. Power facilities would be installed at the six proposed storage-power dams and at five of the six locks and dams proposed for the canalization of the Chattahoochee River. 49

⁴³ "Jim Woodruff's Big Day", unmarked newspaper article. Jim Woodruff Dam dedication, box 30, series I, HETC.

⁴⁵ Rural Georgia, The Statesman, Atlanta Georgia, about 1957, box 30, series I, HETC.

⁴⁶ The Secretary of War (1939), 4. Nine feet was a standard depth for in-land waterway transportation.

⁴⁷ Ibid, 42.

⁴⁸ Ibid, 32 and 45.

⁴⁹ The Secretary of War (1939), 58.

One of these dams on the Chattahoochee River that would control flow was expected to be in North Georgia. This dam later would be named Buford Dam.

While railroads serviced the major cities in the Southeast, they did not run parallel to the major rivers. Thus, moving river traffic to rail carriers was a complicated and expensive process. In addition, there were few direct rail routes between southern cities, and rail rates were typically high in the South. 50 The Atlanta Freight Bureau, formed in 1902, sought to improve carrier rates in Atlanta and throughout the South. Eugene L. Hart of the Bureau and John M. Cooper, president of the Bureau from 1928-1930, were actively involved in seeking navigational improvements on the ACF that would dramatically cut transportation costs and spur industrial and commercial growth in Atlanta.

Federal representatives, including ACOE employees, also believed that the ACF improvements would facilitate military transportation. Another war appeared on the horizon and the U.S. wanted to be prepared. Engineers from the Corps advised,

During the last war the results of inadequate transportation were everywhere evident. Traffic was hopelessly tied up, important shipments delayed, perishable goods damaged and heavy losses incurred by private business as well as governmental activities by the general congestion. In the event of another national emergency...the network of inland waterways now in the course of improvement will be of inestimable value.⁵¹

Others were also concerned about Georgia's ability to contribute in the event of war. J. R. Bachman, president of Atlanta Freight Bureau in 1941, noted that, "The undeveloped [water] resources between Gainesville and the Gulf constitute a challenge to our ablest leadership. Neglected they are an indictment of sheer shiftlessness...failure to recognize [Atlanta's] vital

⁵⁰ See Frank Friedel, "The South and the New Deal" in Cobb, 18. Robert Young states that the disparity between North and South freight rates, allowed, "The hidden cartel [to] protect the industries which the bankers already controlled in the East and [to] attract new ones to that territory rather than to the South and the West" Young, 622. Also, The Secretary of War, Apalachicola, Chattahoochee, and Flint Rivers, Georgia and Florida. (United States: Government Printing Office, 1939), 22. ⁵¹ The Secretary of War (1939), 79.

place in any plan of military development would expose the entire Eastern Seaboard and seriously weaken our Gulf defenses."52

In 1939, engineers proposed that the North Georgia dam on the Chattahoochee that would control downstream river flow should be built in Roswell, Georgia. 53 Engineers hoped that since Roswell was many miles north of Columbus, the dam would facilitate navigation by keeping river levels within acceptable maximum and minimum levels. The Corps believed that geography in the Upper Piedmont also made Roswell an ideal site for hydroelectric production.

Engineers hoped to fit multiple dams included in the project with hydroelectric power to offset project construction and maintenance costs. While Corps personnel believed that ACF improvements were worthwhile for navigational benefits alone, they believed that at some future date additional electricity would be needed and energy produced at the new dams and locks would be absorbed into the system.⁵⁴ Many individuals in Georgia wanted power in order to compete with Birmingham, Chattanooga, Nashville, and Memphis. Bachman believed that development of the Chattahoochee River was "essential to Atlanta's place of primacy in the Southeast." He envied the power that was produced at TVA dams and emphasized that "the elements of a little T.V.A. lie idly in our hands."55

The bulk of the Corps' 1939 proposal detailed the economic benefits that Georgia residents would recognize through improved navigation when the river was dredged. Congressional leaders expected the project's economic benefits to justify the expense of river improvements. Corps officials estimated that the two power reservoirs and five navigation dams

⁵² Bachman to Hartsfield, July 29, 1941, folder 17, box 29, series III, WBHC.

The proposed dam site was later changed to Buford, Georgia. See page 18.

⁵⁴ "The entire improvement appears to be amply justified provided there is sufficient demand for the facilities supplied. While the traffic surveys indicate that the demand for the navigational facilities would in a few years create savings sufficient to offset the estimated cost of the purely navigational improvements proposed, there is considerable uncertainty as to how many years it would be before there is a sufficient demand to absorb the entire power output of the proposed power developments" The Secretary of War/ (1939), 72. ⁵⁵ Bachman to Hartsfield, July 29, 1941, folder 17, box 29, series III, WBHC.

would cost a total of \$67 million.⁵⁶ Engineers expected annual navigational benefits to be \$985,801 and power benefits to be \$1,254,400 per year if only two reservoirs were built. If a total of six reservoirs were built in the improvement, engineers believed that annual power benefits would total \$6,556,600—an enormous increase with a corresponding rise in construction costs.⁵⁷

Interestingly, the idea that Roswell Dam could yield benefits by providing an assured water supply to the fast-growing city of Atlanta was only briefly discussed in the 1939 Corps report. In fact, only two paragraphs out of the entire document mention water supply at all. The report states that,

there is apparently no immediate necessity for increased water supply in this area though the prospect of a future demand is not improbable. The city of Atlanta obtains its supply for domestic and industrial use from the Chattahoochee at the present time. With the continued rapid growth of population and industry in this area the storage capacity of a large reservoir might be of benefit for an assured continuous water supply. This potential asset is given no monetary value in this report.⁵⁸

Future reports that stem from the Corps discuss Atlanta's water needs in much greater detail, but, surprisingly, engineers in the late 1930s were unconcerned about the water needs of the most populous city in the ACF basin.

The Corps assumed that the Roswell project would actually fulfill several purposes, but navigation and power production were the engineers' top concerns in 1939. The Corps also believed that residents of Georgia would receive recreational benefits from the dam.⁵⁹ They suggested that the new Georgia lake area could provide, "private residences, resort hotels,

⁵⁶ Engineers often grossly underestimated costs for river improvement. The Buford Dam alone cost about \$44 million.

⁵⁷ The Secretary of War/(1939), 81.

⁵⁸ Ibid, 80

⁵⁹ Ibid, recreation is mentioned on pages 5, 6, 8, and 77 of the report.

summer camps for boys and girls... hunting waterfowls and fishing...[and] boating."60 Engineers estimated that recreational benefits would equal \$50,000 annually. Corps officials believed that the value of riparian lands would increase by one million dollars over twenty years--\$50,000 per year. Engineers also thought that navigational improvements would benefit national defense but did not believe that these benefits could be accurately quantified. ⁶¹ Corps officials suggested that some of the other unquantified advantages locals would gain due to ACF improvements would be "new industries in the territory... an increase in the tourist trade, ...new capital investments in the area [and] an increase in the general prosperity of the tributary area [that] would result in a greater per capita income, greater taxable values and a greater per capita wealth."62 Engineers were confidant that improvements to the waterways would stimulate economic growth in the area.

Surprisingly, some Atlanta leaders did not initially support Corps proposals for Roswell Dam. Instead, many hoped Corps engineers would focus their energies and funds on making the Chattahoochee navigable between Atlanta and the Gulf and that this could best be accomplished by building dams between Atlanta and West Point, Georgia. And, while Corps officials claimed in 1939 that navigational development north of Columbus would not be justified due to the vast drop in elevation from Gainesville (elevation 371) to Columbus (elevation 190), certain individuals hoped that the Corps would be persuaded to provide for an Atlanta port regardless of the difficulties. ⁶³

In 1941, E. L. Hart, of the Freight Bureau, prepared a lengthy document that detailed the economic benefits that would be attained by development of the Chattahoochee north of

⁶⁰ Ibid, 80. ⁶¹ Ibid, 79.

⁶³ Engineers stated that "Justification...is remote". Ibid, 64.

Columbus to Atlanta. His report began on a positive note, "Army engineers have recognized that the [project] was entirely feasible." Hart suggested that engineers did not pursue the project because they did not believe that there was sufficient barge traffic to warrant the expense. In his report, Hart proposed that studies had shown "conclusively that the economic benefits that would flow from power development and flood control alone would pay the way for future development." Hart further stated that development of the nation's rivers was "manifest destiny" and suggested that, "one can hardly escape the conclusion that the destiny of Atlanta…is definitely dependent on the Chattahoochee…. Every Southern city of comparable importance with Atlanta is or soon will be served by navigable waterways."

Hart proposed that the Corps build sixteen dams between Columbus and Gainesville—
nine between Columbus and West Point, three between West Point and Atlanta, and four north of
Atlanta—in order to make the river navigable. Hart proposed that the dams between West Point
and Atlanta should be built at LaGrange, Franklin, and Vinings. In essence, the Chattahoochee
would be made into one large lake between Columbus and Gainesville. Freight Bureau
executives explained that providing a port in Atlanta to facilitate transportation to the Gulf was
their number two objective—equalizing freight rates still ranked as number one. Newspapers
advertised the navigation plan and reported that the Chattahoochee River could be made
navigable between Columbus and Atlanta for \$23 million.

Atlanta Mayor William B. Hartsfield believed that Hart's proposal to provide navigation from the Gulf to Atlanta was "perfectly feasible" and he petitioned Representative Sydney Camp

⁶⁴ E. L. Hart, "A Review of the Proposed Development of the Chattahoochee River Basin" (Atlanta: Atlanta Freight Bureau, August 15, 1941), 4, folder 17, box 29, series III: Miscellaneous subject, 1937-1970, subseries 7, WBHC. ⁶⁵ Ibid, 16-17.

⁶⁶ Welch, 88.

⁶⁷ This is an absurd figure, since Buford Dam alone cost over \$40 million. See Newspaper article, "Survey Authorized on Chattahoochee" No date or other information, folder 17, box 29, series III, WBHC.

to fight for funds for the project. Hartsfield requested that the Franklin Dam be built before the dams north of Atlanta in order to expedite transportation between Atlanta and the Gulf.

Bachman, Hart's colleague at the Freight Bureau, agreed with Hartsfield that the "Franklin Dam should take precedence over Roswell."

Regardless of the opinions of those in Atlanta who wanted navigation to their city, Corps engineers completed their proposal solely for navigation between the Gulf and Columbus. Engineers then submitted the report to the Rivers and Harbors Congress for approval. The War Department approved the plan on paper with some modifications. On July 24, 1946, the River and Harbor Act authorized the new Corps proposals and construction began on the improvements in South Georgia. 69

In summary, federal investments in the South from the 1920s until World War II boosted the Georgia economy. In the 1920s and 1930s, New Deal legislation brought many improvements to Georgia in the form of additional jobs, upgrades to infrastructure, and low-cost electricity. At this time, many Georgia residents stopped farming and moved from the country to the cities and industrial production expanded. Expanding industries required more efficient shipping methods and greater amounts of electricity. Georgia residents hoped that federally-funded river projects, such as the ACF improvements, would help provide both electrical power and more effective transportation.

⁶⁸ Bachman to Hartsfield, August 14, 1941, folder 17, box 29, series III, WBHC.

⁶⁹ See Public Law 252, 79th Congress, 2nd session, found in Corps of Engineers, *Definite Project Report on Buford Dam, Chattahoochee River, Georgia: Volume I, Report and Appendices I-IV* (Mobile, Alabama: Corps of Engineers, 1949), 2.

CHAPTER 2. THE ACF POST-WWII

We must paint with bigger brushes...bore with bigger augers¹

A. The Impact of Atlanta's Growth on the ACF

Georgia's industrial and commercial capacity began to expand during the World War II era. The state received appropriations for several key military installations, such as the Bell Bomber plant, with its 30,000 jobs. The Center for Disease Control opened its doors immediately after the war. A reenergized Atlanta Federal Reserve Bank supported business in Georgia, and Atlanta was named as the South's military regional supply center. Ford and GM both opened plants in Georgia and Coca-Cola grew to be a major local employer.² The chicken broiler trade and timber sales grew exponentially in the period after World War II.³ It was at this time that Atlanta became the Southeast's center for aviation. Delta Air Lines chose Atlanta as its southern base in 1941 and the Atlanta Municipal Airport opened its first terminal in 1946. Atlanta's corporate community consolidated its power, influence, and organization during and after World War II and began to improve Atlanta's fledgling infrastructure.

All of this growth increased the demand for industrial laborers. According to Numan Bartley, from 1940 to 1950, more than 20% of Georgia's rural population forsook farming.⁴ He states that the number of southerners who were involved in farming decreased from 16 million in

¹ Quote from William B. Hartsfield, Unidentified newspaper article, April 6, 1945, folder 17, box 29, series III, WBHC.

² See Frederick Allen, *Atlanta Rising: The Invention of an International City: 1949-1996* (Atlanta: Longstreet Press, 1996).

³ Some suggest that the chicken-broiler trade flourished due to decreased rail rates in Georgia. See, Catlin, 91.

⁴ See Bartley's essay, "The Era of the New Deal as a Turning Point in Southern History" in Cobb, 139. Pete Daniel states that, "111,399 tractors introduced into cotton-growing states in the 1930s displaced from 100,000 to 500,000 families, or from a half-million to two million people." Cobb, 55.

1940 to 4 million in 1960.⁵ Christopher Sellers states that "by 1965, harvested cropland in Georgia had tumbled to half of what it was in 1940." Many moved to the city to find more lucrative vocations. Sellers notes that industrial employment grew by about 25% from the 1940s to the 1960s.⁶

Southern leaders wanted to ensure that the South was no longer "the Nation's No. 1 economic problem" and fought for federal outlays. Bartley suggests that the South received a disproportionate percentage of federal industrial investments. In 1940, the South, "paid [about] 17% of the nation's taxes and absorbed…16% of federal outlays." But by 1960, the South paid only 12% of the country's taxes and received nearly 25% of federal investments. Bartley notes that this resulted in the South receiving "\$1.50 in federal funds for every dollar it paid in taxes." These federal investments were a substantial boon to the southern economy.

Georgia's urban centers thrived on federal support and city business leaders became heavily involved in politics. Post-New Deal liberals Calvin Kytle and James Mackay interviewed many of the top political and corporate leaders in Georgia during the late 1940s. Their groundbreaking book *Who Runs Georgia?*, which was not published until 1998, was based on their interviews. Kytle and Mackay suggested that large corporations had a heavy hand in Georgia politics during this period. They presented numerous accounts in which certain companies, Georgia Power in particular, swayed state policies. Kytle and Mackay stated,

You can name on no more than ten fingers the economic groups that dominate the [Georgia] state government: the gas and electric utilities, the railroads, the pipelines, and the trucking companies...the liquor dealers...; the Coca-Cola and Nehi bottlers...; the insurance companies and independent contractors...; the

⁵ Bartley, 115. Bartley suggests that much of the decrease was due to the federal government's attempt to grow crops based on "capital-intensive farming" rather than plantation agriculture. See page 125.

⁶ Sellers, 7.

⁷ Bartley, 144.

textile mills...; and the banks... they keep an "in" with the executive division by donating vast sums of money to campaign coffers.⁸

Numan Bartley noted that during this period, "Chambers of Commerce, good government leagues, and independent citizen associations launched political crusades throughout the region... committed to...a symbiotic relationship between private enterprise and public policy." Clarence Stone, in *Regime Politics*, suggests that Atlanta's business community consolidated its power and influence in the period after World War II and used this newly found authority to spur growth in the city. State and local policy-makers were attentive to corporate concerns and supported business communities.

Georgia was also known for its powerful politicians. Key policy-makers managed the major issues in Atlanta in the post-WWII era. Public leaders such as William B. Hartsfield, mayor of Atlanta, Representative James C. Davis, and Senator Richard B. Russell, Jr., cooperated with industry leaders in order to obtain appropriations for federal projects that benefitted Atlanta and North Georgia.

Hartsfield, the mayor of Atlanta from 1937-1941 and from 1942-1961, was one who promoted metropolitan Atlanta growth in part by seeking infrastructure improvements.

