5-1-2014

Troubled Waters: Georgia, Florida and Alabama's Conflict Over the Waters of the ACF River Basin

Johnny King Alaziz Wong
University of South Florida, jwong@mail.usf.edu

Troubled Waters: Georgia, Florida and Alabama's Conflict

Over the Waters of the ACF River Basin

by

Johnny King Alaziz Wong

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
School of Geosciences
College of Arts and Sciences
University of South Florida

Major Professor: M. Martin Bosman, Ph.D.
Pratyusha Basu, Ph.D.
Jayajit Chakraborty, Ph.D.
Rebecca Johns-Krishnaswami, Ph.D.
Chris Meindl, Ph.D.

Date of Approval:
April 4, 2014

Keywords: water conflict, water governance, spatiotemporal fix, rescaling, neoliberalism

DEDICATION

Bismillah ir-Rahmani ir'Rahim. SubhanAllah for everything good in my life and for giving me the strength to complete this project, especially when it was difficult to continue.

Completion of this dissertation would not have been possible without the support of many friends, family members and teachers. With that said, some people have contributed so much to this project and have supported me so much that I feel compelled to formally acknowledge their efforts. First and foremost, I want to thank Dr. Bosman for identifying my potential and mentoring me to success. Over the past four years, he taught me how to operate within the academic system – reading, writing, researching and teaching. And, when the time was right, he opened the doors to his home and invited me in. In the process, he became a great advisor *and* friend to me. Second, I want to thank my committee members: Drs. Basu, Chakraborty, Johns-Krishnaswami and Meindl. These brilliant scholars were instrumental in shaping my research by allowing me to learn from them, both inside and outside of the classroom. For being committed to my success and interested in my project, I must thank them again because, collectively, they taught me what it means to be a *geographer*.

Next, I want to thank a small selection of the many friends who extended their support when I needed it most. To my friends who are more like family – Rashidul Munim, Samantha Bowden, Olufolajimi Ige and Nazia Naoreen – each of the four took a special interest in this

dissertation and prayed for my success. They were always there to offer advice, to listen to me complain and to lend their sympathies. For that, I owe them a sincere token of gratitude.

I am also forever indebted to my family, who would do anything for me. I want to first thank my cousin, Jeffrey Wong. Although he lives halfway across the country, I always cherished his phone calls, text messages and visits for granting me temporary relief from my dissertation work and allowing me to recharge my mind and body. Second, I owe thanks to Jestina Ison and my brother-in-law, Lutfur Miah. They both encouraged me to complete this dissertation, but also helped provide a stable foundation to ground my life when things were hectic.

To my parents – Sandra and Wai Chung Wong – thank you both for always encouraging me to do better and to never settle for good, but to strive for great. Thank you for also teaching me to believe that anything can be accomplished, if one is armed with a positive attitude and a determined work ethic. Dad – in 28 years, you've worked long hours every day without ever taking a vacation or a day off. I know that you always felt the need to support my endeavors in whatever way you could. Mom – you were always the one who ~~threatened me~~ encouraged me to stay in school and taught me the value of a proper education and you remain my biggest fan. You two worked hard to provide me with everything I needed to succeed and I love you both.

And finally – to my beautiful and brilliant wife, Shaila. Only you know the full extent of the effort that was put into this dissertation. You were with me through all of the nights that I forgot to sleep; the writer's block; the anguish and the frustration. You were also there to witness the bright ideas; the progress measured in baby steps; the anticipation of finishing and finally, the completion. You gave me mental and emotional support. Without you, none of this would have been possible. I thank you and I molove you.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF MAPS

ABSTRACT

Since 1989, the co-riparian States of Georgia, Florida and Alabama have been locked in an overt and institutionalized conflict to secure access to the waters of the Apalachicola-Chattahoochee-Flint (ACF) River Basin. In 1997, in an effort to end this interstate conflict which had earned the reputation as the longest water conflict in U.S. history, public officials at the federal and state scales agreed to suspend all pending litigation against one another and concurrently deployed a dispute resolution mechanism, known as 'compact negotiations,' in the hope of equitably allocating the waters of the ACF Basin. Despite proclamations by public officials, exclaiming their commitment to the process of compact negotiations and their desire to see an end to the lingering conflict, 2014 marks the 25th anniversary of the bitter conflict over the ACF waters and a sustainable resolution has not yet been achieved.

Against this background, this study provides an in-depth empirical explanation for why multiple efforts to resolve the ACF conflict have been unsuccessful and largely counterproductive. Using data collected from in-depth interviews with elite stakeholders and archival data parsed from executive agencies, bureaucratic reports and media sources, this study demonstrates that Georgia's strategic efforts to (a) rescale water management authority in the basin along neoliberal lines and (b) spatiotemporally displace demand- and supply-side management policies, have allowed Georgia and metropolitan Atlanta to achieve water security through a process of *accumulation by dispossession*. Finally, this study shows that Georgia and Atlanta's water security has compromised the authority of federal agencies to manage interstate

waters, exposed the inability of the three riparian states to reach equitable compromise, and demonstrated the Court's express complicity in (re)producing uneven development in the American South.

CHAPTER ONE:

INTRODUCTION TO OVERT AND INSTITUTIONALIZED WATER CONFLICTS

"*With water conflicts, it's not always about scarcity; it's often about power*"
(Ziyaad Lunat, Emergency Water Sanitation and Hygiene Task Force)

In September of 2012, the United Nations held a panel discussion on water security in which topical experts offered their theories on the relationship between water, peace, and political and economic security. With leading policy analysts, academics and government leaders in attendance, the discussion quickly turned to the issue of shared transboundary water resources. During the discussion, Patricia Wouters, a leading scholar on international water law, noted the difficulties of facilitating non-adversarial political relationships between states competing for water security in the face of freshwater scarcity, population and economic growth. For Wouters, in order to prevent water insecurity from seguing into a threat to peace, governments must see past their own territorial and economic interests and adopt a "duty to cooperate" (Global Water Partnership 2012). For Wouters and Chen (2013), the "duty to cooperate" is not merely a moral disposition but is a water policy doctrine based on diplomacy, which sees dialogue, interregional cooperation and peaceful negotiations as cornerstones of peaceful international relations.

That the United Nations organized a highly publicized roundtable discussion on water security, which saw Nelson Mandela and Bill and Hillary Clinton in attendance among other heads of state, is evidence that there is a growing research and policy interest in transboundary conflicts over secure and reliable water sources (Utton 1988; Earl and Czerniak 1996; Wolf 1998; Glennon 2002; Jordan and Wolf 2006; Shiva 2002). Much of the literature on water conflicts is dedicated to predicting and anticipating their occurrence, analyzing dispute resolution mechanisms and determining how governance innovations can better manage competition over water resources. Considerable attention is also being paid to the effects of drought-induced scarcity – politicians, water managers and business elites are increasingly treating conflicts as 'natural' outcomes to the growing scarcity of shared water resources. And yet, positivist and quantitative frameworks offer only partial insights and explanations to the issue of water scarcity. Moreover, positivist explanations are ill-equipped to account for the many political, economic and geographical nuances and complexities of the ACF conflict. This study seeks to problematize the view that scarcity is produced 'naturally' by investigating the multiple ways water conflicts are constructed and perpetuated on the ground, both materially and empirically, by studying the longstanding water conflict over the ACF Basin.

For 25 years, the riparian States of Georgia, Florida and Alabama have been locked in a seemingly intractable conflict over the freshwater of the Apalachicola-Chattahoochee-Flint (ACF) River Basin. The trigger for the conflict was a massive drought in 1986, which spread across the entire southeastern U.S. and severely constrained the region's available water supply. As a result, the three states have spent a quarter century attempting to litigate and/or negotiate their way to an allocation formula, which would determine how to equitably share the water in the ACF Basin system. Despite state and local officials publicly proclaiming their commitment

to achieve a resolution, it is questionable whether meaningful progress has been made. What is considerably more certain is that for the foreseeable future, metropolitan Atlanta has solidified its position as a regional water hegemon *vis-à-vis* Florida and Georgia.

Using a geographical historical materialist framework, this study seeks to provide an empirically grounded understanding, which describes the geopolitical, geoeconomic and geoecological significance of the ACF Basin to each of the stakeholders involved in the conflict. Moreover, this study offers an historiographical account of the conflict as described by those involved and explores why multiple efforts to resolve the conflict were unsuccessful and largely counterproductive. Finally, this study will contextualize the states' failure to negotiate a resolution within a framework of *competitive federalism* and the scalar reconfiguration of water governance along neoliberal lines.

Background of the Problem

As mentioned above, the interstate conflict over the waters of the ACF Basin began as a result of a drought, which spread across the entire southeast region of the U.S. (Erhardt 1992; Stephenson 2000; O'Day, Reece and Nackers 2009). The 1986 drought event was so severe that meteorologists accorded it the distinction of a *100-year drought*, meaning that the recurrence interval of such an extreme drought was estimated to be between 100 and 200 years (Cook, Kablack and Jacoby 1988). In 1989, in order to stave off the drought's harmful effects on metropolitan Atlanta's water supply, the U.S. Army Corps of Engineers (USACE) decided that a portion of storage capacity in Lake Lanier, metropolitan Atlanta's largest water supply, had to be repurposed from hydroelectric production to meet the region's projected water demands (Jordan

2006). In 1990, the State of Alabama filed a lawsuit against USACE, alleging that increasing metropolitan Atlanta's water withdrawals out of the lake would severely curtail Alabama's future economic development (Williams 1991). Shortly thereafter, Florida joined Alabama's lawsuit against USACE, alleging that the reduced water supply would also threaten its oyster industry and the ecology of Apalachicola Bay (Beaverstock 1998).

Despite the persistence of the conflict, as well as its long-term implications for the three riparian states, there is surprisingly little in-depth qualitative research, which critically explores its underlying causes and dynamics. There is, however, a growing body of quantitative literature which frames the problem as a legal and/or managerial dispute, including studies focusing on water budgets and demand (USACE 1997; Peterson and Wallick 2006); the role of eastern water law in instigating the ACF water conflict (Dellapenna 2006); and conflict resolution options predicated upon game theory models (Wolf et al. 1999). However, despite numerous quantitatively driven studies, significant gaps in the literature remain. Legalistic and economic frameworks cannot convincingly explain the successive delays, missed deadlines and time extensions with regard to the compact negotiations (Teegardin 1990; Eberly and Shelton 2008), nor can they account for the failure of the courts to establish an equitable allocation formula among the states. These explanations fall short and only serve to highlight the need for a new framework to explain the perdurability of the water conflict.

Accordingly, this study addresses these limitations by providing a precise historiographical account of the complexity of the water conflict over the last 25 years, in order to systematically connect the various failures and delays of the water conflict to a number of interconnected causes, including: (a) the institutionalization of water competition; (b) the neoliberalization of water management; and, (c) the increasingly capitalist logic of

regionalization that overwhelmingly serves the commercial and residential interests of metropolitan Atlanta.

Central Research Question and Hypothesis

The central research question guiding this study is: Why has the longest water dispute in U.S. history, the ACF River Basin conflict among the riparian States of Georgia, Florida and Alabama, not yet been resolved? This study offers the hypothesis that as a result of its preeminence in the South, metropolitan Atlanta was able to (a) outcompete Georgia's southern agricultural interests for intrastate water supplies; (b) recruit Georgia State officials to actively compete for interstate water supplies on behalf of the city's powerful urban and suburban interests; and, (c) successfully leverage its geopolitical and geoeconomic clout in the U.S. Court of Appeals for the Eleventh Circuit so as to dispossess both Florida and Alabama of their respective riparian rights to the waters of the ACF Basin. By virtue of metropolitan Atlanta's regional hegemony, the State of Georgia was forced to actively compete to secure the region's municipal water supply. As a result of the state-led effort to usurp water management authority from USACE and remove the agency from compact negotiations, Georgia's negotiators used a series of "spatiotemporal fixes," meaning that they strategically resolved their capitalist crisis of water scarcity through temporal deferral and spatial expansion (Harvey 2003), in order to both increase and guarantee the state's consumption of water and grow its municipal, industrial, recreational and, to a lesser extent, agricultural consumptive uses.

In order to fully explore this hypothesis, the central research question has been broken down into four supporting research questions. Research question 1: *What is the trend in respect*

of freshwater consumption by the various stakeholders to the ACF Basin conflict? What are the sources and competing uses of water among the conflicting states? Research question 2: *What is the policy and regulatory framework that currently exists for the allocation and distribution of the water resources among the three ACF riparian states?* Research question 3: *How did the three states strategically orchestrate the failure of compact negotiations in order to push the problem into the future and at the same time to develop facts on the ground?* Research question 4: *How have stakeholders in Atlanta used a discourse of water scarcity to construct a unique interpretation of the water conflict, which differs greatly from the interpretations by stakeholders of Florida, Alabama and U.S. Army Corps of Engineers?*

Purpose of the Study

This study uses a variety of qualitative research methods. Structured and semi-structured interviews with water regulators, state and federal policymakers, and major industrial representatives are used to determine the trends in freshwater consumption among the various stakeholders to the ACF water conflict, including the sources and competing uses of water among the conflicting states. This data is then used to theoretically ground the stakeholders' attitudes toward the conflict and toward one another, the unique and contingent obstacles facing each stakeholder at various points during the conflict's history, and each stakeholder's goals and strategies to resolve the water conflict.

Textual and discursive analytical techniques are then used to critically evaluate the competing claims to power over the waters of the ACF Basin. Archival materials including newspaper and journal articles, public pronouncements, public documents, and media campaign

documents were collected, sorted and dramaturgically coded. Coded archival materials were then used in combination with interview data to generate and triangulate a detailed historiography of the conflict. The focus in this context is on the language employed to argue and propagate selected strategic positions in regard to the water conflict.

Theoretical Framework

A common view among water law experts is that because the American South does not have a long tradition of dealing with drought and water scarcity, it lacks coherent and integrated water management policies and strategies (Erhardt 1992; Klein 2005; O'Day, Reece and Nackers 2009). However, this view mistakenly suggests that water management issues facing the South are simple. Facing massive population in-migrations and runaway economic growth since the post-war period, academic attention has only recently turned to the 'southern' approach to managing water resources. In the meantime, the multi-decadal growth trajectories of Georgia, Florida and Alabama have placed increasingly more complex and competing demands on federal and state water managers. These contradictory demands often include protecting ecological health without disrupting the molecular processes of capital accumulation. The unrelenting competitive pressures for both capital accumulation and access to water have confounded historical regimes of water governance, production and distribution.

Against this background, this study will apply an environmental-economic-geography (EEG) framework to test the aforementioned hypothesis. This framework is adapted primarily from the works of David Harvey (2001, 2003, 2007, 2009), Giovanni Arrighi (1978, 2004) and Peck, Theodore and Brenner (2010) on structural capitalist crises. Crisis theory holds that

capitalism, which is simultaneously a system of relations between capital and labor and an economic system predicated upon capital circulation and accumulation (Harvey 1982), is inevitably and necessarily prone to crisis. Crises can manifest as trends of overconsumption, underconsumption, overaccumulation, underaccumulation, and a plethora of other circumstances – all of which limit the ability of capital to circulate and produce value. Most germane to this study are the crises of capital overaccumulation and of 'natural' limits. These respective crises result in capital lying 'dormant,' 'fixated,' or 'negated' (Marx, as quoted in *ibid*, 85) and thus, unproductive and unprofitable.

This study's EEG framework treats metropolitan Atlanta's suburban restructuring and economic expansion as both distinctive responses to a crisis of overaccumulated capital, as well as the causes of water scarcity. Recognizing that 'natural' is a contested term, Marx's (1973) concept of 'natural limits' will instead be referred to as a 'biophysical limit' to accumulation. Within the literature on capitalist crises, Harvey (1981, 1989, 2001, 2003, 2010) identifies *spatiotemporal fixes* as strategic responses to crises of overaccumulation. For Harvey, geographical restructuring of the built environment and economic expansion into new markets are two ways in which the disruptions of capital accumulation can be temporarily, although not structurally, resolved. Thus, the concept of *spatiotemporal fixes* plays a central tenet in this study's theoretical framework.

This framework is useful in that it explains why, after World War II, Atlanta's political and economic elites sought to intitiate an economic transformation by expanding the region's transportation network and annexing underdeveloped counties surrounding the city. By encouraging low-density suburban growth, Atlanta's elites were able to transfer capital from less profitable "hard" industries, like defense manufacturing, to more profitable "soft" services,

thereby massively expanding residential real estate and commercial markets. The 1946 Lochner Report and 1952 Plan for Improvement not only encouraged expansion of Atlanta's spatial economy, but strategically encouraged investment into projects with *"long lag times between investment and payoffs"* (Sheppard 2004, 472), which thus acted as capital sinks providing future streams of benefits to investors. This framework treats Atlanta's expansion of residential real estate and commercial markets as a strategic resolution to the crisis of capital overaccumulation. However, this strategy was contingent upon producing water and thus, was only contested upon Atlanta's confrontation of the biophysical limits of water production in the ACF Basin.

In order to sustain metropolitan Atlanta's post-World War II economic growth, Georgia increasingly turned to managerialism to exploit existing water resources, on the one hand, and to private sector 'entrepreneurialism,' on the other hand (Harvey 1989). In short, this means that the states is increasingly seeking to acquire new sources of water to forestall a loss of competitiveness, which inevitably results from a crisis of water scarcity. Although never specifically applying the concept to biophysical limits, David Harvey (2003) introduced the concept of a *spatiotemporal fix* to explain how economic and political elites have used strategies of geographical displacement and temporal deferral to deal with capitalist crises of various kinds. Therefore, this study will apply the concept of a *spatiotemporal fix* to yield a more comprehensive and complex explanation of the ACF conflict. In this context, this study will show how the State of Georgia, acting as a proxy for metropolitan Atlanta, confronted a significant water shortage and sought to explore new avenues for resolving its water crisis by exporting it to the territories of Florida and Alabama in the hope of creating both space and time to deal with the problem. As Harvey (2010, 108), following Friedrich Engels (1845), argues, "*capital…never solves its crisis tendencies, it merely moves them around.*" Similarly, it could be

argued that the State of Georgia and metropolitan Atlanta, acting in their own territorial and capitalist interests, are not actually solving their territorial water crises, but rather moving them around to the riparian States of Florida and Alabama and, at the same time, deferring the search for effective long-term solutions into the indefinite future. Thus, Harvey's theory of *spatiotemporal fixes* offers a compelling and systematic explanation for why the last 25 years have not yielded any material progress in regard to equitably resolving what a former President of the Metro Atlanta Chamber of Commerce, Sam Williams as quoted in Davidson (2007), publicly declared as "*an ongoing water crisis…the biggest and most imminent economic threat to our region*."

In combination with Atlanta's *spatiotemporal* strategies to deal with an interstate water crisis, public and private officials have employed several discursive strategies to frame the crisis as 'natural,' thereby allowing metropolitan Atlanta to justify water reallocations as a 'correction' of the region's water problem. Similar to Maria Kaika's (2003) exposé of the burgeoning water crisis in Athens, Greece, a period of severe drought in the southeastern U.S. raised serious concerns among metropolitan Atlanta's public officials about the future prospects of economic growth in the region. In the case of Athens, Greece, a drought-induced water crisis allowed the newly elected, fiscally conservative government to initiate a strategic effort to commercialize water production and distribution. According to Kaika, in order to justify the commercialization of the publicly-owned distribution network, conservative politicians discursively framed the drought as *natural* and *unavoidable*, thereby chilling political opposition and inducing compliance and consent amongst the public to create, in effect, martial (water) law. Employing this discursive sleight of hand, Greek water authorities successfully introduced drastic changes to the water regime with limited public input and debate. Similarly, the discourse used to frame the

water wars in the mainstream media (Seabrook 1999, 2000; Pruitt 2000; Shelton 2003a; 2003b) has allowed the State of Georgia and metropolitan Atlanta to pursue their goals of constructing *Promethean* projects to control the water situation, including new reservoirs and pipelines (Kempner 1993; Wrinn 2000; Bennett 2009), in addition to increasing water prices for residential consumers (Shelton 2003c), and gaining preferential access to freshwater resources over and against their downstream riparians. By framing the region's water problem as a crisis of scarcity (Mehta 2005), metropolitan Atlanta may be seeking to justify water reallocations from Georgia's rural farmers, (Seabrook 2000) and the States of Florida and Alabama.

By extending Harvey's conceptual framework to the scholarship on water and supplementing it with theoretical insights from Kaika's study of Athens, Greece, and Erik Swyngedouw's (2000, 2005a, 2007) studies of the 'governance-beyond-the-state' movement with respect to water, this study seeks to contribute a new way of understanding and explaining the long delays in the water compact negotiations. In this context, the almost 18 years of compact negotiations will be treated as a hegemonic governance innovation. It is hypothesized that by hijacking compact negotiations, a globally aspiring region like metropolitan Atlanta, which is doing whatever it takes to secure sufficient quantities of freshwater in order to sustain its rate of urbanization and economic growth, has been able to displace and delay its water crisis at the expense of its regional competitors.

Organization and Chapter Outline

Following the introduction, this dissertation is organized into seven chapters. Chapter 2 will introduce and describe the methodological design, including the ontological assumptions

and limitations of each selected method. Chapter 3 will contextualize the interstate water conflict by describing the history of economic development and the urbanization of water in the American South. Chapter 4 will build upon the history outlined in chapter 3 by spatializing the effects of metropolitan Atlanta's search for water. This chapter will also introduce *competitive federalism* and demonstrate how the competitive logic for water became institutionalized in southern water governance. Chapters 5 and 6 will introduce the views and opinions collected with respect to the research questions and begin to situate the interview and archival data in the aforementioned theoretical framework. Chapter 7 will analyze and interpret the data, which have been collected for this study in order to provide answers to the central research question. Finally, the concluding chapter will summarize the findings of this study and describe its limitations, contributions to existing scholarship and also provide suggestions for future research.

CHAPTER TWO:

STUDY METHODOLOGY

Introduction to Methodological Design and the Interpretivist Approach

This doctoral dissertation is an exploratory and descriptive study seeking to provide an empirical explanation as to why multiple efforts to resolve the Apalachicola-Chattahoochee-Flint River conflict, otherwise known as the 'water wars,' have been unsuccessful and largely counterproductive, despite 13 governors of the States of Georgia, Florida and Alabama attempting for 18 years to negotiate a water compact before negotiations ended in 2008. By making use of in-depth interviews with federal and state water managers, river and estuarine biologists, water lawyers, compact mediators, regional economic planners, industrial recruiters, environmental groups, oyster harvesters and state officials, this study of the tri-state 'water wars' provides an historiographical account of the conflict as told through the subjective lenses of those involved. In addition, special attention has been paid to discursive clues found in newspaper articles, policy memoranda, federal and state water studies, legal documents, press statements and preexisting interviews-of-record which, it is hoped, provide additional insights into the negotiating strategies and tactics used by competing stakeholders in order to either maintain or secure greater access to the waters of the ACF Basin.

This study has been conducted using a single-case study methodological design in order to investigate how and why the actors and institutions involved in the ACF conflict have failed to resolve one of the longest standing interstate water conflicts in U.S. history. According to Yin (1994), a single-case study design, as opposed to a multiple-case design, is appropriate where the phenomenon in question represents a critical, unique or revelatory case. Moreover, Walsham (1995) finds that single-case study design is useful in that the researcher may gain a deeper understanding of social processes at work and allows for exceptionally detailed descriptions of actors and events. Accordingly, the approaches of Yin and Walsham are commensurate with the study's goal to capture the often-overlooked complexities and intricacies behind the ACF conflict, particularly each state's strategy to secure access to freshwater. It is of course the case that the number of strategies and tactics used by hypothetical stakeholders to secure greater access to any freshwater are potentially limitless, given wide variations in water geographies, regional water laws, political milieus, industrial geographies and the stakeholders themselves, to name only several factors from a long list of phenomenological variables.

Nevertheless, in order to capture the complexity of conflict strategies and gain a deep understanding of research participants' experiences as parties to the ACF conflict, this study has adopted an interpretivist approach as described by Orlikowski and Baroudi (1991) and Walsham (1995). This approach is based in the process of achieving *Verstehen*, which is often described as a way of interpreting or finding particular meaning in an action by "*grasping the subjective consciousness or* ***intent*** *of the actor from the inside*" (Schwandt 2003, 296; bolded for emphasis). The interpretivist research paradigm maintains that it is indeed possible for a researcher or interpreter to "get inside the head" of an actor, although this epistemological stance is the subject of debate (e.g. Geertz 1979). However, it is the intent of this study to focus attention on the

historical and cultural context in which actors act, thereby imbuing the complex voices and actions of ACF conflict stakeholders with meaning (Darke, Shanks and Broadbent 1998), and thus eliminating the need for multi-case study analytical comparisons between the ACF conflict and other water conflicts.

By making use of the interpretivist approach, this case study offers new insights as to why compact negotiations between the States of Georgia, Florida and Alabama have not yet resulted in a permanent and equitable resolution of the region's water woes. It is hoped that this study will also make both theoretical and empirical contributions to the emerging body of literature on the increasingly contested political economy of freshwater resources at all geographic scales (Gleick 1993; Gandy 1997; Bakker 2002; Swyngedouw 2004), including providing a coherent theoretical framework which is grounded in the strategic actions of key political, bureaucratic and industrial stakeholders as they compete to either maintain or secure greater access to freshwater from the ACF Basin. In combination, this study hopes to provide a theoretically informed empirical explanation of the environmental and economic geographical (EEG) dynamics of the conflict in order to contribute to the nascent body of literature on "*water resource management and water politics throughout the American south*" (Meindl 2011, 616).

Single-Case Study Framework

According to Yin (2003), there are several factors that determine whether or not a single-case study research framework is appropriate for the study phenomena. Single-case study design may be appropriate when one or several of the following conditions are met: (a) when the study intends to answer "how" and "why" questions regarding a phenomenon; (b) it is impossible or

inappropriate to manipulate the behavior of those involved in a study; (c) it is believed that contextual conditions may be relevant to the phenomenon in question; or, (d) the boundaries are not clear between a phenomenon and context. An excellent example of the operationalization of this methodological framework is the case study mentioned in chapter 1 by the environmental geographer, Maria Kaika (2003, 2004), in which she investigated how the effects of an historic drought in the Greek city of Athens were discursively constructed so as to legitimize the implementation of new neoliberal governance practices in the water sector. This approach shares much in common with the water conflict between the States of Georgia, Florida and Alabama and will therefore provide a guide for this study.

Single-case study research is frequently used in historical, government and public policy research, particularly among studies seeking to explore the multiple factors influencing the formulation of public policies (Crow 2008). Moreover, this approach has been used to great effect by a growing number of environmental geographers (e.g. Bakker 2002; Gandy 1997; Jordan and Wolf 2006; Kaika 2004; Swyngedouw 1999, 2004) seeking to explore and describe the multiple factors driving changes to water law and policy at all geographical scales. In accordance with the environmental geographic studies listed above, this study uses a process-based unit of analysis to explore the ways in which information can lead to action (Rubin, Pronovost and Diette 2001). In the context of this study, process analysis means exploring how political and economic factors affect what is being done to drive (potential) changes to the management and distribution of the waters of the ACF Basin.

Critics of single-case study design claim that this methodological framework is limited by its inability to produce generalizable conclusions and also that it may tempt researchers into amassing large amounts of unnecessary data. To deal with the first critique, some methodologists

(Glaser and Strauss 1967; Strauss 1987) have attempted to operationalize the process of inductive theory-building so as to allow for generalizable conclusions to be drawn. Still, other methodologists (Yin 1984; Miles and Huberman 1994; Eisenhardt and Bourgeois 1988) have criticized inductive theory-building as "prescriptive" and claim that it is unclear whether or not non-generalizable conclusions are a strength or a weakness of case-study research. Table 1 below displays the process of generating theories from case study research (Eisenhardt 1989). As described in Step 5, this study will make use of a case-specific analytical technique known as "triangulation," which is the practice of employing multiple methods and data sources to secure a deeper understanding of a particular phenomenon, in order to generate preliminary theories explaining why the ACF conflict has not yet been resolved (Flick 1998; Denzin 1989a, 1989b). In addition to producing non-generalizable conclusions, a second pitfall of case study research is that researchers may easily become overwhelmed with data. The quote below demonstrates that this pitfall plagued the study from the outset.

> "*I have received your email request concerning seeing all the documents on the ACF water litigation issues. Please be aware there are over 100,000 pages of documents in the Administrative Records*" (USACE Department of Legislative and Public Affairs).

In order to avoid this common pitfall, Yin (2003), Baxter and Jack (2008) and Stake (1995) suggest that establishing study parameters and bounding data are critical practices in single-case study research which will limit data collection. The most common ways to bound data collection are via *time and place* (Cresswell 1998), *activity* (Stake 1995), or *definition and context* (Miles and Huberman 1994). The ACF conflict among the States of Georgia, Florida and Alabama

began 25 years ago and has become the topic of thousands of published and unpublished legal opinions, journal and newspaper articles, water studies and policy memoranda. Thus, to limit data collection, this study is bounded according to the *activity* of litigation, negotiations and other attempts to resolve the conflict (Stake 1995) so as to allow for a detailed exploration of the factors underlying the failure to resolve the ACF conflict.

Table 1: Process of Building Theory from Case Study Research.