Hartsfield's seven-point program for growth and development proposed among other things, building new parks, improving roads, expanding the airport, and expanding Atlanta's sewer and

⁸ Calvin Kytle and James A. Mackay, *Who Runs Georgia*? (Athens: University of Georgia Press, 1998), 6. Many interviewees in *Who Runs Georgia*? related that Georgia Power executives maintained close ties with state and local politicians. Fred Wilson, then vice-president of Georgia Power, seemed to be particularly influential with state government officials. James V. Carmichael stated that, "...the Power Company must always maintain such a favored position that if the time ever comes when a higher tax rate is threatened on kilowatts or whenever a bill is introduced that might single it out, it can kill it through its influence with the assembly...." (257). As another example, Kytle and Mackay noted that Lewis Wilson of Bibb County "suspects that the local agent for the Georgia Power Company may have been directed to work for his opponent in the race for mayor because of Wilson's vote in the assembly against the antilabor bills. 'I would expect opposition from the Power company because I've consistently favored measures in the legislature that would make it easy for municipalities to operate their own hydroelectric plants.'" (187). Further references to Georgia Power participation in state government are on pages 43, 44, 94, 111, 117, 127, 139, and 243.

⁹ Bartley, 135.

water system.¹⁰ Hartsfield's Plan of Improvement, implemented in 1952, increased the land area of Atlanta by 300 percent and the population by 33 percent.¹¹

When Hartsfield wanted local business' input regarding an upcoming decision, he called on his so-called kitchen cabinet for assistance. Louis Williams states, "When Hartsfield had to make a tough decision on matters concerning Atlanta's welfare, he would gather the city's business and political leaders in Woodruff's private dining room at the Coca-Cola Company..."

These relationships had their roots in the 1930s and the key business leaders Hartsfield consulted included Frank Neeley (Rich's Department Store), G. Everett Millican (Gulf Oil Company), Bob Strickland (Trust Company Bank), and Bob Maddox (First National Bank). Hartsfield had his hand on the pulse of Atlanta's corporate interests and many believe that "...Hartsfield moved solely in tandem with the business elite."

Hartsfield remained committed to Atlanta's growth throughout his life and, in fact, after Hartsfield retired from public office, he became a consultant for Georgia Power, Coca-Cola, and the Trust Company Bank of Georgia.

James C. Davis, a staunch social reactionary, also supported growth in Atlanta and focused much of his energy on obtaining appropriations for Buford Dam. Davis was an attorney and judge, and a representative to the U.S. Congress from 1947-1963. The first year Davis was elected to the House, he helped obtain the initial appropriation for the Buford project. In fact, he was later referred to as, "Mr. Buford Dam." Davis had close connections to both Hartsfield and Russell and the three men worked closely to obtain funds for the dam.

¹⁰ See Louis Williams, *William Berry Hartsfield: The Reluctant Accommodationist and the Politics of Race in Atlanta, 1900-1961* (PhD Diss, Georgia State University, 1996), 127.

¹¹ Williams, 227.

¹² Williams, 113.

¹³ Clarence N. Stone, *Regime Politics: Governing Atlanta*, 1946-1988 (Lawrence: University of Kansas Press, 1989), 27.

¹⁴ Photograph, folder 5, series 1, Photographs, JCDC.

Senator Richard B. Russell was another major player who had a significant impact on the Buford project. Russell had been a representative in the Georgia House and governor of Georgia. Russell served in Washington as a senator from 1933 until his death in 1971. Russell's influence in the Senate partially stemmed from his membership on the Senate Appropriations Committee. Russell was on the Appropriation Committee from the time he was first elected and he later became Chairman of the Appropriations Committee and president pro tempore of the Senate. Russell's biographer, Gilbert Fite, suggests that Russell brought the bacon home to Georgia and states that Russell's membership on the Appropriations Committee for the Department of Defense allowed him to obtain, "15 defense establishments in Georgia [by 1958] and some \$30.2 million [for] construction alone at military facilities." ¹⁵

Business and political leaders frequently worked together to solve major concerns in Atlanta. In the post-WWII era, limited electricity and water were two of the major concerns that worried the Atlanta elite. Hartsfield believed that residents needed to "wake up or we will be out in the cold from a transportation standpoint, since we are being ringed with cheap power and water rates—Birmingham, Augusta, Chattanooga, etc." The vast amount of growth that had occurred in Atlanta during and after WWII stressed its infrastructure. Leaders in Atlanta, like Paul Weir, the manager of the City of Atlanta Water Works, were learning that Chattahoochee flows would not be sufficient to support the current industrial and residential needs if a severe drought were to occur.

Atlanta leaders were not only concerned about having too little water, but they also hoped to be able to control periodic floods that drenched the area. The year 1946 brought North

¹⁵ Gilbert Fite, *Richard B. Russell, Jr., Senator From Georgia* (Chapel Hill: University of North Carolina, 1991), 319.

¹⁶ Hartsfield to Representative Sydney Camp, August 27, 1941, folder 17, box 29, series III: Miscellaneous subject, 1937-1970, subseries 7, WBHC.

Georgia the most serious flood it had seen in over a century. The United States Geological Survey's (USGS) Norcross monitor registered crests at 27.70 feet on the Chattahoochee River on January 8, 1946. Homes, communities, and roads were severely impacted by this level of flooding.¹⁷

Although some Atlanta leaders still pressed for a Chattahoochee port in their city, many realized that a North Georgia dam was a possible solution to the city's water woes. A North Georgia dam could store excess flood waters and ensure sufficient water reserves during times of drought. In addition, business and political leaders hoped that the dam's inexpensive hydropower would provide needed electricity to the area.

B. Transportation Changes After WWII

According to Corps engineers in the 1930s, the primary purposes of construction on the ACF waterway were improved navigation and hydropower. However, during the late 1930s and early 1940s, transportation needs in the area began to change. Railroad rates became more reasonable as federal regulators ensured that rates in the southern United States were not two or three times that in the Northeast. The TVA circulated a report in 1937 entitled, "The International Freight Rate Problem of the United States" which began to solidify arguments against northern rail domination. In addition, in the Southern Governors' case, influential leaders such as Georgia governor Ellis Arnall petitioned the courts to discourage rail rate prejudice. In 1940, the Interstate Commerce Commission forbade rate discrimination to any "region, district, [or] territory" when the Commission documented discrimination in multiple cases. ¹⁸

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¹⁷ National Weather Service, 2.

¹⁸ Dewey, 24. The TVA Report can be found in House Doc no. 264, 75th Congress, 1st session, 1937. The TVA report also led to federal conclusions that discriminatory rates contributed to retarded industrial and commercial development in the South. The Transportation Act of 1940 stated that it was passed in order to, "encourage the

Many freight cases that were pitted against this regulation were tied up in the courts until 1945, when the Commission required that rates and classifications be consistent throughout the United States east of the Rocky Mountains. Since freight companies would require years to modify current rate structures, the Commission immediately dropped southern class rates by ten percent and increased rates in the East by the same amount. Suits against the new legislation were held up in court until 1947 when the Supreme Court deemed the changes constitutional. 19

While rail usage escalated in the South, increasing 90 percent from 1921 to 1946, other methods of transportation were beginning to establish a foothold in the market. 20 In 1920 railroads carried 90 percent of U. S. inland loads but by 1940, that number had decreased to 62 percent. Automobiles, barges that used inland waterways, and airplanes began to cut into freight domination and "the virtual traffic monopoly of the railroads [was] definitely past." ²¹

Automobile traffic began to grow by leaps and bounds supported by federal subsidies. Between 1921 and 1940 the government contributed \$15 billion to highway construction and asked little in the way of tax revenues from truck carriers in return. By 1960, trucks carried nearly 23 percent of inland loads and that number continued to climb.²²

The federal government also offered heavy subsidies for air transportation. In fact, many airports were built entirely with public funds. The Civil Aeronautics Administration estimated

establishment and maintenance of reasonable charges for transportation services, without unjust discriminations, undue preferences or advantages, or unfair or destructive competitive practices." See Young, 623. Experts in the freight industry suggest that, "The discriminatory rate structure acted as a virtually insurmountable barrier to the South's economic development" and once this barrier was removed, the South was, "permitted to flex the muscles of

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its natural and human strengths, [and] the South began to flourish." See, Welch, 81.

¹⁹ Young, 622. There were, of course, some who felt that it was necessary for rail rates to vary across different regions. Young, who was apparently a defender of the railroads suggested that rail companies had "insufficient reserves" because they did not "receive an inadequate return on their investments." He also noted that while power, gas, and telephone companies were allowed to "earn more than five per cont on net worth," from 1929-1945, railroads earned just over 2.5 percent on their net worth over the same years. Young, 628

²¹ See, Young, 630. Freight loads had decreased to 43 percent of total transportation by 1961, see Yates Catlin, "By Barge-River Transportation's Confluence," Annals of the American Academy of Political and Social Science, 345 (Jan., 1963): 90. ²² Catlin, 91.

that the government spent over one billion dollars on non-military airports throughout the country. A portion of this assistance was meant to support the fledgling airmail business and, by 1946, airports transported about 24 million pounds of airmail.²³ The government funded much of the maintenance in airports and staffed airport control towers.²⁴

In addition to other modes of transportation in the country, many companies still used inland waterways to ship goods. Businesses shipped 262 million tons of goods on the nation's waterways in 1945. In the South, Corps improvements on the southern section of the ACF waterway had already begun. In the mid-1940s, Corps engineers declared that the dams in South Georgia would have a substantial impact on flows in the southernmost section of the river which would enable even larger boats to travel between Columbus and the Gulf.²⁵

The World War II era witnessed a substantial growth in inland transportation via many modes of transportation. So, while barge traffic was still appealing to many, particularly in the South, businesses across the country were afforded more efficient alternatives for shipping than in the previous decade.

C. The Corps Submits a New ACF Proposal – 1946

In 1945, the Army Corps South Atlantic Division Engineer recommended modifications to earlier reports on the ACF to accommodate changes that were suggested by the Chief Engineer. Engineers noted that navigational requirements had changed since the 1930s and

Young, 637
 Young, 636.
 Catlin, 91.

district and division engineers agreed that future navigational improvements to the ACF system would be dependant upon a storage reservoir above Atlanta to control river flows.²⁶

In 1946, Engineers recommended that the furthest upstream reservoir be located, not in Roswell, but in Buford, Georgia. Engineers recommended that the location be changed to Buford because a storage reservoir in Roswell would require "extensive highway and railroad relocation...coupled with less regulated flow for utilization at downstream plants...."

Engineers were perhaps also concerned that Georgia Power maintained a hydroelectric plant just downstream from the Roswell site at Morgan Falls. Morgan Falls may have experienced difficulty dealing with variable flows that would have come from the dam. The Buford location fit the engineer's geographic requirements, had nearby power lines already in place, and would require fewer relocations. Therefore, division engineers proposed a concrete-gravity dam at the new Buford site and estimated construction costs to be \$17,631,000.²⁹ This figure would increase dramatically over the next four years.

Engineers declared in 1946 that one of Buford Dam's primary purposes was to regulate the Chattahoochee's flow so that boats could navigate the river below Columbus even in low flow periods. Engineers believed that if this dam regulated flows on the Chattahoochee, the downstream canal would require less dredging in order to meet transportation goals and would cost correspondingly less money to build. In fact, engineers felt that the proposed improvements to the Chattahoochee would not be economical unless an upstream reservoir controlled the river's flow. They stated, "Without [a North Georgia dam], about 4,000,000 cubic yards of

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²⁶ The Secretary of War, *Apalachicola, Chattahoochee, and Flint Rivers, GA. and Fla.* (United States: Government Printing Office, 1946), viii.

²⁷ The Secretary of War (1946), 28.

²⁸ While it is true that Buford was meant to stabilize downstream flows, in some ways Buford resulted in precisely the opposite. Since Buford produced only peak electricity—meaning electrical production only during morning and evening times—flows coming from Buford during those periods were many times greater than during periods when Buford's main generators were idle and the dam released minimum water supply requirements.

²⁹ The Secretary of War (1946), 28.

excavation would be required in the Apalachicola River...to provide a channel nine feet deep; with [this dam], the excavation required would be reduced to about ½ that amount."³⁰ At the same time, many hoped that this dam would make building a navigational channel to Atlanta economically feasible.³¹

Atlantans' hopes had not been dashed for a Chattahoochee port near their city that would allow them to ship goods to the Gulf. Senator Walter F. George and Congressmen Robert Ramspeck and Sydney Camp requested that the Board of Army Engineers once again study the "feasibility of making the Chattahoochee River navigable from Atlanta to Columbus." Mayor Hartsfield, E. L. Hart (Atlanta Freight), Clarence Duncan (Fulton County Commission), Robert Holder (real estate representative), J. J. Doran (merchant representative), John M. Cooper (Atlanta Freight), and representatives from Georgia Power and the Atlanta Chamber of Commerce sponsored a meeting to promote an Atlanta port. Hartsfield implied that Atlanta deserved a port since he believed that all large cities in the U.S., except Denver and Dallas, had access to the sea. Hartsfield enlisted the aid of fellow Atlantans to "paint with bigger brushes...bore with bigger augers" and help Atlanta grow. At the top of Hartsfield's growth strategies was his plan to ensure that Atlanta had a "window to the sea."

Since the initial ACF proposal in 1939, Corps officials had been busy meeting with important local interest groups about various benefits of the proposed dams. While Hartsfield

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³⁰ Ibid, 39.

³¹ Although Bill Hartsfield had high hopes for navigation to Atlanta, this idea remained in the theoretical stage and was never implemented due to the steep grade of the river between Columbus and Atlanta. See also, Army Corps of Engineers, *Apalachicola River Basin Reservoir Regulation Manual: Appendix B, Buford Reservoir, Chattahoochee River, GA*, unpublished, December 1959, 3.

³² Atlanta Journal, April 2, 1945, folder 17, box 29, series III, WBHC.

³³ Atlanta Constitution, April 3, 1945, folder 17, box 29, series III, WBHC.

³⁴ Unidentified newspaper article, April 6, 1945, folder 17, box 29, series III, WBHC. See also, "Hartsfield Sees City of Million in Plan for Chattahoochee Port", *The Atlanta Constitution*, April 27, 1945, folder 17, box 29, series III, WBHC. Hartsfield did not give up his hopes for an Atlanta port. Even in 1952, Hartsfield wrote to Davis that, "Atlanta must look out for its own interest" and promote navigation from Columbus to Atlanta. See, Hartsfield to Davis, November 20, 1952, folder 1951-1952, box 205, series 13, JCDC.

focused on the navigational benefits of the Chattahoochee, division engineers in 1946 had become convinced that the "principal value [or economic benefit] of the Chattahoochee River is as a source of power." Corps engineers, along with federal and private power companies, sought to fully exploit the Chattahoochee's kinetic and potential energy. 35 At this time, engineers began to deemphasize the Chattahoochee's navigational benefits in order to make room for other Corps' priorities.

Division engineers increased the expected power capacity at Buford Dam over 1939 expectations and coordinated their efforts with those of Georgia Power—Georgia's largest and most powerful utility at the time. Already in 1939, there were nine power plants (hence, nine dams) along the Chattahoochee River. Georgia Power owned all but two plants, and their plants included the four largest: Morgan Falls, Bartletts Ferry, Goat Rock, and North Highlands.

Any type of upstream modification to the Chattahoochee would impact Georgia Power's production at these plants. However, since Buford Dam would regulate the river's flow, power production at Georgia Power plants would actually increase if Corps engineers managed flows appropriately. ³⁶ Engineers could also increase power at the proposed federal dams downstream if they properly regulated Buford Dam releases.³⁷ Interestingly, Georgia Power both lost and gained by federal water projects. While dams typically stabilized river flows and steady flows increased Georgia Power electrical production, federally-produced electricity was sold at lower rates than those of Georgia Power and thus Georgia Power lost a part of its market share to the new federally-subsidized cooperatives and municipalities when dams were built.

³⁵ The Secretary of War (1946), 13. Also, see Worster's critique of a river's value being based on its ability to generate profits in Rivers of Empire.

³⁶ "...the output of firm power at the existing [Georgia Power] plants would be increased by an estimated 286,819,000 kilowatt-hours annually..." with the construction of Buford Dam. The Secretary of War, 1946, 6. Morgan Falls was eventually refitted to take advantage of Chattahoochee flows. See Loren W. Olmstead, Acting Assistant Chief of Engineers, Corps of Engineers to Russell, November 20, 1959, folder 5, box 10, series XI: River and Harbors, C. Individual Projects, RBRC. ³⁷ The Secretary of War (1946), 27.

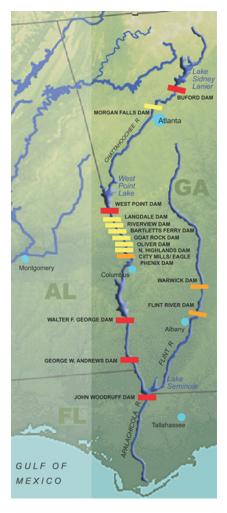


Figure 2. Dams along the ACF^{38}

The many plants built along the Chattahoochee would produce huge amounts of electricity. Even in 1946, this power was more than the region required. Engineers believed that "the energy to be made available by the proposed developments could be absorbed by the power market in the surrounding area about as soon as the developments can be provided, and that it

³⁸ "ACF Map-GA Dams," no date http://www.sam.usace.army.mil/images/ACFmap-GAdams-web.jpg (September 11, 2008).

will be better and cheaper energy than that which could be produced at plants now authorized under the existing project."³⁹ Whether Buford's electricity would be "better" or cheaper to produce is difficult to determine, but certainly the energy would be under federal rather than private control.

Karl Brooks writes about the Hells Canyon Dam controversy in Idaho in *Public Power*, *Private Dams*, and notes that friction can occur between federal and private power entities as they compete over utility control. 40 Brooks suggests that public power projects had a huge financial advantage over private utilities during the 1940s and 1950s because federal oversight of public hydropower costs was relatively loose. He suggests that the federal government hid many of the costs of hydropower facilities by "disguising interest subsidies for federal dams, avoiding taxes on federal property, and juggling project accounts to charge power-generation costs against flood-control and navigation benefits from dams." The government sold its electricity to cooperatives at the lowest price possible. Government officials believed that their efforts to spread electricity to rural areas, which Brooks sees as "urgent and ad hoc," encouraged social reform and a higher standard of living. 42 Brooks suggests that New Deal water projects did not achieve social reform and criticizes the lack of environmental concern that accompanied construction of large federal water projects. According to Brooks, private hydroelectric projects were laden with environmental shackles that federal builders were not required to bear.

While sometimes public and private power entities were competitors, federal power agencies were in collusion with private agencies in Georgia to maximize production and increase the economic benefits of the proposed ACF dams. Army Corps officials communicated with

³⁹ The Secretary of War (1946), 40.

⁴⁰ See Brooks, *Public Power, Private Dams: The Hells Canyon High Dam Controversy* (Seattle: University of Washington Press, 2006).

⁴¹ Brooks, 127.

⁴² See Brooks, 41 and 82.

Georgia Power and both entities discussed future power production. Army officials also communicated with the Southeastern Power Administration (SEPA) about future energy production. SEPA marketed all of the power

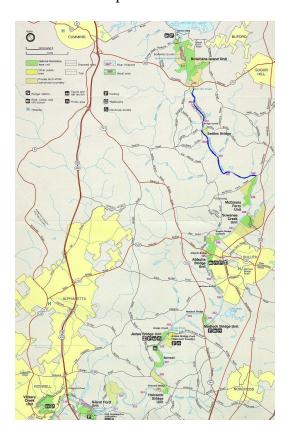


Figure 3. Geography of the Chattahoochee in North Georgia⁴³

produced by federal hydroelectric facilities in the Southeast. In the 1950s, SEPA's preferred customers were not able to use all of the electricity produced by federal facilities, so SEPA sold excess electricity to private customers like Georgia Power. 44 Today SEPA produces about 3,200

⁴³ National Park Service, "Chattahoochee River," no date http://www.canoeamerica.net/hiresmap.jpg (September

24, 2008).

44 Phone interview with Joel Seymour, Assistant Administrator for SEPA, 24 April 2008, Elbeton, GA. Georgia Power is a subsidiary of the Southern Company.

mega-watts of energy from federal reservoirs and contributes about \$165 million per year to the U.S. treasury.⁴⁵

In 1946, the Corps made substantial changes to earlier proposals. Not only did engineers modify the primary purpose of the North Georgia dam from navigation to power production and change the location from Roswell to Buford, but engineers also determined that Buford Dam could serve another significant purpose. Engineers had recently been informed about the City of Atlanta's unstable water supply. Political and corporate leaders in Atlanta contradicted previous Corps' assumptions that Atlanta had sufficient water reserves. They proclaimed that Atlanta water supplies were precarious and that flows from the Chattahoochee were not always heavy enough to support the residential and industrial needs of the city.

Not only were flows dangerously low during the severe droughts of the 1920s, but engineers learned that, as recently as October 1941,

the average flow [on the Chattahoochee] for the month was 493 second-feet and the minimum daily flow 422 second-feet. The Atkinson steam plant was compelled to operate at reduced efficiency, and residents of the area were requested to refrain from all unnecessary use of water to conserve the inadequate supply. 46

The Atkinson steam plant is not mentioned off-handedly in the above paragraph. The plant, owned by Georgia Power, required an almost unimaginable amount of water. While the entire city of Atlanta consumed about 70 cubic feet per second (cfs or second-feet) of water, the Atkinson plant required 565 cfs of flow from the Chattahoochee River—nearly eight times that of the entire city. ⁴⁷ Georgia Power had a considerable stake in safeguarding the Chattahoochee's

⁴⁷ Cubic feet per second, cfs, or second-feet. One cubic foot per second of flow equals 646,000 gallons per day or about 450 gallons per minute. See R. W. Carter and S. M. Harrick, *Water Resources of the Atlanta Metropolitan Area* (Washington, D. C.: United States Department of the interior, November 1951), 5. Note that since Atkinson was a steam plant, the water was used for cooling purposes and then was returned to the river, so the water was not actually consumed. However, river levels needed to be kept high enough to ensure that a sufficient quantity of water

⁴⁵ Ibid. See also, "SEPA: Fast Facts," no date http://www.SEPA.doe.gov/Files/QuickFacts.pdf (7 October 2008). ⁴⁶ Ibid. 34.

flow—the company not only benefitted by increased hydroelectric production, but could also be assured that Plant Atkinson would have enough water to run in the future if Buford Dam were built. Engineers forecasted that by 1965, Atlanta's population would grow to around 600,000 and Atlanta would require 800 cfs of water for both residential and industrial use. Corps engineers hoped that with Buford Dam, they could ensure Atlanta a minimum flow of at least "600 second-feet, for water-supply, sanitation, and industrial purposes" as soon as the dam was brought online and they expected to adjust minimum flows based on Atlanta metropolitan area growth. 48

As most expected, the metropolitan area of Atlanta grew quickly. Engineers estimated that the population of the city of Atlanta was about 302,300 in 1940.⁴⁹ The population of Fulton County was 392,886 in 1940 and the population of DeKalb County was 86,942. By 1960, the population of the Atlanta metropolitan area (based on a 20-county system, see Table 1) was about 1.3 million and by 1990, the same 20 counties would have a population of just under 3 million. Atlanta's water supply would certainly be a major issue in the future.

Table 1. Atlanta Metropolitan Area Population by County⁵⁰

	1940	1960	1990
Barrow	13,064	14,485	29,721
Bartow	25,283	28,267	55,911
Carroll	34,156	36,451	71,422
Cherokee	20,126	23,001	90,204
Clayton	11,655	46,365	182,052
Cobb	38,272	114,174	447,745
Coweta	26,972	28,893	53,853

was consistently available for the plant. The Atkinson steam plant was renamed the McDonough Atkinson plant and remained open until 2002. It is also important to note that Plant Atkinson significantly raised river temperatures when water used for cooling purposes was dumped back into the river.

⁴⁸ The Secretary of War (1946), ix.

⁴⁹ Ibid, 2.

⁵⁰ Data taken from Table 30, Population and Housing Units: 1940 to 1990, Richard L. Forestall, "Population of Counties by Decennial Census: 1900 to 1990" (Washington: U. S. Bureau of the Census, 1990), retrieved April 15, 2008, http://www.census.gov/population/cencounts/ga190090.txt, 85.

DeKalb	86,942	256,782	545,837
Douglas	10,053	16,741	71,120
Fayette	8,170	8,199	62,415
Forsyth	11,322	12,170	44,083
Fulton	392,886	556,326	648,951
Gwinnett	29,087	43,541	352,910
Henry	15,119	17,619	58,741
Newton	18,576	20,999	41,808
Paulding	12,832	13,101	41,611
Pickens	9,136	8,903	14,432
Rockdale	7,724	10,572	54,091
Spalding	28,427	35,404	54,457
Walton	20,777	20,481	38,586
	_		
Total	822,519	1,314,434	2,961,940

The Chief of Engineers requested that another important modification be made to earlier ACF proposals. Since the mid-1940s experienced years with above-average rainfall in Georgia, the Chief of Engineers requested that plans for the Buford project include storage capacity to protect against floods. ⁵¹ Floods in West Point, Georgia could be particularly severe because a large part of the city was built on the Chattahoochee's floodplain. Engineers believed that if Buford Dam had a greater storage capacity, it would protect the area downstream against the largest floods. ⁵² The Corps felt that it would recognize the most economic benefits if Chattahoochee flows were controlled upstream and residents were allowed to remain living in the floodplain in West Point. The Chief Engineer at the time, Lieutenant General R. A. Wheeler, noted that Buford Dam's main priorities would be to develop "hydroelectric power...flood

⁵¹ See Appendix B., "Average Daily Discharge" in Army Corps of Engineers, *Apalachicola River Basin Reservoir Regulation Manual: Appendix B, Buford Reservoir, Chattahoochee River, GA*, unpublished, December 1959. ⁵² The Secretary of War (1946), 37.

control, and improvement in water supply and sanitation at Atlanta, Ga" and to benefit downstream navigation.⁵³

Ari Kelman, in A River and Its City, criticizes the Corps for attempting to control flooding in New Orleans with technological solutions and not with residential relocations. Corps engineers did not ask residents in West Point, the principal victims of downstream floods, to remove their homes from the Chattahoochee's flood plain. Instead the Corps attempted to prevent floodwaters from hitting West Point. This idea sounds like a logical solution; however, as Kelman demonstrates, Corps' designs were not always effective in preventing floodwaters from reaching residents' homes. Kelman notes that New Orleans was built in a low area between the Mississippi river and Lake Pontchartrain. Corps engineers built miles of levees on the outskirts of New Orleans to hold back floods from the Mississippi. Engineers had a levees only policy and when the levees were not high enough to hold back floods, engineers simply built higher levees. Corps engineers and city officials also allowed residents to occupy floodplains on the outskirts of New Orleans that had traditionally provided a safe haven for flood waters. During major floods, such as the Mississippi flood of 1927, waters overran the levees and streamed straight down into New Orleans and the now-inhabited floodplain. Kelman states that today the levees are "so high that you have to climb to their tops in order to catch a glimpse of the Mississippi."⁵⁴ As many have noted, Corps' solutions regarding New Orleans proved disastrously ineffective during storms spawned by Katrina in 2005.

Corps and city decision-makers in West Point and New Orleans ignored the geographic realities of their environs and refused to relocate endangered communities. While Kelman recognizes that people are understandably attached to their homes and native places, he hopes

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⁵³ The Secretary of War (1946), viii.

⁵⁴ Ari Kelman, *A River and Its City: The Nature of Landscape in New Orleans* (Berkeley: University of California Press, 2003), xvi.

that individuals recognize that geography has an impact on their lives and technological solutions are often temporary measures, at best. In 1946, Corps engineers in Georgia proceeded with plans to control West Point floods from the North Georgia dam, 120 miles upstream.

After detailing many modifications that were made to earlier recommendations on a North Georgia dam, the Corps South Atlantic Division prepared to demonstrate that Buford would be a financially appealing project. Engineers quantified costs and expected benefits that would stem from Buford Dam from improved navigation, power production, flood control, recreation, and increased value to riparian lands and they generated a benefit-cost ratio. The greater this number was above one, the greater was the economic rationale for the project (when the ratio equaled one, the benefits and costs balanced each other out). The benefit-cost ratio engineers produced in 1946 for Buford was only 1.08. Such a low ratio indicated that the project would produce only marginal economic benefit. Surprisingly, although the Buford project had such a low economic value, Congress approved the Corps' proposal for the area.

Traditionally, the Corps of Engineers and Congress managed federal water projects with little oversight from the executive branch. However, beginning in the early twentieth century, presidents had attempted to require Congress and the Corps to pass projects through bureaus that would be overseen by the executive. Roosevelt created the Water Resources Committee during the New Deal to limit Corps and congressional independence in federal water projects and to encourage executive oversight. However, Congress and the Corps typically tried to ignore Water Resources Committee recommendations. When Roosevelt later attempted to use the Bureau of the Budget to reel in congressional appropriations on rivers and harbors projects he achieved little success.

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⁵⁵ The Secretary of War (1946), vi.

Therefore, in 1947, the executive branch required rivers and harbors projects to be approved by the Budget of the Bureau in order to "break into the direct channel between the Corps and Congress." When the Assistant Director of the Bureau of the Budget, L. C. Martin, received the Corps' reports on Buford Dam, he stated that, "based on expected power revenues and 1941 construction prices, initiation of the work would not be justified at current cost levels." Martin attempted to override congressional approval and gave the Buford project a "low economic priority." ⁵⁷ The Secretary of War, Robert P. Patterson, seconded the Bureau Assistant's opinion that Buford was not cost effective at that time. These actions nearly sunk the Buford project.

The substantial growth of Atlanta's population and business sector during and immediately after World War II prompted city leaders to seek infrastructural improvements. Engineers were aware of Atlanta's growth and thus significantly modified earlier ACF proposals. Corps officials decided that the Chattahoochee's greatest financial asset lay not in its ability to provide navigation, but in its capacity to furnish additional electricity to the growing area. Engineers also changed the North Georgia dam's location from Roswell to Buford in order to accommodate local utility concerns. In addition, as engineers studied Atlanta's population growth and historic Chattahoochee flows, they realized that Buford would benefit the city by providing a steady water supply. Corps officials also hoped to benefit Georgia residents by equipping Buford with the capacity to control downstream floods. While Corps and Congressional leaders believed that all of these improvements were worthwhile and would

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⁵⁶ Arthur A. Maass, "Congress and Water Resources," *The American Political Science Review*, 44, no. 3 (Sep., 1950): 585. The Bureau's recommendation may have been irrelevant. Maass notes that between 1941 and 1948, the Corps submitted 436 proposals to the Bureau. The Bureau of the Budget expressed concern with 76 of those projects. Of those 76 projects that the Bureau did not support, Congress overruled the Bureau and appropriated a total of about \$2 billion for 62 out of the 76 projects.

⁵⁷ The Secretary of War (1946), vi. It is interesting to note that this conclusion was based on 1941 construction costs, which were much lower than those in 1947 that had experienced World War II inflation. Had 1947 construction costs been used, the benefit-cost ratio would have been even lower.

benefit Atlanta, executive officials believed that the financial benefits of the Buford project did not sufficiently outweigh its costs and they did not approve the project.

Blood, sweat and tears¹

A. Georgians Obtain Initial Appropriations

The Buford project was nearly sunk in 1947. But, in 1947, the same year that the Bureau of the Budget considered Buford Dam to be "of low economic priority," Georgia elites persuaded Congress to act against the Bureau's recommendation and to appropriate \$250,000 to initiate a study for the building of Buford Dam. Actual construction on the dam began shortly thereafter in 1950. This startling change in direction was due to the tireless efforts of powerful political and corporate leaders in and around Atlanta. Atlanta leaders fostered cooperative relationships that enabled them to facilitate passage of legislation that would promote growth in the city. Atlanta mayor William B. Hartsfield, Congressman James C. Davis, and Senator Richard B. Russell, Jr. coordinated efforts in and around Atlanta that propelled the project forward and secured appropriations for Buford Dam.

There were several reasons why leaders in Atlanta expected to have difficulty obtaining funds for the Buford project. During the New Deal, Congress had appropriated liberal amounts of money to federal programs, including rivers and harbors projects. However, by 1947 a Republican majority dominated Congress and attempted to curb federal spending, particularly funds for Corps projects. This situation caused states to compete fiercely for rivers and harbors appropriations. In addition, the Republican Congress preferred to complete the Jim Woodruff Dam, which was on the ACF river near Chattahoochee, Florida, before they initiated another expensive Georgia water project. James C. Davis claimed, "...the House Civil Functions

¹ Russell to Rew, October 1, 1959, folder 5, box 10, River and Harbors Series, C. Individual Projects, RBRC

subcommittee on Appropriations has taken the position that the Jim Woodruff Dam should be completed before construction on Buford Dam [begins]." ²

Jim Woodruff, Sr., of Columbus, was particularly influential as he forced Atlanta leaders to swim against the current when they fought for funds. Hartsfield later stated, "...we had a lot of trouble with the older Mr. Woodruff, who asserted a sort of proprietorship of the River as a whole. He gave us a lot of trouble about Buford Dam, and if you will recall, on one occasion came up from Columbus and barged in on a small seated dinner I was giving for the Chief of Engineers at the Capital City Club and demanded to be seated." Leaders knew that obtaining funds for Buford Dam would be an uphill battle for the first few years.