Process of building theory from case study research		
Step	Activity	Reason
Getting started	Definition of research question	Focuses efforts
	Possibly a priori constructs	Provides better grounding of construct measures
Selecting cases	Neither theory nor hypothesis	Retains theoretical flexibility
	Specified population	Constrains extraneous variation and sharpens external validity
	Theoretical, not random, sampling	Focuses efforts on theoretically useful cases, i.e. those that replicate or extend theory by filling conceptual categories
Crafting instruments and protocols	Multiple data collection methods	Strengthens grounding of theory by triangulation of evidence
	Qualitative and quantitative data combined	Synergistic view of evidence
	Multiple investigators	Fosters divergent perspectives and strengthens grounding
Entering the field	Overlap data collection and analysis, including field notes	Speeds analyses and reveals helpful adjustments to data collection
	Flexible and opportunistic data collection methods	Allows investigators to take advantage of emergent themes and unique case features
Analysing data	Within-case analysis	Gains familiarity with data and preliminary theory generation
	Cross-case pattern search using divergent techniques	Forces investigators to look beyond initial impressions and see evidence through multiple lenses
Shaping hypotheses	Iterative tabulation of evidence for each construct	Sharpens construct definition, validity and measurability
	Replication, no sampling, logic across cases	Confirms, extends, and sharpens theory
	Search evidence for "why" behind relationships	Builds internal validity
Enfolding literature	Comparison with conflicting literature	Builds internal validity, raises theoretical level, and sharpens construct definitions
	Comparison with similar literature	Sharpens generalisability, improves construct definition, and raises theoretical level
Reaching closure	Theoretical saturation when possible	Ends process when marginal improvement becomes small

Source: Eisenhardt 1989.

Against this methodological background, the research question outlined in chapter 1 was explored in this study by employing a variety of qualitative research methods. First, semi-

structured interviews with key personnel involved in the ACF conflict were used to generate a data set outlining the multiple and competing viewpoints for explaining the failure of the states to negotiate a resolution. Second, this study made use of archival materials collected from interviewees, federal and state water management agencies, newspapers, magazines, government press releases and commissioned water studies, which have all been used to produce a detailed chronological genealogy of the conflict including interested parties, relevant stakeholders and key events that have taken place. Lastly, as mentioned earlier, as a researcher conducting fieldwork related to an ongoing and current water conflict, several opportunities arose during the data collection process to engage as a participant observer durings meetings and discussions related to the production of water demand studies and also water management policies and procedures.

Research Methods and Sampling Design

Conversational Methods

In line with the commonly accepted practice in qualitative research of sampling in order to maximize the variation, or range, of interview responses (Weiss 1994), participation criteria for this study were purposefully left broad so as to include the greatest number of stakeholders willing to detail their experiences as parties to the ACF conflict. Moreover, the ACF conflict is at once a politically, economically, legally and environmentally sensitive and divisive topic. As will be discussed in chapters 6 and 7, due to the sensitive nature of this study and also because of a court-imposed gag order preventing parties to the conflict from speaking, establishing "trust"

with the research participants proved to be an exceptionally difficult task. The January 2010 U.S. District Court Order stipulates that, "[*t*]*he ongoing negotiations among the three States of Alabama, Florida and Georgia concerning the issues presented by this litigation are, and shall be kept, confidential.*" The court order also states that "*[t]his Order extends to all documents, data or other materials prepared in anticipation of or exchanged in the course of such negotiations and to all statements made during negotiations*" (3:07-md-00001-PAM/JRK, see Appendix A). In anticipation of potential participants being unwilling to go on record and speak at length about the ACF conflict, a preliminary sample of research participants was constructed from relevant documents and a snowball sampling technique was used to recruit additional participants, where possible.

Snowball sampling is a chain-referral method, which relies on initial research participants to refer others to participate in a study, thereby generating a larger sample. With this method, participants recruit their peers to participate in the research in two ways. One, by providing the researcher with contact information so that the researcher may contact the referred or two, a "gatekeeping" method where the participant assumes control over the sampling process by introducing the researcher to the referred (Groger, Mayberry and Straker 1999; Johnston and Sabin 2010). As an advanced recruitment technique, snowball sampling can be helpful for gaining access to hard-to-reach populations such as the deprived, the socially stigmatized, and elite participants (Atkinson and Flint 2001) and is most appropriate for instances in which the research is qualitative, exploratory and descriptive (Hendricks, Blanken and Adriaans 1992) and also where obtaining respondents requires some degree of "trust" to initiate contact.

For a hard-to-reach research population such as elite policymakers and ACF water managers, the only feasible way to gain access to this world was to initiate contact with a trusted

confidant who was willing to "vouch" for the validity of the research and researcher. Accordingly, a purposive sample of potential participants was constructed by reviewing source materials such as newspaper articles, academic journals and other published accounts of the conflict and then compiling the names and titles of every person, agency and institution relevant to the conflict. Based on that preliminary sample of potential participants, contact was established with each potential participant via one of three ways: e-mail, phone call, or in person. On three occasions, I attempted to make contact with participants face-to-face by showing up to events where they were scheduled to be in attendance and there sought to recruit them as potential participants. At times, the source materials only provided an agency or institutional title and not a name. In those instances, contact was established with either a press secretary or communications officer via e-mail or a phone call and that person was recruited to seek out those who were knowledgeable or who had participated in the ACF conflict.

Interview protocol

In order to avoid raising any suspicions among potential research participants as to the purposes of this research, interview subjects were initially asked to participate in an in-depth interview regarding their experiences and understandings of the water conflict. By representing the research as a study focusing on their experiences, the confidential topics of politics, litigation and compact negotiations were intentionally eschewed so as avoid being "shut out" by participants wary of violating the aforementioned confidentiality by providing information related to the ACF conflict. With participants aware of the limitations imposed on them by the U.S. District Court, the potential existed for participants to deviate from the established interview

path, which occurs frequently when interviewing the political elite even without a confidentiality agreement in place (Lilleker 2003). Consequently, the protocol for conducting the semi-structured interviews included a list of 15-20 potential questions and 3-5 potential subtopics, which were used to "steer the interviews on to the desired course" (Lilleker 2003, 210) and keep the discussions on topic when participants began to stray from answering the original interview questions. According to Weiss (1994), preparing a list of potential questions and subject areas allows research participants to lead the interview to interesting destinations while also providing coherence and depth of meaning to their responses.

For the purposes of this study, 11 research participants agreed to an in-depth interview, while 25-30 provided brief conversations and/or helped triangulate data collected from other sources. The in-depth interviews continued until the participants had first detailed their experiences as parties to the ACF conflict and either: (a) provided information related to conflict resolution, or (b) until it became clear that the participant would not provide that information, at which point, the interview was ended. Although the sampling method used here has been successfully employed in other case studies of water conflicts (Lach, Rayner and Ingram 2005; Samuelson, Peterson and Putnam 2003), theoretical saturation was not achieved in this study due to court-imposed restrictions limiting data availability. As the quotes below indicate, in response to requests for interviews, potential participants often declined, citing the District Court's confidentiality order as a reason for not participating.

> "*Any documents produced during compact negations are confidential, per judges' orders, which are attached*" (State of Florida, Department of Environmental Protection Press Secretary).

"*Because I continue to be employed by the State of Georgia, and because our water negotiations with Florida and Alabama continue to be very active, I am afraid I must respectfully decline to sit for an interview at this time*" (State of Georgia Water Manager).

"…With there being no signs of finality in the legal and political disputes, we feel it best to keep our efforts focused on behind-the-scenes support in achieving a workable resolution" (Georgia Chamber of Commerce Representative).

In an effort to supplement the limited number of interviews conducted, the collection of archival data and document analysis was substantively enhanced in order to add methodological rigor and offer a more comprehensive narrative with which to test the research hypotheses.

Elite participants and interview limitations

One of the major limitations of using qualitative interviews to generate data is that conversational methods maintain an individualist focus and privilege the individual mind (Gergen and Gergen 2003). The ontological assumption underlying the use of interview data to explore the historiographical dimensions of the conflict and explore negotiating strategies is that research participants can reify the "self" and offer an "authentic" story (Riessman 2005). However, the notion of the individual as sole arbiter of knowledge has been challenged by postmodern, constructionist, and dialogical epistemologies. Qualitative researchers like Haug (1987) and Crawford, et al. (1992), for example, suggest that during the course of interview

research, stories are co-constructed by researcher and participant through mutual dialogues and (re)interpretations of meaning, making interview responses difficult or impossible to reproduce and thereby limiting the conclusions which can be drawn from the data. Sikes (2000) provides a second critique of the use of interview data, which involves questioning the authenticity of stories constructed during a qualitative interview. Sikes warns that there is an extreme likelihood that all qualitative researchers will, at some point, discover that participants have lied during the research process and that this is even more likely when a researcher uses an explicitly conversational approach to data analysis because there is a temptation for researchers to treat interview data as fact and overlook data misrepresentations. Ozga and Gewirtz (1994) suggest that lies and misrepresentations of events are even more common in interviews with elites than with regular participants, because elites are very adept at constructing self-identity and are "*very aware of their place in the narrative they* [*constructed*]" (Ozga 2000, 264).

In order to deal with the "authenticity" limitation of interview methods as described by Gergen and Gergen (2003), and to validate the use of conversational methods in this study, a technique known as "data triangulation" (Decrop 1999, 159) was applied to interview data. This technique views interview data as a means of providing an alternate perspective to theories generated from the analysis of textual and discursive documents in order to produce more credible and reliable theories and "*guard against the accusation that a study's findings are simply the artifact of a single method, a single data source, or a single investigator's bias*" (Henderson 1991, 11). Yet, triangulation does not seek to "verify" or "validate" statements made by research participants (Denzin and Lincoln 1994, 2). Accordingly, data triangulation does not seek to verify that interview data has captured an "objective reality" in the way that Sikes (2000),

Ozga and Gerwitz (1994) and Ozga (2000) describe. Rather, it should be understood as a strategy to add depth to a study's theoretical findings (Flick 1992).

Interviews with elites present a unique challenge to researchers using conversational methods to study a given phenomenon. In qualitative literature, elites are commonly described as individuals that occupy senior or middle management positions and who have institutional value systems, industry experience, and a vast network of professional contacts. Recruiting participants with these characteristics may present a challenge to researchers as the balance of power in the interview space may shift away from the researcher and to the elite participant. In order to overcome the power imbalance, Welch, *et al.* (2002) suggest that researchers strive to adopt the persona of an *informed outsider* and present herself/himself as a powerful individual, both professional and precise, while conducting the interview. Alternatively, some feminist researchers (Dalton 2011; England 1994) suggest that researchers might strive to highlight the power imbalance by adopting the persona of a *supplicant* while conducting interviews with elite participants. For England (1994), researchers perform supplication in the interview space by sharing topical knowledge with the elite participant, exposing the researcher's weaknesses, and addressing the researcher's dependence upon the participant for information. Still, other researchers claim that the power exerted by elites in their professional spaces will not necessarily be exerted in the research space. Kvale (2007), for example, suggests that a researcher who demonstrates a sound knowledge of the interview topic may be able to gain respect from the elite participant by generating an interesting conversation and requiring the participant to derail from "talk tracks" and pre-prepared viewpoints which they wish to communicate. In this context, Smith (2006) suggests that the researcher remain flexible and able to adapt her/his approach to the interview and participant by switching between *informed outsider* and *supplicant*.

The overlapping complications of (a) interrogating power dynamics in the research space and (b) determining who "controls" the study have both practical and epistemological consequences when using a conversational method to conduct research. Herod (1999), for example, argues that it is problematic to assume that the validity of one's research can be tied to one's positionality and that performing insider/outsider personas do not necessarily produce "more objective" or "truer" data. While this study recognizes the epistemological consequences of performing "insider" and "outsider" personas while conducting interviews with elite participants, it would be incorrect to assume that a researcher's performance has no effect on the ways in which knowledge is co-constructed by researcher and participant. Consequently, this study used an approach advocated by Sikes (2000), in which reflexivity may provide the researcher with a deeper understanding as to why participants respond to interview questions in particular ways. Here, *reflexivity* is taken to mean the process of interrogating and questioning oneself (Reinharz 1997, 5). Accordingly, this study preserved a reflexive position by maintaining a detailed research journal with annotations describing any interactions between researcher and participants *ex ante* and *ex post* interview sessions.

Archival Research Methods

For some, archival research is a process of finding, collecting, sorting and analyzing various sources of materials which may be considered as study "data" (Rapley 2007). Other archival methodologists, like McBurney and White (2009) and Jackson (2008), characterize archival research as simply a process of collecting data which has been provided by other researchers in order to test one's own hypothesis. While both descriptions maintain that the use

of existing source data can be an appropriate research method under certain circumstances, McBurney and White (2009) and Jackson (2008), unfortunately, characterize the process of collecting archival data as inherently "passive" or "neutral" with respect to the researcher. On the contrary, with forms of data ranging from video recordings to audio recordings of interviews and focus groups to newspaper and journal articles and photographs and maps, the researcher becomes an active participant in the "production" of archival data by discovering and selecting source materials and then collecting and cataloging them. Moreover, as a researcher collects data to build a topically-specialized library of source materials, the sorting and analysis of one's own "researcher-generated" data may also be considered archival research (Rapley 2007, 9).

Due to the difficulties in recruiting participants to provide interviews, chaining was used to generate archival data in the form of document-based sources. Chaining is an "informal means of finding information" (Duff and Johnson 2002, 475) preferred by subject matter experts and academic researchers (Green 2000; Tibbo 2003). This study's collection of archival materials was produced by using three archivist chaining techniques known as: (a) "keyword chaining;" (b) "author chaining;" and, (c) "citation or footnote chaining" (Kaufmann 2007). To generate chains for this study, background information was acquired by reading and browsing secondary source materials in order to identify relevant keywords, authors and citations. Once a list of relevant keywords, authors and citations was compiled, the terms and keywords were then entered into academic databases, subject indexes, catalogs and search engines in order to generate chains of increasingly relevant source materials related to the ACF conflict. This process is akin to using source materials to build a source tree and "*is an effective means of retrieving the most relevant and highest quality secondary sources in the shortest period of time*" (Duff and Johnson 2002, 476).

Archival protocol

In the context of this study, background information on the ACF conflict was found and collected from four primary sources: (a) the digital archives and microfiche cards of the *Atlanta Journal-Constitution* newspaper; (b) publications cataloged in the USACE Mobile, AL District Command Library; (c) scholarly journal articles; and (d) technical publications and press releases provided by research participants. Using the LexisNexis scholarly search engine allowed access to the digital archives and microfiche aperture cards provided by the *Atlanta Journal-Constitution* newspaper, dating back to the early 1900s. From there, keyword and author chaining techniques were used to locate relevant newspaper articles, opinion pieces and photographs by querying Advanced Boolean Phrases (Barker 2012) such as "Apalachicola-Chattahoochee-Flint River AND compact negotiations" or "Apalachicola-Chattahoochee-Flint River AND litigation." Accessing materials collected in the USACE Mobile District Library proved to be slightly more challenging. According to an USACE Command Librarian, the Mobile District Library, unlike many other USACE district libraries, does not provide reference materials to the public unless accompanied by a Freedom of Information Act (FOIA) request (Personal conversation, September 27, 2013). Because there are no standardized requirements for how to file a FOIA request, each federal agency may establish its own specific requirements for how to request source materials (U.S. Department of Justice 2010). The quote below from an email conversation with a USACE FOIA specialist, demonstrates the challenge of locating source materials from the USACE Mobile District Library.

"*While I have received and reviewed your FOIA request, below, you should be advised that the scope and depth of your request falls well outside of the scope and authority we can allow under the FOIA.*

In order to process a FOIA request we would need you to identify specific material(s) you are seeking to obtain. The FOIA does not allow for assistance in looking for documentation, nor can we accommodate assistance in your research.

That said, I cannot take any action with regard to the FOIA with your request, but I have passed your inquiry along to my supervisory chain, in the hope that they may be aware of other resources which you may find useful for your research" (Personal conversation, January 17, 2013).

Due to the limited accessibility of the USACE Mobile District Library, it was not possible to locate relevant source materials firsthand by chaining and therefore, a legal counsel for the USACE Mobile District and a Public Affairs and Legislative specialist, were recruited as references to suggest and/or recommend which source materials may have been relevant to the study.

In contrast, there are many easily accessible scholarly journal articles on the ACF conflict. Keyword, author and footnote chaining techniques were all used to find and collect relevant source materials and to provide increasingly more background information on the ACF conflict. Furthermore, using this archival method revealed that there is surprisingly little in-depth qualitative literature written on the topic of the ACF conflict and that the vast majority of

scholarly research employs positivist legalistic and economic frameworks to explain the failure to achieve a politically acceptable resolution, including studies that focus on water budgets and demand (U.S. Army Corps of Engineers 1997; Peterson and Wallick 2006); the role of eastern water law in instigating the ACF water conflict (Dellapenna 2006); and conflict resolution options predicated upon game theory models (Wolf, et al. 1999). This search method revealed that despite the numerous quantitatively driven inquiries, significant gaps in the literature remain, which only serves to highlight the need for new approaches to determine why the ACF conflict has persisted for so long. Finally, several research participants volunteered to add source materials to the study archive. While some high-ranking state water managers from Florida and Alabama offered source materials as a way to support and clarify the narratives produced during interview sessions, others like a Georgia State industrial recruiter, provided source materials as a way to participate in the research while declining to sit for an interview.

Observational Methods and Protocol

Ethnographic research is a process in which a qualitative researcher studies a well-defined community, group of individuals or society by "getting in the field" and observing and/or personally interacting with the research participants. Conducting ethnographic research literally means "to describe the people" (Angrosino 2007, 1) and one of the most common techniques for collecting data in this way is for a researcher to gain access to a community and live alongside its members while observing their behaviors and dynamics. Yet, such simple descriptions betray the nature of the strategic, analytical and ethical complexities inherent to doing ethnographic research. Trend (1978) suggests that while conducting ethnographic research

even trained methodologists often collect observational data unsystematically, which can lead to researchers unknowingly invalidating her/his study by producing data that cannot be properly analyzed or codified. Moreover, because ethnographic data is produced by a researcher who must first observe the phenomenon in question and then interpet its significance, validating a study's findings requires researchers to determine what has been observed and what is significant (Hansen 1979; Pelto and Pelto 1978).

Although this study was not designed to feature ethnographic methods, nor was participant observation intended to be used as a method to collect data, two important opportunities arose during the data collection process to engage as a participant observer by attending meetings and discussion panels related to the ACF conflict. One was an April 2013 meeting of the governing board of the ACF Stakeholders group, which is described as "*a diverse group of individuals, corporations, and non-profit organizations throughout Alabama, Florida, and Georgia that represent all of the interests within the Apalachicola-Chattahoochee-Flint basin*" (ACF Stakeholders 2013). Another was an informal group discussion between five water managers across the three states and myself while attending the November 2012 American Water Resources Association (AWRA) conference in Jacksonville, Florida. While at the ACF Stakeholders governing board meeting, all of the statements recorded were volunteered by members of the governing board without prompting. While at the AWRA conference, the recorded conversation occurred in the context of a group discussion in which I was a participant. Accordingly, some statements were offered spontaneously while others were prompted or elicited by members of the group.

In contrast to Trend (1978), who argues that observational data must be produced systematically in order to ensure validity, this study recognizes that it is impossible to control all

elements in the research process (Angrosino 2007) and that there is no single accepted strategy for collecting observational data in the field (G. Gibbs 2007). The opportunities to participate in and observe group meetings and discussions is attributed more to serendipity than to strategy. Although unplanned, these discussions offered unique perspectives on the ACF conflict and have been treated in the same way as interview data, including reflexively reviewing field and research journal notes (Sikes 2000) to provide a deeper understanding as to why participants offered their statements.

Data Treatment: Discursive and Textual Analysis

In-depth semi-structured interviews with federal and state water managers, river and estuarine biologists, water lawyers, parties to the compact negotiations, regional economic planners, industrial recruiters, environmental groups, oyster harvesters and state officials were used to gather exploratory and descriptive data on the underlying causes of the ACF conflict and the failure of the three states to negotiate a resolution. The interviews were audio recorded and then transcribed into Microsoft Word (.docx) format using a peer-to-peer transcription service known as oDesk, which uses a secured and encrypted connection to transfer data files between customers and transcriptionists, in order to maintain privacy and data confidentiality (oDesk 2013).

After receiving transcribed documents, the files were uploaded to the NVivo 9 qualitative data management software, where narrative analytical techniques were used to examine and code the research participants' accounts of the conflict and compact negotiating process by developing analytical themes in the data. The themes were then cross-referenced to supplement the data

collected from archival source materials. Secor (2010) describes narrative analysis as a process of aggregating or condensing data according to emerging themes, which places significance upon the content of the participants' stories, how the stories are composed, any (implicit or explicit) historical knowledge necessary to understand the specific context of the stories, and the strategic purposes the stories serve. Emerging themes were identified using an approach suggested by Riessman (2005), in which themes are coded according to descriptive details and events that interviewees select as important, why the selected details and events are significant, how multiple and overlapping details and events are condensed into fluid stories, and how details and events are connected to one another.

The transcribed interviews were treated as textual data and thematically coded recognizing that each theme may offer only partial insights into the water conflict, and that interview data may, to differing degrees, diverge from the data collected from other sources. Statements made by research participants and their descriptions of events were used to provide an alternate perspective to theories generated from the analysis of textual and discursive documents, as suggested by Decrop (1999), and offer deeper insights to the ACF conflict than by evaluating data obtained elsewhere (Lilleker 2003). Interview data and archival source materials, however, do not have a single putative meaning (Codd 1988) as these texts are socially constructed and produced for an intended audience, which requires locating them in the social, cultural, local and regional context within which they were produced (van Dijk 1997). For example, the USACE Master Water Control Manual is in the process of being updated in order to "*improve operations for authorized purposes to reflect changed conditions since the manuals were last developed…to enable managers to strike the best balance possible for the many purposes and demands [on the ACF River Basin]*" (U.S. Army Corps of Engineers 2013).

Clearly, the Master Water Control Manual update is intended for "water managers" to "improve operations" and should not, therefore, be taken at face value. Rather, data collected from textual sources require critical analysis. In this context, this study drew on Fairclough's (1995, 2003) method of critical discourse analysis (CDA). As Fairclough states, "discourse" is a way of representing aspects, or themes, of the social world from a particular ideological angle, where "ideology" contributes to asymmetrical social relations of power. Texts, therefore, "*have causal effects on…people (beliefs, attitudes, etc.), actions, social relations, and the material world*" (Fairclough 2003, 8-9, 129).

In order to analyze the relationship among discourse, ideology and power, Fairclough developed a three-dimensional framework for CDA, built on the dialectical relationship between *discourse as text* (the properties of the text itself), *discourse practice*, and *discourse as socio-historical context*. The three levels correspond with three types of analysis: *descriptive text analysis* (content, form and linguistic features); *processing analysis* (text production and consumption/interpretation); and *explanatory social analysis* (institutional contexts and ideologies) (Fairclough 1995, 96-111). It is important to understand that words are politicized, as they "*carry the power that reflects the interests of those who speak*" (McGregor 2003, 46), and that discourse assumes a hegemonic function in the "engineering of consent" (Codd 1988, 235).

As regards CDA in this study, an exhaustive and systematic use of this technique would be impossible because of the large volume of data that was collected and analyzed. However, Fairclough's (1995, 2003) techniques of textual description, interpretation and explanation have been applied to interview data and archival materials, where appropriate, to reveal their hegemonic or counter-hegemonic functions and the purposes for which they were constructed by the competing parties to the ACF conflict. Likewise, the positionality of interview participants is

described in the study's field notes and research journal. Finally, the analytical treatment of the various interviews and archival materials in the study has been combined with dramaturgical coding.

Dramaturgical Coding

Dramaturgical coding is a directed technique of document analysis which is useful for analyzing the firsthand experiences and actions of participants engaged in a conflict (Saldaña 2009). This directed coding technique can use predetermined and/or emergent themes, based in existing theory, to code a textual document and reveal the causes of a conflict and also strategies to achieve a resolution (Potter and Levine-Donnerstein 1999). Some of the more common predetermined themes used in dramaturgy include, but are not limited to: (a) conflict participants; (b) obstacles to achieving each participant's goals; (c) strategies to overcome obstacles; (d) emotions of conflict participants; (e) attitudes expressed toward other participants and toward the conflict, in general; and, (f) participants' unspoken thoughts or impressions (Saldaña 2009, 102-103). While the strength of this analytical technique is that it allows the researcher to draw inferences about actors' motives, strategies, and tactics when engaged in a conflict, a primary limitation of dramaturgical coding is that the motives of actors are inferred by the researcher and can, therefore, be interpreted incorrectly (Saldaña 2009). A second limitation of this technique is that using predetermined themes, as opposed to constructing a grounded theory, can bias the identification of themes in the text, thereby limiting thematic specificity and leading researchers to find evidence in support of their hypotheses rather than disputing them (Hsieh and Shannon 2005).

In order to overcome thematic identification bias, as described by Hsieh and Shannon (2005), a hybrid coding procedure developed by Fereday and Muir-Cochrane (2006) was applied to code this study's textual documents. The six-stage procedure developed by Fereday and Muir-Cochrane (2006) has been adapted from Boyatzis (1998) and Crabtree and Miller (1999) and includes: (a) developing the code manual; (b) testing the reliability of codes; (c) summarizing data and identifying initial themes; (d) applying a template of codes and additional coding; (e) connecting the codes and identifying themes; and, (f) corroborating and legitimating coded themes.

In the context of this study, the code manual was first developed using predetermined dramaturgical codes adapted from Saldaña (2009). Because many of this study's research participants consented to interviews on the condition of complete anonymity, and evaluating the reliability of codes requires independent reviews by auditors (Boyatzis 1998; Hsieh and Shannon 2005), it was determined that the reliability of codes would be confirmed by the researcher's knowledge of the conflict, as acquired by "chaining" (Duff and Johnson 2002; Green 2000; Tibbo 2003). Recognizing that this is not a perfect solution to the problem, this was the only feasible way to legitimate the use of codes without violating the privacy and confidentiality of research participants. Next, via the suggestions of Boyatzis (1998) and Fereday and Muir-Cochrane (2006), texts were read, re-read and summarized before codes were applied to the data in order to "*consciously [process] the information*" (Boyatzis 1998, 45). Steps (d) and (e) were combined into one where Saldaña's (2009) predetermined themes were applied to the texts alongside themes which emerged from the data such as descriptive details and events, the significance of details and events, how the multiple and overlapping details and events were condensed into fluid stories, and how the details and events were connected to one another

(Riessman 2005). Finally, codes and themes were corroborated by using the analytical functions of the NVivo 9 software, including "word frequency queries," "coding queries" and "cluster analysis," as well as by the researcher upon subsequent reviews of coded documents.

The following chapter offers a select historiography of metropolitan Atlanta's growth from an agricultural-dominant economy to a hegemonic region in the American South. In the context of the ACF conflict, it is important to first contextualize the conflict with respect to metropolitan Atlanta's rapid rise from a stopover destination to a global-aspiring region. Only then does it become clear that Atlanta's geographic restructuring is driving the region's thirst, and subsequently, its search for a secure source of freshwater.

CHAPTER THREE:

HISTORICAL CONTEXT OF SOUTHERN DEVELOPMENT

New Deal Agenda

Three years after the great stock market crash of 1929 and the unprecedented economic depression that followed, Democratic Presidential candidate, Franklin D. Roosevelt, outlined a policy agenda designed to radically transform the social and economic geographies of American society. At a time when the U.S. was reeling from the collapse of uninsured banking institutions, the sudden and drastic decline of stock valuations and agricultural underproduction due to the Dust Bowl on the Great Plains and the Mississippi Valley drought, Roosevelt shaped a sweeping national response to the crisis founded upon the expansion of federal welfare policies. After being elected in 1932, Roosevelt declared his agenda to be America's New Deal, which was to usher in a new era of political and economic liberalism (Edsforth 2000). During his 1937 State of the Union address, Roosevelt explained, "*the most far-reaching and the most inclusive problem of all is that of unemployment and the lack of economic balance*" and that "*fluctuations in employment are tied to all other wasteful fluctuations in our mechanism of production and distribution*" (Roosevelt 1937). The wasteful fluctuations Roosevelt referred to were what he called the "*three evil sisters*" of overproduction, underproduction and speculation, which he

believed were leading to unpredictable rates of production, mostly affecting the commodity and agricultural markets (Skocpol and Finegold 1982).

While also seeking to stabilize chronic production fluctuations plaguing domestic commodity and agricultural markets, Roosevelt believed that full employment of the labor force was the most important precondition to economic recovery. Studies have estimated that between the years 1931 and 1937, civilian unemployment ranged from 14.3% to 24.9%, meaning that at the height of the Great Depression, nearly 1 in 4 American laborers were out of work (Smiley 1983). Meanwhile, a growing contingent of liberal economists, inspired by John Maynard Keynes, provided Roosevelt the intellectual justification for deficit spending as a way to "*inject government funds into circulation*" (J. Smith 2006, 137). Roosevelt, drawing from various adaptations of Keynes' work published by American economists such as Chase, Currie, Eccles and Ezekiel, began to view public works projects as the necessary vehicle for absorbing capital investments (J. Smith 2006). Deficit spending as a means to fund public works projects effectively resolved the economic crisis, at least for a short while (Harvey 2003), by investing surplus money capital in infrastructure and putting excess labor power to work constructing public works projects. As a result, between 1933 and 1939, more than two-thirds of federal emergency expenditures were allocated to public works programs, representing a 1,650% increase since 1929 (J. Smith 2006), thereby "*growing state interventionism in the name of economic stability*" (Harvey 2001, 31).

Developments in the South

The Southern economy fared poorly during the Great Depression. The *three evil sisters* of overproduction, underproduction and crop value speculation caused agricultural markets to be hit particularly hard. With a large number of laborers employed in agriculture and with per capita incomes roughly half the national average: $313 versus $619 (U.S. Department of Commerce 1984), pockets of extreme poverty existed throughout the rural American South (Wallis 1989). For Roosevelt, federal expenditures in southern states were not only intended to resuscitate a lagging agricultural sector, but also to *modernize* a region plagued by diseases such as typhoid, diarrhea and malaria due to inadequate swamp drainage, faulty water and sewer systems and the uneven production of electricity (Wright 2009). The largest public works undertaking in the southern states was undoubtedly the Tennessee Valley Authority (TVA) project and between 1933 and 1941, seven major dams were constructed under the authority of the Works Progress Administration (WPA). By early 1942, the TVA's construction employment reached a peak of 28,000 laborers (Tennessee Valley Authority 2013).