Hartsfield, Davis, and Russell coordinated individual and community efforts to obtain appropriations for Buford Dam. Hartsfield, in particular, was intimately involved with obtaining appropriations for Buford and probably got involved with the ACF system as early as 1941. While Hartsfield still hoped for a Chattahoochee port in Atlanta, he slowly came to realize that Buford Dam would be a pivotal piece in his quest to make Atlanta the queen of the South. In 1941, J. R. Bachman, of Atlanta Freight Bureau, proposed that Hartsfield should spearhead the pursuit for Buford appropriations. He suggested, "the right men and enough of them would follow your torch." Hartsfield determined that he would carry the Buford torch and he sent countless letters requesting aid in obtaining appropriations for Buford.

Many years later, Hartsfield boasted that he, "...made the first request [for appropriations] and bank rolled the pressure on Washington...out of his little account...."5

² James C. Davis to Governor Herman Talmadge, October 12, 1951, folder 3, box 205, series 13, James C. Davis papers, Manuscript, Archives, and Rare Book Library, Emory University.

³ Hartsfield to Culpepper, General Manager of Atlanta Freight Bureau, January 14, 1965, folder 18, box 29, series III-7, Miscellaneous subject, 1937-1970, WBHC.

⁴ Bachman to Hartsfield, July 29, 1941, folder 17, box 29, series III, WBHC.

⁵ William B. Hartsfield to Ed Hughes, November 3, 1961, folder 18, box 29, series III-7, WBHC.

Letters survive that substantiate Hartsfield's claim. In 1947, when Republican members of the House and the Director of the Bureau of the Budget threatened to drown the Buford project, Hartsfield and Davis induced members of the House to shore up the Buford project and Russell lobbied members of the Senate.

James C. Davis frequently reminded his constituents that the state of Georgia obtained no appropriations for Buford Dam until after he was elected.⁶ It is possible that Davis did not overstate the impact he had on the Buford project. When he came to the House in 1947, Davis made it one of his top priorities to obtain funds for the dam. Davis was aware that the City of Atlanta and DeKalb County desperately needed reliable water resources. Davis received a notice from Harris Engineering Control in 1947, that they had studied the impact of the Chattahoochee on Atlanta. The letter emphasized that as Atlanta's population increased, its water needs would also grow.⁷ Davis wanted the Atlanta area to develop and understood that a steady water supply would promote growth in Georgia.

Senator Russell's position in the Senate as a member of the Appropriations Committee was particularly advantageous as it enabled him to promote passage of appropriations bills that impacted Georgia. Looking back, Russell reminded his constituents that Buford Dam had always been a high priority for him.⁸ He stated, "As you know this is a project in which I have a strong sense of personal pride in view of the blood, sweat and tears I have expended over the years to obtain funds for its construction...." Russell frequently sent Davis and Hartsfield information regarding which key players in the Senate they would need to contact for support. Russell also

⁶ Davis to Daily Times, February 20, 1957, folder 1957, box 205, series 13, JCDC.

⁷ C. V. Davis to J. C. Davis, May 13, 1947, no folder, box 205, series 13, JCDC.

⁸ See, Russell to Rew, October 1, 1959, folder 5, box10, River and Harbors Series, C. Individual Projects, Richard B. Russell Collection, Richard B. Russell Library for Political Research and Studies, University of Georgia Libraries, Athens.

⁹ Russell to Rew, October 1, 1959, folder 5, box 10, River and Harbors Series, C. Individual Projects, RBRC.

¹⁰ See Russell to Hartsfield, August 18, 1947, folder 1947-1948, box 205, series 13, JCDC.

relied on his reputation as a powerful senator to persuade key personnel in the Corps that Buford Dam was a necessary project.

When Hartsfield learned in 1947 that no funds were expected to be included by the House in its 1948 budget for Buford Dam, he decided to take matters into his own hands. In early June 1947, Hartsfield, through E. L. Hart of the Atlanta Freight Bureau, invited members of the House Appropriations Committee and other significant House and Senate leaders to a dinner at the Statler Hotel in Washington (now the Capital Hilton) that would be held on June 9, 1947. Georgia congressmen Cox, Page, Camp, Wood, Simms, Andrews, Sikes, and Rains were all invited to hear discussions on the proposed project. Senators George, Russell, Sparkman, Hill, and Pepper were on the guest list, and many Atlanta business and political leaders were invited, such as Paul Weir, of Atlanta's Department of Water Works, Ralph Huie, of First National Bank, J. M. Cooper, past president of Atlanta Freight Bureau, and R. L. Doyal, the Fulton County Commissioner of Roads and Revenues. Hartsfield later said of the event that, "the City of Atlanta bank-rolled [this] elaborate dinner."

The growth of Atlanta was obviously a priority for Hartsfield. In fact, years after the dam was completed, Hartsfield admitted that he "...sent a delegation to every House and Senate Committee at City expense. I even brought in people from North Georgia and sent them there at the expense of the City to impress Senators and Congressmen." Hartsfield boasted that he had given a breakfast to a large group of Congressmen and Senators and "officially entertained...the representatives of the Corps of Engineers from Mobile, Atlanta, and Washington." ¹³

¹¹ Hart to Cox, et. Al, June 2, 1947, folder 1947-1948, box 205, series 13, JCDC.

¹² Hartsfield to Representative Weltner, May 20, 1964, folder 18, box 29, series III-7, Miscellaneous subject, 1937-1970, WBHP.

¹³ Ibid.

Hartsfield enlisted many allies in the battle for funds. When Hartsfield asked John White of Niagara Fire Insurance to contact Senators George and Russell and Representative Davis about appropriations, he hinted that, "...if you slipped up and sent a copy to the Atlanta newspapers, you would hear no complaint from us." 14 Obtaining funds for Buford Dam became a public issue and Georgia leaders expected to receive support at election time for their involvement with the project.

On July 15, 1947, Davis and Hartsfield testified about Atlanta's need for the dam before Russell and the Senate Appropriations Committee. Hartsfield told the Senate that Buford Dam was needed "to a large extent [to give an] increased water supply to Atlanta" and that the absence of an assured water supply would "retard seriously the growth of the section." ¹⁵ Hartsfield hoped that Senate and House Committee members would recognize the precariousness of Atlanta's water supply and would contribute funds to build a reservoir that would supplement city supplies.

City supplies had reached precariously low levels during the droughts of the 1920s. In fact, according to tree ring analysis, the droughts of the 1920s were one of eight severe drought periods that Georgia had experienced since the 1680s. ¹⁶ The U. S. Weather Bureau noted in 1925, "The drought was especially severe during the latter part of July, August, and September and the rivers in many places reached the lowest stages ever known. The scarcity of water had a profound influence on industrial and agricultural conditions in Georgia."17

¹⁴ Hartsfield to White, February 25, 1947, folder 1947-1948, box 205, series 13, JCDC.

¹⁵ Statement of Davis to Subcommittee on Appropriations of US Senate, Eightieth Congress, First Session, on H. R. 4002, July 15, 1947, page 4, folder 1947-1948, box 205, series 13, JCDC.

¹⁶ See David Emory Stooksbury, "Historical Droughts in Georgia and Drought Assessment and Management," no date http://piersystem.com/clients/1619/89374.pdf (8 September 2008). Stooksbury calls the current drought "the worst drought since the 1920s." See Justin Rubner, "Drought hits Hydropower," November 16, 2007, http://www.bizjournals.com/atlanta/stories/2007/11/19/ sotory2.html?ana=from rss> (8 September 2008). ¹⁷ U.S. G. S., "Droughts in Georgia," October 2000, http://ga.water.usgs.gov/publications/ ofr00_380.pdf> (8 September 2008). The National Weather Service indicates that the two most severe droughts in recent past have

As mayor, Hartsfield hoped to avoid the undesirable consequences of another severe drought like that of the mid-1920s. He knew that if the scenario reoccurred, "water may be severely rationed, many industrial users will be cut off from water for industrial purposes and the fire protection facilities of the entire area will be greatly impaired..."¹⁸ After Hartsfield testified about Atlanta's needs, Committee members asked him if Atlanta would be willing to contribute its share for construction. Hartsfield answered in the affirmative, saying that he would be willing to contribute funds for the planning of the dam "out of Atlanta's revenues." Later in his testimony, however, Hartsfield may have regretted his response because he stated that "standing here on my feet pledging the city's revenues is rather a hard job" and he was unwilling to commit any specific amount.¹⁹

During the meeting, Senator Russell called on an authority on the subject of inland waterways to help sway the minds of undecided Congressmen. Colonel P. A. Feringa, of the Army Corps of Engineers, testified before Congress that Buford Dam was absolutely indispensable to the development of the ACF. He stated, "Buford Dam is an important part of the [ACF] plan, because without Buford Dam we will not be able to ensure positive navigation below Columbus." In addition, Feringa noted that "The Buford [Dam] is the only one for flood control."²⁰ In succeeding years, Feringa's testimony, not Hartsfield's pleas for water, helped Davis and Russell persuade others to allocate funds for the dam.

Back in Georgia, Hartsfield continued to flood local leaders with pleas for help. He wrote to Davis, urging him to "continue the fight" and to Russell, reminding him that "our whole future

been those on August 25, 1925 when low water records at Norcross indicated .1 feet and on September 26, 2007 indicators showed 1.5 feet. See National Weather Service, "Advanced Hydrologic Prediction Service," July 3, 2008, http://ahps.srh.noaa.gov/ahps2/hydrograph.php? wfo=ffc&gage=ncrg1. (8 September 2008).

¹⁸ Atlanta Constitution, March 5, 1951, folder 1951-1952, box 205, series 13, JCDC.

¹⁹ Statement of Hartsfield to Subcommittee on Appropriations of US Senate, Eightieth Congress, First Session, on H. R. 4002, July 15, 1947, page 6, folder 1947-1948, box 205, series 13, JCDC.

²⁰ Statement of Davis to Subcommittee on Appropriations of US Senate, July 15, 1947, page 7, folder 1947-1948, box 205, series 13, JCDC.

is bound up in this project."²¹ Hartsfield kept in close communication with the Army Corps of Engineers. He wanted the dam as close to Atlanta as possible for recreational purposes. In August, Hartsfield wrote Colonel Gilette of the Corps to request that the Roswell site, which was much closer to Atlanta than the Buford site, be seriously considered once again.²²

Hartsfield and Davis also enlisted other men with powerful connections to aid them in their quest for funding. Davis used his own recently formed congressional connections to influence government leaders. He spoke with Representative Albert J. Engel (MI), who was the head of the House Appropriations Conference Committee, and pointed out many of the commercial, political, and military advantages of Atlanta, such as the Atlanta General Depot, Fort McPherson, the Bell Bomber Plant, the fourth largest airport in the country, and the largest railroad hub in the South. Hartsfield wrote Engle that he knew of no project that would "be of greater benefit to so large a group of people" as Buford Dam. ²⁴

In August, Russell wrote Hartsfield that he should contact James E. Webb, Director of the Bureau of the Budget, to see if he would approve funds for Buford.²⁵ The director could be an important advocate for Georgians, since he recommended which Corps' projects should be pursued. Earlier in the year, the Assistant Director of the Bureau had been the individual who rejected the Buford project based on its low benefit-cost ratio.

In October 1947, Davis asked Bob Sikes, a congressman from Florida, to meet with the President and a representative of the Budget Bureau to request to have funds included for Buford Dam in the upcoming House budget.²⁶ In November, Hartsfield notified John Steelman, the

²¹ Hartsfield to Davis, July 8, 1947, folder 1947-1948, box 205, series 13, JCDC. Hartsfield to Russell, July 3, 1947, folder 1947-1948, box 205, series 13, JCDC.

²² Hartsfield to Gilette, August 30, 1947, folder 1947-1948, box 205, series 13, JCDC.

²³ "Engel's Statement", no date, folder 1947-1948, box 205, series 13, JCDC.

²⁴ Hartsfield to Engle, June 18, 1947, folder 1947-1948, box 205, series 13, JCDC.

²⁵ Russell to Hartsfield, August 18, 1947, folder 1947-1948, box 205, series 13, JCDC.

²⁶ Bob Sikes to Davis, October 3, 1947, folder 1947-1948, box 205, series 13, JCDC.

Assistant to the President, of Atlanta's dire need for water. Hartsfield warned that "unless something is done with the river very soon...Atlanta will have a water shortage." ²⁷ Hartsfield estimated that the dam would cost about \$21,180,000. Near the end of the year, the inundation of Atlanta pleas paid off. The House and Senate agreed in committee to appropriate \$250,000 in the 1948 budget for initial planning of Buford Dam. But, the Georgians' work had just begun.

Since \$250,000 was a mere drop in the bucket of Buford's actual cost, Davis, Hartsfield, and Russell sought appropriations again in 1948. However, in this year, Hartsfield determined to switch tactics in order to obtain funds. He realized that if Congress believed that Buford's primary purpose was to provide water supply to Atlanta, Congress would most likely expect Atlanta to contribute a significant percentage of funds toward construction of the dam. Hartsfield hoped to avoid this scenario and sought to ensure that the federal government would fund the entire project.

In addition, Davis warned Hartsfield in February of 1948, that the federal government had required other cities to contribute funds to water supply projects. Hartsfield responded and endorsed a definite change in tactics. He stated, "I think we have just laid too much emphasis on the Chattahoochee as a water supply." Hartsfield had learned that,

The City of Atlanta has many sources of potential water supply in north Georgia. Certainly a city which is only one hundred miles below one of the greatest rainfall areas in the nation will never find itself in the position of a city like Los Angeles...the City of Atlanta could go to the Cossawattie River which flows through Gilmer County near Ellijay. The Georgia Power Company owns the water rights and has on occasion offered them to the City. A small dam there and a pipe line will bring the water by gravity without the necessity of a single pump....²⁹

²⁹ Hartsfield to Davis, March 1, 1948, folder 5, box 1, River and Harbors Series, A. Correspondence, RBRC.

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Hartsfield to Steelman, November 12, 1947, folder 1947-1948, box 205, series 13, JCDC.
 Davis to Hartsfield, February 27, 1948, folder 1947-1948, box 205, series 13, JCDC.

It is unclear why this plan was not pursued. The answer probably lies in the fact that the City of Atlanta would surely be required to fund most, if not all, of the Cossawattie project if it were pursued. Buford Dam, Hartsfield hoped, would be funded entirely by the federal government.

J. M. Cooper agreed that Atlanta leaders should downplay the water supply issue. He mentioned to Senator Russell that the Corps of Engineers was glossing over the topic of Atlanta's water supply and that he was concerned that if Atlanta leaders highlighted Atlanta's water supply, it would be "a wide open invitation for some of the Republicans up there to insist on Atlanta paying a good part of the cost [of Buford Dam]." Cooper noted that deemphasizing water supply issues was an effective strategy because "if Atlanta never used a drop of water from the Buford Reservoir, that Buford Dam would still be necessary [for downstream navigation]...."

Hartsfield later informed Senator Russell that he wanted to "ease down on the subject of Atlanta's water supply" and focus instead on the expectations that Corps engineers had recommended for the Buford project: to assist with river flow regulation for navigation and to provide flood control and power production. Russell tried to downplay Atlanta's thirst for water and wrote a Gainesville surveyor that Buford Dam would not be built, "for the purpose of helping Atlanta with its water supply, though this will undoubtedly be an incidental benefit." However, Russell, Davis and Hartsfield all knew with certainty that Buford's dependable water supply was, in Davis' words, "absolutely essential" to the growth of Atlanta. 33

Davis contacted powerful friends to enlist their aid to convince Appropriation members to vote for funds for the dam. G. A. Austin, the President of Consolidated Quarries and future

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³³ Davis to Wills, Jr., July 27, 1949, folder 1949-1950, box 205, series 13, JCDC.

³⁰ Cooper to Russell, March 9, 1948, folder 1, box 2, River and Harbors Series, A. Correspondence, RBRC.

³¹ Hartsfield to Russell, March 10, 1948, folder 5, box 1, River and Harbors, series A., Correspondence, RBRC.