Much like the urbanization projects sweeping through Europe at the end of the 19th and beginning of the 20th centuries, the construction of New Deal dams across the American South went hand in hand with the desire to expand and modernize humble cityscapes. Having secured roughly $2 billion ($28 billion in 2013) of capital investments and federal grants, many southern cities were able to upgrade water production and distribution networks free of cost, while prior to the New Deal, the very same cities lacked either the financial capabilities and/or political will to provide residents with even the most basic of services (Wright 2009). For example, in 1932, roughly 33% of the U.S. urban population lacked access to treated drinking water, but as a result

of freely circulating capital and the *urbanization of water* (Kaika 2006), this number was virtually zero by the end of 1940 (Tarr 1988).

World War II and the Effect on Federal Public Works

Alongside America's involvement in World War II, the decade of the 1940s marked an important turning point in the history of public works projects, transforming both the purpose and configuration of dam construction. While dams of the 1930s were constructed in order to help achieve the nation's goals of modernizing urban geographies and to deliver water to city residents, dams built in the 1940s were primarily designed to serve the industrial war effort by supplying electricity to oil refineries and military-contracted manufacturers (Billington, Jackson and Melosi 2005). Between 1940 and 1945, total reservoir storage was increased at nearly all federally managed dams, with some regional dams increasing storage by a magnitude of five times and in a few instances, even more (U.S. Army Corps of Engineers 1996). This change signaled the beginning of the *Big Dam Era*, in which the massive structures were pushed to their engineering and operational limits in the hope of "*maximizing the 'efficient use' of a vital natural resource"* by providing water for multiple needs, primarily the production of electricity but also irrigation and municipal water supply (Billington, Jackson and Melosi 2005).

As World War II drew to a close, production of water infrastructure once again shifted focus, although this time not as drastically. Rather than focusing primarily on electricity production, post-war period dams were increasingly authorized as multipurpose projects constructed to serve the needs of improved navigation, irrigation and flood control, in tandem with electricity production. Congress embraced the idea of multipurpose dam projects as early as

1907 (Teclaff 1967). However it was not until changes to the federal accounting system in the 1940s that these projects became economically feasible and began to dominate the landscape (Reisner 1986). According to a series of leaked USACE documents (Douglas 1952; Grunwald 2000; 2007), during the 1940s and 1950s, USACE officials often grossly inflated the projected benefits of public works projects while simultaneously underestimating the costs in order to "get to yes." For Atlanta, multipurpose dam projects promoted industrial diversification and reputed the city as a highly diversified regional metropolis comparable to Dallas, Kansas City, Minneapolis-St. Paul, Denver and Cincinnati (Rodgers 1957; Goodrich 1945).

> "*As I see it, the benefits to Atlanta from such a* [multipurpose dam] *project would be manifold: (1) the profit from the production and sale of electric power; (2) the profit from the production and sale of forest products; (3) the protection of the city's water supply, including protection from stream pollution; (4) the use of the park for recreation purposes-fishing, hunting, hotels and tourist cabins; (5) the construction of toll roads for use by motorists. All these activities count up into big money and there is no reason why Atlanta should not follow the lead of cities like Cincinnati and go in for this kind of business. Such an investment made now will certainly reap huge rewards 15 or 20 years from now"* (Ernest P. Goodrich 1945).

Rivers and Harbors Acts of 1945 and 1946

In 1945, the 79th U.S. Congress approved a Rivers and Harbors Act (RHA), which authorized the construction, repair and preservation of a number of public works projects. The

public works projects authorized by the legislation were to be constructed "*in the interest of national security and the stabilization of employment*" (79th U.S. Congress 1945, 2) as "*facilities adapted to possible future use in the development of hydroelectric power*" (*ibid*, 3). Then, one year later and prior to construction of the projects, Congress amended the 1945 authorization with the Rivers and Harbors Act of 1946. The 1946 Amendments contained an attached report by USACE Lt. General R.A. Wheeler, which outlined a comprehensive plan for basin wide improvements to the Apalachicola-Chattahoochee-Flint River system (R. Wheeler 1946). As a result of this addition, the legislative language was narrowed and specified so as to record the specific congressional intent behind authorizing 50 public works projects spanning across 30 states.

Among the 50 public works projects authorized by the 1946 amendments was the Buford Dam, which was explicitly suggested by Lt. General Wheeler. Prepared in conjunction with USACE Brigadier General James Newman, the Wheeler Report called for construction of the Buford Dam in order to control floods and generate hydropower and it was to be located near Gainesville, Georgia, approximately 45 miles northeast of Atlanta (Rivers and Harbors Act, 1946 Amendments). Created by way of the Buford Dam, construction of Lake Sidney Lanier was authorized as an impoundment for the Dam's runoff, with a surface elevation of 1,071 ft. above mean sea level and flood storage capacities up to 1,085 ft. (Tetra Tech, Inc. 2003).

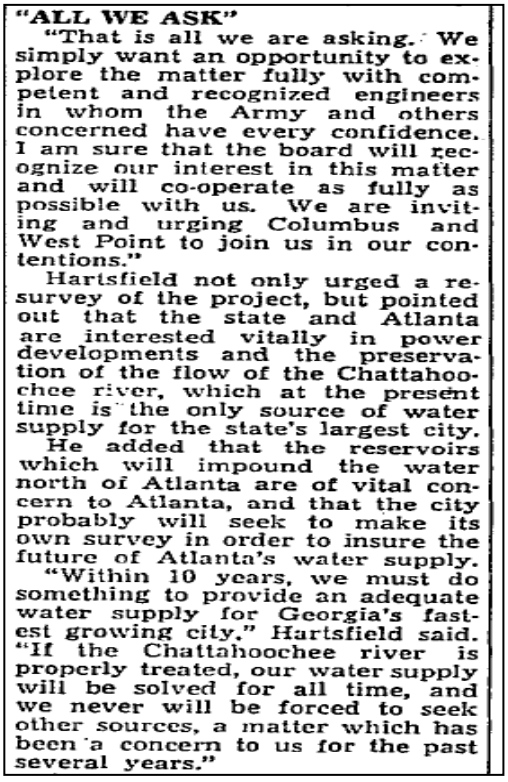
By attaching the Wheeler Report to the 1946 RHA Amendments, Congress further clarified the legislative intent as, in addition to the language of the act, the report specifically noted that hydroelectric production was the primary benefit resulting from the construction of the projects. In addition to hydroelectric production, the amendments added that public works projects were approved contingent upon them being utilized and managed in the public interest

to strike a balance between three primary benefits of hydroelectric production, navigational and flood control. Following those three primary benefits, the legislative text also declares: (a) irrigation and (b) "*purposes incidental* [to works of improvement of rivers, harbors, and other waterways]" to be secondary benefits to the works of improvement (Rivers and Harbors Act, 1946 Amendments, 634). Similarly, in the Wheeler Report, construction of the Buford Dam was justified on the grounds that it would provide the primary benefits of flood control and hydroelectric production. However, additional benefits of the Buford Dam included in the Wheeler Report were improvements to navigation coming via nine foot deep channels alongside the Apalachicola River and a municipal water supply for the City of Atlanta coming via storage allocated in Lake Lanier for this purpose (Sherk 2005). Although navigation and municipal water supply were listed as benefits originating from the construction of the Buford Dam and Lake Lanier, the *primary* purposes for which the 79th U.S. Congress allocated the project funds is a highly disputed fact (Rankin 2009; Chapman and Keefe 2009; Department of the Army, Office of the Chief Counsel 2012). As shown in Figure 1 below, a 1945 pronouncement by then-Mayor of Atlanta, William Hartsfield (1937-1941, 1942-1962), suggested that Buford Dam would provide the region with an "*adequate water supply…for all time*." However, Hartsfield's 1945 proclamation was turned on its head only three years later when he exclaimed in a (1948) letter to U.S. Representative James C. Davis (D-GA):

> *"Frankly, in our zeal I think we have just laid too much emphasis on the Chattahoochee as a water supply…In our case the benefit so far as water supply is only incidental and in case of a prolonged drought. 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…[I]n view of other possible sources of Atlanta's future water we should not be asked to contribute to a dam which the Army Engineers have said is vitally necessary for navigation and flood control on the balance of the river."

Similar to Hartsfield's conflicted views regarding Buford Dam and Atlanta's municipal water supply, the purpose of the dam's construction is currently the subject of debate and is a disagreement, which is ongoing despite a 2011 ruling by the Eleventh U.S. Circuit Court of Appeals. Given the complicated history of the ACF conflict, the disagreement is not likely to be definitively settled until all opportunities to appeal have been exhausted.



"ALL WE ASK"

"That is all we are asking. We simply want an opportunity to explore the matter fully with competent and recognized engineers in whom the Army and others concerned have every confidence. I am sure that the board will recognize our interest in this matter and will co-operate as fully as possible with us. We are inviting and urging Columbus and West Point to join us in our contentions."

Hartsfield not only urged a resurvey of the project, but pointed out that the state and Atlanta are interested vitally in power developments and the preservation of the flow of the Chattahoochee river, which at the present time is the only source of water supply for the state's largest city.

He added that the reservoirs which will impound the water north of Atlanta are of vital concern to Atlanta, and that the city probably will seek to make its own survey in order to insure the future of Atlanta's water supply.

"Within 10 years, we must do something to provide an adequate water supply for Georgia's fastest growing city," Hartsfield said. "If the Chattahoochee river is properly treated, our water supply will be solved for all time, and we never will be forced to seek other sources, a matter which has been a concern to us for the past several years."

Figure 1: News Clip from the *Atlanta Journal Constitution*, "'Waterfront' for Atlanta Imperative, Officials Say", April 1, 1945.

Construction of the Buford Dam and Lake Sidney Lanier

As Figures 2, 3, 4 and 5 show below, on March 1, 1950, authorities led a groundbreaking ceremony for the Buford Dam, thus marking the beginning of a seven-year construction project (U.S. Army Corps of Engineers 2006). Crowds, including Georgia Governor Herman Talmadge, gathered in Forsyth County to celebrate the project, which Congress provided to metropolitan Atlanta without expectations of repayment for its benefits and which would generate "*millions of dollars worth of value annually from hydropower generation, flood control, and navigation…estimated at $3,377,000 annually* [($31 million in 2013)]" (Department of the Army, Office of the Chief Counsel 2012, 8,9).

Figure 2: Buford Dam Groundbreaking Ceremony, Hall County.

Source: Georgia historical photograph collection, Hall County Library System.

Figure 3: Photograph of Crowd at Buford Dam Groundbreaking, Georgia, 1950, Mar. 1.
Source: Vanishing Georgia, Georgia Division of Archives and History, Office of Secretary of State.

Figure 4: Photograph of Groundbreaking for Buford Dam, Georgia, 1950 Mar. 1 (to the far left is Georgia Gov. Herman Talmadge).
Source: Vanishing Georgia, Georgia Division of Archives and History, Office of Secretary of State.

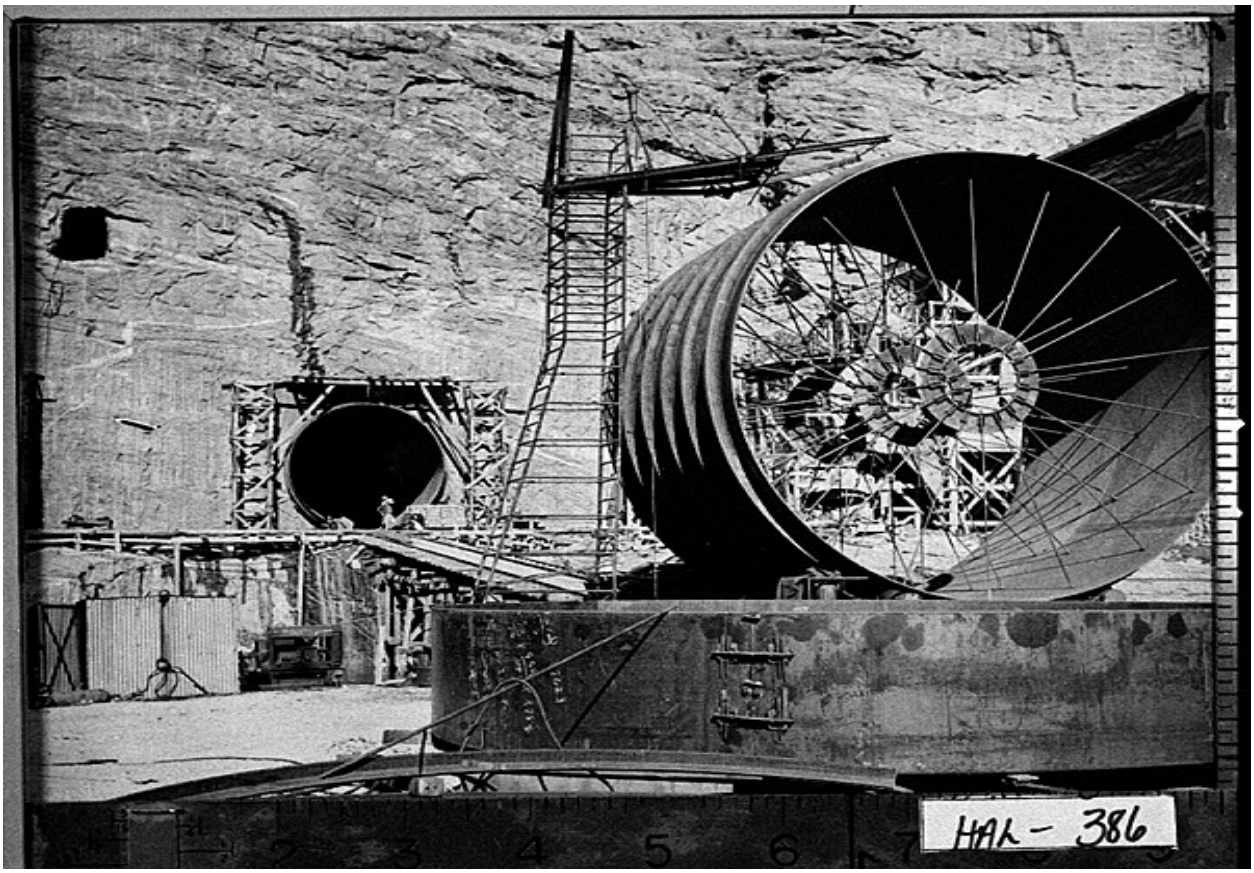


Figure 5: Photograph of Construction on Buford Dam, Forsyth County, Georgia, c. 1950-1953.
Source: Vanishing Georgia, Georgia Division of Archives and History, Office of Secretary of State.

The Rise of Metropolitan Atlanta

Atlanta's Growth in a Southern Context

A large city by the standards of the American South, Atlanta's population surpassed 100,000 by the beginning of the 20th Century. With a modest population of only 11,000 residents at the beginning of the Civil War, Atlanta's rapid population growth and superior railway infrastructure propelled it to become Georgia's largest economic region by 1895, overtaking the port city of Savannah and the old manufacturing centers of Augusta, Macon and Columbus. Over

the next 50 years, the City of Atlanta cemented its position as a leading beneficiary of investment capital from northeastern cities, in part because of aggressive and highly successful advertising campaigns highlighting Atlanta's booming cotton and textile industries and also portraying it as an important stopover destination connecting the cities of New York and Miami (Hartshorn and Ihlanfeldt 2000).

Atlanta benefited greatly from flows of northeastern capital investment leading up to the 1950s, thus allowing the city to garner a reputation as a significant industrial center in the South, if only for its production of non-durable goods. Meanwhile, many of the region's old manufacturing centers (Birmingham, Alabama is the classic example) experienced drastic declines in production output while facing ever-increasing pressure to converge into the national economy (Wright 1987). Federal policies to standardize wages and labor conditions further increased economic competition between the North and South and ultimately contributed to an out-migration trend of low-skilled workers, particularly black teenagers, who constituted the majority of the labor market in many industries, such as lumberyards and steel and sawmills (Cogan 1982). Although the passage of national wage and labor regulations resulted in the targeted decline of many labor-intensive industries in the South (Van Sickle 1943), the region overall experienced a dynamic growth of its economy, making progress toward closing the per capita income gap between North and South (Wright 1987).

In contrast to the volatile market conditions plaguing the national economy overall, which resulted in highly variable rates of growth, Southern development remained remarkably consistent during the war period. With abundant oil and natural gas refineries, weak labor unions and a *laissez-faire* approach to business regulations, the South was a leading destination for federal funds allocated to defense contracts, thereby encouraging the growth of higher wage

sectors of the regional economy (Malecki 1984; Markusen 1985; Wright 1987) and thus marking the beginning of what Cypher (2007) and Custers (2010) call "military Keynesianism." But, while the allocation of military contracts and relocation of defense industries, such as Delta Airlines, to the South suggests a national vested interest in further developing and modernizing the region's economy (Whitelegg 2000), policies formulated by Southern economic and business elites truly defined the trajectory of the region's future growth.

By the end of World War II, factions representing metropolitan Atlanta's business elite, led by utilities, banks, land developers, media and other commercial interests grew increasingly aware of the need to transform the region's then-dominant modes of production from defense manufacturing and "heavy" industries to "soft" services (Stone 1989). Key to achieving this transformation were coordinated efforts by Atlanta's downtown business elites to secure the requisite votes and funds allowing for redevelopment of Atlanta's central business district. Moreover, building political coalitions across the existing ward-based governance structure allowed business elites to complete the pre-war efforts by Mayor William Hartsfield to clear inner-city slums and public housing in order to encourage suburban development, as shown in Figure 6 (Rice 1983; Stone 1989). However, water department officials in metropolitan Atlanta's East Point, College Park and Hapeville suburbs voiced opposition to Hartsfield's expansionary project. As early as 1940, water managers from the three districts claimed that Atlanta's "*inconsistent water supply*" had been a major inconvenience to the southern suburbs for several years, leaving residents to deal with "*insufficient water pressure and inadequate supply during dry spells*" (Atlanta Journal Constitution 1940). Despite the warnings only several years earlier, in 1944, Atlanta officials initiated a plan which would comprehensively restructure the entire

metropolitan region and thus, provide a means of expanding capital accumulation into new markets.

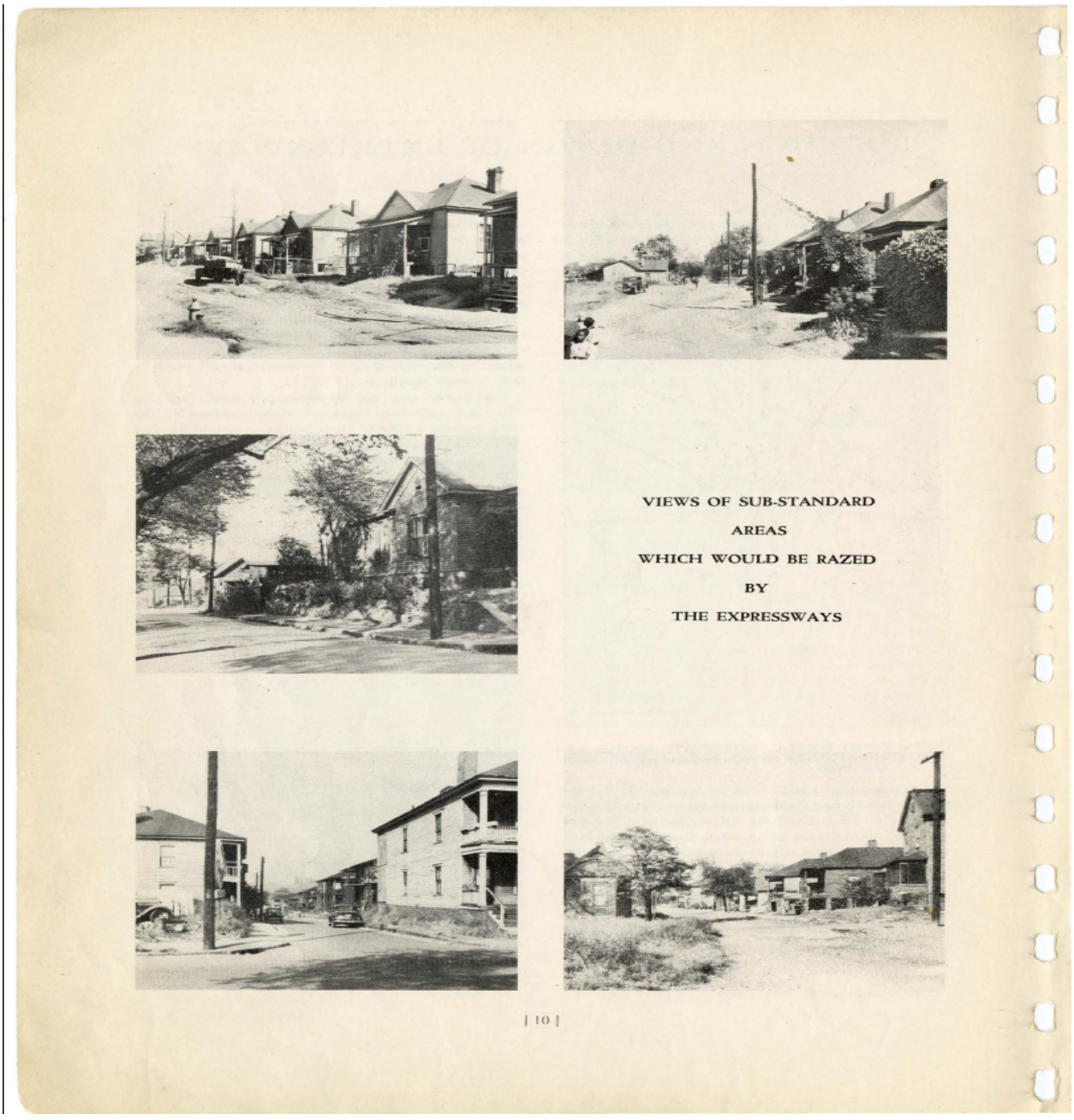


Figure 6: Views of Substandard Housing Which Would Be Razed By the Expressways.
Source: 1946 Highway and Transportation Plan for Atlanta, Georgia ("Lochner Report"), State Highway Department of Georgia.

Lochner Report and the Suburbanization of Atlanta

Commissioned in 1944 and completed in 1946, the *Highway and Transportation Plan for Atlanta, Georgia* (the "Lochner Report") served as Atlanta's municipal version of Roosevelt's national public works blueprint, outlining plans for how the metropolitan region was to manage its anticipated population and economic growth following the war. Prepared in conjunction with the State Highway Department of Georgia and the Federal Public Roads Administration, the Lochner Report proposed a capital improvement plan, costing in excess of $48 million ($438 million in 2013), to upgrade the city's transportation network by constructing a series of eight expressways with one downtown expressway connector (see Figures 7 and 8). Completing construction of a massive expressway network, widening and extending arterial streets and advancing efforts to enterprise parking facilities in the city were metropolitan Atlanta's answer to resolve its burgeoning capital surplus problem:

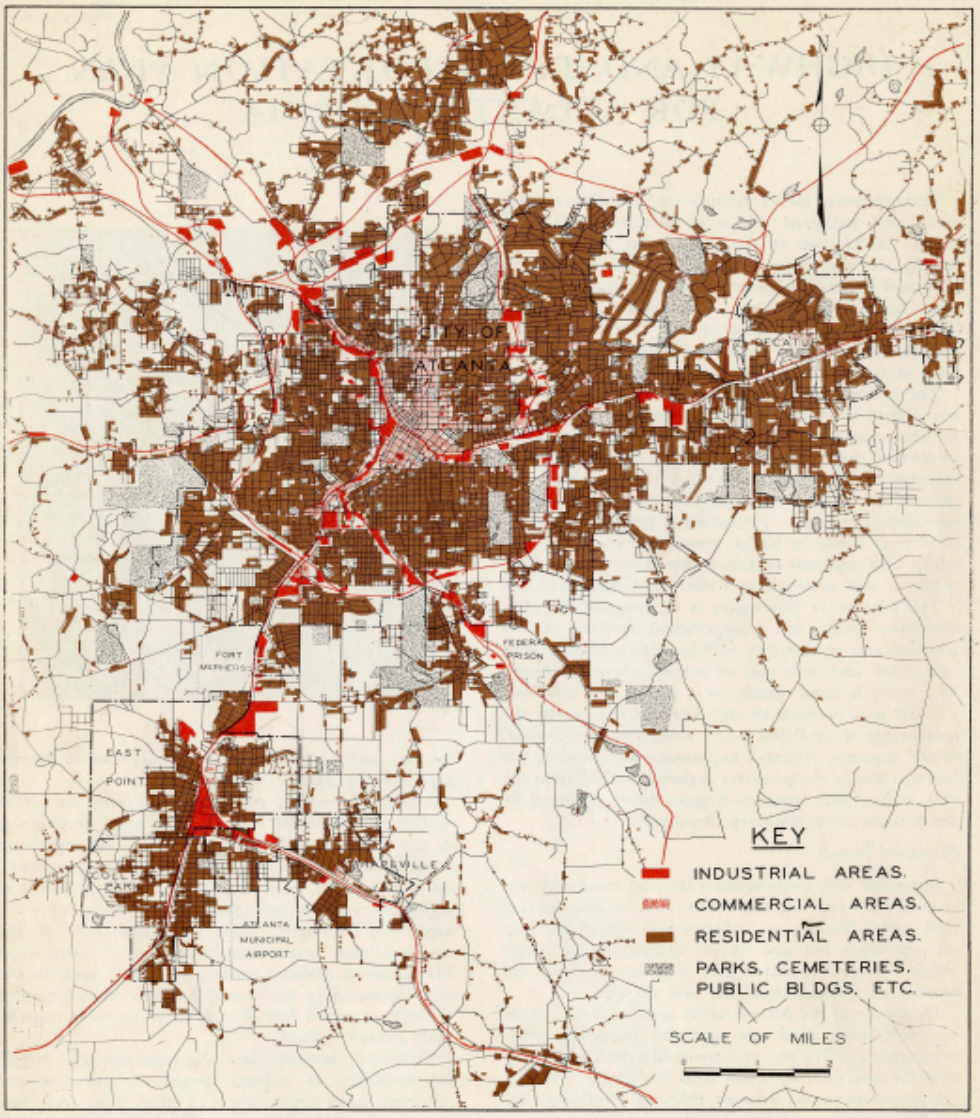
> *"There is every indication that Atlanta is approaching a period of great growth and prosperity. Improved highway and transit facilities are essential if the community is to capitalize on its natural assets. Failure to take prompt action would not only retard growth but add to the overall cost of the capital improvements required"* (H.W. Lochner & Company 1946, XI).

With this plan entering its implementation stage, Harry Lochner did for Atlanta what Robert Moses had done for New York City only years earlier and what Georges-Eugène Haussmann had done for Paris in the previous century (Harvey 2010). Rather than planning for

development at the city scale, the transportation designs published in Lochner's blueprint demonstrate clear intentions to develop the entire metropolitan region into one sweeping, semi-borderless unit. By (a) controlling the flows of traffic in to, out of, and around Atlanta's central business district; (b) attracting commercial development outside urban wards; and, (c) pushing neighborhood development increasingly further from the traditional city center, a clear "restructuring of the geographical region" (N. Smith 2007, 200) was underway. Figures 9, 10 and 11 below demonstrate a transformation in the geographical imagination of the metropolitan region. Figures 9 and 10 from the 1946 Lochner Report reflect a planner's view (Bolan 1967) of the city and many landmarks which were visible in Figure 10: 1940 Streetcar Map, have been omitted.

Development and the Black Community

While the City and Metropolitan Planning Commissions began carrying out plans to construct a massive highway network, as proposed in the Lochner Report, racial unrest within the city further encouraged the relocation of housing away from downtown Atlanta's and toward the urban fringe. The longstanding Mayor of Atlanta, William Hartsfield, once called Atlanta, "*the city too busy to hate*" when describing a 1950s anti-discrimination and anti-segregation political agenda formulated by a loose alliance between white city politicians and black business, civic and religious leaders (Hein 1972).



The map of PRESENT LAND USE IN THE ATLANTA AREA shows few remaining undeveloped residential neighborhoods within the city. Beyond the city the principal development has occurred to the north, east and south.

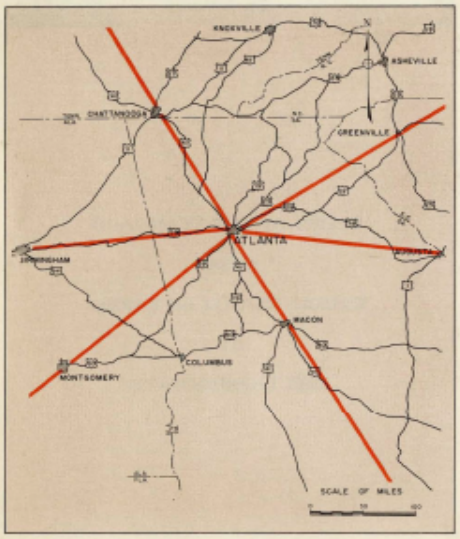
The larger industrial plants are located along the railroads, many of the newer ones outside the city.

[2]

Figure 7: Present Land Use in the Atlanta Area.
Source: 1946 Highway and Transportation Plan for Atlanta, Georgia ("Lochner Report"), State Highway Department of Georgia.

LOCATION AND DESIGN OF EXPRESSWAYS

The five interstate routes proposed by the Interregional Highway Committee radiate from Atlanta northeasterly towards Spartanburg, northwesterly towards Chattanooga, westerly towards Birmingham, southwesterly towards Montgomery and southeasterly through Macon to Florida. The Georgia State Highway Department



The PROPOSED FEDERAL INTERSTATE ROUTES APPROACHING ATLANTA are to be projected into the city to best serve local traffic.

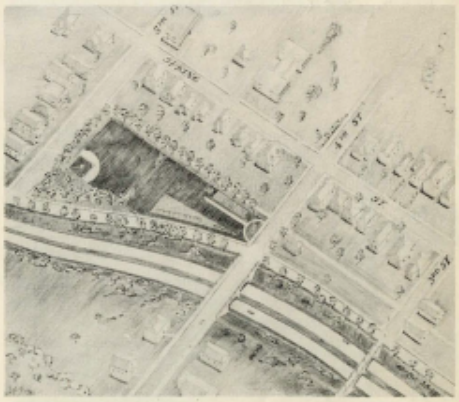
has recommended a sixth route to Augusta. It was our purpose to so locate these expressways as they enter and penetrate to the heart of the Atlanta metropolitan area that they would serve the greatest feasible number of vehicles making trips within the urban area. With this in mind, routes were sought as close to the alignment of the major flows of both internal and external traffic as it was possible to place them. Consideration had to be given to cost of right-of-way, topography, and the need to allow for the natural and desirable development of both residential and industrial areas.

Expressway Characteristics

The function of an expressway is to carry large volumes of highway traffic including automobiles, trucks, and urban and interurban buses at reasonable speeds and with a high degree of safety. To accomplish this the roadways are insulated from developments along their routes. In the developed areas where cross streets are frequent, the expressways are continuously depressed. Pedestrians are not permitted on the roadways, and cross streets and railroad tracks are carried over or under expressways. Traffic wishing to use an expressway has access at specially designed structures spaced one-half mile or more apart.

Expressways are not by-passes or tourist facilities. They are utilitarian highways to serve primarily the traffic moving about the metropolitan area or traffic with either origin or destination in the urban center. Acquisition of rights-of-way approximately 300 feet wide permits relatively flat side slopes. These are landscaped to give a park-like appearance to the entire improvement, enhancing the value of all property along the route. Atlanta is especially fortunate in having a long growing season and a great variety of flowering trees and bushes ideal for this purpose.

The neighborhoods in Atlanta through which it would be feasible to purchase suitable rights-of-way, being the most depreciated and least attractive, are most in need of this rejuvenation. The urban sections of the expressway would be largely of the depressed type. The



View of the PROPOSED DEPRESSED NORTH EXPRESSWAY AND INCIDENTAL PARK AREA between Fourth and Fifth Streets.

[9]

Figure 8: Location and Design of Expressways.
Source: 1946 Highway and Transportation Plan for Atlanta, Georgia ("Lochner Report"), State Highway Department of Georgia.

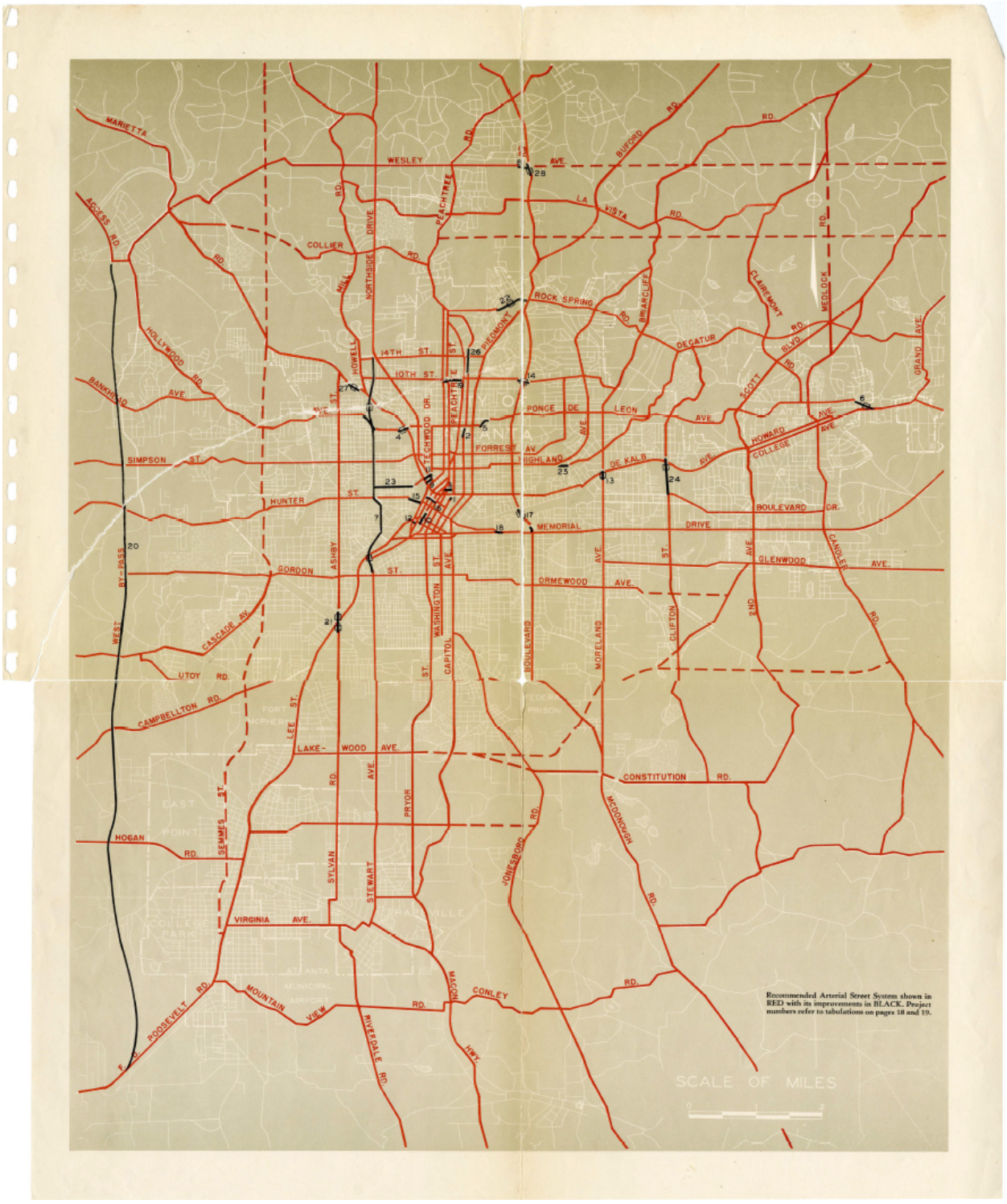
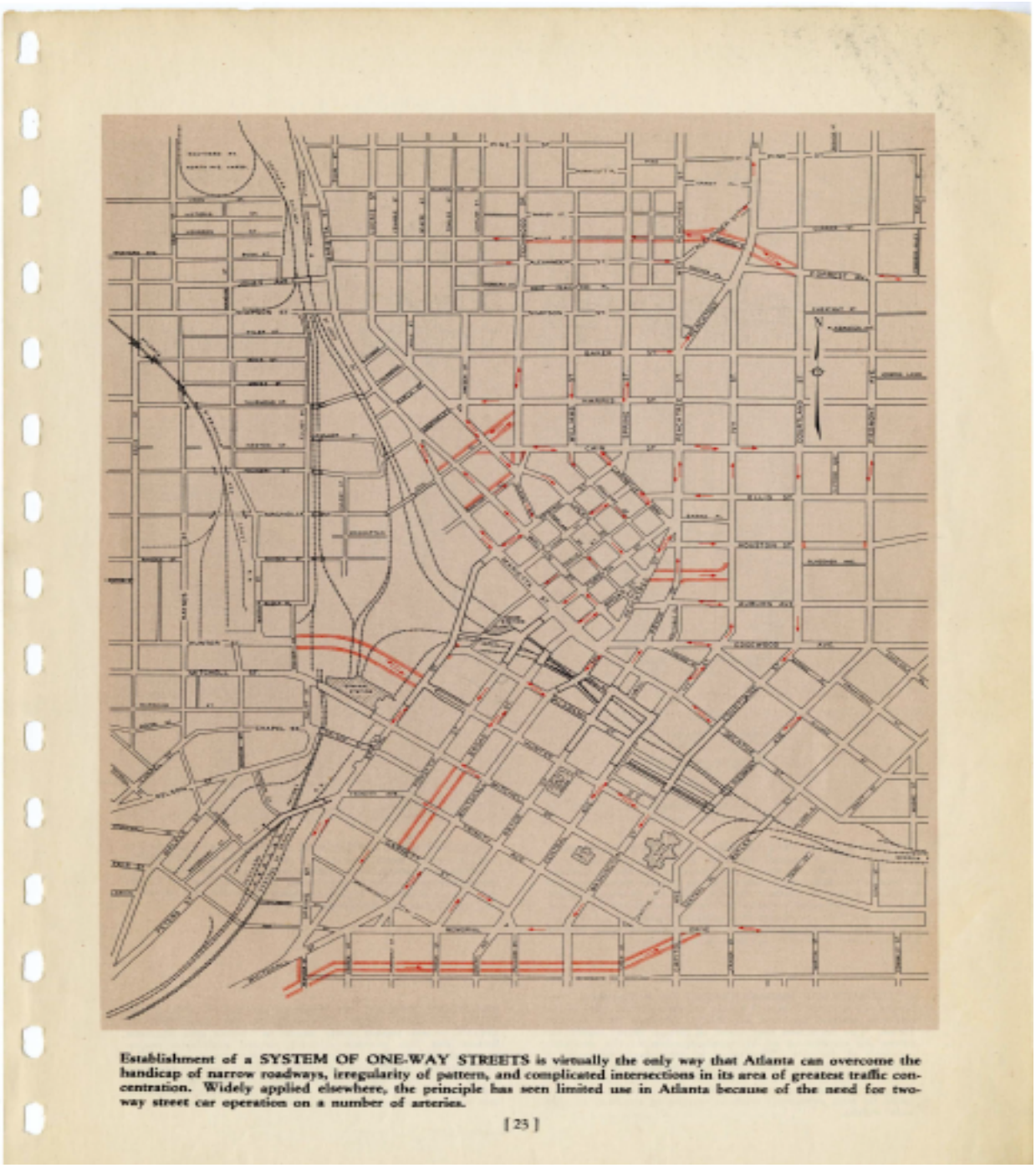


Figure 9: Planner's View Showing the Recommended Arterial Street System.
Source: 1946 Highway and Transportation Plan for Atlanta, Georgia ("Lochner Report"), State Highway Department of Georgia.



Establishment of a SYSTEM OF ONE-WAY STREETS is virtually the only way that Atlanta can overcome the handicap of narrow roadways, irregularity of pattern, and complicated intersections in its area of greatest traffic concentration. Widely applied elsewhere, the principle has seen limited use in Atlanta because of the need for two-way street car operation on a number of arteries.

[23]

Figure 10: Planner's View Showing the Recommended Improvements of Existing Traffic Facilities.
Source: 1946 Highway and Transportation Plan for Atlanta, Georgia ("Lochner Report"), State Highway Department of Georgia.

Figure 11: Transportation Map of Atlanta Showing Street Car, Trackless Trolley and Bus Lines, c. 1940.
Source: Georgia Power Company.

Hartsfield may have successfully articulated a political economic message to the nation, skillfully branding Atlanta as a cosmopolitan city located "*in*" the South and not "*of*" the South, a process Rice (1984) calls the "*Atlanta-ization*" of the metropolis. However, for Atlanta residents, it was becoming more and more obvious that Hartsfield's claim was false on two accounts. First, christening Atlanta as "*the city too busy to hate*" unfairly overlooked the concerted effort to open the urban center and connect it to the surrounding suburban communities, thereby destroying the urban base of black empowerment and eliminating the *city* through a process of regionalization. "*The entire metropolitan area can be considered the terminal of this vast network of transportation arteries*" (H.W. Lochner & Company 1946, 1). Second, "~~*the city*~~ *too busy to hate*" [strikethrough for emphasis] indicates a very evident white privilege on behalf of Mayor Hartsfield, apparently oblivious to much of the "soft racism" (H. Dalton 1995) perpetuated by the business elite, politicians and urban planners, which may have been as detrimental to the black community as more overt racism.

However, Hartsfield's message was clear: the primary concern of post-war metropolitan Atlanta was to be economic growth and attracting business rather than controversy. It was not, however, conclusive that Atlanta's specific brand of economic growth would not attract controversy. The implications of the Lochner Report were also clear, particularly to those residing in Atlanta's urban center. The report may have been advertised as a plan to provide vehicle owners with a modern mode of transportation, allowing access to every part of the region, but the blueprints suggest that the expressway system was designed to form a buffer zone between Atlanta's central business district and black neighborhoods east of downtown (Stone 1989). The development of Atlanta's suburbs and the construction of expressways to connect the urban and suburban were advertised as projects necessary to attract investment capital to the

region. Yet, this one aspect of the project concealed the secondary goals of luring the urban black community away from Atlanta's central business district (Bayor 2003) and encouraging relocation so as not to hamper efforts to revitalize the downtown area (Thompson, Lewis and McEntire 1960). Atlanta's experience provides evidence to counter the dominant theory that suburbanization caused 'white flight' away from the city (Molotch 1972; Denton and Massey 1991; Boustan 2010) and begs for a critical reexamination of suburban development goals using a single-case study and city-specific approach.

The following chapter discusses the geographic implications of metropolitan Atlanta's Plan for Improvement and grounds the region's suburban and economic expansion. In the second half of the chapter, the rise of *competitive federalism* will be introduced and its impacts on transboundary water resource governance will be discussed. Of particular importance are the effects that *competitive federalism* had on federal and state power sharing and water management and planning.

CHAPTER FOUR:

PLAN FOR IMPROVEMENT AND THE SELLING OF THE SOUTH

Atlanta city officials adopted the Plan for Improvement in 1952 as the second major phase of its strategy to *spatiotemporally fix* its crisis of capital overaccumulation, cleverly disguised as an urban renewal agenda. With construction of the expressway system already underway, the Plan for Improvement expanded the northern boundary of Atlanta's city limits to include the majority white, affluent neighborhood of Buckhead (Whitelegg 2002). The addition of the Buckhead District was a major victory for the region's economic and business elite, who continued to push for a service economy transformation and, in many ways, the annexation of Buckhead is symbolic of Atlanta's economic and urban reimagining. Prior to the Plan for Improvement, the City of Atlanta consisted of only 37 square miles (roughly one-tenth the size of New York City) with a population of 330,000. Following annexation, the city tripled in size to 118 square miles and added 100,000 new residents. A wealthy suburb, Buckhead added many recognizable landmarks to the city that are now considered symbols of Atlanta, including several convention centers and arenas, the famous Lenox Square shopping complex, Peachtree Road (Atlanta's landmark street) and the Governor's mansion (Atlanta Convention & Visitors Bureau 2013).

Construction of the expressway system and expansion of Atlanta's northern boundary, in combination with a massive influx of soldiers drawn to the city after the war, led to one of the

greatest suburban building booms in American history. For Hartshorn and Ihlanfeldt (2000, 17), Atlanta's "*prevailing laissez-faire market economy-driven approach to growth*" has driven economic growth in the metropolitan region through policies promoting urban-suburban and suburban-suburban competition. Harvey (1981, 1989, 2001, 2003) discusses the capitalist tendency toward geographical expansion, geographical restructuring and "regionalization" as medium-term solutions to deal with crises of overaccumulation. Harvey, like Karl Marx and Rosa Luxemburg submit that geographical expansion offers a solution to capital overaccumulation by creating "effective demand" (Luxemburg 1951, 138-146) and "widening [a] sphere of circulation" (Marx 1973, 407-409). Viewed in this way, Atlanta's efforts to revitalize its downtown and expand the city through expressway construction and annexation of surrounding counties, represent a very thoughtful and highly strategic shift in the spatial organization of capital and labor.

For metropolitan Atlanta, regional economic growth has been encouraged via creation of a highly fragmented (in terms of race, income and geography) system of urban county units, all highly competitive for developmental capital. As opposed to many other metropolitan regions across the U.S., even the unincorporated neighborhoods in counties surrounding the City of Atlanta have services typically only provided to city residents (Hartshorn and Ihlanfeldt 2000). Provisions to the surrounding counties can include services such as water, waste disposal, fire and police protection and street maintenance. With urban services provided to the entire metropolitan region, each county has become a viable center of residential and commercial development, thereby creating suburbs that compete for developmental capital and labor on the basis of geographic variability (Whitelegg 2002).

Examining the processes of regionalization in 1950s Atlanta highlights the importance of urban-suburban and suburban-suburban competition as a unique feature of the region's economic growth. However, since the end of World War II, the absorption of the South into the national economy has pitted northern and southern cities against one another, in direct competition for developmental capital. A systematic strategy of deregulation has been used to attract capital to the South and has resulted in territorial and capitalist logic sometimes called the "race to the bottom," due to its negative social, environmental and geographical effects.

The "race to the bottom" is a concept emerging from economic theory and has been adapted to explain the interplay between the territorial and capitalist logics. The twin logics operate to require state and business actors to compete to make themselves more attractive sites for capital accumulation by taking actions to promote a "superior" business climate. In what Cobb (1982) calls the "*the selling of the South*," in order to compete with the North, which offered skilled labor, longstanding education complexes and technological innovations unmatched in the South, southern politicians were forced to attract developmental capital by advertising the city's traditional Southern charm, modern amenities and a desireable climate (Hartshorn and Ihlanfeldt 2000). In combination with those more innocuous amenities, politicians often offered locational incentives like tax breaks and municipal bonds for construction projects, and promises to construct industrial plants and research complexes (Wright 1987). On the one hand, these incentives were successful in attracting developmental capital, but on the other hand, the result was that disadvantaged populations often shouldered the economic and social burdens of the twin logics. Figure 12, below, shows three of Atlanta's industrial recruitment posters, which attempted to glamorize the region's southern charm and business climate.

The strategy of industrial and environmental deregulation, in combination with reduction or elimination of business taxes has fueled rapid economic and population growth within the Sunbelt, but it has also resulted in the collapse of metropolitan Atlanta's environmental standards (D. Wheeler 2001), highly unequal tax burdens across the region (Graves 1970) and difficulty securing funds to finance the construction of water infrastructure (Whitt 1994; Chapman 2009). Speaking in 1999 about a proposed project to upgrade Atlanta's sewer lines in order to prevent pollution from flowing into Georgia's Lake Allatoona, State Representative Steve Stancil (R-Canton)

> "*said he hopes the state Department of Natural Resources will chip in to get the process started. He plans to ask Gov. Roy Barnes to set aside money in next year's budget for continuing operations. The authority could also apply to state and federal agencies for grants…A key problem is that there is no money to fund any of the plans. The authority has the power to issue revenue bonds for public improvements, but no source of revenue has been identified that would repay the bond holders*" (Bennet 1999).

Maturation of the Regional Service Economy and the Decline of the Central City

Over the course of only 20 years, the Atlanta metropolitan region underwent a massive restructuring of its urban geography and economic base, and completely overhauled its medium-term strategy to continue and accelerate growth. Moreover, industrial and environmental deregulation, in combination with policies to reduce corporate taxation, had been successful in shifting the location of economic activity from older industrial cities in New England and the

Midwest to the American South and Southwest (Newman 1983). This phenomenon became known as the migration from the "Rustbelt" to the "Sunbelt," evoking images of older manufacturing facilities in various stages of disrepair and decay retreating from the North to seek refuge in the warmer climates of the South, like snowbirds transitioning into retirement.

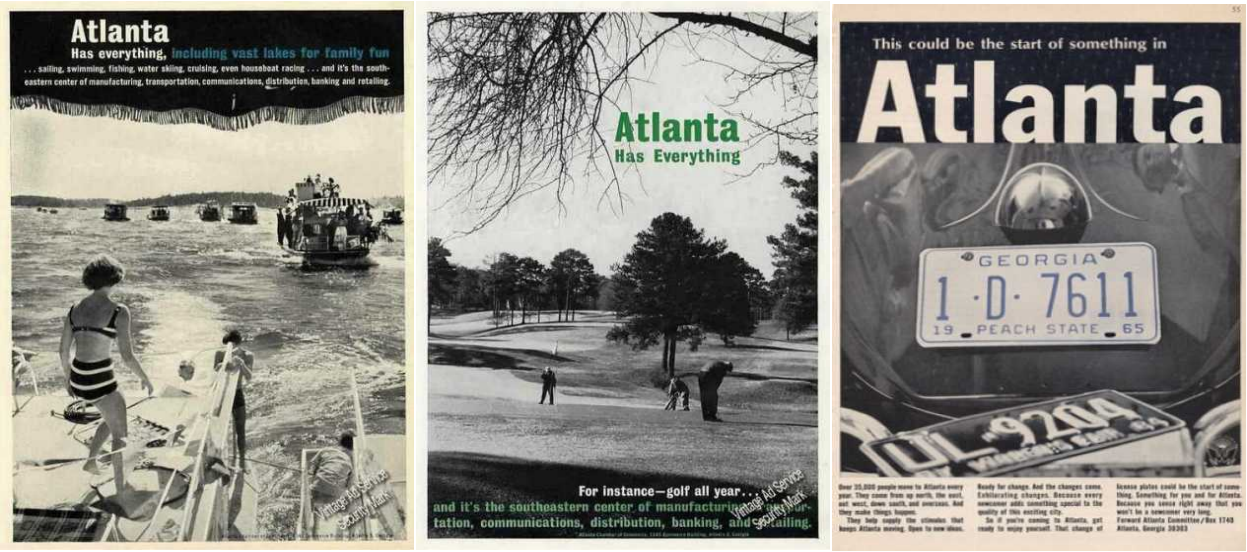


Figure 12: (Left) Atlanta Has Everything Vast Lakes Party Boats, c.1962; (Middle) Atlanta Has Everything Golf All Year, c. 1963; (Right) Atlanta, Georgia…Something in Atlanta, c. 1965.
Source: Vintage Ad Browser 2013.

Migratory inflows of both industry and population in the 1960s and 1970s allowed the "Sunbelt" to become the fastest growing region in the U.S., with ten major metropolitan regions leading the growth, Atlanta included, from the Atlantic Coast all the way to the Phoenix-Mesa metropolis (Hartshorn and Ihlanfeldt 2000). Between 1960 and 1970, the Atlanta metropolitan region added 450,000 new residents, amounting to a 34% population increase in just ten years (Social Science Data Analysis Network) and landing it a ranking as the 20th most populous region nationwide (U.S. Department of Commerce 1982).

The relocation of economic activity to the "Sunbelt" should not, however, be regarded as simply a movement of old-guard industries to the New American South. More important than the southern relocation was the commensurate restructuring of the economy from industrial and defense manufacturing to financial, legal, intellectual and technological services. In great contrast to the American economy, which was once dominated by production and durable-goods manufacturing, over 90% of the jobs created between 1960 and 1980 were in service-oriented and non-goods-producing industries (Urquhart 1984; Personick 1987). This statistic highlights not only the comprehensiveness of the restructuring (*90% of the jobs*), but also the speed with which it has occurred (*only 20 years*). Harvey (1989, 1990) calls this mode of economic and geographic restructuring "*flexible accumulation through urbanization,*" and argues that it should be contextualized within the historical geography of American capitalism. Although for modern southern metropolises like Atlanta, and many in the west which never had a strong industrial base, growth of the service sector and non-goods production has resulted in intensification and maturation of "soft" services, as opposed to a wholesale transformation of a new service economy (Jaret 1987).

As early as 1945, metropolitan Atlanta's business elites realized the need to foster the growth of the burgeoning service economy. The region's business coalition sought to attract this category of industries with expansive suburban development, which was made possible by the construction of expressways (1946) for transport and later (1946), water and electricity provided by the construction of Buford Dam (1950). While metropolitan Atlanta grew to more than two million people as early as 1975 (U.S. Department of Commerce 1982), due to suburbanization and annexation, the population within the central city reached its zenith in 1970 and continued to decline over the course of the decade (Ambrose 2004). The decline of the central city sent

greater proportions of Atlanta's population further and further toward the urban and suburban fringe. With more counties than any other metropolitan region in the U.S., the sprawling growth of Atlanta continued to spread out to the surrounding counties of Cherokee, Fulton, Gwinnett, DeKalb, Rockdale, Henry, Clayton, Fayette, Douglas and Cobb, and this does not include fringe counties of the suburban outer ring (Cartographic Research Laboratory 1999).

Map 1: Atlanta County Metropolitan Statistical Area.

Source: Metropolitan Atlanta Chamber of Commerce.

In 1974, Atlantans elected their first black mayor, Maynard Jackson, and signaled a shakeup to the then-hegemonic ruling coalition of business and community leaders that had long

dominated the urban political landscape. Jackson's election campaign urged the development of a new regime, making political and economic power more accessible to the black community. "*Jackson likened the political and economic life of Atlanta to a table provided with food: He did not want to push anyone away; he only wanted to see that previously excluded groups could join in the feast*" (Stone 1989, 81). For despite a decade of sustained growth in the financial, legal and intellectual sectors, especially in the categories of transportation, retail, communications and technology services (Helling 1998), wage distribution across the Atlanta region remained highly unequal. Contrasting the abundance of images marketing Atlanta as "*the city too busy to hate*" in the 1960s and as the "*Mecca for black businessmen*" in the 1970s (Dameron and Murphy 1997), more than 50% of Atlanta's black families had: (a) total incomes of less than $6,500 ($30,000 in 2013); (b) a relatively low percentage of blacks employed in professional-managerial positions (Abbott 1981); and, (c) quality of life indicators far below the standards of metropolitan Atlanta's white communities (Bederman 1974). Alongside urban ecologists then advocating the idea of economic "convergence" (Feagin 1985), Jackson's term as Mayor of Atlanta was marked by the pursuit of economic growth in the belief that prosperity would "trickle down," thus reducing socioeconomic inequality among the races.

The Search for Water

The "Trickle Down" Effect and the Rise of Competitive Federalism

It is widely acknowledged that India's first Prime Minister, Jawaharlal Nehru (1947-1964), was one of history's most enthusiastic dam supporters, often calling dams "*the temples of*

modern India" (Roy 1999, 3). A complex public figure and (anti)hero to 20th century India, Nehru at once recognized dams as symbols of progress and development, capable of modernizing India and helping to bridge the gap between the first and third worlds, while also sharply conscious of the damaging and irreparable effects resulting from the altered flows of the nation's massive rivers. Speaking to a crowd of villagers - some facing state-sponsored relocation and others, complete displacement – in 1948, Nehru said of the effects of the Hirakud Dam: "*if you are to suffer, you should suffer in the interest of the country.*"

An apologist for the displacement of villagers due to the nation's modernity projects, Nehru was simultaneously a vocal critic of England's notorious imperial and colonial project in India, which ravaged the nation economically, politically, culturally and also in ways which may never be fully comprehensible. Nehru is often recognized as the first public figure to use the expression "trickle down" in an economic context (Arndt 1983), and was quoted in 1933 saying that "*the exploitation of India and other countries brought so much wealth to England that some of it trickled down to the working class and their standard of living rose"* (Allen and Unwin 1962, 24). Since Nehru first introduced "trickle down" to the world in 1933, the expression has vacillated into and out of American lexicon over the decades, undoubtedly reaching a pinnacle during the decades of the 1970s and 1980s. It was during this era that a global political coalition led by Margaret Thatcher and Ronald Reagan promoted a dictum of TINA, meaning that *there is no alternative* [to capitalism].

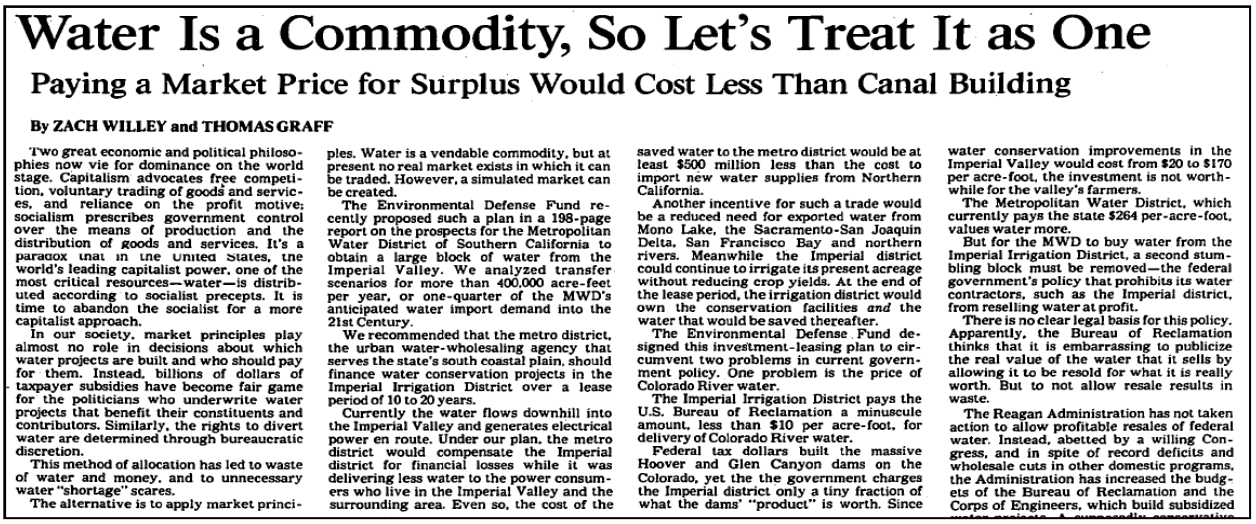
Both Thatcher and Reagan, rebelling against the highly-centralized Keynesian economic policies of the 1950s and 1960s, sought to dismantle state-sponsored market regulations in favor of laissez-faire, "supply-side" economic policies. Only a few short years after the elections of Thatcher to Prime Minister of the U.K. in 1979 and Reagan to President of the U.S. in 1981,

neoliberal ideology had gained a strong foothold among policy think-tanks (Yergin, Stanislaw and Tergin 1999), international institutions (Harvey 2003), and most germane to this study, federal and state governments (Dye 2005).