Russell to Newton, May 11, 1949, folder 8, box 10, series XI: River and Harbors, C. Individual Projects, RBRC.

president of Atlanta Freight Bureau, Doyal, Hart, and Cooper all offered their support. The Freight Bureau invited the Army's Chief of Engineers, Lieutenant General Raymond A. Wheeler, to its forty-sixth annual dinner in Atlanta. Wheeler announced that the government was giving "careful consideration to a plan to extend a nine-foot navigation channel on the Chattahoochee River from the Gulf to Atlanta." Buford Dam, of course, would be an integral part of this plan.³⁴

Early in the year, Hartsfield informed Davis that the Corps needed \$400,000 to complete planning for the dam. ³⁵ On March 16th, Hartsfield, Davis, and Cooper testified about Buford Dam's advantages before the Senate Civil Functions Subcommittee and shared Feringa's previous statements with the members. In addition, Hartsfield and Davis obtained the names of the Conference Committee members that they needed to persuade to vote for the Buford bill. Davis first contacted Representative Engel since "he is the leader of the House Conference… [and] was in the position to really do something about it." Davis noted that after their discussion, Engel was "more kindly disposed" toward the Buford project. Davis also spoke with Representative Francis Case (SD), who was on the Subcommittee, but Case gave no promise to support the project. ³⁷

In the end, the cascade of support from Atlanta paid off. The \$583,000 that was to help pay for Foster Creek Dam in the state of Washington was eliminated from the Congressional budget and \$400,000 was inserted to go towards planning the Buford project. Representative Walter Horan from Washington, whose district was to receive the funds for Foster Creek Dam, noted that it seemed to be "a particular coincidence" that his funds were taken while Buford's

³⁴ Welch, 88.

³⁵ Hartsfield to Davis, June 18, 1948, folder 1957-1948, box 205, series 13, JCDC.

³⁶ John M. Cooper to Davis, April 14, 1948, folder 1947-1948, box 205, series 13, JCDC.

³⁷ Davis to Hartsfield, April 22, 1948, folder 1947-1948, box 205, series 13, JCDC.

were written in. ³⁸ Davis noted that, "I feel that we are to be congratulated upon getting this \$400,000 for Buford Dam...while at the same time Congressmen Horan, a Republican, had his \$583,000 removed from the bill. I think this indicates that our constant and steady work has born [sic] good fruit and has been very effective." Hartsfield expressed his appreciation to Davis, sent him framed maps of the proposed dam, and reminded him that next year engineers would require additional funds for the project. ⁴⁰

Buford Dam required significant funding in 1949. Since only \$650,000 had been allocated for the project to date, the Army Corps of Engineers still required a substantial sum to complete initial planning for the dam. Davis began laying his plans to get funds for the dam inserted into the 1949 congressional budget in late 1948. He cautioned newly-promoted Brigadier General Feringa (who had previously testified of the essential qualities of Buford Dam before the Senate) that those seeking rivers and harbors funds would again encounter significant opposition. He suggested that Georgia elites and the Corps "ought to carefully lay our plans and diligently follow through on them" in order to obtain necessary funds for the dam. ⁴¹

Davis and Feringa were not the only individuals to scheme. Cooper and Hartsfield were also busily planning in order to obtain funds for the next year. Hartsfield obtained the names of the 1949 Conference Committee members and passed them along to others. ⁴² Cooper wrote to Davis that he believed each person in their group should, "individually contact those conferees and…be dead certain that two or three of us representing the various interests see them immediately after the bill is passed to them."

³⁸ House Congressional Record, June 12, 1948, folder 1947-1948, box 205, series 13, JCDC.

³⁹ Davis to Hartsfield, June 16, 1948, no folder, box 205, series 13, JCDC.

⁴⁰ Hartsfield to Davis, September 28, 1948, folder 1949-1950, box 205, series 13, JCDC.

⁴¹ Hartsfield to Feringa, October 18, 1948, folder 1949-1950, box 205, series 13, JCDC.

⁴² Hartsfield to Gardner, May 7, 1949, folder 1949-1950, box 205, series 13, JCDC.

⁴³ Cooper to Davis, May 6, 1949, folder 1949-1950, box 205, series 13, JCDC.

Davis contacted Harry Sommers, a member of the Atlanta Chamber of Commerce and a delegate to the Republican National Convention, and asked him to make sure that John Taber (NY) and Richard B. Wigglesworth (MA), House Conference Committee members, would support appropriations for the dam. ⁴⁴ Sommers responded a few days later that he would also "handle [the] matter with [Representative Charles] Halleck (IN) exactly as outlined."

Cooper warmly congratulated Davis for his work on the project and expressed satisfaction with Russell's maneuvers in the Senate. He stated, "I believe Dick Russell is going to be able to hold that appropriation through the full committee and the Senate itself." Cooper closed his letter to Davis by thanking Mrs. Davis for giving Cooper and his family a ride to the airport. A Relations between those involved in Buford Dam project were intimate indeed.

Davis not only contacted Conference members, but also lobbied individuals in the Oval Office. Davis asked Hartsfield to "secure all local people who may have influence with the White House...some assistance from that source would be of considerable benefit."

Gilbert Fite, in his biography of Senator Richard B. Russell, Jr., noted that Russell played a powerful part in obtaining money for Buford Dam in 1949. Fite stated that when Chairman Cannon cut Buford Dam from the funding list in that year,

Representative Albert J. Engel of Michigan told Russell that he would do whatever he could to get Buford Dam money restored. Fortunately Engel was still on good terms with Cannon after the chairman had made so many cuts. Engel talked with Cannon and finally convinced him to add the needed \$750,000 for Buford Dam. The change was made so quietly in conference that several of the conferees were not even aware of it.⁴⁸

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⁴⁴ Davis to Sommers, May 11, 1949, folder 1949-1950, box 205, series 13, JCDC.

⁴⁵ Sommers to Davis, May 13, 1949, folder 1949-1950, box 205, series 13, JCDC.

⁴⁶ Cooper to Davis, May 6, 1949, folder 1949-1950, box 205, series 13, JCDC.

⁴⁷ Davis to Hartsfield, May 6, 1949, folder 1949-1950, box 205, series 13, JCDC.

⁴⁸ Fite, 318.

After Russell successfully guided the Buford Dam appropriations bill through the Senate, Cooper focused his energy on the Conference Committee. Cooper spoke to House Conference Committee members John N. Kerr (NC), Louis Charles Rabaut (MI), Clarence Cannon (MO), Taber, and Wigglesworth and asked each representative to consider voting for the Buford project. While several representatives replied that they would support the project, Cannon suggested that Cooper may benefit from talking to General John Bragdon of the Army Corps of Engineers.

Cooper learned some critical information in his conversation with General Bragdon.

Bragdon told Cooper that if Senator Russell "would phone General Pick, who greatly admires and respects [Russell], it would cinch it…" Senator Russell's phone call must have had the desired impact because on September 13, 1949, Major General Lewis A. Pick, Chief of Engineers, notified Davis that although the Conference Committee had not yet agreed on an amount to appropriate for the Buford project, the "…preliminary planning is now underway…" Bragdon also informed Cooper that the Corps "would include Buford in [their] recommendations" for new projects. ACF improvements had been seized by a turbulent Atlanta-based current in the late 1940s that resurrected plans for a North Georgia dam and brought Buford into existence.

Waves of Atlantans supplicated Conference Committee members for funds for the Buford project and their petitions continued to flood Representatives' offices. In fact, late in 1949, Representative Kerr suggested to Cooper that Georgians should curtail their lobbying so they didn't "muddy the waters." Kerr was concerned that if Cannon felt too much pressure, he

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⁴⁹ Ibid.

⁵⁰ Pick to Davis, September 13, 1949, folder 1949-1950, box 205, series 13, JCDC.

⁵¹ Cooper to Russell, May 26, 1949, folder 8, box10, River and Harbors Series, C. Individual Projects, RBRC. ⁵² Cooper to Russell, August 26, 1949, folder 8, box10, River and Harbors Series, C. Individual Projects, RBRC.

might change his mind about Buford's funding. In the end, Hartsfield's and Davis' plan to obtain funding for the Buford project was successful and the Conference Committee budgeted \$750,000 for designing the dam.

Obtaining these preparatory funds for Buford Dam was in part the result of the alignment of Atlanta's business and political segments. Clarence Stone, in *Regime Politics*, noted that since Atlanta's business and political sectors were closely connected they were able to facilitate passage of some opportunities that otherwise would have evaporated. He suggested that the Atlanta business elite, since they trusted each other and worked together smoothly, were effective at getting "strategically positioned people to act together thereby expanding its realm of allies." ⁵³ Buford Dam's construction was due, in great part, to the cooperation of political and corporate leaders in Atlanta and throughout Georgia.

However, Buford Dam would require a substantial amount of additional funding. Early cost estimates for the dam varied according to who did the estimating. When Hartsfield contacted John Steelman in the White House in 1947 to enlist his help, Hartsfield estimated the dam's cost at \$21,180,000. Since Corps officials desired to increase the amount of power that Buford would produce and post-WWII inflation had driven prices up, engineers in 1949 forecast the cost of the dam to be nearly \$35,650,621. This number more than doubled the Corps' 1946 estimate, made a mere three years earlier, of \$17,631,000. In 1950, Paul Weir stated that the Buford project was a \$42,000,000 undertaking. The estimates increased dramatically in a short

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⁵⁶ Weir to Davis, March 22, 1950, folder 1949-1950, box 205, series 13, JCDC.

⁵³ Clarence N. Stone, *Regime Politics: Governing Atlanta, 1946-1988* (Lawrence: University of Kansas Press, 1989), 4.

⁵⁴ Hartsfield to Steelman, November 12, 1947, folder 1947-1948, box 205, series 13, JCDC.

⁵⁵ See Corps of Engineers, *Definite Project Report on Buford Dam, Chattahoochee River, Georgia: Volume I, Report and Appendices I-IV* (Mobile, Alabama: Corps of Engineers, 1949), C and 37.

period of time. In the end, the dam's price tag exceeded most expectations, and swelled to \$44 million.⁵⁷

Arthur E. Morgan, an engineer himself and once head of the TVA, noted that "...on the average, the finished costs [of Corps dams] exceeded official estimates by about fifty per cent." Representative Cannon, on the House Appropriations Committee, stated that, "[the Corps] invariably underestimated the cost [of public works]....It is impossible to escape the conclusion that they either were incompetent or deliberately misleading." Regardless of whether or not Corps' estimates were deliberately misleading, appropriations for the dam could not keep pace with Corps' expenditures. In 1956, one year before Buford Dam was completed, appropriations committed by Congress only totaled \$22,981,000.

B. Initial Corps' Report

In the period 1947-1949, Atlanta elites steered Buford appropriations through Congress and their maneuvers during this period evidence a storm of activity. Thanks to the maneuverings of Georgia elites, the Corps received enough appropriations to initiate designs for Buford Dam. With the funds they had received to date, Engineers were able to prepare a Project Report in 1949 that acted as a detailed design for the dam. In this report, the Corps made several major modifications to earlier proposals. One such modification was the recommendation to construct an earth-fill dam rather than a concrete-gravity dam. Engineers determined that appropriate materials existed in the area around the dam site to use local fill for the dam. They believed that this change alone would save the Corps 61% of the original estimated cost of the dam.

⁵⁹ Ibid, 33.

⁵⁷ "Water Resources Development by the U.S. Army Corps of Engineers in Georgia" (Atlanta: U. S. Army Engineers Division, South Atlanta, 1959), folder 1, box 5, River and Harbors, B. Corps, RBRC.

⁵⁸ Arthur E. Morgan, *Dams and Other Disasters: A Century of Army Corps of Engineers in Civil Works* (Boston: Porter Sargent Publisher, 1971), 33.

Another notable difference among the engineers' opinions between 1946 and 1949 was that engineers in 1949 only lightly touched upon navigational issues. If one were not familiar with earlier reports, one would underestimate the critical role Buford Dam had previously been expected to play in downstream navigation. Despite Feringa's testimony before the Senate, engineers who prepared the Project Report in 1949 stated that the proposed "Jim Woodruff reservoir [would have] sufficient pondage to reregulate flows for navigation requirements in the Apalachicola River, regardless of peak operation at upstream plants." Engineers also noted that navigation benefits would not be able to be quantified (or recognized, for that matter) until the entire ACF navigation project was completed. Because of this, navigation benefits could not be counted at all toward the benefit-cost ratio of the project. The entire rationale behind the initial proposals for the construction of an upstream dam appears to have changed at this time as these changes signaled a significant break with earlier Corps' plans.

Perhaps because of the numerous transformations that occurred in transportation after World War II, which were detailed in an earlier chapter, engineers did not emphasize Buford Dam's capacity to impact ACF development in their 1949 reports. This was a major change in direction for Corps engineers. Engineers in 1949 indicated that Buford Dam would decrease the amount of dredging needed for downstream navigation, but, by 1949, the Corps had come to the conclusion that other dams would be available to regulate downstream flows.

It is clear that Corps engineers disagreed about Buford Dam's contribution to ACF navigation. Feringa stated before Congress that Buford Dam was absolutely imperative to navigation below Columbus and Feringa's testimony was repeated in following years when Congress was reluctant to provide funds for Buford Dam. However, between the period of 1946,

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⁶⁰ Ibid, 1-11.

⁶¹ Ibid, 45.

when the Bureau of the Budget noted that Buford Dam was a low priority, and 1949, when the Corps filed Buford Dam's Project Report, Buford Dam became essential for other reasons.

Buford Dam became essential for growth in Atlanta since the city would require a steady water supply in order to expand. By 1949, Hartsfield, Weir, and others had convinced the Corps that what the Army Engineers had previously believed was a non-issue—Atlanta's water supply—was now a serious concern for those who promoted Atlanta's growth. According to Davis, "...the principal need for Buford Dam lies in the need of Atlanta, Fulton, and DeKalb counties, for an assured, adequate water supply." At another time he stated, "The growth of Atlanta, Fulton County, and DeKalb County has reached the point... where there must be some positive assurance that in the future there will be a reliable, dependable, and unfailing water supply."

Davis reminded the public of the drought of 1925 when Chattahoochee flows were down to 132 cfs and warned, "The growth of [these areas] is directly contingent upon an unfailing, constant water supply." Hartsfield told residents in his 1950 Annual Address that "we have not been caught unaware of the importance of our future water supply. Our city has been in the forefront of the movement to control and regulate the flow of the Chattahoochee River."

Engineers learned that Georgia had neither abundant surface nor ground water and that the largest city in Georgia relied solely on the Chattahoochee River for water. At the time the 1949 report was written, the Corps concluded that,

neither system [City of Atlanta and DeKalb County] includes any large amount of storage...The water requirements of this area have increased rapidly in recent years...In view of the absolute necessity of an adequate water supply for this area

⁶² Davis to H. H. White, January 19, 1953, folder 1953-1954, box 205, series 13, JCDC.

⁶³ Davis on WGST Radio, about Spring 1950, no folder, box 205, series 13, JCDC.

⁶⁴ Ibid.

⁶⁵ Mayor William B. Hartsfield Annual Address, January 1950, folder 1, box 34, series 4, WBHP.

releases from Buford Reservoir should be provided which will be ample to meet future public water supply demands.⁶⁶

Engineers, however, trod a tenuous path when they discussed Atlanta's water issues. If they emphasized Buford's ability to provide water to Atlanta, Congress might have required Atlanta to pay for a significant portion of the dam. So, engineers minimized Atlanta's water supply issues in testimony before Congress, and instead stressed Buford Dam's ability to improve downstream navigation. Then, in official project reports, engineers described Atlanta's water woes in full detail.

The Corps needed to document Atlanta's exact water needs because it based allocations that were given to different entities on the data recorded in its official reports. Army Corps officials tracked Chattahoochee river levels in order to determine how much water they could expect the Chattahoochee to naturally bring to the drainage area and how to allocate Buford's water resources to different users. The Army Corps had stream flow information dating back to 1903 from Norcross, Georgia monitors. Strickland Bridge monitored flows since 1942 and Roswell monitored levels from 1945-1947. Engineers at the Corps decided to base allocation levels and to forecast future flows solely on the years 1929-1947. These years obviously excluded the drought years of 1924-1926. The Corps' limited sample prevented them from gaining an understanding of the Chattahoochee's flows during severe drought times such as those of the mid-1920s. Periods of drought and heavy rainfall typically go through cycles, but scientists must study many years in order to properly forecast stream flows.

David Stooksbury, the State Climatologist and Assistant Professor of Engineering and Atmospheric Sciences at University of Georgia, states that, "the period after 1956 stands out for its lack of drought. However, many major long-term...droughts are evident earlier in the

⁶⁶ Corps of Engineers (1949), 1-26.

record...on average, Georgia experiences a [major, prolonged] drought lasting three or more years about once every 40 years."68 Stooksbury notes that shorter drought periods are even more common in Georgia. It is apparent that engineers had unrealistic expectations of the Chattahoochee's flow because they based their flows on the wet years of the 1940s and not on the droughts of the mid 1920s.