Stateside, during the 1980s, financial and economic policies of revenue-sharing between federal and state governments experienced a severe transformation under the Reagan administration. Having severely restricted and/or completely cut funding for many social welfare programs created under Roosevelt's *New Deal* and Lyndon Johnson's *Great Society*, state and local governments were no longer able to rely on the federal government for financial and state planning support. Believing that the move to cut funding would promote states' financial independence, Reagan's instituted a political economic agenda known as *competitive federalism* (elsewhere called *new federalism, cooptive federalism, uncooperative federalism* or *fend-for-yourself federalism*). This brand of power-sharing forced states into rigorous competition for whichever federal development grants had been preserved, as well as competition for private investment capital, leading some to describe this period as the "*rise of the entrepreneurial state*" (Eisinger 1988; Leitner 1990). What resulted was an extremely heightened sense of competition between "entrepreneurial states" and entrepreneurial regions for (a) advanced positioning in the division of labor; (b) advanced positioning as centers of consumption; (c) attracting control and command functions (such as financial and administrative power); and (d) gaining access to governmental redistributions (Harvey 1990). Mimicking the "fratricidal" competition strategies taking shape on the international scale (Crotty 1993), these policies finally culminated in the institutionalization of a classical *beggar-thy-neighbour*, winner-take-all economic policy.

Neoliberal Shifts in Water Policy

The period between 1960 and 1980 witnessed an important cultural development with the rise of environmentalism and environmental awareness among the American population. People paid increasing attention to the ecological and environmental conditions of the nation's waterways, as opposed to pursuing conservation as a way to maximize the economic benefits of water, which characterizes many of the environmental-ish policies borne of the New Deal era, elsewhere called *market environmentalism* (Bakker 2005, 2007). Passage of the Wild and Scenic Rivers Act in 1968, National Environmental Policy Act (NEPA) in 1970, Clean Water Act (CWA) in 1972 and Endangered Species Act (ESA) in 1973 underscore the growing desire to establish fish and wildlife protections, waterway and wetland preservations, and standards to regulate water quality. Yet, with the rapid rise of the entrepreneurial state *vis-à-vis competitive federalism*, efforts were soon underway to revamp the highly-centralized water policies shaped during the 1960s and 1970s. This was pursued by shifting water governance authorities and responsibilites from the federal scale to the state and regional scale, thus resulting in expanded roles for powerful metropolitan regions like Atlanta to have greater say over the management of their water resources (Gerlak 2005). However popular the environmental policies of the 1960s and 1970s had been, the environmental agenda of the 1980s was led by those vigorously opposed to top-down government, and was highlighted by the rise to national prominence of Sagebrush Rebels and the election of Ronald Reagan as U.S. President (Fischman and Williamson 2011).



Water Is a Commodity, So Let's Treat It as One

Paying a Market Price for Surplus Would Cost Less Than Canal Building

By ZACH WILLEY and THOMAS GRAFF

Two great economic and political philosophies now vie for dominance on the world stage. Capitalism advocates free competition, voluntary trading of goods and services, and reliance on the profit motive; socialism prescribes government control over the means of production and the distribution of goods and services. It's a paradox that in the United States, the world's leading capitalist power, one of the most critical resources—water—is distributed according to socialist precepts. It is time to abandon the socialist for a more capitalist approach.

In our society, market principles play almost no role in decisions about which water projects are built and who should pay for them. Instead, billions of dollars of taxpayer subsidies have become fair game for the politicians who underwrite water projects that benefit their constituents and contributors. Similarly, the rights to divert water are determined through bureaucratic discretion.

This method of allocation has led to waste of water and money, and to unnecessary water "shortage" scares.

The alternative is to apply market principles. Water is a vendable commodity, but at present no real market exists in which it can be traded. However, a simulated market can be created.

The Environmental Defense Fund recently proposed such a plan in a 198-page report on the prospects for the Metropolitan Water District of Southern California to obtain a large block of water from the Imperial Valley. We analyzed transfer scenarios for more than 400,000 acre-feet per year, or one-quarter of the MWD's anticipated water import demand into the 21st Century.

We recommended that the metro district, the urban water-wholesaling agency that serves the state's south coastal plain, should finance water conservation projects in the Imperial Irrigation District over a lease period of 10 to 20 years.

Currently the water flows downhill into the Imperial Valley and generates electrical power en route. Under our plan, the metro district would compensate the Imperial district for financial losses while it was delivering less water to the power consumers who live in the Imperial Valley and the surrounding area. Even so, the cost of the saved water to the metro district would be at least $500 million less than the cost to import new water supplies from Northern California.

Another incentive for such a trade would be a reduced need for exported water from Mono Lake, the Sacramento-San Joaquin Delta, San Francisco Bay and northern rivers. Meanwhile the Imperial district could continue to irrigate its present acreage without reducing crop yields. At the end of the lease period, the irrigation district would own the conservation facilities *and* the water that would be saved thereafter.

The Environmental Defense Fund designed this investment-leasing plan to circumvent two problems in current government policy. One problem is the price of Colorado River water.

The Imperial Irrigation District pays the U.S. Bureau of Reclamation a minuscule amount, less than $10 per acre-foot, for delivery of Colorado River water.

Federal tax dollars built the massive Hoover and Glen Canyon dams on the Colorado, yet the the government charges the Imperial district only a tiny fraction of what the dams' "product" is worth. Since water conservation improvements in the Imperial Valley would cost from $20 to $170 per acre-foot, the investment is not worthwhile for the valley's farmers.

The Metropolitan Water District, which currently pays the state $264 per-acre-foot, values water more.

But for the MWD to buy water from the Imperial Irrigation District, a second stumbling block must be removed—the federal government's policy that prohibits its water contractors, such as the Imperial district, from reselling water at profit.

There is no clear legal basis for this policy. Apparently, the Bureau of Reclamation thinks that it is embarrassing to publicize the real value of the water that it sells by allowing it to be resold for what it is really worth. But to not allow resale results in waste.

The Reagan Administration has not taken action to allow profitable resales of federal water. Instead, abetted by a willing Congress, and in spite of record deficits and wholesale cuts in other domestic programs, the Administration has increased the budgets of the Bureau of Reclamation and the Corps of Engineers, which build subsidized

Figure 13: News Clip from the *Los Angeles Times*, "Water Is a Commodity, So Let's Treat It as One."
Source: Los Angeles Times 1984.

Soon after the nation welcomed the newly-elected President from California, it was evident that Reagan's policies of extreme fiscal conservatism would have profound effects upon the nation's approach to producing and managing water. As a first-term President beginning in 1981, Ronald Reagan's success in the White House hinged upon his ability to fulfill his campaign promises to "*make America great again.*" In his campaign leading up to the election, Reagan promised to reestablish greatness by providing financial relief for American taxpayers with a new tax credit and rebate system, which he believed would lead to a reduced tax burden for middle- and upper-income earners (Reagan for President 1980). The plan, often called "Reaganomics" by supporters and critics alike, was designed to reduce tax receipts, thereby reducing federal tax revenue, which would necessitate a drastic reduction of federal expenditures for state projects that the administration considered "wasteful spending" or "pork-barrel projects." Long considered geographically-limited and economically inefficient arrangements for legislators to deliver "pork" to their constituencies (Maass 1951; Drew 1970; Ferejohn 1974;

DelRossi and Inman 1999), water projects became an easy target for the administration to eliminate.

Continuing the Carter 'Hit List'

Although it was President Reagan who culled a reputation as a "revolutionary" fiscal conservative bent on eliminating wasteful spending from the federal budget (Weatherford and McDonnell 2005), it is arguable that his predecessor, Jimmy Carter, worked harder to dismantle federal water projects than any other President in American history. Only one month after taking office as President, the former Georgia governor shocked members of Congress by submitting a federal operating budget which completely eliminated all federal funding for 19 congressionally authorized water projects, and drastically reduced funding for hundreds more, many already in various phases of construction (Kirschten 1977, 2). According to President Carter (1995, 81):

> "*I had inherited the largest deficit in history-more than $66 billion-and it was important to me to stop the constantly escalating federal expenditures that tended to drive up interest rates and were one of the root causes of inflation and unemployment.*"

Then, in a follow-up review of 337 active USACE and Bureau of Reclamation water projects, the administration expanded the number of projects facing a potential veto and eliminated federal funding for 30, up from 19 (J. Carter 1977), with some labeling these projects as items on Carter's "hit list." Although some of the 30 projects were eventually approved upon further review and were able to secure federal funding, later in his term, Carter announced new plans to

implement stricter criteria for assessing the economic and environmental costs and benefits for each water project proposed to Congress (Scheele 1978). Carter's new analytical criteria for water projects had the effect of making it more difficult for Congress to pass water legislation without facing an executive veto, and represented Carter's last battle in his "water war" (Frisch and Kelly 2008).

While Carter justified the elimination of funding for water projects as fiscal conservatism, critics are torn as to whether the "hit list" was an economic policy intended to reduce the federal deficit or if it was actually the result of something more personal. As a former peanut farmer and self-professed outdoorsman from Georgia's rural South, it is often believed that Jimmy Carter shared a deeper personal connection to nature than many of his Washington colleagues (Roskelley 1977). Carter's rural roots made him an "outsider" to many urban elites in Washington (Scheele 1978) and also caused him to be particularly suspicious of water projects intended to "modernize" the American landscape. In 1971, Carter displayed this attitude when he fought to stop a USACE dredging project in Georgia. Carter believed that the project would have destroyed the fish and wildlife habitat along St. Simons Island, and he threatened that if USACE did not halt its dredging, he would deploy Georgia's game rangers and have the Corps stopped by force (Scheele 1978). Then, two years later, while still serving as Governor of Georgia, Carter discovered that the Corps had embellished the projected economic benefits of a proposed dam along the Flint River (Kirschten 1977), leading him to not only veto the project, but also write an 18 page letter accusing USACE of lying to the people of Georgia and manipulating data for the Corps' own benefit (Clymer 1977).

When Americans elected Ronald Reagan in 1980, many were unsure whether the new president would break from the conventions established by the preceding Democratic

administration or if Carter's principled stance against water projects would carry over. Early glimpses of Reagan's legislative approach to water projects would indeed raise more questions than answers. The first five years of the Reagan presidency shared remarkable continuity with the Carter administration's attitude toward water projects. Just like Carter before him, Reagan's first year in office was spent attempting to delay the construction of several water projects, including those which had already been added to Carter's "hit list" (Wilkinson 1989). Yet, whereas Carter was only able to manipulate the federal budget in order to de-fund water projects, Reagan institutionalized a long-term solution to eliminate construction. By proposing a program in which construction costs would be split between federal and state governments, Reagan never allowed the federal government to become the primary financier for any state or regional water project. By drastically increasing states' financial burden to complete their projects, Reagan was able to succesfully delay construction and pre-planning for all but the "most critical" water projects, thus pushing back the completion timelines for 70 of the more than 300 Congressionally approved sewage treatment, water supply and dam improvement projects (Christian Science Monitor 1981).

After signing the Water Resources Development Act in 1986 (WRDA-86), the Reagan administration moved to limit the size and scope of all future federal water projects and instituted financial controls to prevent Congress from authorizing any "pork barrel" water projects. Operationally, WRDA-86 instituted: (a) cost ceilings to limit the size and scope of USACE construction projects, and also, (b) a policy of 50/50 cost-sharing between federal and state governments for all future USACE and Bureau of Reclamation projects (Gerlak 2005). In a report presented to USACE's Institute for Water Resources, Army Corps Historian Martin Reuss (1991, 1), captured the tenor of Reagan's efforts, proclaiming that WRDA-86:

"*signifies major and probably enduring shifts in the nation's attitude toward water resource planning. The legislation reflects general agreement that non-federal interests can, and should, shoulder more of the financial and management burdens, that environmental considerations are intrinsic to water resource planning, and that uneconomic projects must be weeded out.*"

While Reagan was able to fulfill his campaign promise to eliminate "pork-barrel projects" with the passage of WRDA-86 and delay the construction of many federal water projects, his administration soon suffered backlash from a contingent of Republican senators representing 14 western states. The 14 senators, led by Department of the Interior Secretary, William P. Clark, criticized Reagan's move to decrease funding for many large-scale water projects on the grounds that Republican politicians would lose votes in the west if unable to deliver a cheap and secure supply of water to their constituents (Noble 1984). Despite the threats to his reputation as an extreme fiscal conservative and penny-pincher (Gerlak 2005), Reagan relented to the pleas from his fellow Republicans and reversed course, eventually committing to complete the construction of many western water projects which Congress had already approved (Noble 1984). Many have suggested that the administration's policy reversal came as an attempt to build consensus among the ranking Republicans as well as distancing Reagan-era water policies from former-President Jimmy Carter's "hit list" approach to western water projects of the late 1970s (Miller 1985; Holland and Moore 2003) while others simply claim that Reagan was not as fiscally conservative as his reputation indicates (Stewart 1991; Montopoli 2011).

Reagan's "go it on their own" Approach

Having acquired experience crafting several landmark environmental programs while serving as the Governor of California, Reagan appeared to be more sympathetic to the plights of his Western cohorts in the Senate dealing with water scarcity (Denning 2011). Well before Reagan was elected president, many western water managers and policymakers had predicted that the economic livelihoods of the western states would soon be threatened without gaining access to more water. In 1977, Governor Scott Matheson of Utah warned that "*water has suddenly surpassed time as the traditional Western luxury and we have little time left to take charge of the small amount of water that gives us life*" (Mathenson, as quoted in *Salt Lake Tribune* 1977). Even Reagan himself had been forced to deal with water scarcity issues while presiding over California's massive aqueduct systems. California's geographically expansive aqueduct systems have sometimes been called "the eighth wonder of the world" (Cannon 2003) and were designed to transport water from the state's wetter north to the drier south, establishing what was, in effect, an informal state scale water market (Lefkoff and Gorelick 1990). While Western Senators may have forced Reagan's hand on the issue of water production, leading to the authorization of more than 50 federal water development projects in 1986 alone (Water Resources Development Act 1986), it was Reagan's decision to defund river basin commissions which would have the most profound and longest-lasting effects upon the ways that federal and state governments manage their water resources.

In a 1967 statement to the U.S. Senate Subcommittee on Water and Power Resources, Governor Reagan presented California's plan to deal with "*imminent and widespread water deficiencies*" in the Colorado River Basin and the Pacific Southwest. Reagan claimed that limited

water resources and a booming population made the need for action unmistakable. California's proposed actions were twofold. First, Reagan proposed increasing inter-basin transfers of water from the north to the south, establishing the aforementioned in-state water market and second, he urged California to discover and develop new supplies to supplement existing sources of freshwater. For the second phase of the project, Reagan appealed to the subcommittee for greater state autonomy in seeking out additional water sources.

In a highly strategic and counterintuitive move to leverage Congressional support for the second phase of California's project, Reagan pledged California's support for the establishment of an impartial National Water Commission to supervise exploratory studies on water resource development. Although Reagan (1967, 3) expressed concern that a federal water management commission could duplicate existing efforts at the state and regional scales, he supported the creation of a National Water Commission:

> "*conditioned on: (1) immediate implementation of the Pacific Southwest regional study so that alternative solutions will be available for comparison by the early 1970's, and (2) assurances that the commission will not be used as a mechanism for delaying those studies.*"

Thus, in order to hasten Congressional approval for California's proposed projects, Reagan pledged his support for the federal commission while also providing clues to suggest that his support was politically motivated and that he preferred for California to manage its own water. Reagan even went so far as to suggest that Congress reconsider the function of the National Water Commission, saying that it "*could be directed to consult with the Western States Water*

Council in developing western states water programs" (R. Reagan 1967, 4) and that water management responsibilities were best left to the states, recommending that Congress should "*continue to seek a regional solution to what is truly a regional problem*" (*ibid*, 5).

Reagan's preference for state-centric management of water resources, as revealed while Governor of California, followed him to the White House. A key component of Reagan's agenda of competitive federalism, as it pertained to water, was to expand the roles of states and regions to manage their own water resources. To accomplish this, the administration drastically reduced funding, or otherwise weakened, both the Water Resources Council and the River Basin Commissions in 1982 with remarkable ease (Allee 1986), by "*suggesting that states were to go it on their own*" without management or planning assistance from the federal government (Gerlak 2005, 238). What resulted, however, was only management confusion and administrative and governance fragmentation (Graf 2001). Despite varying degrees of management success by river basin and interagency commissions in the west and the Great Lakes Basin Commission (1955), Delaware River Basin Commission (1961) and the Susquehanna River Basin Commission (1971) in the east, Reagan's Executive Order 12319 moved to terminate six basin commissions established by the Water Resources Planning Act of 1962 (Exec. Order No. 12319). For several reasons which will be discussed in further detail later in chapters 5 and 6, decentralization and governance fragmentation profoundly affected the way that water is managed in the ACF Basin, not the least of which is because metropolitan Atlanta is located at the headwaters of five different river basins shared with other states and operates an integrated water system that relies upon politically and ecologically-sensitive interbasin and interstate water transfers (Dellapenna 2005).

The following chapter will introduce the views and opinions of various stakeholders, which were collected with respect to answering this study's central research question. The data will be presented in an interpretive manner in order to make sense of the multiple and conflicting accounts of the ACF conflict.

CHAPTER FIVE:

COMPACT NEGOTIATIONS AND THE TRANSITION TO LITIGATION

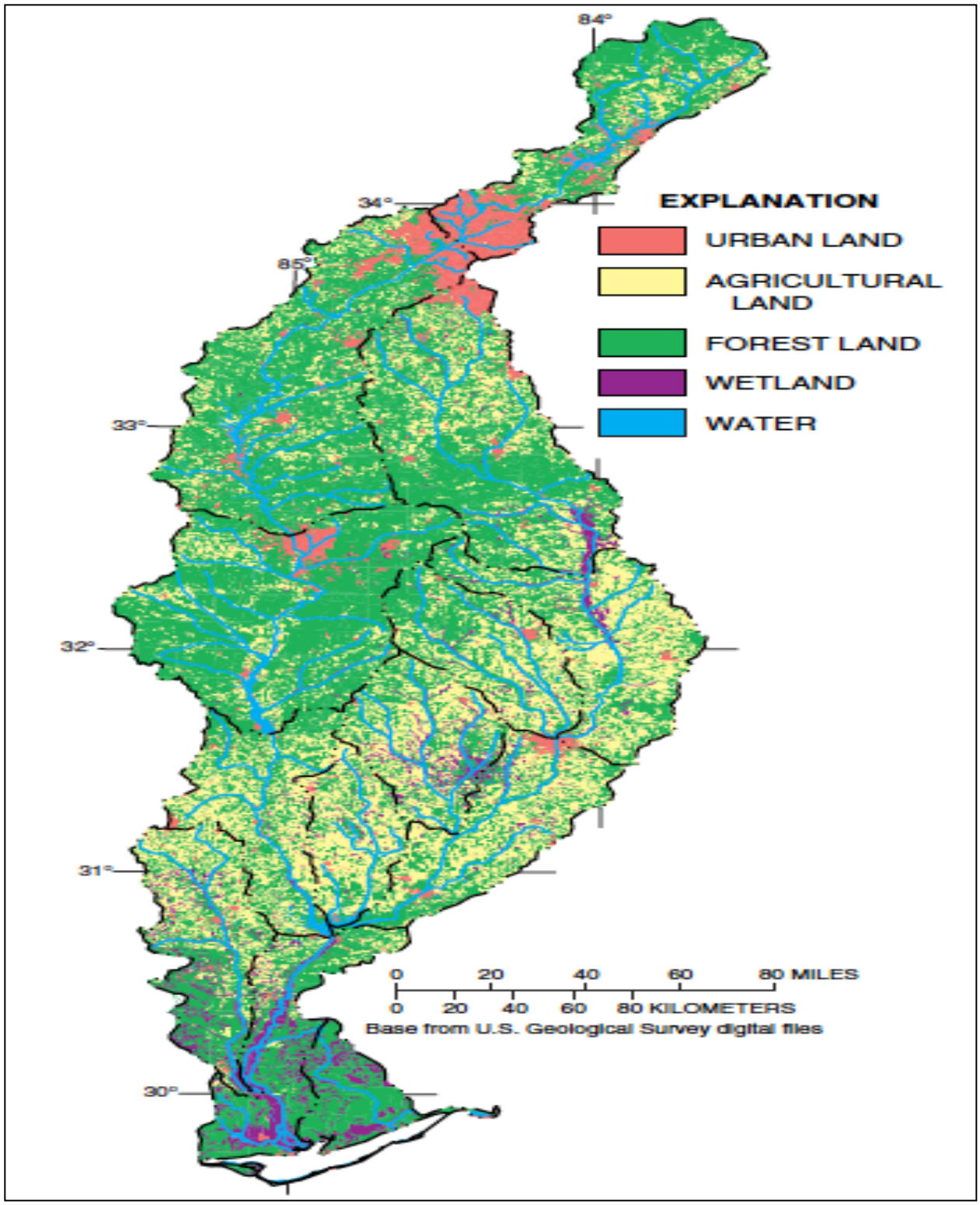
It is in this context that the study will now turn to research question 1, namely, *what is the trend in respect of freshwater consumption by the various stakeholders to the ACF Basin conflict? What are the sources and competing uses of water among the conflicting states?* The following views and opinions were collected.

Hydrology of the ACF Basin

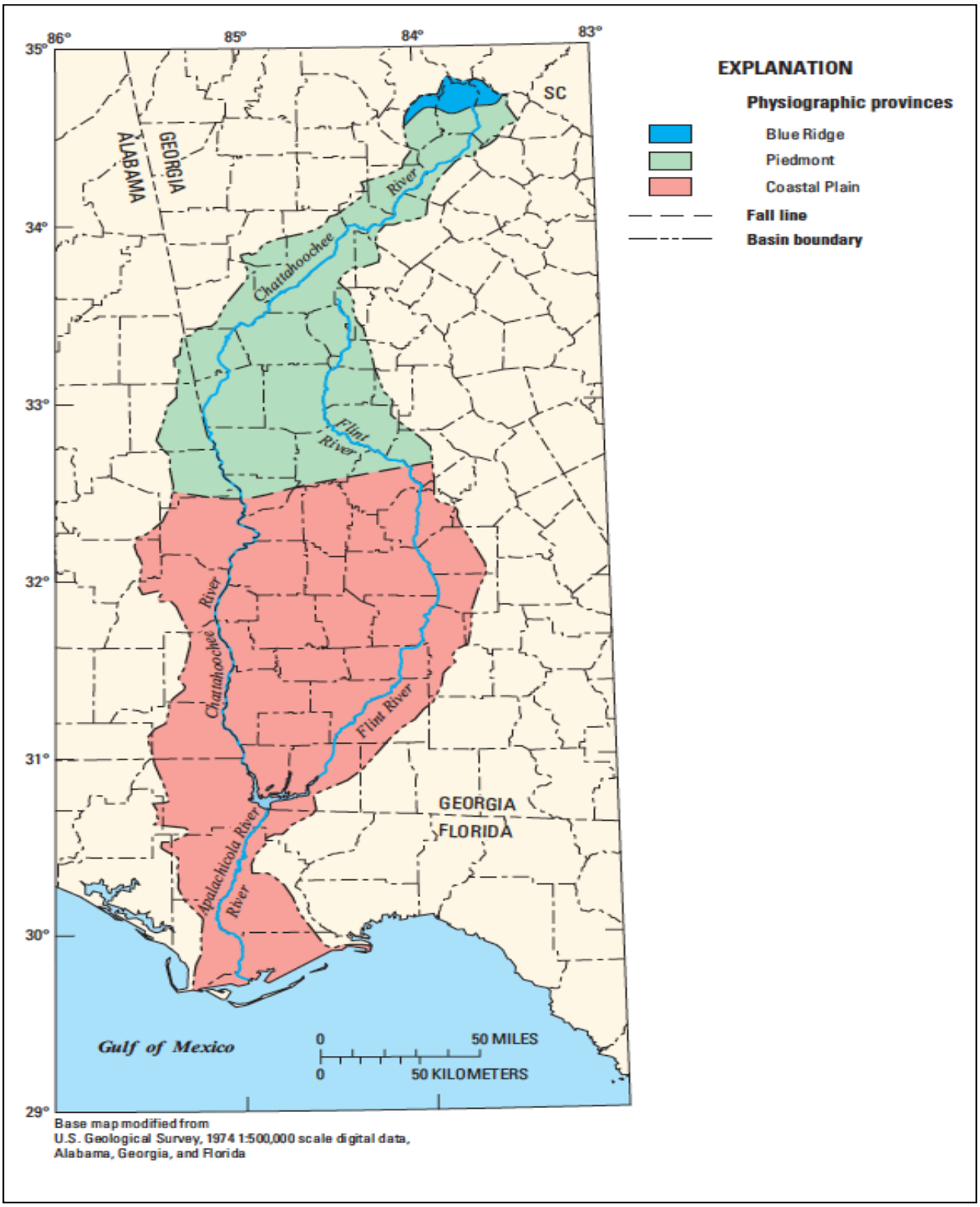
As Maps 2 and 3 below demonstrate, the watershed of the ACF Basin is separated into three physiographic provinces: (a) Blue Ridge; (b) Piedmont; and, (c) Coastal Plain, and is divided among four land use categories: (a) forested and (b) agricultural land account for 59% and 29% of surface cover in the basin, respectively; (c) wetland areas, which account for 5.4% of the basin; and, (d) urban areas, which account 5.3% of the entire basin (Wangsness 1997, 11-12). Although urban areas contribute the least amount of land cover in the watershed, water use in the basin is predominantly urban consumptive uses and the rate of water withdrawals for this purpose has been steadily increasing since 1970 (Marella and Fanning 2011, 1-2). As Figure 14 shows, in the ACF Basin, approximately 1,591 million gallons of surface water are consumed each day. Of that total, nearly 50% was used for hydroelectric production while 34%, or

approximately 609 mgd, was withdrawn for municipal water supply. The vast majority of the 609 mgd was withdrawn in the Piedmont physiographic province of the ACF Basin, in which the only major water user is metropolitan Atlanta and which includes the City of Atlanta as well as the surrounding counties of Gwinnett, DeKalb, Fulton and Cobb. In the Coastal Plain, which is the southernmost physiographic province, the major water uses are irrigation as well as power generation from the Farley nuclear plant located near Dothan, Alabama. However, the Coastal Plain province relies principally on groundwater supplied from the Cretaceous, Clayton, Claiborne and Floridan aquifers rather than the Chattahoochee or Flint Rivers (Marella and Fanning 2011, 10-11).

That metropolitan Atlanta is the only major water user in the Piedmont province has a drastic effect on the region's hydrogeography due to urban and suburban sprawl. Because metropolitan Atlanta is located at the narrowest point of the basin's watershed, water withdrawn from the Chattahoochee River is often distributed to residential users that live outside of the watershed. Largely due to public-supply systems which cross hydrographic boundaries into other watersheds, about one-third of metropolitan Atlanta's municipal water supply is lost as a "net use," or consumptive use, and not returned to the system (Metropolitan North Georgia Water Planning District 2009). In the narrowest point of the Piedmont, Chattahoochee River water is lost from its "immediate water environment" as a result of evaporation, transpiration and being discharged into other water basins (U.S. Geological Survey 2012, 18-21).



Map 2: Land Use in the ACF River Basin Watershed.
Source: U.S. Geological Survey 1997.



Map 3: Location of Physiographic Provinces Within the ACF River Basin.

Source: U.S. Geological Survey 2011.

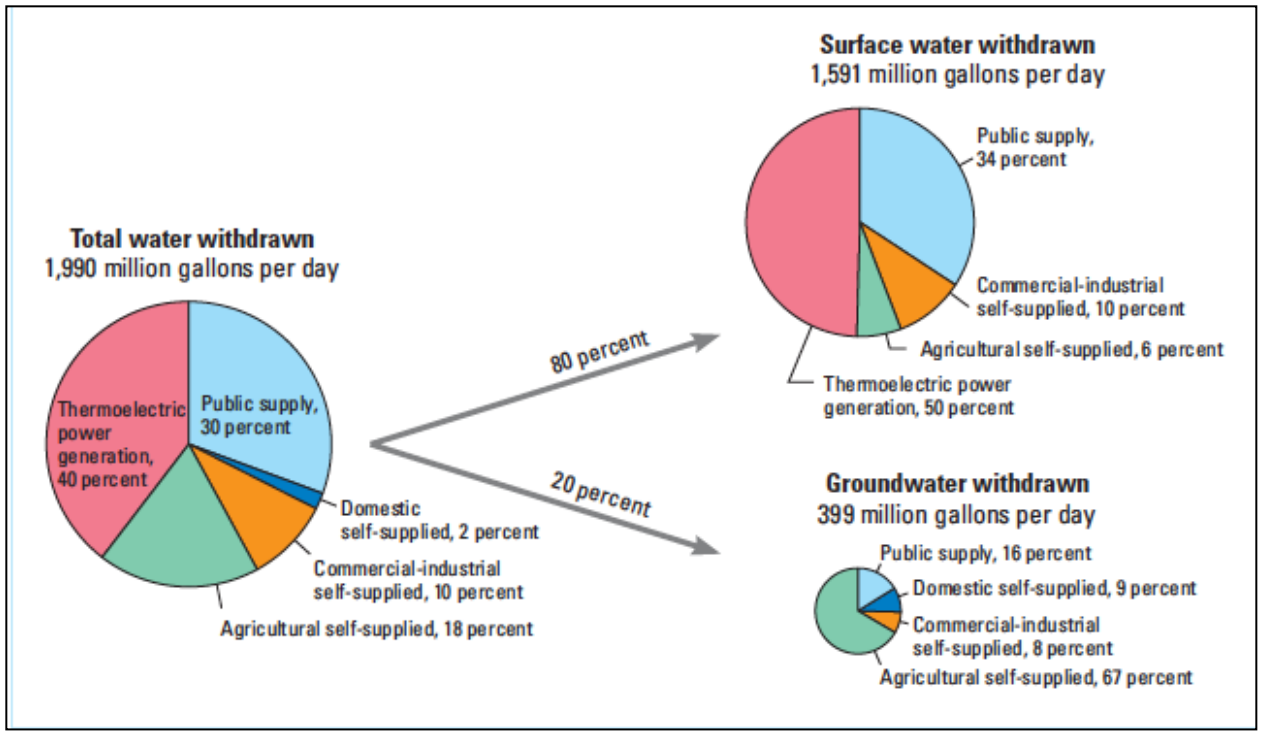


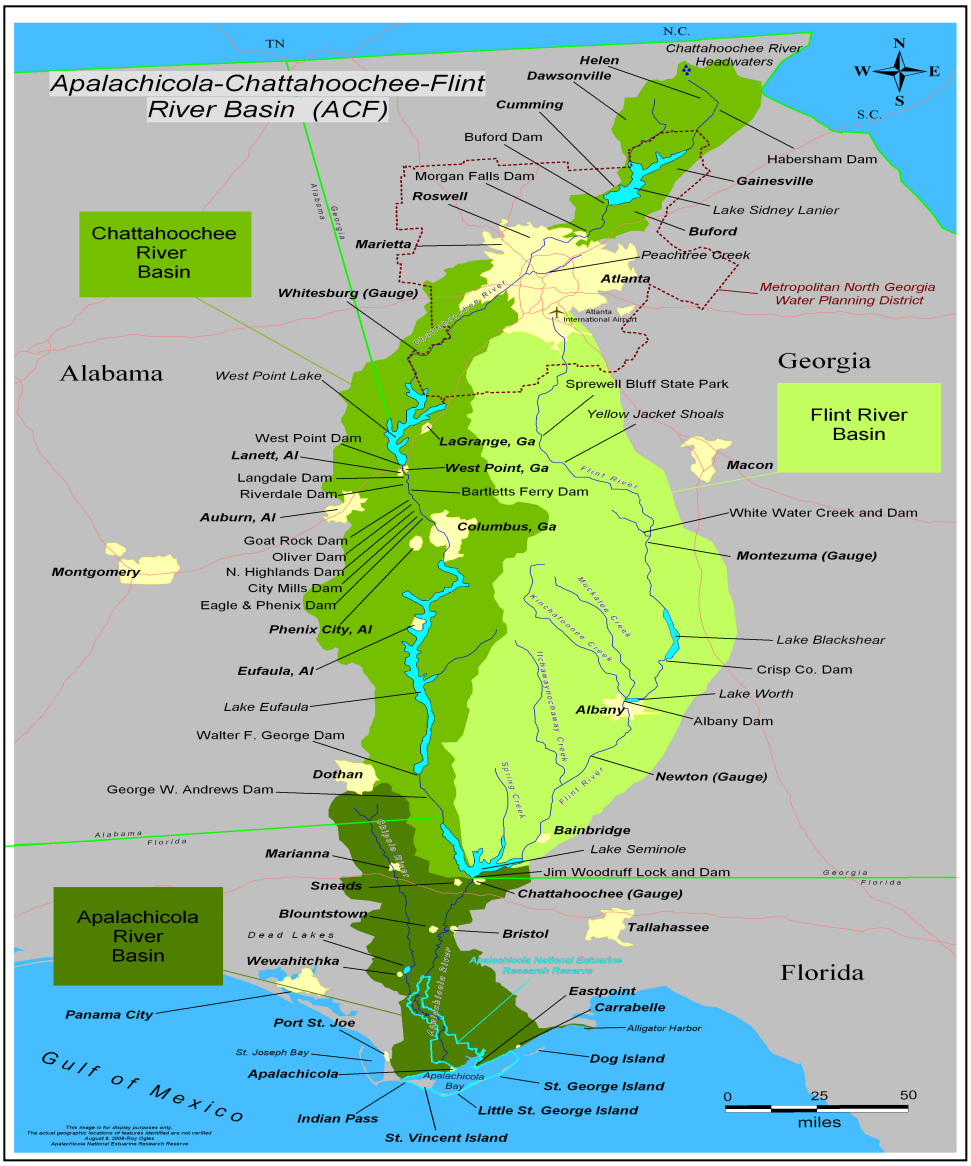
Figure 14: Water Withdrawals in the ACF Basin, 2005.
Source: U.S. Geological Survey 2011.

Significance of the ACF Rivers

As mentioned in chapter 1, the Apalachicola-Chattahoochee-Flint Basin is an integrated system of three rivers, which flows through the States of Georgia, Florida and Alabama. As Map 4 below shows, the Chattahoochee River is the northernmost of the three rivers with its headwaters located in northeast Georgia's mountainous Blue Ridge physiographic province. The Chattahoochee River flows south by southwest for 430 miles (692 km), passing into the Piedmont physiographic province as well as metropolitan Atlanta's northern boundary before forming the border between Georgia and Alabama in the Coastal Plain province. The Flint River also originates in the State of Georgia, near Atlanta's Hartsfield International Airport. From there, the river flows to the south for approximately 120 miles (193 km), dominating the eastern

side of the ACF Basin, before flowing southwest to where it forms a confluence with the Chattahoochee River at the Georgia-Florida state line. Where the Chattahoochee and Flint Rivers meet, the Apalachicola River is formed, and flows south through the Florida panhandle before fanning out to form a wide floodplain and emptying into the Gulf of Mexico via Apalachicola Bay (Couch 1993). The total ACF watershed is comprised of three sub-basins draining into the Apalachicola, Chattahoochee and Flint Rivers, respectively. Combined, the three sub-basins drain an area of nearly 20,000 sq. mi. The majority of the drainage belongs to Georgia's Chattahoochee River, which has a watershed of 8,770 sq. mi. (U.S. Geological Survey 2014).

The ACF River Basin is such an integrated freshwater system that, discursively, the three rivers are almost always referred to in collective terms as the "ACF" or "ACF Basin." Only occasionally are the rivers referred to as separate bodies of water. Table 2 below shows a word-frequency count from the September 2003 Allocation Formula Agreement, which was co-authored by representatives from the three states, demonstrating the preferred terminology to refer to the river system. Although officials from all three states discursively represented the water as a single, integrated river system, for Georgia and metropolitan Atlanta officials, this "collective" discourse is more symbolic than material and only serves to underscore the state and regional officials' unwillingness to share the waters of the ACF Basin with Florida and Alabama. In a symbolic action to demonstrate the three states' commitment to equitably dividing and allocating the integrated river system, Chief Negotiators in 2003 signed a Memorandum of Understanding (MOU). The MOU was an agreement created by the states, intended to serve as a baseline allocation formula, from which the riparians could then craft their own detailed proposals for how to equitably allocate the ACF Basin.



Map 4: Apalachicola-Chattahoochee-Flint River Basin.
Source: Apalachicola National Estuarine Research Reserve.

The MOU was signed in July of 2003 and in September of that year, the states then submitted a detailed Allocation Formula Agreement for public review. According to the text of the September 2003 ACF Allocation Formula Agreement, which is the most recent version obtained, the agreement was designed for the purpose of "*establishing an allocation formula for equitably apportioning for the term of this agreement the surface waters of the ACF Basin*

pursuant to Article VII of the ACF Compact" (Signatory States 2003, 5). The above quote shows that in the most recent compact negotiations, the major point of contention among the states was not whether or not to share the ACF waters, but rather, to what *degree* the freshwater was to be shared and to determine which *competing uses* deserve priority in receiving freshwater from the ACF Basin. Yet despite this 2003 public pronouncement, negotiations failed once more and, as of 2013, the three states are not participating in negotiations. Of course, for the three riparians, the ACF Basin is a significant source of freshwater. However, the significance of the river is different for each respective state and will be discussed in the following sections.

Table 2: 2003 ACF Allocation Formula Agreement Word Count.

Word	**Frequency Count**
ACF	132
ACF Basin	66
Basin	74
Apalachicola	5
Chattahoochee	22
Flint	4
Apalachicola River	4
Chattahoochee River	16
Flint River	4

Source: Wong, J.

The Significance of the Apalachicola River to Florida

In the State of Florida, freshwater from the Apalachicola River flows directly into the Apalachicola Bay estuary, where it provides critical support to the commercial fishing industry (Glennon 2002). For Apalachicola Bay's commercial fishing industry, oysters represent one of the most important and profitable species, but these shellfish are also extremely sensitive to ecological conditions. Figure 15 below shows Apalachicola Bay oyster and shrimping boats docked on the coast during harvest season. As the Apalachicola Bay estuary's salinity levels continue to increase, boats are often docked for months on end.

Figure 15: Apalachicola Bay Seafood Boats.
Source: Northwest Florida Water Management District, 2009.

According to a former Governor of Florida who was interviewed for this study, the preservation of the oyster industry was a major concern for his administration. Accordingly, when it became clear that Apalachicola Bay was not receiving enough water for the seafood industry to prosper,

he felt compelled to protect the Apalachicola River's water supply from the thirsty metropolitan Atlanta region:

> "*Apalachicola must have some good balance for its entire seafood industry to do well…It has it be a proper mix of freshwater and saline water for oysters and other sea life to prosper…and that part of the state depends on rivers that go interstate…So, as a result of that, you have to be defensive to be sure that your supplies aren't cut off*" (Interview, April 25, 2012).

The Governor later mentioned that, while in office, his administration took action to protect Florida's water supply from metropolitan Atlanta's water withdrawals, because he believed that the region was withdrawing water without considering its downstream impacts on neither Apalachicola Bay's ecology nor the panhandle's prospects for economic development:

> "*[Atlanta] can take [water], but you have to remember that there is a downstream factor…It's a multi-state river, so therefore [withdrawing water] has consequences downstream…[oyster farmers] would be impacted the most immediate, but you also have an imbalance in bay ecology and the river system ecology, which would deteriorate…Second, if you did that, at some point the panhandle, when it engages in development like it did, it, too, is going to need water…so, you want to protect the future*" (Interview, April 25, 2012; brackets added).

The Governor later suggested that metropolitan Atlanta's rapid economic and population growth should have forced politicians, business elites and/or water managers to locate more water, but instead only increased its withdrawals from the ACF Basin. With this action, it became clear that metropolitan Atlanta was unwilling to explore any of a range of alternative sources of freshwater:

> "*Atlanta has continued booming, as far as I can tell…so, they require more [water] and they ought to find alternative sources*" (Interview, April 25, 2012; brackets added).

In the Governor's view, metropolitan Atlanta did not adequately manage its limited water supply, but rather bowed to pressure from the business community and citizens to supply the booming region with cheap water from the Chattahoochee River as opposed to finding a sustainable, and most likely, costlier solution such as water conservation, recycling or tapping groundwater supplies:

> "*[Atlanta] reacted…I am sure there was pressure from their citizens for water…they felt they needed water, so they want to take it…They hadn't put enough restrictions to all the users…they wanted them to continue to use water as had been used when it was plentiful…They had no plan to augment their water system towards these kinds of problems…I felt that Atlanta didn't use all sources of water - you can put wells in, you can engage in an aggressive recycling program…There are lot of things you can do, it just costs more and everybody wants cheap water…The issue is about cheap water…everybody wants the cheapest water possible…It ought to be the duty of the*

government to find [a solution that] extends their resources the most, not just what's the cheapest" (Interview, April 25, 2012; brackets added).

An estuarine biologist, who has worked for the State of Florida for more than 22 years and privy to the ACF conflict since the very beginning, offered additional insights. The biologist had studied the potential technical and ecological impacts of water allocation proposals, the results of which were part of the USACE Comprehensive Study. When describing Florida's water problems, he uses a bio-ecological approach to explain the effects of increased water withdrawals on Florida's estuarine ecology. Below is how he explained why only an equitable allocation based on historical water flows would suffice, and why Georgia's proposal to deliver minimum stream flows to Florida would not sustain the ecosystem due to unpredictable salinity balance and the introduction of salt water predators to a sensitive ecosystem (Liu and Acker 2011):

"*The system, both the riverine and the estuarine system, operate in a very dynamic way…They have historically operated in a very dynamic way and they require a great deal of variation…it doesn't have always to be the average flow in the river…We'd like to see large floods, small floods…you don't wanna see a stabilized minimum flow…[consistent stream flow] is harmful towards the whole system…This is an alluvial river system and an alluvial river system is one that is characterized by periodic flooding and so is the vegetation community…[species] of [the] community that live in the flood plain are dependent upon, not only some seasonal, but also inter-annual flooding…It doesn't have to flood the entire flood plain every year, but if it does that every four years*

or six years or something like that, then that's enough to maintain the system as it is…A large proportion of fish species spawn and have their juvenile stages back out in the tributaries and parts of the flood plain where there is adequate food and refuge from predators…They need that back water area and, if all you get is some minimum flow, it doesn't even inundate the flood plain…Then all of those species are going to be restricted from their habitat where they would naturally undergo part of their life history processes" (Interview, February 1, 2013; brackets added).

Speaking about why Georgia has proposed delivering minimum stream flows to Florida, as opposed to maintaining a historical flow regime, even though this would negatively impact Florida's estuarine ecology, the biologist opined:

"*They want to be protective of their water supply for both [sic] municipal, industrial and agricultural…They want to give as little as possible to Florida…I can only surmise that's because they think they have social and economic reasons for doing that, and those outweigh ours*" (Interview, February 1, 2013).

The estuarine biologist also offered an educated opinion as to who is primarily responsible for the ACF conflict:

"*Look at what [USACE is] doing right now. They are operating the system not agreed upon…they decided how they wanted to manage [the ACF Basin] and that favors the*

upstream states because they are holding more storage upstream [and] releasing less water downstream" (Interview, February 1, 2013; brackets added).

He then explained why, in his opinion, USACE granted metropolitan Atlanta increased storage capacity in Lake Lanier, in spite of the negative effects that reduced water availability continues to have on Florida's ecology:

"*I guess the political clout that Atlanta and Georgia, in general, has with the Corps…the Corps is providing that increased storage and certainly, if you look at the way they revised the operating procedures, they favor that increased storage very much…That's why we in Florida have gotten this minimum level since about May…only a couple of times have we got little bumps in flow, but it has been stable at little over 5000 cfs [cubic feet per second]*" (Interview, February 1, 2013; brackets added).

While Florida received only 5,000 cfs, in the biologist's professional opinion, a much greater stream flow of approximately 15,000 cfs would be needed for several consecutive weeks in order to provide Florida's ecosystems with the flood flows required. Only then would Apalachicola Bay's salinity levels stabilize and continue to support the sensitive estuarine ecology.

The Significance of the Chattahoochee River to Alabama

The Apalachicola Bay seafood industry, and oysters in particular, is an important user of freshwater. According to Florida's stakeholders, their economic and ecological uses require

access to more water from the ACF Basin. For the State of Alabama, however, it is the overall state economy that deserves priority of access. In the 1990 lawsuit filed by the State of Alabama against USACE, the State alleged that increasing metropolitan Atlanta's water withdrawals would reduce stream flows in the Chattahoochee River, which in turn would have inflicted a heavy economic burden upon the state's agricultural sector, industrial mining operations, recreational and forestry industries, as well as limit the ability to produce electricity and transport goods via waterway (Williams 1991). Accordingly, the lawsuit claimed that by USACE granting additional water withdrawals to metropolitan Atlanta, Alabama would sacrifice "*badly needed economic development*" (Williams 1991), mainly due to reduced electric production at the Joseph M. Farley nuclear power plant near Dothan, Alabama. The power plant, shown below, generates nearly 20% of the state's electricity and uses water from the Chattahoochee River to cool spent fuel cells (Alabama Power 2010, see Figures 16 and 17 below). A high-ranking water manager from Alabama, who is described as "an authority on the ACF conflict" by employees of the Alabama Office of Water Resources, described the significance of the ACF Basin to Alabama as follows:

> "*We are looking for opportunities for economic growth in Alabama, for the state, like anybody else…Of course, we want to be able to look at that in terms of what the potential might be, though, and evaluate the terms of the availability [of freshwater], as well… we have industries and municipalities [which need] power supply on the Chattahoochee, as well…It's an area that is important from Alabama's standpoint…from the water supply standpoint…from the waste assimilation standpoint…Farley nuclear plant…Farley is a*

central, a significant part of the Southern power grid, as well" (Interview, January 31, 2013; brackets added).

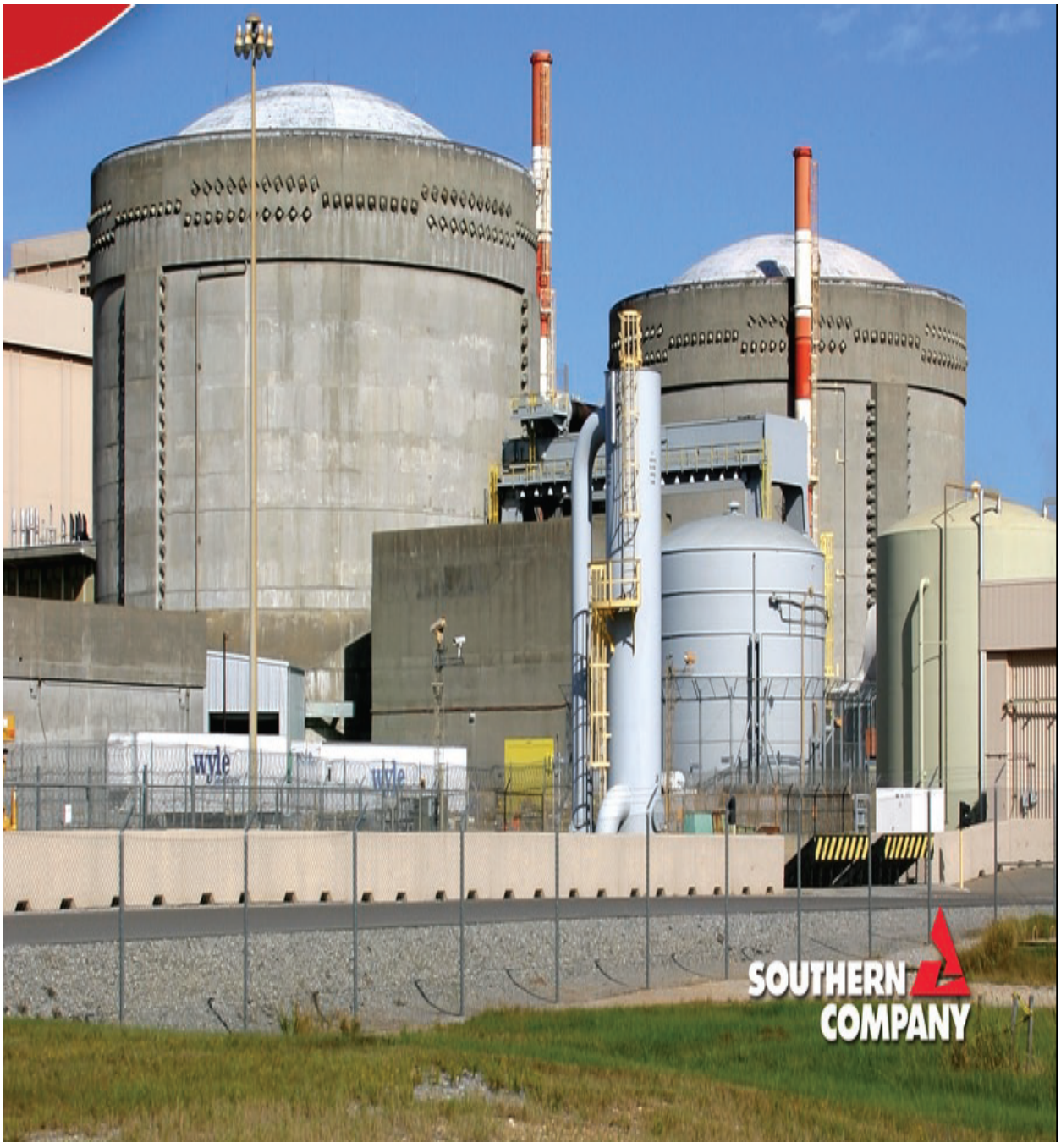


Figure 16: Farley Nuclear Plant near Dothan, Alabama.
Source: Alabama Power 2010.

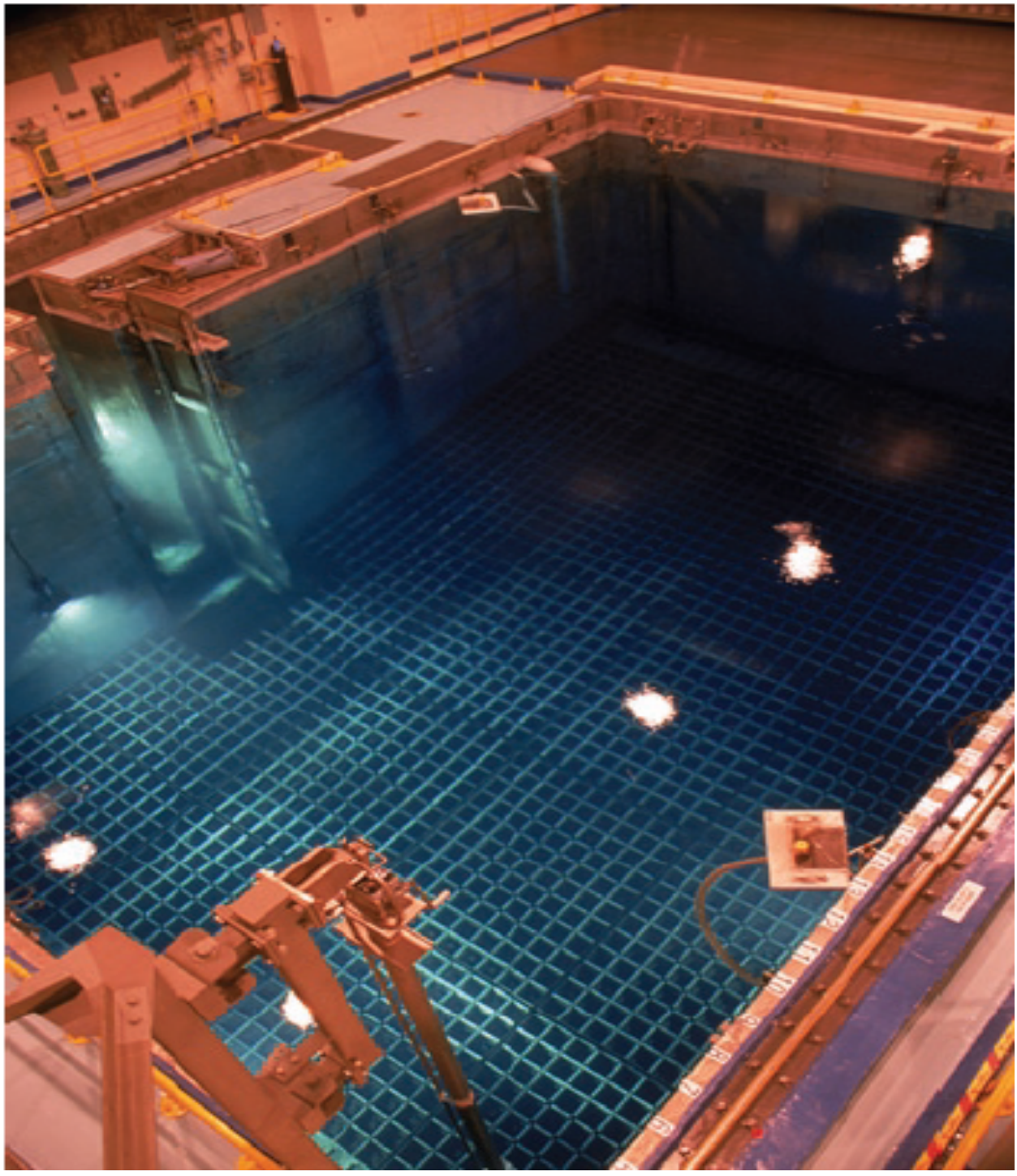


Figure 17: Spent Fuel Cooling Pool at Farley Nuclear Plant.
Source: Alabama Power 2010.

Similar to the former Florida Governor and estuarine biologist from Florida, the official from Alabama suggested that metropolitan Atlanta's suburban growth has come at the expense of downstream stakeholders and that USACE has provided tacit approval of Atlanta's regional growth strategy by not requiring payment for increased water withdrawals from the basin:

> "*We understand Atlanta's growth…we understand and we are not jealous, as has been categorized of us, as far as Atlanta's growth…There are lots of benefits to Atlanta's growth for the southeast, so that's good for us, as well…but, we feel like, and it's summarized and stated in articles, as well…we feel like we've been having to pay the price for Atlanta's growth…In other words, Atlanta is growing, but they haven't made any type of arrangement or anything like that for the water supply…so, what they've done is they increase use of the federal project and haven't gone through the Corps of Engineers, as well…haven't gone through and followed the law to have all the reservoirs reauthorized for their water supply…therefore, they just continue to take these increased withdrawals…It would've mattered less if water was flowing downstream for Alabama and for Florida, but there is none…They are not making any arrangements or paying for it, or anything like that…They aren't trying to make an arrangement to either increase storage somewhere else…or develop better water supplies, things like that…Instead, they just withdraw more…the Corps is not making them do anything for that and so, as a result, there is just less water flowing downstream*" (Interview, January 31, 2013).

The Significance of the Chattahoochee and Flint Rivers to Georgia

The Chattahoochee River is the largest river of the ACF system and provides metropolitan Atlanta with approximately 70% of its total water supply (Andreen 2005). The only other significant source of freshwater for metropolitan Atlanta is Lake Allatoona, which is a diversion from the Etowah River, and is concurrently the subject of a second dispute between the States of Georgia and Alabama (Fitzhugh and Richter 2004). As mentioned in chapters 3 and 4, flow from the Chattahoochee River is regulated by the Buford Dam, which stores water in Lake Lanier. From there, some water is released for hydroelectric production; remaining water is used for recreation and for metropolitan Atlanta's municipal water supply. By the time the Chattahoochee River flows south of metropolitan Atlanta, municipal, industrial and even some agricultural wastes have significantly degraded water quality. As a result of industrialization, suburbanization and damaged and aging water infrastructure, point and nonpoint sources in the region contribute chemical and biological contaminants to the river *vis-à-vis* outflow from storm and sanitation sewers (Frick, et al. 2000). Thus, as the Chattahoochee River flows south of metropolitan Atlanta's southernmost suburbs to supply Georgia's agricultural interests, pesticides, herbicides and lawn fertilizers have severely degraded the water. Similarly, the Flint River, which has its headwaters just miles south of the Atlanta metropolitan region, gradually degrades in quality as it flows south through agricultural lands in the sub-basin. Before it joins with the Chattahoochee River at the Georgia-Florida state line, the Flint River accumulates chemical and biological contaminants and wastes from livestock and poultry production facilities in southern Georgia (Wangsness 1997, 11). As will be discussed further in chapter 7, these examples of Georgia's southern agricultural interests degrade the water before it flows across the

Georgia-Florida state line. Nonpoint agricultural waste, undiluted industrial and municipal waste, in combination with nutrient loading in retention ponds, further degrade the water before it flows to Apalachicola Bay (Davis and Jordan 2006).

With respect to research question 2, namely, *what is the policy and regulatory framework that currently exists for the allocation and distribution of the water resources among the three ACF riparian states?* the following views and opinions were collected and analyzed.

Water Management Authority at the Federal and State Scales

Chapter 4 discussed how during the 1980s, a new political-economic ideology grounded in *laissez-faire* economic policies and often called *competitive federalism* was promoted as a viable alternative to the highly-centralized Keynesian economic policies of the 1950s and 1960s (Harvey 2005). Starting in the 1970s and maturing in the 1980s, a global political coalition led by British Prime Minister Margaret Thatcher and U.S. President Ronald Reagan materialized neoliberal ideology by reducing the tax burden for citizens in the upper income brackets while also reducing federal expenditures. In the U.S., Reagan's neoliberal ideology emerged in the form of drastic and selective reductions in federal grants and capital investments, which then forced states into rigorous competition for the remaining federal development grants and capital. Reagan promised that cutting funding would lead states down a path to financial independence and that only ultra-competitive interstate and regional economies could bring prosperity to the nation, because, as Reagan put it in 1982: "*[e]xcellence demands competition…without a race there can be no champion, no records broken, no excellence."*

Conceived of as a way to reduce the federal budget, Reagan's plan to foster interstate competition resulted in many unforeseen consequences and ultimately complicated many issues, particularly those which cannot be confined to one political jurisdiction, including environmental protection efforts (Esty 1996), resource management practices (Earl and Czerniak 1996) and questions of resource ownership (Krutilla, et al. 1983). In 1987, Reagan signed Executive Order 12612, committing the federal government to take a hands-off approach to inter-jurisdictional issues, stating that:

> "*[i]t is important to recognize the distinction between problems of national scope (which may justify Federal action) and problems that are merely common to the States (which will not justify Federal action because individual States, acting individually or together, can effectively deal with them).*"

Believing water management to be a problem "common to the States," the Reagan administration recommended that Congress not provide states with management or planning assistance to govern water resources (Gerlak 2005, 238). As a consequence, states were forced to shoulder the burden of producing and allocating water, disposing of sewerage, implementing water laws, and most germane to this study, engaging in interstate action to govern water use and development (Engelbert 1957). In this context, the USACE had to defer decisions to allocate interstate waters to states and local governments. Abrams (2009) suggests that the Corps ceding its power to allocate water to states has become "hallmark of water federalism" and, therefore, it is clear that no single scale of government has full authority over water allocation decisions. As a consequence of power sharing between the federal and state water agencies, with neither

assuming full authority over the waters of the ACF River Basin, managing the basin has become a highly contested political exercise.