It is true that the Chattahoochee's erratic flow made estimates very difficult. The floods of 1946 created a maximum discharge in the river of 55,000 cfs while low flows in 1925 resulted in 119 cfs. ⁶⁹ However, had the Corps based its estimates on a greater number of years and forecast further into the future, they probably would have more successfully allocated water and have been able to determine whether the Chattahoochee would have enough water to support expected domestic and industrial needs in times of extreme drought.⁷⁰

Buford Dam was not the first case in which Corps officials miscalculated river flows. Arthur Morgan, a well-known engineer and once director of the TVA, notes that the Corps failed to obtain reliable rainfall estimates that would impact the Mississippi's flow. He states that in the 75-year period during which the Corps managed the Mississippi River Basin, "no thorough rainfall studies had been made by the Corps."⁷¹ This failure caused the Corps to severely underestimate flood potential. Similarly, Corps engineers failed to obtain sufficient flow estimates in the Chattahoochee River Basin.

Engineers were also shortsighted when they asked the US Public Health Department to estimate Atlanta's water needs. Engineers requested current water needs and those only eleven

⁶⁸ Stooksbury, 2.

⁶⁹ Corps of Engineers (1949), 11. ⁷⁰ See chart in Corps of Engineers (1949), 1-7.

⁷¹ Morgan, 345.

years into the future for their reports.⁷² Officials based expanding water needs on population and industrial growth. And, while it is true that estimating population growth can be difficult, the Corps would have benefitted by estimating population growth further into the future—11 years into the future was simply not sufficient. The Atlanta metropolitan area would grow significantly over the next half-century and its water supply needs would multiply many times.

Atlanta's water supply was already over-burdened by mid-century. An unidentified newspaper article from 1951 stated that "The city's growth and its prosperity have outstripped capacity for [water] distribution....Some 6,000 new water connections are made every year...."

The article also noted that Atlanta's industrial needs had grown at an astounding rate. The Corps initiated construction on Buford Dam with a limited understanding of the Chattahoochee's flow and of Atlanta's future water needs.

Atlanta primarily used water for residential consumption, industrial supply, and sewage treatment. In 1948, the Atlanta Water Works used about fifty two million gallons of water per day. Water usage doubled from 1940 to 1950 and during this time the metropolitan population had increased by only twenty five percent.⁷⁴ Not only did the area attract more residents but also per capita water usage grew. However, Corps engineers believed that Buford Dam would benefit residents of Atlanta because even the city's current requirements were greater than the Chattahoochee's natural flows in dry times.

Atlanta had many difficulties during extreme low river flows. City planners were concerned that during low flows, not only would consumption and industrial supply be restricted, but sewage would need to be treated chemically. The City of Atlanta was willing to treat sewage

⁷³ Unidentified newspaper article, "Atlanta's Water and the Future," 1951, folder 1951-1952, box 205, series 13, JCDC.

⁷² Corps of Engineers, (1949), 1-17.

⁷⁴ Carter, 5. For a 35-year chart showing increase in Atlanta water usage, see Figure 1 in Corps of Engineers (1949), 1-32.

chemically occasionally, but hoped that Buford Dam would minimize the number of days that chemical treatment, a more expensive process, was necessary.⁷⁵

The City of Atlanta and DeKalb County Water Works were actually two of the Chattahoochee's most significant river polluters. Since Georgia had few major chemical industries that spilled wastes into the river, most of the pollutants stemmed from human discharge. Not only did the City of Atlanta rarely use chemicals to treat its sewage, the city only used a 'primary' treatment for sewage which allowed everything except solids to return back to the river. In fact, the City of Gainesville allowed raw sewage to flow directly into the Chattahoochee. Christopher Sellers states that between 65-75% of local pollutants returned back to the Chattahoochee River—this river was the same one that supplied drinking water to the entire Atlanta metropolitan area. Corps engineers recognized the necessity to keep Chattahoochee flows high enough for cities to treat their sewage effectively.

Army Corps officials studied Atlanta water requirements and eventually determined that 200 cfs released from the dam would provide sufficient flow for sewage treatment and water supply for the city. Leaders in Atlanta were convinced that this amount of water would be sufficient to support two million people—an almost unimaginable number in 1949. Davis boasted that, "Buford Dam will furnish an adequate and assured water supply for two million people, so we are advised by competent authorities...." Walter Dillon in the *Atlanta Lionews* wrote, "the imagination can easily envisage a city with a 2,000,000 population [and the dam will] make the valley to bloom." Dillon boasted that the dam would be "more permanent than the

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⁷⁵ Ibid, 1-27.

⁷⁶ Beaver to Russell, March 15, 1955, folder 7, box10, River and Harbors Series, C. Individual Projects, RBRC.

⁷⁷ Sellers, 38.

⁷⁸ Davis to the Daily Times, February 20, 1957, folder 1957, box 205, series 13, JCDC.

pyramids and will cost 30% more than did this ancient wonder."⁷⁹ Today, a supply for two million people, about one third of the metropolitan population of Atlanta, does not create as powerful an impression as it did in the 1940s.

Indeed, even before the dam was built there was some limited concern that the Corps had not allocated enough water for Atlanta. In its official 1949 report, engineers did not quantify the amount of water that would be needed by industry. H. H. White, an engineer from James, Leffel and Company in Atlanta, testified before the Georgia Advisory Engineering Board that Plant Atkinson required 650 cfs of water. He was concerned that "in plans for Buford the only consideration was for the municipal Water Works needs and not the needs for industry and private business." White regretted that the Corps had not promised to furnish Atlanta with at least 800 cfs of Buford water at all times, plus that needed in the future for new industries. White and others knew that Atlanta supported a relatively small number of manufacturing plants partly due to "the limited amount of water available in the area." While the Interior Department estimated that Buford Dam's minimum flows would increase from 154 cfs to 600 cfs in order to support local industry, Corps engineers gave no such assurance.

Corps engineers have almost exclusive authority to control river water allocation from federal dams. It is interesting to note that even before Buford Dam was built, urban and rural areas were required to negotiate with each other and with the Army Corps of Engineers to determine how much water each entity would receive. This loose organization, combined with

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⁷⁹ Walter Dillon, *Atlanta Lionews*, April 11, 1952, vol. 13, no. 41. It is unknown how Dillon arrived at this figure. ⁸⁰ Hearing before the Georgia Advisory Engineering Board about Buford Dam, September 18, 1953, folder 1953-1954, box 205, series 13, JCDC.

⁸¹ R. W. Carter and S. M. Herrick, "Water Resources of the Atlanta Metropolitan Area" (Washington, D. C.: United States Department of the Interior, November 1951), 4, folder 15, box40, series 5: Pamphlets and Reports, WBHC. Carter and Herrick note in their report that "When Buford Dam is completed it is anticipated that there will be enough water to supply the growing city, the power plant, and almost any type of industry that wishes to locate in the area....The improved low-flow characteristics of the river should attract many large industries to Atlanta," 19.

⁸² Ibid, 14.

stringent EPA regulations that now restrict the Corps' control, has made negotiations for water allocation even more difficult for twenty-first century residents of Georgia, Florida, and Alabama.⁸³

While water supply was one of the primary concerns of Atlanta's leaders, it was not the only benefit that engineers in 1949 expected Buford Dam to produce. Buford Dam's budding popularity also stemmed from its hydroelectric capabilities. Buford Dam was expected to produce peak electricity, which meant it would run its two main generators only during high demand hours of the day—mornings and evenings. In addition to this peak energy Buford Dam would produce, the Federal Energy Commission suggested that engineers should take advantage of the hydroelectric capacity of minimum, off-peak flows that would be released for Atlanta's water supply. Engineers could accomplish this if they added a small hydroelectric generator to the plant at Buford Dam that would run during times when the main generators were off. This small generator produced enough power to run the Corps' management sites at Buford Dam and Carter Dam.

Many individuals in and around Atlanta recognized the importance of inexpensive power.

Davis noted that "the production of necessary quantities of aluminum...is going to tax to the utmost all of the existing plants for generating electric currents...and this, together with increased need...resulting from the growth and expansion of Atlanta's residences and industries makes [Buford] imperative...."85 Governor Talmadge agreed with Davis and stated that "Hydro

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⁸³ For a basic understanding of the Corps' organization of Buford Dam, see the organizational chart of Corps of Engineers (1949), 48.

⁸⁴ Ibid, 1-19

⁸⁵ Davis to Cooper, no date, folder 1947-1948, box 205, series 13, JCDC.

electric projects... [are] essential to promote commerce, economics, agriculture, health and recreation."86

Hartsfield was concerned that Atlanta would soon need vast pools of electricity to support its burgeoning defense industry. He sought to ensure that there was enough power to guarantee Atlanta's future commercial primacy in the Southeast and Atlanta's ability to contribute to America's domination during the Cold War. He wrote Davis, "As you know, the power situation in the Southeast is very tight and especially in view of the new defense plants being proposed in this section." Hartsfield emphasized the South's defense production capacity and its unique geographic location when he stated, "Failure to build Buford Dam would reduce the capacity of this great southeastern section of ours to participate fully in any defense effort of the Nation, and it may well be that our section will be the arsenal of defense, while the great industrial areas of the Northwest and East may be under direct aerial attack."

Frank Shaw, of the Atlanta Chamber of Commerce, agreed that Atlanta's budding industrial community would require a sufficient infusion of power. He testified before the Civil Functions Subcommittee as to the amount of commercial growth that Atlanta had recently experienced and as to its need for power.

Since WWII, 11,138,000 ft² of new manufacturing and distribution warehouse space have been constructed. This represents a capital investment of \$100,000,000 in facilities for the manufacture and distribution of goods....In addition, 57 other firms have committed themselves to construct an additional 4,445,000 ft² of buildings within the next two years, which represents an added investment of \$40,000,000.⁸⁹

⁸⁶ Talmadge to Davis, October 9, 1951, folder 1951-1952, box 205, series 13, JCDC.

⁸⁷ Hartsfield to Davis, January 23, 1951, folder 1949-1950, box 205, series 13, JCDC.

⁸⁸ Remarks by Hartsfield before the Upper Chattahoochee Development Association, Second Annual Meeting, Gainesville, GA, June 27, 1951, folder 1951-1952, box 205, series 13, JCDC.

⁸⁹ Statement of Frank K. Shaw, Industrial Engineer of the Atlanta Chamber of Commerce, made to the Civil Functions Subcommittee of the House appropriations Committee on February 16, 1954, folder 1955, box 205, series 13, JCDC.

Army Corps engineers and other concerned individuals craved the power Buford Dam would produce during peak periods and the significant economic benefit Buford Dam would create for downstream federal and private power plants. Engineers expected Buford Dam to produce a total of about \$1.8 million in electricity per year. In addition, if federal engineers regulated the Chattahoochee's flow by building Buford Dam, the federally-owned and managed Jim Woodruff Dam would experience a benefit of \$103,000 annually in additional energy production. Georgia Power would also realize just under \$500,000 per year in additional revenues if the North Georgia dam were built (in 2008 dollars, this amount would equal about four million dollars). If these same Georgia Power plants were modified slightly to take advantage of more regular river flows, as at least one plant had already been prepared to do, Georgia Power would realize significant annual benefits. With an initial expenditure of around five million dollars, Georgia Power could expect an increase in hydroelectric production of just under one million dollars per year. See the power of the powe

The Army Corps of Engineers and Georgia Power communicated during the planning stages of dam construction. Corps engineers mentioned that a meeting took place between Corps officials and Georgia Power executives on August 23, 1949, but that Georgia Power "could not at this time make a statement concerning the probability of modifying the plants" in order to capture more benefits from the regulated Chattahoochee flow. ⁹³

⁹⁰While hydroelectric benefits of the dam are significant, it is important to note that the power plant at Buford Dam is 1/3 of the cost of the entire project.

⁹¹In a booklet published by the Corps in 1959, officials measured Buford actual production at \$1.2 million per year for the first three years on Buford's existence. See, "Water Resources Development by the U. S. Army Corps of Engineers in Georgia" (Atlanta: U. S. Army Engineers Division, South Atlanta, January 1, 1959). See also Corps of Engineers (1949), 1-16. For details on modifications on Georgia Plants, see pages 113 through 45.

⁹² See Tables 10 and 11 in Corps of Engineers (1949), 1-16. For details on modifications on Georgia Plants, see pages 1-13 through 1-15.

⁹³ Corps of Engineers (1949), 1-13. A Corps report written in 1959 states that "the Corps of Engineers will operate

⁹³ Corps of Engineers (1949), 1-13. A Corps report written in 1959 states that "the Corps of Engineers will operate the Buford power plant as scheduled by the Georgia Power Company under terms of a contract negotiated and administered by the Southeastern Power Administration. The entire output of the plant, except that needed for

While Georgia Power typically viewed federal plants as competitors, Georgia Power officials probably had conflicting opinions about the dam because Buford Dam would regulate river flows and thereby increase Georgia Power production. Harlie Branch, President of Georgia Power, announced, "it will be the policy of Georgia Power Company not to oppose any water power development that is not of a nature to justify by private capital." Since private utility companies could not rely on federal grants to support large dam construction that had a very long payoff, huge investments like Buford Dam would have been unthinkable for a private company like Georgia Power to consider.

Individuals in Georgia disagreed about how Buford Dam's power should be distributed. Some believed that Georgia Power should be allowed to market Buford Dam's power. Georgia resident John Partridge warned that "...we should stand guard against creeping socialism" that follows public development of utilities. ⁹⁶ Mills Lane, president of Citizens and Southern National Bank, wrote Davis that he hoped Georgia Power would be allowed to distribute the electricity produced at the dam. ⁹⁷ Hartsfield wanted Buford Dam's power to be sold in the "old Free Enterprise way, with the Government selling whatever power may be generated to our own private power companies." ⁹⁸

However, many felt that the power produced at federal facilities should be sold by

Southeastern Power Authority (SEPA) at a reduced price to preferred customers. J. R. Chambliss

of the Georgia Electric Membership Corporation believed that the government should prohibit

station service, will be delivered to the company...most of this power [is delivered to] certain preference customers of the government." Army Corps of Engineers (1959), B-13.

⁹⁴ A history of the Atlanta Freight Bureau states that Georgia Power initially opposed development of the Chattahoochee until Charlie Brown of the Bureau, "went to see Mr. Arkwright, President of Georgia Power, and converted him." Welch, 88.

⁹⁵ Austin to Davis, October 11, 1949, folder 1949-1950, box 205, series 13, JCDC.

⁹⁶ Partridge to Davis, June 25, 1956, folder 10, box 216, JCDC.

⁹⁷ Mills Lane to Davis, October 12, 1949, folder 1949-1950, box 205, series 13, JCDC.

⁹⁸ Remarks by Hartsfield before the Upper Chattahoochee Development Association, Second Annual Meeting, Gainesville, GA, June 27, 1951, folder 1951-1952, box 205, series 13, JCDC.

private utilities from purchasing electricity produced at publicly-funded facilities. He cautioned, "the ones who supported [the Flood Control Act and the Preference Clause] envisioned the day when Private Utilities, in...selfishness and greed, would move in to gain control and monopolize the Great Hydro Projects....history shows they were good prophets."

Section five of the Flood Control Act of 1944 gave SEPA and other public organizations authority to market the power produced at publically-owned facilities. A. L. Miller, the chairman of the House Committee on Interior and Insular Affairs, notified Davis that the Flood Control Act controlled disbursal of energy. He also notified Davis of the Reclamation Project Act of 1939 which stated, "...preferences shall be given to municipalities and other public corporations or agencies, and also cooperatives and other nonprofit organizations financed in whole or in part by loans made pursuant to the Rural Electrification Act of 1936...." While government officials determined that SEPA would market Buford Dam's electricity, C. B. McManus, president of the Southern Company, requested that his company be allowed to move the power produced at Buford Dam on its lines for a nominal fee. His request was allowed and the Southern Company distributes the power produced by Buford Dam even today.

Once again, in 1949 Corps engineers reversed their 1936 expectations of a North Georgia dam and redefined Buford's primary purposes. In 1949, they stated that Buford's foremost strengths would be electrical power production and flood control. Whereas flood control was discussed at great length in the Corps' 1946 report and a Corps report on Buford Dam written in 1959 stated that, regardless of previous opinions, the "primary purpose of the [Buford] project is

⁹⁹ Statement of J. R. Chambless, June 18, 1953, folder 19, box 65, series V, Ralph Emerson McGill papers, Manuscript, Archives, and Rare Book Library, Emory University.

¹⁰⁰ Miller to Davis, March 9, 1953, folder 1953-1954, box 205, series 13, JCDC.

¹⁰¹ This process is called wheeling. See Statement of C. B. McManus, President of the Southern Company, July 31, 1950, folder 1949-1950, box 205, series 13, JCDC. In 1957, J. J. McDonough of Georgia Power contracted with SEPA to move power produced at Allatoona, Buford, and Clark Hill for \$65,000 per month. See J. J. McDonough to Davis, November 4, 1957, folder 1957, box 205, series 13, JCDC. The Southern Company is the parent company of Georgia Power.

flood control," engineers only lightly touched upon flood control in the 1949 reports. ¹⁰² The Corps' lack of emphasis on Buford's capacity to control floods, as compared to earlier documents, is surprising due to the fact that Georgia experienced serious flooding in 1948. ¹⁰³ In 1947, Hartsfield wrote Lt. General Wheeler that the dam was necessary to prevent flooding. ¹⁰⁴ Feringa, in his testimony before the Senate Appropriations Subcommittee, stated that Buford was the only dam in the ACF system that provided for flood control.

Perhaps one of the primary reasons that engineers in 1949 did not stress Buford's capacity to control floods was that with further study, engineers determined that Buford would contain floods on the Chattahoochee immediately below the dam, but Buford would only minimally affect flooding further downstream. It is important to note that one of the North Georgia dam's initial primary purposes was to protect the West Point area from severe floods. As engineers in 1945 expected Buford to significantly decrease downstream flooding, the results of testing that they had completed by 1949 must have disappointed Corps officials. ¹⁰⁵ In fact, while engineers reported that Buford Dam would decrease flooding directly below the dam, engineers stated that Buford Dam, "would have... no effect in reducing the peak stage of the maximum flood of record" in West Point. ¹⁰⁶

In 1949, engineers determined to take a different approach to flood control and modified their previous flood control policies regarding the West Point area. They reported that if no dam were built, but instead if West Point residents changed their land use patterns, they could realize about 75% of flood control benefits. In contrast, engineers hoped that, at best, Buford Dam

¹⁰² Army Corps of Engineers (1959), 29.

¹⁰³ See "Flood Damage Here to Hit High Figure," Atlanta Journal, November 29, 1948, Vol. LXVI, No. 280.

¹⁰⁴ Hartsfield to Wheeler, May 31, 1947, no folder, box 205, series 13, JCDC.

¹⁰⁵ Ibid, 14.

¹⁰⁶ Ibid, 14, 42. In 1959, Corps engineers estimated that in the 1957 floods, Buford saved Roswell residents about \$191,000, upper valley residents \$182,000, and West Point residents about \$9,000. See "Water Resources Development," 1959.

would affect only a modest 25% reduction in flooding in that area. ¹⁰⁷ It is interesting to note that in earlier reports, engineers did not even suggest that asking residents to change their land use patterns in order to minimize flood damages was an option. Instead they had relied on a North Georgia storage reservoir to prevent floodwaters from flowing downstream. And at that time, flood control benefits were counted as one of the primary economic benefits of Buford Dam.

Army Corps officials only briefly discussed the recreational advantages of Buford Dam in 1949. Corps engineers believed that residents of Georgia would benefit from the recreational aspects of the reservoir behind Buford Dam, soon to be named Lake Sydney Lanier. Sylvan Meyer, Vice-President of Hall County Upper Chattahoochee Development Association and editor of the *Gainesville Daily Times*, noted that "recreation was the value reservoir counties received in exchange for the pangs of inundation and displacement." Corps engineers proposed various sites to develop recreational facilities and recommended that these areas be constructed with federal funds. Hartsfield anxiously anticipated the recreational benefits that Buford Dam would bring and requested Corps engineers to bring the dam as close to Atlanta as possible. 110

It is interesting to note that today Lake Lanier is considered by the Army Corps of Engineers as "one of America's favorite lakes and the most visited project of the Corps of Engineers." Lake Lanier receives over 7.5 million visitors annually. In fact, Corps-managed Lake Lanier won the best operated lake of the year in 1990, 1997, and 2002. 111 Many may be

¹⁰⁷ Corps of Engineers (1949), 1-11.

Gainesville Daily Times, no date, folder 8, box10, series XI, RBRC.

¹⁰⁹ "Section 4 of the Flood Control Act approved 22 December 1944 as amended by section 4 of the Flood Control Act approved 24 July 1946 (Public Law 526, 79th Congress) authorizes construction, maintenance, and operation of public parks and recreational facilities in reservoir areas under control of the War Department (now Dept of Army)" Corps of Engineers (1949), 25.

¹¹⁰ See Hartsfield to Colonel Gilette, August 30, 1947, and Hartsfield to Shaw, October 16, 1947, both in folder 1947-1948, box 205, series 13, JCDC.

^{111 &}quot;Lake Lanier FAQ", no date, http://www.lake-lanier.net:80/Lake-Lanier-FAW.php (12 February 2008).

surprised at the Corps' apparent success in managing Lake Lanier because of all-time low lake levels during the 2007 drought and Georgia residents' considerable dissatisfaction with recent Corps' recent management of lake levels. It is important to be aware, however, that even when Lanier was first filled, engineers expected wide variation in lake levels. In 1959, shortly after Buford Dam had been completed, Brigadier General J. L. Person stated, "The lake level of Lake Sidney Lanier under normal conditions is regulated to hold the pool elevation 1070 from May through August, to draw down the pool from elevation 1070 to 1050 by the end of December and to refill the pool...by the end of April." He noted that the elevation could drop below 1050 "during periods of extreme drought." Person emphasized that, "While recreational benefits are important, they are incidental to the primary purposes for which Buford Dam was authorized and is being operated." Many lake users today feel that Lake Lanier's recreational aspects are more than incidental and hundreds of boats docked and homes built around Lake Lanier currently testify to Buford Dam's popularity with recreational users.

In essence, Corps expectations of Buford Dam changed dramatically between 1936 and 1949, when the dam was actually designed. Two of the primary objectives that engineers in the 1930s expected Buford Dam to fulfill, navigational improvements and downstream flood control, appeared to be of minimal consequence in 1949—a notable contrast. And one objective that Buford was not initially expected to fulfill, supplying water to parched Atlanta, had captured center stage.

C. The Environmental Impact of Buford Dam

While few involved in the construction of Buford Dam expressed concern about the dam's effect on the surrounding ecosystem, Corps engineers did ask the U.S. Fish and Wildlife

¹¹² Person to Russell, January 23, 1959, folder 5, box 10, River and Harbors Series, A. Correspondence, RBRC.

Service and the U.S. Public Health Service to provide input on the environmental impact of the dam when it was first designed. However, rather than indicate changes that the dam would have on the surrounding ecosystem, the U.S. Fish and Wildlife Service primarily presented the economic benefits of the project. The report found that, "the net annual gain to fish and wildlife resources...would be about \$196,800...." and that it would recognize an additional \$36,350 if engineers maintained certain guidelines.

It is interesting to note that the Fish and Wildlife Service failed to point out some of the serious effects that dramatic changes in water flow and water temperature could have on the surrounding ecosystem. Even the attorney general of Georgia, Eugene Cook, understood that Buford Dam could have a serious impact on nearby wildlife. He stated, "The intermittent release of water from Buford Dam has an adverse effect on fish...in the Chattahoochee Valley....The basic...problem is caused by the mode of operation of Buford Dam by the Corps of Engineers. However, the Fish and Wildlife Service seemed unconcerned about the problem and appeared to be resigned to use hatcheries to resupply the Chattahoochee in the event that fish populations were destroyed by the dam's operation. 115

Joseph Taylor, in *Making Salmon*, discusses the ignorance and willful disregard of nature's limits that existed in Fish and Wildlife divisions around the country at that time. ¹¹⁶
Although hatcheries were never proven to be able to maintain healthy fish populations in the country's rivers, the Fish and Wildlife service invested millions of dollars in hatcheries, and rarely investigated whether or not hatcheries were actually effective at reestablishing healthy fish

¹¹³ Corps of Engineers (1949), 26 and 46.

¹¹⁴ Cook to Vandiver, October 14, 1959, folder 1947-1948, box 205, series 13, JCDC.

¹¹⁵ Corps of Engineers (1949), 26.

¹¹⁶ Joseph E. Taylor, III, *Making Salmon: An Environmental History of the Northwest Fisheries Crisis* (Seattle: University of Washington Press, 1999). See also, Steinberg, 204.

populations. Fish and Wildlife officials did not value indigenous fish species over stocked trout and bass.

Fish and Wildlife officials registered some limited environmental concerns when Buford Dam was designed. They requested that timber be cut from areas that would be covered by the new reservoir. Perhaps Fish and Wildlife officials understood that trees that were left in the ground when a reservoir was filled could produce large amounts of the greenhouse gas, CO₂. If engineers were to cut these trees before they allowed the reservoir to fill, they would significantly decrease greenhouse gases produced by the reservoir. 117 Fish and Wildlife officials also suggested that Corps engineers should build fish shelters, manage wildlife and soil erosion, and provide public access to the project area. 118

The Fish and Wildlife Service requested that Chattahoochee water levels be kept above 400 cfs (although they did not state why they requested this level) and asked that the water temperature released from the dam be above 65 degrees during the summer. Water released from dams comes from near the bottom of the reservoir and is typically very cold. Currently, water released from Buford Dam is much colder than 65 degrees, even in the summer. During 2004, Buford Dam release temperatures averaged between 45 and 52 degrees. ¹¹⁹ These low temperatures prevent some native fish species from reproducing and for a few species the temperature is even too cold to survive. 120

Some Corps engineers see this modification in water temperature as a positive change because hatchery-raised trout prefer to breed in cold temperatures and trout are a popular sport

¹¹⁷ See McCully, 38.

¹¹⁸ Corps of Engineers (1949), 26.

Even in the summer months, the highest temperature recorded was 59 degrees, and it is very possible that that temperature was recorded in error since the next warmest recording was 55 degrees. Temperature readings taken from USGS, "Apalachicola River Basin, 2004 Water Year," no date,

http://ga2.er.usgs.gov/LibAreportPDF/2004/ContinuousQW/spcqw02334430.pdf, (September 8, 2008). 120 Steinberg, 167.

fish.¹²¹ E. C. Itschner, Brigadier General and the Assistant Chief of Engineers stated, "We are very much interested in the substantial public benefits derived from the fishery resources created by our large reservoirs in the State of Georgia and I assure you that we shall continue our cooperation with the fishery interests toward realizing those benefits from Buford Dam and Reservoir project." Most leaders were unconcerned whether the fish available for catching were native or hatchery-raised as long as anglers were satisfied.

Lieutenant General Walter K. Wilson, Jr., the district engineer over the Buford Project, also requested that the U.S. Public Health Service provide him with information on the environmental effects of the dam. Notably, Corps officials expressed concern over the pollution that was pouring into the Chattahoochee from the City of Gainesville sewage plant. Since the proposed reservoir would flood the Gainesville plant, engineers from the Corps proposed that the government support construction of a new plant that included primary sewage treatment. 123

Public Health officials were not only concerned about river pollution, but also wanted steps to be taken to control malaria in the project area. They requested that timber be cut down to 1,070 feet above sea level in the area to be flooded in order to inhibit mosquito proliferation and that the area be protected by "spraying annually with DDT or other effective residual spray in lieu of larviciding." Is a specific property of the project area.

Malaria was a particular concern to southern health officials in the 1940s. In fact, the Center for Disease Control was established on July 1, 1946 in Atlanta in order to control communicable diseases and to eradicate malaria-carrying mosquitoes. Malaria still struck

¹²¹ Discussion with Cecil Quinley, March 6, 2008.

¹²² Itschner to Russell, September 28, 1955, folder 7, box 10, River and Harbors Series, C. Individual Projects, RBRC.

¹²³ Corps of Engineers (1949), 30.

¹²⁴ Ibid, 43.

¹²⁵ Ibid, 43.

hundreds of Georgians even in the 1940s.¹²⁶ Histories of the Center note that the "pursuit of malaria was by far the most absorbing interest of the CDC during its early years, with over 50 percent of its personnel engaged in it."¹²⁷

The CDC primarily used DDT to eradicate mosquito populations in threatened regions.

Today, we know that DDT presented nearly as many health hazards as the malaria it attempted to control, but in the late 1940s, malaria was a serious problem and DDT seemed to be the answer.

Researchers in Georgia thought they had proved DDT harmless when, "Division Chief Wayland Hayes, Jr., fed DDT to fifty one 'volunteers' from the Atlanta Penitentiary, without noticeable ill effects." Regardless of the health dangers DDT presented, it was thanks in large part to the Center for Disease Control's use of the chemical that the United States was officially declared "free of malaria as a significant health problem" in 1949. 129

Although they stated concerns about sewage and malaria, Public Health officials offered no insight as to the environmental hazards of the dam itself. Overall, the reports from both the Fish and Wildlife Service and the Public Health Service emphasized the economic benefits of Buford Dam rather than the environmental impact of such a large structure.

Another type of impact of the dam that engineers focused on in 1949 was the local infrastructure that would need to be modified. Corps engineers mentioned that water, sewage, railway, telephone, telegraph, and power lines and roads would need to be moved at the government's expense when the dam was built. Some individuals requested that Buford Dam be built as a much smaller dam in order to avoid drowning roads and bridges and causing the

127 See Office of Enterprise Communication, "Center for Disease Control and Prevention: Our Story", 02 March
 2007, http://www.cdc.gov/about/history/ourstory.htm, 16 May 2008.
 128 Sellers, 41.

¹²⁶ Sellers, 36.

¹²⁹ See, CDC Office of Enterprise Communication, "60 Years of Accomplishments", 08 August 2006, http://www.cdc.gov/about/history/60th.htm, 16 May 2008.

¹³⁰ Corps of Engineers (1949), 28.

country to "suffer millions of dollars damage."¹³¹ H. H. White, an engineer in Atlanta, asked Russell to "...forget the glamour and sales phrases and get down to economy...." He hoped the senator would convert Buford Dam to a much smaller, run-of-river dam. White noted, "30% of the costs of these very large reservoir plants is for the cost of the land to create [them]" and suggested that a series of run-of-river dams could produce the same amount of electricity for less money. ¹³² Georgia resident Walter Shaffer seemed disgusted that Davis and Russell were proud of their ability to get appropriations from Congress. He stated, "Since GA Power Co, wanted to, and would have built the Clark Hill dam for nothing, and Buford Dam will cost 42 MILLIONS [sic], I fail to see what you gentlemen are so pleased about. This is my money you are spending so blithely and I think it quite unnecessary..."¹³³

Despite the opposition, Army Corps officials pressed on, and in official documents they discussed only some of the minor effects of dam construction. One major impact that is not mentioned at all in official reports prior to the construction of Buford Dam is the great number of people who would be affected when thousands of acres of property were flooded to form Lake Lanier. While engineers included cost estimates for land that would need to be purchased, they did not even mention the people who would need to be relocated and the difficulties that would surround this action. Jacques Leslie, in *Deep Water*, discusses the trauma that befalls communities when they are forcibly uprooted from their homes due to dam construction and sent to live in other places. Leslie notes that the poor and those without power in government are frequently left without any home when reservoirs are filled. Leslie discusses the tragic impact

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¹³¹ Newton to Russell, May 11, 1949, folder 8, box10, River and Harbors Series, C. Individual Projects, RBRC.

¹³² White to Russell, February 13, 1947, folder 4, box 2, River and Harbors Series, A. Correspondence, RBRC. ¹³³ Shaffer to Davis, October 8, 1949, folder 1949-1950, box 205, series 13, JCDC. Shaffer's estimate of Buford's cost was actually one of the most accurate at this early date. Note that these few examples are not representative of the vast majority of letters in the Hartsfield, Davis, and Russell collections. Most express satisfaction with plans for the dam and appreciation to those working towards its construction.

that the construction of Sardar Sarovar Dam is causing in India and states that the dam "will force many tribal people out of the forest entirely. The presumably luckier ones will receive infertile lowland plots; the others will end up on city streets...."

Army Corps officials showed no sympathy or concern for those who would soon find their lives shattered by the water that would consume their homes and property. Corps officials knew that they would need to purchase numerous tracts of land (a total of about 62,000 acres) from private owners and they noted that over \$13 million dollars (one third of the entire forecast cost of Buford Dam) would stem from land purchases. Engineers purchased many private homes, outbuildings, and businesses. Robert Coughlin, in *Lake Sidney Lanier*, includes a list of 109 pages of all those who lost their land for the future reservoir. ¹³⁶

Those who supported Buford Dam believed the benefits of the dam were worth the cost of fractured communities and modified ecosystems. But, in reality, what would Buford actually provide—improved navigation or flood control for downstream users? Engineers no longer relied on Buford Dam to provide either of these benefits. Instead, Atlanta leaders transformed the Corps' plans for Buford Dam in the late 1940s when they became involved in the fight for Buford funds. At that time, leaders realized that Buford Dam was essential for Atlanta growth and development. While the dam would supply those in and around Atlanta with additional power and recreation, Atlanta leaders knew that Buford Dam was crucial to Atlanta's progress because it would supply the city with sufficient water reserves to support growth into the foreseeable future. Due to complex political maneuvers at the time, Buford Dam, in 1949, became Atlanta's sole water supply and in this way, Buford Dam became Atlanta's dam.