It is against this background that a high-ranking water manager, who works for the USACE Mobile (AL) District, suggested in an extended interview that the lack of definitive guidelines for allocating the waters of the ACF River has made it very difficult for USACE to manage the basin. Perhaps demonstrating that he was only recently appointed to the USACE's ACF working group, the manager also suggested that an eventual resolution might still be reached. According to this official, the working relationship between federal and state water managers allowed the process of establishing allocation guidelines to move forward. As a water manager with a strong legal background, he also suggested that when USACE finally releases its updated water control manual, the expectation is that the Corps will be sued by a number of stakeholders. Moreover, in this water manager's view, it is only through a multi-jurisdictional process of litigation that the USACE can resolve some of the more complex issues related to water allocation in the ACF Basin:

> "*If we can get a final water control manual up there, we might as well. We get sued…we might. But, you know, that kind of…the law solves a lot of the issues, because then we are moving forward pursuant to a manual for the Basin, and we will have sort of a guideline set up*" (Interview, January 25, 2013).

Although hopeful that an allocation guideline would eventually be established, the water manager admitted to being jaded about whether or not compact negotiations were the best way to achieve this long sought after goal. He described the negotiating process as painstakingly slow:

"*If the states ever did reach an agreement…then the Army Corps reviews the agreement and they will make a recommendation…and send that to Congress and then Congress will either approve or disapprove, ratify it or not ratify it…And so, you know, unfortunately, the states never get to that point where they really are going forward…They have been living in that little provision* [not reaching an agreement] *for a number of years…we want a definitive answer*" (Interview, January 25, 2013; brackets added).

Later, he added that USACE's process of producing its own guidelines for managing the ACF Basin is similarly time-consuming, but that it does differ from compact negotiations in one major respect. In his view, allocation guidelines established as a result of compact negotiations would have received feedback from experts at USACE and members of Congress. The ACF water control manual, which "*outline*[*s*] *the regulation schedules for each project, including operating criteria, guidelines and guide curves for varying conditions as well as specifications for storage and releases from the reservoirs*" (U.S. Army Corps of Engineers 2014), will receive feedback only from state water managers and the general public, as demonstrated in the quote below:

"*[To produce the updated ACF Operations Manual], one of the things we need to look at is, of course, the comments that people provided and we just got those in…so now, we are going to those and trying to address those…and we did not come up with any array of alternatives yet…After we've gone over all the scoping comments, we will be able to come up with an array of alternatives…Then, we'll put those array of alternatives in to be modeled…Then, what we will do is we'll go out with the draft EIS [Environmental*

> *Impact Statement] and draft water control manuals…And remember, this is probably a year out, plus…At that point, we once again will travel from several locations to get feedback and explain things…find out what the public thinks about this, what modeling we may need to do additionally and things to consider…There would be a whole other round of comments and everything at that point…After that, then, at that point, we'll go ahead and go for it and do a final EIS of water control manuals, taking into account all the comments and the information we received on the draft*" (Interview, January, 25, 2013; brackets added).

The quote above clarifies that updating the current ACF Master Water Control Manual is an iterative and time consuming process; left unsaid is the fact that the manual has not been comprehensively revised since 1958 (U.S. Army Corps of Engineers 2013). Accordingly, the Corps has spent years producing a comprehensively revised manual draft.

In January 2008, the Secretary of the Army directed USACE to begin making minor updates to the water control manual for the first time since 1989. As a condition of drafting an EIS, the USACE Mobile District collected what are called public scoping comments in order to "*determine the range of issues to be addressed and to identify the significant issues to be analyzed in depth with respect to the proposed action"* (U.S. Army Corps of Engineers 2013, ES-1). Scoping comments were collected over a period of four years from fall 2008 until fall 2012, resulting in 3,261 comments from 965 individuals (U.S. Army Corps of Engineers 2013, ES-2). The distribution and categories of comments received by USACE are shown below in Table 3.

Table 3: Distribution and Categories of Scoping Comments Related to the Update of the Water Control Manual for the ACF River.

Category	Number of Comments
Water Management Recommendations	1,228
Socioeconomics and Recreation	706
Biological Resources	584
Drought Operations	208
Water Quality	189
National Environmental Policy Act	241
Water Supply	149
Data, Studies, and Analytical Tools	97
Other Resources	65
Navigation	41
Hydropower	31
Flood Risk Management	82
Total	*3,621*

Source: U.S. Army Corps of Engineers, 2013.

In concluding the interview, the abovementioned USACE water manager expressed uncertainty that further compact negotiations among the states would result in a conclusive allocation agreement because the conflict has been dragged out with very little progress made over the course of 25 years. Moreover, even with the involvement of federal policymakers, including the U.S. President, a resolution is not in sight. The following section will explore this issue and offer explanations as to why compact negotiations failed to produce an equitable allocation formula. Despite the numerous failures, the water manager still held out some hope for the prospect of achieving a final resolution to the ACF conflict:

> "*[Compact negotiations] were all the way up in the DC level…they had a meeting between the governors…you had, you know, the President involved and they couldn't reach it in the early 2000s, not just in the 1990s, in the early 2000s they couldn't reach an*

agreement then!...I don't know if they will now, but having said that, I think at this point this is the first time we haven't had active litigation on the ACT [Alabama-Coosa-Tallapoosa Basin] *or state litigation…and there is only one phase still active on the ACF, which is Phase 2, which is the ESA [Endangered Species Act], but this is the most calm time as far as litigation that we got [in] a long time*" (Interview, January 25, 2013; brackets added).

The next section will now turn to a discussion of the research data related to research question 3, namely, *how did the three states strategically orchestrate the failure of compact negotiations in order to push the problem into the future and at the same time to develop facts on the ground?*

Compact Negotiations as Highly Contested Political Exercise

In 1992, the States of Georgia, Florida and Alabama signed a formal agreement to generate a temporary compromise to the increasingly contentious dispute over the right to withdraw water from the ACF Basin. Under the agreement, the State of Alabama agreed to suspend a lawsuit it filed in 1990 against USACE, which sought an injunction against the Corps' decision to increase water withdrawals out of Lake Lanier to supply the booming northern Atlanta suburban counties with water (Seabrook 1988). In exchange for Alabama suspending the lawsuit, USACE agreed to halt its plan to increase water withdrawals on behalf of suburban Atlanta until it completed a feasibility study (Yardley 1992). The feasibility study was designed as a collaborative effort between the three states and USACE to produce a technical report from which the states and USACE would then collectively determine an

allocation formula. The goal of the study, commonly referred to as the USACE Comprehensive Study, was to model future water demand projections for eastern Alabama, western Georgia and the north and central regions of the Florida panhandle. Operationally, the study was designed by the states and the Corps to assess how USACE should manage the region's water resources in order to satisfy projected water demands of each state while also satisfying the region's economic and ecological needs and to provide a scientific basis for a future allocation formula.

Authorities originally planned to complete the study within three years. Marred by successive delays, however, the study dragged on for five years and was finally abandoned in 1997. But, according to a high-ranking USACE water manager, by December of 1996, the states collectively determined that the Comprehensive Study was becoming "too technical" and negotiations could proceed despite the absence of the report (Interview, February 7, 2013). The states then signed a new agreement and decided to hold compact negotiations in order to produce an allocation formula rather than use the USACE Comprehensive Study to produce allocation guidelines, as per the 1992 agreement. Thus, as a result of this new agreement, each of the three state governors appointed one official, a Chief Negotiator, to represent his state's respective interests in the compact negotiations (Seabrook 1996). President Bill Clinton appointed then-Speaker of the U.S. House of Representatives, Newt Gingrich (R-Georgia), as the first federal representative to the negotiations. Gingrich was charged with overseeing the interests of federal agencies with a stake in the outcome of the negotiations, including the Corps, the Environmental Protection Agency (EPA) and the Fish and Wildlife Service (FWS) (Ezzard 1997).

The 1996 agreement by the states to hold compact negotiations without the assistance of USACE is yet another example of federal agencies deferring to Reagan's doctrine of state's rights with respect to water management. As a result, the decision to produce an allocation

formula by negotiating, instead of using the USACE Comprehensive Study as a guide, significantly diminished the management role of USACE. Thus, as Abrams (2009) suggests, managing the basin thus became an infinitely more complex and highly contested political exercise among the three riparian states. It is against this background that another high-ranking water manager for the USACE Department of Legislative and Public Affairs offered an explanation for why the ACF conflict remains unresolved. In an extended interview, this water manager argued that the decision to remove USACE as an active party to the negotiations downgraded the Corps' responsibilities to simply providing technical assistance to the states, which, in his view, contributed to the inability of the states to achieve a resolution:

> "*The Comprehensive Study was an agreement between the three states and the Corps to look at the Basins [ACT and ACF] and try to come up with a solution…That study was never completed because the states went to what's known as a compact…The negotiations, at that point, became between the three states…then the compact fell apart and what negotiations have occurred since then, we have not been involved with…We've only offered our assistance to the three states…technical assistance if they wanted it…we've not been an active member for the negotiations since the compact study went away years ago*" (Interview, February 7, 2013; brackets added).

For this water manager, the 1996 decision by Georgia, Florida and Alabama to hold compact negotiations and not use the commissioned USACE Comprehensive Study as a guide lay at the root of the federal agency's reduced status as a technical assistant to the respective states' parochial interests. Ultimately, the agreement to negotiate an allocation formula forced the Corps

to take a hands-off approach to both the ACF conflict and the management of the ACF Basin, in his view:

> "*The Comprehensive Study was a collaboration between the three states and the government, with the Corps of Engineers providing the technical portion for the federal government…The Comprehensive Study was looking at a lot of different aspects…stream flow requirements…economics…environmental issues…looking at the requirements for Apalachicola Bay…just all kind of different elements involved in that study…but, the Comprehensive Study went away when the compacts were formed between the three states and then authorized by Congress…Then, the negotiations strictly became the three states' negotiations…At some point they decided that the Comprehensive Study was not achieving the goals that it was intended to achieve…the states decided to go the route of forming a compact, and then, the negotiations became strictly between the three states and we were there only to provide technical assistance, as required*" (Interview, February 7, 2013; brackets added).

Similar to the previously quoted USACE water manager, this water manager also suggested that the lack of definitive guidelines for allocating the waters of the ACF River system, coupled with recurring droughts, made it very difficult for USACE to manage the basin, particularly while having to meet the Congressionally mandated uses of ACF water of hydroelectric production, flood control and navigation:

"*Our role is to manage the Basin under the authority given to us by Congress…Water withdrawals out of the Basin are, unless it's coming out of the federal reservoir, is a state issue and not something the Corps has any control of…but, getting to the drought situation we've been into for the last summer then, your basic releases are for meeting requirements, and the endangered species act for water quality in the river, and for the water supply requirement that you can meet…Ok, so what tends to not get 100% or 80% [of the water necessary to meet demand], depending on the severity of the situation - it's recreation, or navigation and, in some cases, hydropower…There is no priority in this, you do the best you can with the available resource and it's usually a matter of how much resource is available to be used…It's like I said, you know, if it's in the drought situation and you are only making minimum releases and you are not getting the inflow into [Lake Lanier], then obviously recreation is an authorized purpose that is gonna be impacted…We follow the requirements of the law and we try to meet all the authorized purposes as best we can with the available resource…Obviously in a drought, some things aren't gonna be met to the extent you would like to see them met…it's just there isn't enough water*" (Interview, February 7, 2013; brackets added).

Successive Failures to Negotiate a Resolution Lead to Litigation

The tri-state conflict over the waters of the ACF Basin is a unique case among water disputes. Unlike the vast majority of transboundary water disputes, the ACF conflict has not been successfully resolved through cooperative action, which is here taken to mean *compact negotiations*. As Wolf (1998) and Matsumoto (2002) suggest, it is rare for a transboundary

dispute over water rights to segue into an extended conflict. Thus, the continuation of the 25-year-old conflict over the ACF Basin is in many respects both historically and geographically unique. For Wolf (1998) and Matsumoto (2002), water disputes often act as a catalyst for upstream and downstream riparians to cooperate in the hope of promoting 'water peace' (Allan 2002). Cooperative actions may include: (a) exchanging policy ideas; (b) committing verbal support for common goals; and, (c) enacting cultural agreements and major strategic alliances (Yoffe, et al. 2004). Although, on the one hand, the States of Georgia, Florida and Alabama have expressed rhetorical support for achieving a resolution to the ACF conflict, on the other hand, every attempt to negotiate a resolution to the conflict has either failed or been stymied. Since the first attempt by the states to negotiate in September of 1990 (Teegardin 1990) until the last attempt in February of 2008 (Eberly and Shelton 2008), compact negotiations were marred by successive delays, missed deadlines and time extensions, as shown in Figure 18 below.

The three states attempted to negotiate a resolution to the ACF conflict for a period of 18 years. However, it is still unclear whether negotiations yielded any material progress in terms of reaching an equitable resolution. Rather, the State of Georgia and metropolitan Atlanta appear to have secured their right to withdraw unlimited water and that this has caused material harm to the stakeholders of Florida and Alabama. In this context, it is reasonable to claim that as of 2013, the states are no closer to achieving an equitable resolution now than they were in 1990. Moreover, it does not appear as if the State of Georgia, metropolitan Atlanta or the U.S. Government were actually committed to the process of equitably allocating water in the ACF Basin. Instead, extended interviews with parties to the conflict yielded evidence which strongly suggests that Georgia and Atlanta were only committed to the idea of sustaining metropolitan Atlanta's suburban "growth machine" (Molotch 1976).

Three years after compact negotiations were formally abandoned by the three states, the 2011 Appellate Court ruling dealt a final blow to the States of Florida and Alabama. As mentioned in chapter 5, the landmark court ruling obligated the Corps to operate the basin according to a preferential "ask and ye shall receive" relationship with metropolitan Atlanta. This decision likely ensured that the states will never again return to the negotiating table. From this action, it is clear that compact negotiations failed to meet the stated goals of "*[developing] an allocation formula for equitably apportioning the surface waters of the ACF Basin among the States*" (Signatory States 2003, 1) and "*reaching substantial agreement in principle regarding many of the terms of an allocation formula*" (*ibid*, 1). Bearing in mind the failure by Georgia officials to cooperate and achieve a resolution, the question then becomes: *Did the three states strategically orchestrate the failure of compact negotiations or was the failure capricious*? The study will continue to explore this question after first describing the politics of confidentiality with respect to compact negotiations and the events which led a conflict mediator to decry Georgia's attitude toward the negotiations as uncompromising and committed to "bad faith" negotiating.

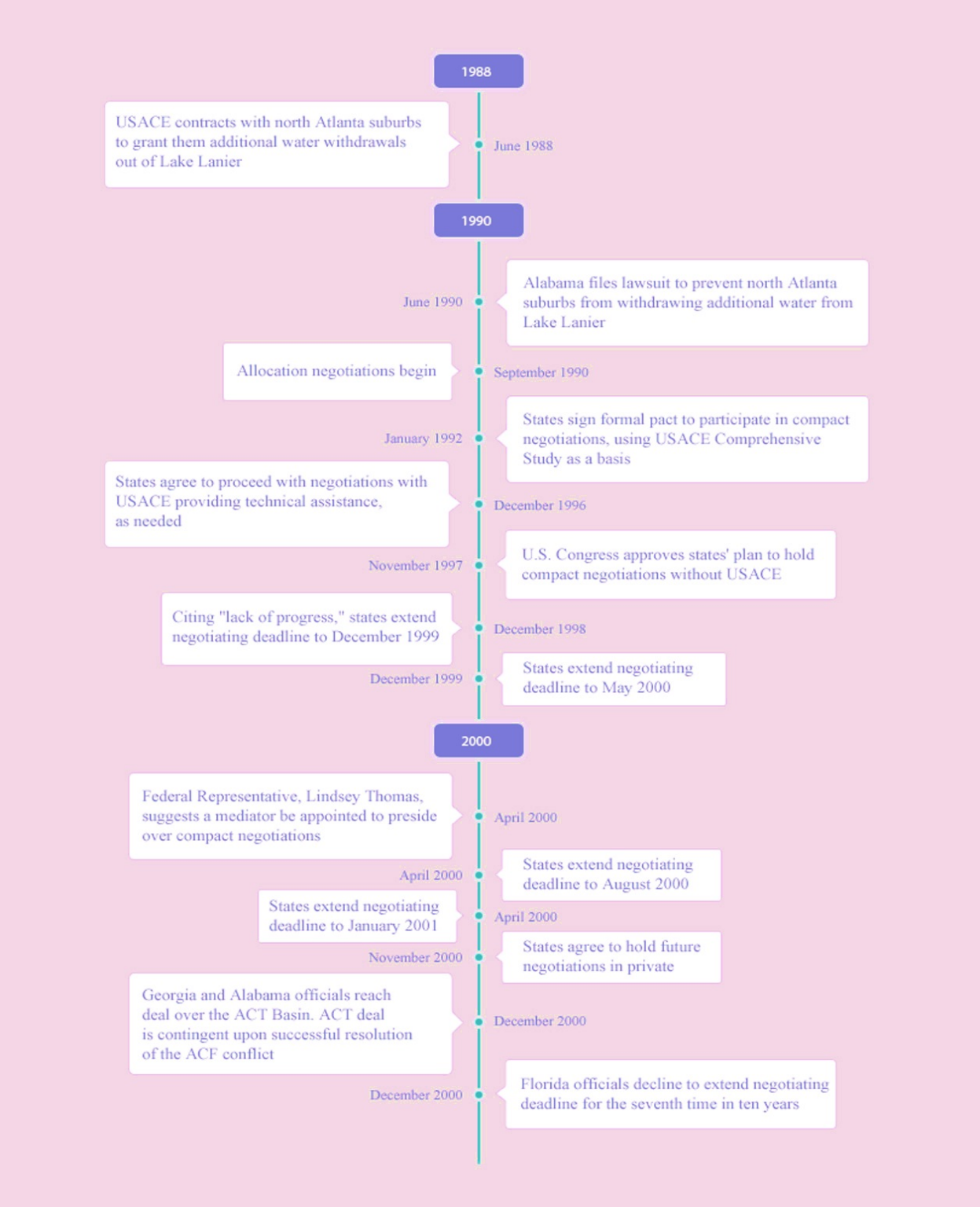


Figure 18: ACF Compact Negotiations Timeline.

Continued on page 114.

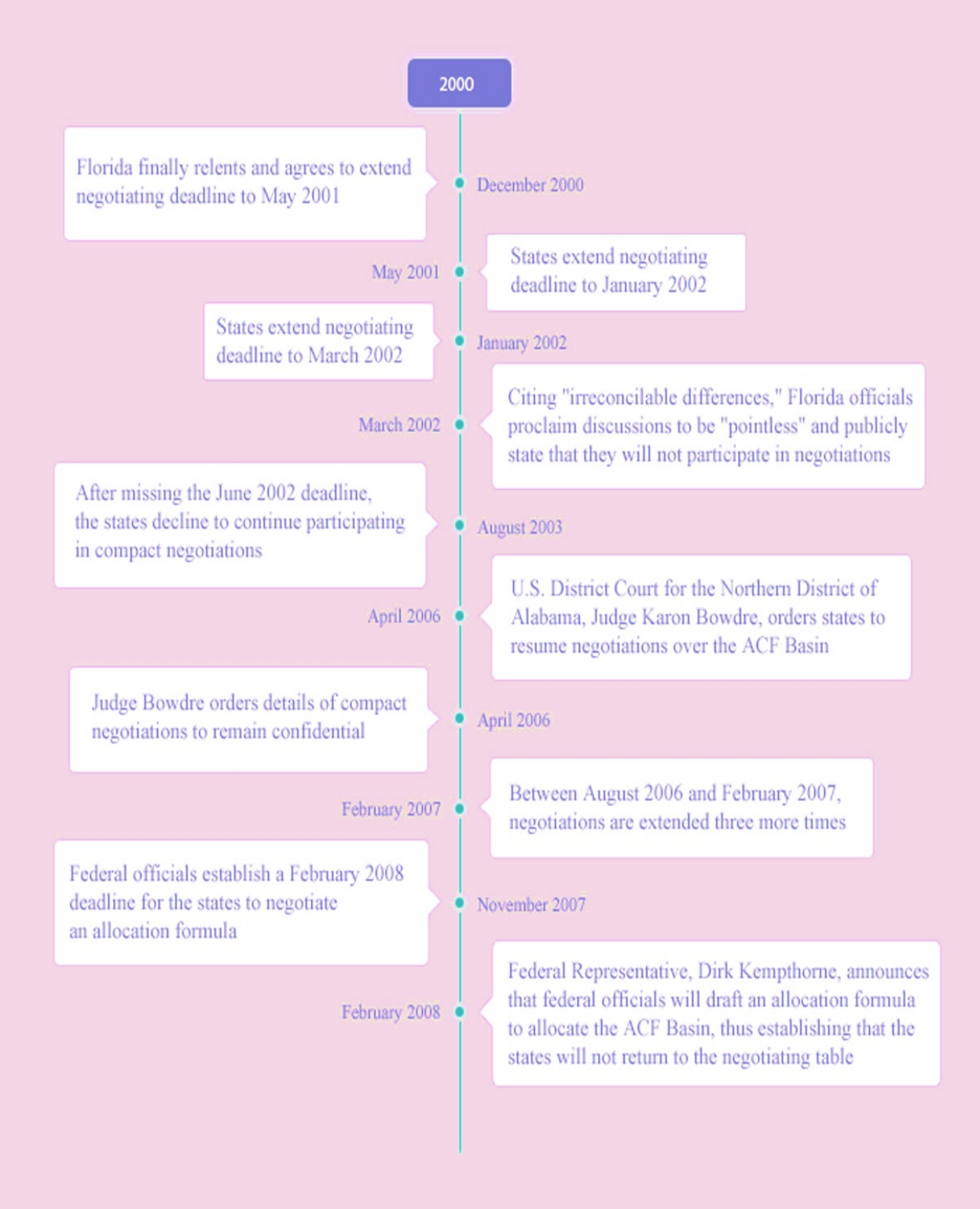


Figure 18: ACF Compact Negotiations Timeline (Continued).

Source: Wong, J., History compiled from *Atlanta Journal-Constitution* "Water Wars" Archival Materials.

Strategic Silence

Chapter 2 discussed how, when recruiting research participants for this study, the subjects of politics and compact negotiations were intentionally eschewed so as to avoid being "shut out" by potential participants. It was feared that potential participants might decline to participate in the study because they would be wary of violating the 2009 and 2010 court-ordered confidentiality agreements. The first motion for confidentiality was filed by the States of Georgia and Alabama in December of 2009 in the U.S. District Court, Northern District of Alabama (see Appendix A). The second motion for confidentiality was collectively filed by the States of Georgia, Florida and Alabama in January of 2010 in the U.S. District Court, Middle District of Florida (see Appendix B). In approving the January 2010 confidentiality motion, U.S. District Court Judge Paul Magnuson opined that:

> "*[T]his litigation will be fully resolved only when all parties participate in settlement discussions. However, it is the Court's firm opinion that a settlement of such a complicated and inflammatory case such as this can occur only if some negotiations, whether among all parties or among only some of the parties, are conducted privately*" (U.S. District Court 2010, 1).

Judge Magnuson determined that the confidentiality order extended to all documents, data, materials and statements made in the context of compact negotiations. Furthermore, the confidentiality order was applied to both *past* and *future* compact negotiations, and thereby prevented stakeholders from even recounting the details of past *public meetings* regarding the

ACF conflict. In the context of this decree and consistent with the literature on interviewing political elites (Aberbach and Rockman 2002; Smith 2006; Cochrane 1998; England 1994) and interviewing reluctant participants (Adler and Adler 2002; Becker and Geer 1970; Johnson and Clarke 2003), securing interviews with stakeholders to the ACF conflict proved to be a particularly challenging task.

The court-ordered confidentiality agreement presented tremendous obstacles during this study and discouraged data collection regarding research question 4 in three identifiable ways. First, parts 3 and 4 of the 2010 confidentiality agreement ordered that:

> "*3. This [Confidentiality] Order extends to all documents, data or other materials prepared in anticipation of or exchanged in the course of such negotiations and to all statements made during the negotiations;*
>
> *4. All parties participating in such negotiations also shall be bound by this Order and shall keep confidential the negotiations and related documents of which they may become apprised*" (U.S. District Court 2010, 2).

Parts 3 and 4, therefore, effectively prevented stakeholders from aiding, assisting and/or participating in the study in any meaningful way, not least of which was participating in extended interviews. Second, for those stakeholders who did consent to be interviewed for this study, those participants were painstakingly cautious to broach and/or avoid the confidential topics of compact negotiations and litigation. Third, many potential participants utilized "gatekeeping" as a way to distance themselves from the study and either (a) declined to be interviewed, but offered the names of others who they believed would participate in the study, or

(b) agreed to be interviewed, but declined to offer the names of others. Considering these effects in conjunction with one another, the court-ordered confidentiality agreement was effective in that it established a cloak of secrecy surrounding the compact negotiations and resulted in stakeholders giving compact negotiations the "silent treatment."

Declining to Participate in the Study

Parts 3 and 4 of the 2010 confidentiality agreement prevented the parties to the ACF conflict from revealing the details of negotiations, litigation, and also from disclosing any information about statements made in the context of negotiations. In short, these provisions of the confidentiality agreement effectively worked to prevent stakeholders from participating in this study for fear of violating the order. As mentioned in Chapter 2, and as the four quotes below indicate, potential participants who declined to be interviewed for this study often made either explicit or implicit references to the U.S. District Court's confidentiality order as a reason for not participating. In the first quote below, a Florida water manager explicitly referenced the confidentiality order and used it to justify his refusal to provide documents requested for this study:

> "*Any documents produced during compact negations are confidential, per judges' orders, which are attached*" (Personal conversation, May 9, 2013).

In the two quotes shown below, a former Georgia Chief Negotiator and a member of the Georgia Chamber of Commerce, respectively, declined to participate in the study and justified their

responses with language adapted from Part 2 of the confidentiality order, also shown below for comparison, which stated that the topics of *ongoing* negotiations were to remain confidential:

> "*Because I continue to be employed by the State of Georgia, and because our water negotiations with Florida and Alabama continue to be very active, I am afraid I must respectfully decline to sit for an interview at this time*" (Personal conversation, April 25, 2013).

> *"…With there being no signs of finality in the legal and political disputes, we feel it best to keep our efforts focused on behind-the-scenes support in achieving a workable resolution*" (Personal conversation, February 14, 2013).

> "*2. The ongoing negotiations among the three States of Alabama, Florida and Georgia concerning the issues presented by this litigation are, and shall be, kept, confidential*" (U.S. District Court 2010, 1-2).

Similarly, before agreeing to be interviewed for this study, the water manager from USACE Mobile District initially declined to participate. In the quote shown below, the water manager also implicitly referenced part 2 of the confidentiality order in justifying his decision not to participate:

"*I can refer you to historic data that is available, but since Phase II of the litigation is still pending before the Eleventh Circuit, the Army Corps is unable to provide interpretative interviews*" (Personal conversation, January 18, 2013).

Sidestepping and Withholding Information Regarding the Compact Negotiations

Although the confidentiality order posed a major obstacle in terms of gaining access to elite stakeholders, a more significant obstacle took the form of stakeholders who agreed to participate in the study but meticulously broached and/or withheld information related to litigation and compact negotiations. Accordingly, the vast majority of interviews conducted for this study did not successfully yield any straightforward responses to help answer the fourth research question: *Did the three states strategically orchestrate the failure of compact negotiations in order to push the problem into the future and at the same time to develop facts on the ground*? However, as chapter 7 will discuss, data was finally uncovered, which allows conclusion to be drawn with respect to the research question.

The cloak of secrecy surrounding the topic of compact negotiations fully materialized when an extended interview with the high-ranking water manager from Alabama yielded no data in regard to both litigation and compact negotiations. In fact, from the first time the water manager was recruited to participate in the study, he was very upfront that he would not provide comments on the topics of litigation or compact negotiations, as the court order restricted the disclosure of either. Furthermore, as an additional security measure to ensure that the water manager would not even broach confidential topics, he was required to gain approval from the Office of Alabama Governor Robert Bentley in order for him to participate in the study.

After the water manager received provisional approval from the Governor's Office, he then suggested that he received guidance as to which interview topics were off-limits (Personal conversation, January 16, 2013). Several times during the interview, the water manager avoided lines of questioning and stated that he could not comment on certain topics, as demonstrated in several excerpts from the interview, which are shown below. Specifically, the water manager expressed uncertainty as to whether answering a question would potentially violate an order (judicial or bureaucratic), and he chose to err on the side of caution. It is not clear, however, whether he chose not to comment because: (a) he did not wish to violate the court ordered confidentiality agreement or (b) he did not wish to violate the trust of the Office of Alabama Governor Robert Bentley. Either way, his guarded participation in the study underscores the challenges of studying issues of manifest national, state, and regional importance under a court ordered confidentiality agreement. For example, when asked about the status of compact negotiations, this was the typically cautious response:

> "*How can I say this?...Well, I think, I guess, I don't think I can really state, but I think you can just summarize from how things are going*" (Interview, January 31, 2013).

> "*Well, I don't think it's…Well, I can't say that in terms of negotiations*" (*ibid*).

> "*Well, I can't mention…I can't comment on the status of negotiations…I mean, we feel, and I state this right here [pointing to a 2007 press release]: our long-standing position has been in favor of negotiations between three states…That's the best for everyone and so, we always have that mindset*" (*ibid*; brackets added).

"*I can't answer that…[pointing to a 2007 press release] I mean I basically say what are our premises as well as what we say publicly*" (Interview, January 31, 2013; brackets added).