¹³⁴ Leslie, 14.

The total expected cost in 1949 was \$35,650,621. See, Corps of Engineers (1949), C.

¹³⁶ See Coughlin, Appendix. Also, see Corps of Engineers (1949), A.

CONCLUSION

Buford Dam means as much to the metropolitan area of Atlanta as any one thing which has occurred since the building of the $W \& A Railroad^{I}$

Well-known Atlantans and representatives from the Army Corps of Engineers broke ground for Buford Dam on March 1, 1950. Mayor Hartsfield was the Chairman of the Groundbreaking Committee and Paul Weir (City of Atlanta Water Works), Eugene Hart (Atlanta Freight Bureau), and C. B. McManus (Southern Company) were on his committee. It seemed that only Representative James C. Davis was absent. After the groundbreaking, Davis and Russell continued to seek appropriations through 1957. During these years, Congress was more generous with contributions for the dam.

Gradually, Atlanta elites became less involved in the process of petitioning for rivers and harbors funds. Several, however, still attended the Civil Functions Subcommittee meeting on January 25th, 1950.⁴ Davis continued to feel overwhelming support for the dam and in one two-week time period received over twenty-five written requests imploring him to continue his battle for funds.⁵ John M. Cooper was still involved with Conference members and noted that in March, Representative Albert Engels, "stood by his promise to me and…lined up with Dick Russell so as to be a big help in getting the agreement."

¹ Quote by James C. Davis, Davis to the Daily Times, February 20, 1957, folder 1957, box 205, series 13, JCDC.

² Hartsfield to Davis, February 21, 1950, folder 1949-1950, box 205, series 13, JCDC.

³ Davis opted to remain in Washington and monitor the current crisis—a coal strike—instead of attending the ceremony. Davis to Cooper, March 29, 1950, folder 1949-1950, box 205, series 13, JCDC.

⁴ Davis to Hartsfield, January 21, 1950, folder 1949-1950, box 205, series 13, JCDC.

⁵ See Lively to Davis and other requests, March 31, 1950, folder 1949-1950, box 205, series, JCDC.

⁶ Cooper to Davis, March 24, 1950, folder 1949-1950, box 205, series 13, JCDC.

Table 2. Buford Dam Appropriations by Year⁷

	Appropriated	Budget	House	Senate	Conference
	to Date	Estimate	Allowance	Allowance	Allowance
	Not discussed				
	in House or				
	Senate Hearing				
1947	or Reports				
1948	0	250,000	0	250,000	250,000
1949	250,000	67,000	0	1,000,000	400,000
1950	650,000	0	0	2,260,000	750,000
1951 -					
Construction					
starts	1,400,000	1,000,000	400,000	900,000	900,000
1952	2,300,000	900,000	0	900,000	900,000
1953	3,200,000	3,000,000	3,000,000	3,000,000	3,000,000
1954	6,181,000	8,500,000	5,000,000	8,000,000	7,500,000
1955	13,681,000	5,800,000	5,800,000	9,500,000	9,300,000
1956	22,981,000	11,830,000	11,830,000	11,830,000	11,830,000
1957	34,811,000	4,553,000	4,553,000	4,553,000	4,553,000

In 1951, Davis did not enlist the aid of the Atlanta elite as he had in prior years. In September, he noted that he was already "in close touch with the Conference Committee members, and [felt] optimistic about the appropriation."8 While he was frustrated with the small "driblets" that the Conference Committee seemed to budget for the dam, Davis notified Cooper that he believed he was successfully managing relationships with the Civil Functions Subcommittee and the Army Corps of Engineers. He felt that it was not "wise...to stir up the matter...[or] to appear too eager." He did not want to "create the impression that we feel we are in a bad position on Buford Dam" and he believed it was no longer necessary to send large

 ⁷ Graphic from Russell papers, folder 9, box 10, River and Harbors Series C. Individual Projects, RBRC.
 ⁸ Davis to Edwards, September 25, 1951, folder 1951-1952, box 205, series 13, JCDC.

delegations from Atlanta to Washington when the Buford bill was being debated. And, while Davis was willing to have Georgia Republicans, who were few in number, intercede with Chairman Taber or Representative Halleck of the Appropriations Committee, he wrote Caughey Culpepper, the general manager of the Atlanta Freight Bureau, I do not feel that any effective results would be accomplished by writing or talking to members of the Conference Committee. I am in touch with them myself....

Davis frequently reminded the public of his accomplishments. He stated that, "Each year of my service I have earnestly worked on Buford Dam, and each year, I have obtained an appropriation for the necessary money." In 1957, prior to Buford's dedication he stated, "No appropriations had been made for Buford Dam when I first came to Congress in January, 1947....I believe that Buford Dam means as much to the metropolitan area of Atlanta as any one thing which has occurred since the building of the W & A Railroad."

Neither did Hartsfield allow the public to forget his role in the building of Buford Dam. Tom Camp, an Atlanta judge, remembered Hartsfield saying, "Every time I need a little publicity, [I] stir up Buford Dam!" In classic Hartsfield style he stated, "whenever we give thanks for Buford Dam, tell them to remember old Hartsfield, who made the first request and bank rolled the pressure on Washington for two or three years out of his little account until it emerged as a big project...." 14

As evidence that Buford Dam remained significant to Hartsfield, the Upper Chattahoochee Development Association threw his 67th birthday party at the Dixie Ballroom at

Davis to Cooper, February 13, 1953, folder 1953-1954, box 205, series 13, JCDC.
 Davis to Culpepper, June 3, 1954, folder 1953-1954, box 205, series 13, JCDC.

¹¹ WSB interview of James C. Davis, August 17, 1948, Georgia State University, Atlanta.

¹² Davis to the Daily Times, February 20, 1957, folder 1957, box 205, series 13, JCDC.

¹³ Tom Camp, interviewed by Clifford Kuhn, December 6, 1993, in possession of Georgia State University, Special Collections and Archives, Atlanta.

¹⁴ Hartsfield to Ed Hughes, November 3, 1961, folder 18, box 29, series III-7, HWBP.

the Henry Grady Hotel on March 1, 1957, the seventh anniversary of the Buford Dam ground breaking ceremonies. At the party, Lewis Cooper, president of the association, stated, "This dinner is in honor of Mayor...Hartsfield...and is a token of our sincere appreciation for his efforts in the development of Buford Dam...." In fact, J. J. Baggett, of Baggett Motor Company, suggested that since, "Bill Hartsfield has probably done more towards getting this dam than anyone else except the Congressmen and the Senators....I think it would be very appropriate to name this the Bill Hartsfield Dam."

Russell was also proud of his involvement in the project. He noted, "For twenty-five years, I have served on the sub-committee on appropriations which provides the funds for all such projects. I have not only acquired a liberal education in the water problems of the Nation, but I have been at a point of vantage where I could contribute to the development of great projects vital to our State." ¹⁷

Governor Talmadge verbalized sectional rivalry and celebrated the massive new resource that was Buford Dam. He stated.

We are now attaining a position where we can cash in on the vast natural resources found within our boundaries...a vast lake will emerge...that will give recreation and playgrounds for millions of our people. A lake that will vastly increase the stability and the security of water supplies of those teeming cities which lie nearby....We are creating here industrial centers and manufacturing districts which rank well with similar activities in the ...East and...Middle West....Unfortunately, Georgia and the South have been passed-up in several of the big industrial revolutions....We can see the tremendous contribution [these great dams] are making to the advancement of our people in commerce, manufacturing and in general development. 18

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¹⁵ Lewis Cooper to Paul Weir, February 15, 1957, folder 20, box 29, series III-7, HWBP.

¹⁶ Baggett to Russell, April 23, 1954, folder 8, box10, River and Harbors Series, C. Individual Projects, RBRC. Clyde A. Boynton, of the Sons of Confederate Veterans, offered a more sober recommendation, "To give the name of the poet who wrote the beautiful, 'Song of the Chattahoochee' to a lake formed by this river, seems to us to be a fitting memorial to Georgia's Sidney Lanier." See Boynton to Russell, May 3, 1954, folder 8, box 10, River and Harbors Series, C. Individual Projects, RBRC.

¹⁷ Remarks of Senator Russell at the dedication of Buford Dam, October 9, 1957. Folder 3, box 26, Speech/Media, A. Series, Speech. 1. Speeches by RBR, 1933-1969, RBRC.

¹⁸ The Statesman, March 2, 1950, Hapeville, GA, Vol. 18, no 9.

Georgia successfully relied on the federal government to help jump-start its economy and the Corps' Buford project was a pivotal piece in the government's machinery. The Corps' dams in Georgia ensured sufficient water for cities, employed hundreds during their construction, and provided power, recreation, and improved navigation for the surrounding areas. Many southerners wished that the government would stay out of Georgia's issues, but even Russell, who was typically an avid states-rights supporter, particularly when civil rights were concerned, welcomed federal involvement if that involvement spurred growth in his state. He noted, "...I am an ardent defender of the rights of individual states. However, the gigantic power and flood controls projects such as Buford Dam are constructed entirely with Federal funds...in an effort to see that the benefits which accrue therefrom are widely and equitably distributed...."

Mayor Hartsfield closed the valves on Buford Dam in February, 1956 and Lake Lanier began to fill. Russell's words at Buford Dam's dedication on October 9, 1957, ring true even today. He stated, "The greatest need of our modern civilization and our expanding economy is adequate supplies of water and its proper use. Water has become so important in our everyday life that the future progress of any area will be measured by the development, conservation and proper use of its water supplies." Russell emphasized that in the early 1900s, about 85 million Americans used about 450 gallons of water per day. In 1957, about 170 million people used nearly 1,500 gallons per day. The increase in water use was astonishing and this information was a wakeup call to Georgia's leaders. Russell believed Lake Lanier would be sufficient to support the area's increasing needs and optimistically reported that Buford Dam assured "a supply of water that will match the great expansion of our Capital City of Atlanta of which all Georgians

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¹⁹ Russell to Felix deGolian, Jr., April 2, 1948, folder 5, box 10, series XI, River and Harbors, C. Individual Projects, RBRC.

²⁰ Gainesville Daily Times, February 1956, folder 4, box 43, series 4, WBHC.

are proud."²¹ Has Russell's assumption proved true or has Atlanta's growth outpaced its aquatic resources? Davis proposed that, "Atlanta is the hub of the Southeast. Its growth has been steady since it began to rise from the ashes when it was burned by Sherman's Army."²² Atlanta is still growing by leaps and bounds today, but its water supply remains the same.

Many wonder if Buford Dam can continue to support Atlanta's growth as residents consume increasingly greater amounts of water per day. Perhaps Russell gave good council during Buford's dedication when he suggested that Georgians should "study how many times and for how many purposes we can use the same water. We must reduce to a minimum the waste of one of the greatest assets of our state...Our future destiny is in our hands."²³

Paul Weir also understood that Buford Dam's construction was pivotal to Atlanta's future growth. In 1969, he wrote Hartsfield, "I remember the many hours of hard labor that you contributed toward this project. Had it not been for your determination and continued interest in the development of one of Georgia's great remaining natural resources, we would all be short of water today."24 Today, we are short of water. It is critical that Georgia residents understand their options: we must either find ways to increase the amount of water that is available to metropolitan Atlanta or alternatively increase our conservation efforts and withdraw less of the Chattahoochee's flow.

At the dedication of Buford Dam, the country witnessed the heavy hand that the City of Atlanta held over the ACF. Davis told Weir that he noticed that the "first bucket of water drawn from the lake was presented to you....I hope it will be possible for you to preserve this water for

²¹ Remarks of Senator Richard B. Russell at the Dedication of Buford Dam, October 9, 1957, folder 3, box 26, series

²² Davis presentation on WGST Radio, recorded about Spring 1950, no folder, box 205, series 13, JCDC.

²³ Remarks of Senator Russell at the dedication of Buford Dam, October 9, 1957. Folder 3, box 26, Speech/Media, A. Series, Speech. 1. Speeches by RBR, 1933-1969, RBRC. ²⁴ Weir to Hartsfield, June 30, 1969, folder 19, box 29, series III-7, Miscellaneous subject, 1937-1970, WBHP.

your posterity."²⁵ How can Georgians preserve the Chattahoochee's water for future generations? Atlanta seized the primary role of bringing Buford Dam into existence as Mayor Hartsfield so visibly demonstrated when he consecrated the dam by "dowsing the dam with Coca-Cola."²⁶ Now it is critical that elites in Atlanta spearhead a solution to the on-going tri-state water crisis.

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Even after Buford Dam was completed, Hartsfield and many Atlantans still yearned for a Chattahoochee port near Atlanta. Some felt that the recent progress of the South was partially due to improvements on the ACF. ²⁷ Transportation on the country's rivers continued to flourish as freight shipped on the country's inland waterways increased from 180 million tons in 1951 to 330 million tons in 1963. In 1957, an *Atlanta Constitution* article told citizens, "Brigadier General Walter Wilson, Jr. said that the Chattahoochee will become navigable from the Gulf to Columbus by 1963...[and] full development of the waterway to Atlanta will follow." The Chattahoochee River Basin Development Commission in Atlanta also sought complete control of the river into the 1960s. ²⁹ However, a current diagram of the ACF's current users may convince

²⁵ Davis to Weir, February 6, 1956, folder 1957, box 205, series 13, JCDC. In fact, the City of Atlanta dedicated its new water treatment plant in January of 1960, shortly after Buford Dam was completed. See, Photograph, "City of Atlanta Chattahoochee Water System Dedication", January 23, 1960, Paul Weir General Manager, folder 8, box 43, series 6, WBHP.

²⁶ Photograph, "Hartsfield dowsing the dam with Coca-Cola", October 9, 1957, folder 7, box 43, series 6, WBHP. ²⁷ Even as late as 1963, Yates Catlin stated, "the South is very proud of its rising standard of living bolstered by low-cost barge transportation and water-compelled railroad freight rates…low barge rates are expanding markets, developing depressed areas, expanding the national economy, increasing the gross national product, and pouring into the federal treasury more billions in additional taxes than it is pouring into river improvements." Catlin, 94. Hartsfield once told residents of Savannah that if Atlanta had Savannah's port potential, New York City's port would have to take a backseat to Atlanta's. Savannah residents replied that, "if Atlanta could suck as hard as it could blow it would have water enough to create such a port!" After this exchange, Hartsfield realized that, "the air had no shoreline," and he determined to focus his energies on air travel instead of water transportation. See Welch, 90.

²⁸ "River Traffic to Gulf Assured, Atlantans told," *Atlanta Constitution*, March 2, 1957, folder 20, box 29, series III, WBHC.

²⁹ Report from the Chattahoochee River Basin Development Commission, November 16, 1967, folder 19, box 29, series III, WBHC.



Figure 4. ACF Water Users³⁰

readers that while navigation to Atlanta was not completed, the Chattahoochee has been thoroughly developed.

Despite all of Hartsfield's troubles, navigation north of Columbus, towards the "Hills of Habersham" was not to be, primarily because of the prohibitive expense required. Boats would have been unable to proceed north of Columbus until the Chattahoochee River was made into one large lake from Columbus to Atlanta and Georgia Power's electricity plants on the river

³⁰ "Heavy Demands on our Water" (Georgia Department of Natural Resources, Northwest Florida Water Management District) No Date, < http://stephenrahn.com/blog/wp-images/TheChattahoocheeRiver_14205_> (August 29, 2008).

were made inoperative. Perhaps those who promoted navigation to Atlanta should have heeded Lanier's words and realized that the Chattahoochee would refuse to be wholly restrained. For the Chattahoochee River still calls,

But oh, not the hills of Habersham,
And, oh, not the valleys of Hall
Avail: I am fain for to water the plain.
Downward the voices of Duty call—
Downward, to toil and be mixed with the main
The dry fields burn, and the mills are to turn,
And a myriad flowers mortally yearn,
And the lordly main from beyond the plain
Calls o'er the hills of Habersham,
Calls through the valleys of Hall.³¹

³¹ "Song of the Chattahoochee," by Sidney Lanier, found in Lounsbury, Thomas R., ed, Yale Book of American Verse (New Haven: Yale University Press, 1912); Bartleby.com, 1999, www.bartleby.com/102/, 8/18/2008.

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