Confidentiality and the Limits of Snowball Sampling

Whereas it has been suggested by some that snowball sampling can be used successfully by researchers to open closed doors and gain access to elites (Welch, et al. 2002; Rivera, Kozyreva and Sarovskii 2002), this study found the "gatekeeping" method (Groger, Mayberry and Straker 1999; Johnston and Sabin 2010) to be an ineffective sampling technique due to the clandestine nature of compact negotiations. Several potential participants utilized "gatekeeping" as a way to distance themselves from the study and either (a) declined to be interviewed, but offered the names of others who they believed would participate in the study, or (b) agreed to be interviewed, but declined to offer the names of others. Upon being approached for the study, several stakeholders declined to be interviewed but added that they wanted to assist in some way and offered to provide the names of other potential participants. In one instance, Bill Cronin, the Vice President for Economic Development at the Atlanta Development Authority, responded to an interview request by offering the name of another potential participant, as shown below:

"*We are not involved in the below [sic] mentioned activity…You might try [City of Atlanta, Department of Watershed Management]…Attached is their public relations representative's details. Good luck*" (Personal conversation, February 6, 2013; brackets added).

Upon reaching out to Janet Ward, the public relations representative for the Department of Watershed Management as referred by Mr. Cronin, she also declined to be interviewed for this study. Then, in a follow-up request for her to participate, Ms. Ward once again declined to give an interview, but then offered to assist and provided the name of another potential participant (Personal conversation, February 12, 2013).

For those who agreed to be interviewed for this study, the gatekeeping technique was even less effective in terms of expanding the sample of participants than for those who declined to participate. Even before an interview was conducted with the high-ranking water manager from Alabama, he declined to refer any additional participants for the study. During a pre-interview phone conversation with this high-ranking water manager, a second water manager from the same agency briefly joined the call. In the days after the pre-interview conversation, the high-ranking water manager was asked to provide the name of the second water manager who joined the call, to which he replied: "*[John Doe] was on the call with me and he works in our office but I will be the only one you need to talk with*" (Personal conversation, January 22, 2013; brackets added). The above quote may summarize the apprehension felt by research participants when referring others to participate. However, because employees of the Alabama Office of Water Resources described this high-ranking water manager as "*an authority on the ACF conflict*," it is not clear whether he declined to refer others because: (a) he wanted to distance himself from the study; (b) did not want others to know that he was being approached for an interview; or, (c) whether he truly felt that he would be able to provide an answer to any question regarding the ACF conflict. Similar to the Alabama water manager, a former Governor of Florida who was interviewed for this study also declined to provide the names of any potential participants for the study. After the interview was completed, the former Governor jokingly

stated that he knew the U.S. District Court's confidentiality order prohibited him from speaking about the ACF conflict and added that, if he referred any participants it could be mistaken as an admission that he violated the order (Personal conversation, April 25, 2012).

The Research Process and the Politics of Confidentiality

It is clear that the 2010 confidentiality agreement ordered by the U.S. District Court acted as a limiting factor in this study and thereby restricted data collection related to the sensitive topics of litigation and compact negotiations. The confidentiality agreement not only imposed a blanket of silence on all parties involved in either litigation and/or compact negotiations, it also shifted the compact negotiations from the public and into the private arena. The decision was lauded by some, including then-Governor of Georgia, Sonny Perdue, who stated that, "*this request [for confidentiality] is yet another proof point that all three states are committed to working together to reach a tri-state water deal*" (Redmon 2010). Then-Governor of Florida, Charlie Crist, also weighed in and stated that, "*[the confidentiality agreement] allows for free and open discussions without the fear of compromising ongoing litigation*" (*ibid*; brackets added). Despite receiving praise from state officials who filed the motion for confidentiality, the order was also met with criticism by some stakeholders including Sally Bethea, Executive Director of the Upper Chattahoochee Riverkeeper, which is an organization committed to protecting the ACF watershed. Following the order, Ms. Bethea called into question the decision to conceal negotiations:

"*We actually keep asking ourselves, 'What is it that has got to be concealed here?' After 20 years, don't we all basically know the facts? Is this confidentiality arrangement really something just to serve as cover for political leaders - the governors? Bottom line, we think secrecy is not in the best interest of all the people in the three states who rely on these river systems*" (Redmon 2010).

One Participant Opens Up

Against this background, only one participant agreed to participate in the study in order to speak at length on the topic of compact negotiations. In an extended interview, this participant, a former high-ranking water manager for the State of Florida, shared stories of his experiences while working as a mediator to the ACF conflict. The water manager became involved in the conflict when a former Environmental Protection Agency (EPA) regional administrator from Atlanta recruited him to assist with the ACF conflict. The EPA administrator asked the water manager to help mediate the compact negotiations between the states due to the water manager's prior experience working to resolve the Tampa Bay area water conflict in the 1990s. After the water manager agreed to lend his expertise to the EPA, he was appointed as an assistant to a mediation working group and charged with reviewing allocation formula proposals and mediating any meetings among state officials. The water manager's professional experiences serving as a mediator to the conflict led him to proclaim that compact negotiations broke down among the states due to a combination of power inequity and a lack of strategic planning. Hereafter, the former water manager from Florida will be referred to as a "mediator" to reflect his position with respect to the ACF compact negotiations.

According to the mediator, an unequal power distribution existed between the parties to the negotiations that discouraged compromise from the outset. The mediator suggested that Georgia officials seemingly wanted only to preserve metropolitan Atlanta's water supply and that this came to the detriment of not only Florida and Alabama, but also Georgia's southern agricultural interests. As shown in the quote below, the mediator proclaimed that metropolitan Atlanta appropriated Georgia's state agencies to act as a conduit for representing its interests during negotiations:

> "*You know, my sense was, and it still is that Georgia was negotiating on behalf of Atlanta…And that was their sole interest - that Atlanta got enough water to not hurt any existing, you know, water demands and any future growth that, in some form or fashion, would be limited by a lack of water from, essentially, Lake Lanier…And again, they had their negotiations done by…I think it was called DNR – [Georgia] Department of Natural Resources…And it was a state agency but you felt like you were dealing with a water utility for the City of Atlanta…And the reason I say that is, you know, you have Atlanta and you have all of those Georgia cities downstream…And other cities who are concerned about river flows, not only for drinking water...But, you know, they discharged their wastewater out to the Caloosahatchee and they have to meet certain standards…If there were low flows coming down the Caloosahatchee for whatever reason, they were having trouble meeting their discharge limits from the wastewater treatment plants…But it didn't seem to matter…It was kind of like Georgia was all in for the City of Atlanta. Forget Alabama, forget Florida, and forget those cities downstream of Atlanta…They didn't care…They didn't care about the farmers on the Flint River…They basically said,*

'Hey, look, it's all about public supplies for Atlanta. If we have to cut our farmers back from irrigating and [minimize farmers'] impact on the Flint River, we'll do it.'…It was all about Atlanta…Of course, that's where the folks are, that's where the population is, and screw the rest of Georgia was basically it…That's what alarmed Alabama and Florida" (Interview, September 19, 2013; brackets added).

According to the mediator, negotiations were also hampered by a looming conflict of interest between Georgia and the federal government, which occurred due to the appointment of a Georgia state official who served as the federal representative. In the mediator's opinion, Lindsay Thomas, who was named as the federal representative to negotiations and charged with facilitating discussion among the states (Quinn 1998), was not interested in resolving the conflict, as shown in the mediator's quote below:

"*Another mistake they had made was...He was a former legislator…House of Representatives from the State of Georgia…And, he was the President or the Executive Director of the Georgia Chamber of Commerce…And he was appointed to be the guy who ran this whole thing…So, as I witnessed what he was doing and what he didn't do, my personal opinion is that I don't think he was too concerned about getting a resolution…If you're the Executive Director or whatever you call it, the President of the Georgia Chamber of Commerce, why would you be the guy appointed to oversee all of these negotiations from the federal government? Don't you think he had a little bit of a vested interest?...You know what, when I got involved, he was already in there…So, I always kind of scratched my head and said, 'Why would you bring that?'…You need*

somebody who is good in mediation, you need an arbitrator, you need a facilitator, somebody from another part of the country who doesn't have a vested interest and who can keep things moving on…And this guy was, again, a Head of the Georgia Chamber of Commerce…Watching him, I didn't think he really had a vested interest to see anything really happen" (Interview, September 19, 2013; brackets added).

Finally, the mediator surmised that prior to the 2010 confidentiality agreement, which required negotiations to be held in private, negotiators from Florida and Alabama were unwilling to condemn Georgia officials for negotiating in bad faith. In the quote below, he proclaimed that Florida and Alabama officials held their tongues because they did not want to publicly accuse Georgia officials of submitting inequitable allocation proposals:

"*You never got to say, when Georgia would put out a proposal on the table, and they do their modeling and it was a bunch of crap…You never got to say, 'this is really bullshit'…If we were negotiating away somewhere, you'd kinda be able to be a little more direct and say, 'Guys, look, we gotta get some give-and-take here. Let's come up with some alternative that will benefit, you know, let's come up with a consensus so everybody could just walk away and say, 'Yeah, we didn't get everything we wanted'…But, because nobody is willing to do that in public, that was one of the major issues*" (Interview, September 19, 2013).

After compact negotiations were formally abandoned in 2008, the issue returned to the courts and in 2009, a landmark ruling was handed down from the District Court.

2009 District Court Ruling

For metropolitan Atlanta, the Chattahoochee River is such a significant source of freshwater that Ken Salazar, Secretary of the U.S. Department of the Interior, once characterized it as the "lifeblood" of the city (U.S. Department of the Interior 2012). According to a communications specialist, who works for the Atlanta Regional Commission (ARC), and who oversees the Tri-State Water Wars Resource Center, metropolitan Atlanta has thrived *due to a* landmark decision by the U.S. Court of Appeals for the Eleventh Circuit. After engaging in compact negotiations for 11 years without achieving any meaningful progress, the conflict for water turned to the courts for relief. In 2009, Florida and Alabama rejoiced in a District Court ruling which found that USACE had erred by granting metropolitan Atlanta to withdraw water from Lake Lanier. However, in June 2011, an Appellate Court overturned the 2009 ruling by U.S. District Court Judge Paul Magnuson that "*water supply was not an originally authorized purpose of Lake Lanier under the legislation that created Lake Lanier, but instead that Congress intended for water supply to be an 'incidental' benefit of releases for hydropower and other purposes*" (Georgia Department of Natural Resources 2009).

In the 2009 ruling by Judge Magnuson, the Court examined the text, structure and purpose of the legislation, which authorized the construction of the Buford Dam and Lake Lanier. The Middle District Court of Florida found that neither the 1945 nor the 1946 Rivers and Harbors Acts sought to allocate storage in Lake Lanier to provide metropolitan Atlanta with a municipal water supply. The Court held that while the 79th U.S. Congress clearly understood that metropolitan Atlanta would benefit from receiving a municipal water supply, this benefit was only incidental to the release of stored water in order to generate hydroelectric power (U.S.

District Court 2009, 74-75). As demonstrated by the transcription of USACE Colonel Potter's 1952 testimony before Congress, as quoted in Judge Magnuson's 2009 ruling:

> *"The question of Atlanta's contribution to the costs of the Buford project surfaced again in the hearings on the 1952 Army Appropriation Bill, H.R. 4386. Corps officer Colonel Potter testified that '[t]he purpose of the project is flood control, water supply for the city of Atlanta, which is growing by leaps and bounds, and the production of power.' Civil Functions, Dep't of the Army Appropriations for 1952: Hearings Before the Subcomm. of the H. Comm. on Appropriations, 82d Cong. 118 (1951) (statement of Col. Potter, Corps officer) (SUPPAR026654). A member of the Subcommittee asked Colonel Potter if Atlanta was 'cooperating in this project in any way.' Id. at 120 (question of Rep. Davis) (SUPPAR026656). Colonel Potter responded:*
>
> > *No, sir; because this is not a problem of furnishing water directly or furnishing storage for that purpose; it is the regulation of the river that gives [Atlanta] a constant supply over the up-and-down supply now existing during the year. . . .With this dam letting out a constant supply of water every day their water supply problem is reduced immensely . . . .*
>
> *Id. (statement of Col. Potter, Corps officer). Other committee members questioned Colonel Potter further on Atlanta's need for, and contribution to, the project:*

Mr. Ford: Where you have a project such as this particular project and water supply is part of the justification for a community, does not the community make any contribution to the project?

Col. Potter: Yes, sir, normally, but not in this case . . . .

This dam furnishes Atlanta with water due to the fact that it regulates the discharge of floods. When a flood comes, it comes down in a certain set period—say a week. We store that week's terrific runoff of water and then let it out gradually. . . . Hence we discharge that flood, we will say, for 3 months.

Then, in the production of electricity, we can discharge somewhere in the neighborhood of 4,000 to 5,000 second-feet constantly. That [water] will always be flowing by Atlanta; so that now they won't have the river partially dry or full of mud in the summer, but they will have a more or less constant flow of the river past their door and will always be able to pull water out of it.

It did not cost the Federal Government 1 cent to supply that service, because it was an adjunct to the power supply and flood control. Had we put in some storage purely for water supply, which they would tell us to release at certain intervals, we would then charge them for it, and they would have to pay for the difference of that construction cost."

Thus, for Judge Magnuson, the decision by Congress *not* to charge the City of Atlanta for its municipal water supply demonstrates clear congressional acknowledgement that water would be supplied to Atlanta vis-à-vis incidental flow regulation of Buford Dam, but that Congress did not wish to allow Atlanta to directly withdraw water out of Lake Lanier. Furthermore, the Court ruled that USACE providing metropolitan Atlanta with municipal water constituted a major operational change, which required congressional approval. Because Congress did not authorize USACE to allocate storage for municipal water, the Corps' actions were rendered illegal (U.S. District Court 2009, 77-79). Judge Magnuson also concluded that by 2012, either USACE was to secure congressional approval to allocate municipal water storage in Lake Lanier or the dispute was to be resolved in another way. Of course, one year prior to the deadline established by the District Court, the U.S. Court of Appeals for the Eleventh Circuit overturned Judge Magnuson's ruling.

Contrary to the statement made by the communications specialist, metropolitan Atlanta was booming long before the 2011 ruling provided the region with a secure municipal water supply from Buford Dam. Recall that Chapter 3 discussed the historical context for metropolitan Atlanta's spatial, population and economic growth, dating back to the New Deal era of the 1930s. Because, while *Big Dam Era* dam construction projects supported hydropower, navigation and flood control, municipal water supply was an ancillary benefit although not a primary purpose behind dam-building efforts. In contrast to the history of the *Big Dam Era*, the communications specialist stated:

> "*Our general feeling is that we need the Corps…yeah, the basic premise of the entire court case was that we believed that Lake Lanier was instructed as a water supply*

reservoir as one of the regional authorized [purposes]…and that was finally validated by the Court of Appeals…We believe that the Corps should operate Lake Lanier to meet the needs of the metropolitan [read: Atlanta] water utilities…That has always been our position…That was kind of the genesis of the Corps' case from the beginning…The Corps was developing the first authorization study, more specifically, formally reauthorizing Lake Lanier for water [to provide] water supply for [the Atlanta] region, and that is why the State of Alabama sued the Corps" (Interview, March 20, 2013; brackets added).

In the context of the statement above, it is reasonable to assume that, as the communications specialist for the Atlanta city government, the interviewee merely reiterated the ARC's institutional position regarding the ACF conflict. Accordingly, the above statement by the communications specialist was strikingly similar to remarks made in 2009 by Sam Olens, former Chairman of the ARC, who stated that USACE should operate Buford Dam so as to satisfy the water demands of metropolitan Atlanta and that not operating the dam in this way would be detrimental to the region's growth:

"*Let's be clear about the* [Judge Magnuson's] *ruling. Never once has he said metro Atlanta uses too much water. And never once has he said there is not enough water in the basin to meet the reasonable needs of all users. His ruling is based on a very narrow interpretation of the law that authorized the [Buford] Dam in 1946. His ruling says simply that the 1946 authorization does not allow the Corps of Engineers to operate Buford Dam for water supply. The judge's ruling, if allowed to stand, would have*

> *devastating consequences for our region. Returning the Dam to base-line operations of the mid-1970s is unconscionable*" (Olens 2009).

A second communications specialist from the ARC provided a different take on the ACF conflict, which is more consistent with the views of the two Mobile District USACE water managers than the statements made by the former ARC communications specialist. In an interview, this second communications specialist suggested that before the 2011 ruling, USACE was unable to meet the freshwater demands of metropolitan Atlanta largely due to political interference and pending litigation:

> "*Part of the problem with this conflict is it's also political…sometimes, you can have great technical people working on ideas and concepts and, you know, strategies and resolutions, and some of the stuff comes down to politics…The Corps is the federal agency that has responsibility for managing the operations, but obviously they were hamstrung with, you know, one of the states sued them in the federal court...and they were unable to exercise their diligence and their authority while under the lawsuit*" (Interview, March 20, 2013).

The two communications specialists later revealed that due to the 2011 ruling, ARC and USACE now share a unique working relationship in which the Corps coordinates its water releases from Lake Lanier with metropolitan Atlanta's water utilities. Releases are coordinated in an attempt to match the weekly water demand projections for the Atlanta metropolitan region:

> "*We have a limited role in providing data to the Corps, as far as weekly supply demands, and we provide that information to the Corps in order for them to help coordinate releases…but, we defer to the Corps…Yeah, they're gonna make their own decisions on releases based on hydropower requirements and other downstream needs in the basin…So, we have a measured interest, in terms of providing that information to them*" (Interview, March 20, 2013).

Upon further questioning, one communications specialist suggested that metropolitan Atlanta's own water demand projections figure heavily into USACE determinations of how much water to release from the Buford Dam:

> "*We work with withdrawers from the river downstream of the dam…so, we just make it easier for all concerned…We collect the water utilities' projections as to how much water they're gonna need that week and relay that to the Corps…Then, the Corps uses that and other information to decide about the releases*" (Interview, March 20, 2013).

This point was also reiterated in a personal conversation (January 9, 2014) with a high-ranking water manager for the USACE Department of Legislative and Public Affairs. The water manager stated that, since 2011, metropolitan Atlanta's weekly demand projections are assuredly met by a combination of: (a) naturally-occurring stream flows in the ACF Basin, north of the Buford Dam, and (b) USACE releases at the Buford Dam. The water manager went on to say that, regardless of the proportion and combination of *natural* and *USACE released* stream flows, metropolitan Atlanta's weekly demand projections will certainly be met. With this statement, it appears as if

metropolitan Atlanta's booming growth and its demand for water is of prime importance to the Corps.

The next section will now turn to a discussion of the collected data related to research question 4, namely, *how have stakeholders in Atlanta used a discourse of water scarcity to construct a unique interpretation of the water conflict, which differs greatly from the interpretations by stakeholders of Florida, Alabama and U.S. Army Corps of Engineers?* In this context, the following views and opinions were collected.

2011 Appeal, Atlanta's Water Supply and Discourses of Water Metabolism

The 2011 ruling by the U.S. Court of Appeals for the Eleventh Circuit drastically transformed the relationship between USACE and the Atlanta metropolitan region. In short, the court ruling effectively transformed the Corps into a water wholesaler responsible for supplying the region with water. In a 2012 USACE legal opinion, written in response to the ruling and the operational changes required by the Corps to manage the basin accordingly, the Army's Chief Counsel summarized the ruling as follows:

> "*[t]he ACF basin was intended to provide benefits for the purposes of hydropower, navigation, and flood control, estimated in annual average dollar values, and also to provide benefits for the purposes of municipal and industrial water supply, recreation, and fish and wildlife conservation, which were not quantified in the same manner*" (U.S. Army Corps of Engineers 2012, 27).

As a result of the overturned ruling, USACE was forced to retroactively concede that the agency had operated the ACF system in error for nearly 60 years. Consequently, in the same legal opinion, USACE announced its institutional position in regard to the Appellate Court's justification for overturning the District Court's 2009 ruling as follows:

> "*[i]t has always been apparent from the plain text of the Newman Report that the Corps proposed, and Congress authorized, a system that was expressly intended to 'ensure an adequate water supply for the rapidly growing Atlanta metropolitan area' downstream, and the Corps designed, and has always operated, the Buford Project with that goal in mind*" (U.S. Army Corps of Engineers 2012, 27).

In this context, USACE reached the conclusion that Congress had always intended for the Buford Dam to provide metropolitan Atlanta with municipal water, despite the Army's Chief Counsel, who admitted that "*[i]n 2002 and 2009, I reached different conclusions regarding the extent of the Corps' authority for water supply associated with the Buford Project*" (*ibid, 2*). The above quote is referring to 2002 and 2009 opinions, in which USACE concluded that municipal water was only an incidental benefit of the ACF system and that supplying metropolitan Atlanta with municipal water was distinguished from other "expressly authorized purposes." Municipal water supply was distinguished from hydropower and navigation purposed because municipal water supply was not generally a purpose of Corps projects, as established by the Rivers and Harbors Act of 1946, as was discussed in chapter 3. However, the 2011 Appellate Court decision ruled to the contrary and thereby established the "*bounds of Corps' authority*," including

requiring USACE to provide metropolitan Atlanta with municipal water (U.S. Court of Appeals for the Eleventh Circuit 2011, 93).

In the 2011 ruling, the Appellate Court conceded that neither the 1945 RHA nor the 1946 RHA Amendments monetized municipal water supply as a "principal direct benefit" of the Buford Dam project. However, the court later explained away this legislative omission as simply congressional oversight because in 1945 and 1946, when the RHA and its amendments were adopted, metropolitan Atlanta "*had no immediate need for increased water supply, though such a future need was 'not improbable'*" (*ibid*, 8). Therefore, the Appellate Court concluded that municipal water supply was neither monetized nor discursively constructed as a principal benefit "*presumably because the benefit of this purpose* [*municipal water supply*]*, unlike all of the others, could only accrue in the future, rendering any valuation at that time speculative*" which is why the City of Atlanta was never asked to contribute money toward financing the construction of Buford Dam (U.S. Court of Appeals for the Eleventh Circuit 2011, 9). For the Appellate Court, the Newman Report and hence, the authorizing legislation, specifically concluded that municipal water supply was simultaneously an intentional *and* incidental benefit of the Buford Dam, although this position required the Appellate Court to redefine the word "incidental" as follows:

> "*In light of the foregoing statutory language, and particularly Congress' intent that the Corps should have authority to accommodate the Atlanta area's water supply needs at the expense of some detriment to 'system power value,' we cannot conclude that Congress intended for water supply to be a mere incidental benefit. By definition, one purpose that is to be accomplished to the detriment of another cannot be incidental. Thus,*

the language of Sections 79 and 80 clearly indicates that Congress intended for water supply to be an authorized, rather than incidental, use of the water stored in Lake Lanier. Appellees argue that the Newman Report's references to water supply as 'incidental' demonstrates that water supply was not an authorized purpose of the Buford Project. This is an attractive proposition due to its simplicity, but the context of these references undermines this claim. The language in question is as follows:

> *The city of Atlanta and other local interests in that area have strongly urged that the Roswell development, 16 miles upstream of Atlanta, or one or more other reservoirs above Atlanta, be provided first, in order to meet a threatened shortage of water, during low-flow periods, for municipal and industrial purposes. If the regulation storage reservoir required for the economical operation of the proposed developments below Columbus could be located above Atlanta, it would greatly increase the minimum flow in the river at Atlanta, thereby producing considerable <u>incidental benefits</u> by reinforcing and safeguarding the water supply of the metropolitan area.*

Newman Report ¶ 68 (emphasis added). We conclude that this single reference to water supply as an 'incidental benefit' was an explanation for why the dam would be built above Atlanta and was not meant to confer a subordinate status" (U.S. Court of Appeals for the Eleventh Circuit 2011, 57-58).

By redefining "incidental benefit" to mean "authorized purpose," the Appellate Court was able to justify its conclusion in the following way:

> "*The agency decided to locate the dam at Buford, approximately 47 miles upstream of Atlanta. Paragraph 68 was an explanation for why the Corps deemed it beneficial to build the dam at this location; the explanation: water supply. An upstream location would allow the Corps to secure Atlanta's water supply as an incident of the other authorized purposes. That is to say that the aim of benefitting water supply could be accomplished without any significant detriment to hydropower, navigation, or flood control. The report stated that the revised location and size of the dam and reservoir would result in 'greatly increase[d] . . . minimum flow in the river at Atlanta, thereby…reinforcing and safeguarding the water supply of the metropolitan area"*" (U.S. Court of Appeals for the Eleventh Circuit 2011, 59).

In the process, the ruling not only transformed municipal water supply from an incidental benefit to a *bona fide* and primary purpose of the Buford Dam but also "*handed Georgia an enormous victory in the tri-state water litigation*" (Rankin 2011) with the following passage:

> "*Congress also clearly indicated that the Buford Project was intended to benefit the Atlanta area's needs by assuring the water supply. If water supply had been deemed a subordinate purpose by Congress, the Buford Project would have been detrimental, rather than beneficial, to the Atlanta area's water supply needs. That is to say, if the only water being supplied was to be a subordinate byproduct of power generation, then the*

City of Atlanta would have eventually found itself able to withdraw less water from the river than it would have been had no dam been built at all. In light of the repeated references in the authorizing legislation to safeguarding and ensuring an adequate water supply for Atlanta, Congress very clearly did not intend the dam to harm the city's water supply. The language of the RHA clearly indicates that water supply was an authorized purpose of the Buford Project" (U.S. Court of Appeals for the Eleventh Circuit 2011, 65-66).

USACE Bounded by Eleventh Circuit to Operate as Water Supplier to Atlanta

Changes to the ways in which the Corps manages the ACF Basin, as a result of the Appellate Court ruling, were drastic and disproportionately favored the interests of Georgia stakeholders, particularly metropolitan Atlanta's commercial and residential interests. As the following passage demonstrates, the 2011 ruling not only concluded that USACE was to provide metropolitan Atlanta with increasingly more water over time but also that for USACE to not provide the region with water constitutes a violation of the law:

"[*t*]*he authorizing legislation in 1946 not only included water supply as an authorized purpose but explicitly contemplated that the Corps was authorized to increase water supply usage over time as the Atlanta area grew and that this increase would not be a change from Congressionally contemplated operations at all. Thus, the Corps never considered its authority under the RHA to substantially increase its provision of water supply and reallocate storage therefor—authority which we hold today was granted by*

the RHA. And the Corps never considered its WSA authority to provide water supply as an addition to (or as supplementing) its RHA authority. The failure of the Corps in these respects renders its alternative reason for denying Georgia's request arbitrary, capricious, or otherwise not in accordance with the law" (U.S. Court of Appeals for the Eleventh Circuit 2011, 72-73).

Speaking on the landmark decision, Bill Torpy and Bill Rankin, special reporters for the ACF conflict, who write for the *Atlanta Journal-Constitution* (2011), argue:

"*At stake for Florida are its seafood industry and agricultural interests, while Alabama's fight centers around power generation and economic growth. But Stevens [ARC Environmental Planning Chief] knew Georgia had something the courts could not ignore: 'We have 3 million people using this system; we are not going to go away.*'"

Although interviews with communications specialists from the ARC suggested that the agency defers to Corps decisions and that the Corps determines its water releases according to its own operating criteria, the empirical evidence collected seems to suggest otherwise. It would appear that USACE forgot that:

"*to accommodate downstream water supply withdrawals therefore becomes a question of how much conservation storage is available to make releases for downstream water supply, while continuing to operate for all authorized system purposes, in keeping with Congressional expectations*" (U.S. Army Corps of Engineers 2012, 30).

While the Corps now makes an effort to coordinate water releases to match the weekly demand projections of metropolitan Atlanta, stakeholders from Florida and Alabama have suggested that the other purposes of the system are not currently being met, nor is the mandatory protection of several estuarine species under the Endangered Species Act being realized. According to the Alabama water manager who was interviewed for this study, "*the Corps of Engineers does not coordinate releases from Buford Dam with any state agencies in Alabama*" (Personal conversation, November 11, 2013). The estuarine biologist from Florida came to the same conclusion:

> "*I guess the political clout that Atlanta and Georgia, in general, has with the Corps…the Corps is providing that increased storage and certainly, if you look at the way they revised the operating procedures, they favor that increased storage very much…that's why we in Florida have gotten this minimum level since about May…only a couple of times have we got little bumps in flow, but it has been stable at little over 5000 cfs [cubic feet per second]*" (Interview, February 1, 2013; brackets added).

The high-ranking water manager for the USACE Department of Legislative and Public Affairs, alongside the estuarine biologist from Florida and the high-ranking water manager from Alabama, confirmed what the ARC communications specialist relayed during interviews. In other words, it appears that the Corps now operates the ACF Basin according to a preferential "ask and ye shall receive" relationship with metropolitan Atlanta's water utilities, while the demands for a more equitable distribution compact with Florida and Alabama are being systematically ignored.

The following chapter will continue to introduce the views and opinions of additional stakeholders, which were collected with respect to answering this study's central research question: *Why has the longest water dispute in U.S. history, the ACF River Basin conflict among the riparian States of Georgia, Florida and Alabama, not yet been resolved?* The competing discursive representations of the ACF conflict and the regional water crisis will be discussed. Additionally, the conditions leading to various failed attempts to negotiate a resolution will be explored.

CHAPTER SIX:

WATER SECURITY, METABOLIC SHIFT, AND DISCURSIVE REPRESENTATIONS

In a 2012 progress report written in response to the Appellate Court's 2011 ruling, the Metropolitan North Georgia Water Planning District expressed relief and contentment that the Court granted metropolitan Atlanta a secure supply of municipal water. Thus, the Appellate Court effectively voiced its approval for the region's booming commercial and residential growth. Against this background, then-Chairman of the Metropolitan North Georgia Water Planning District, Boyd Austin, stated that:

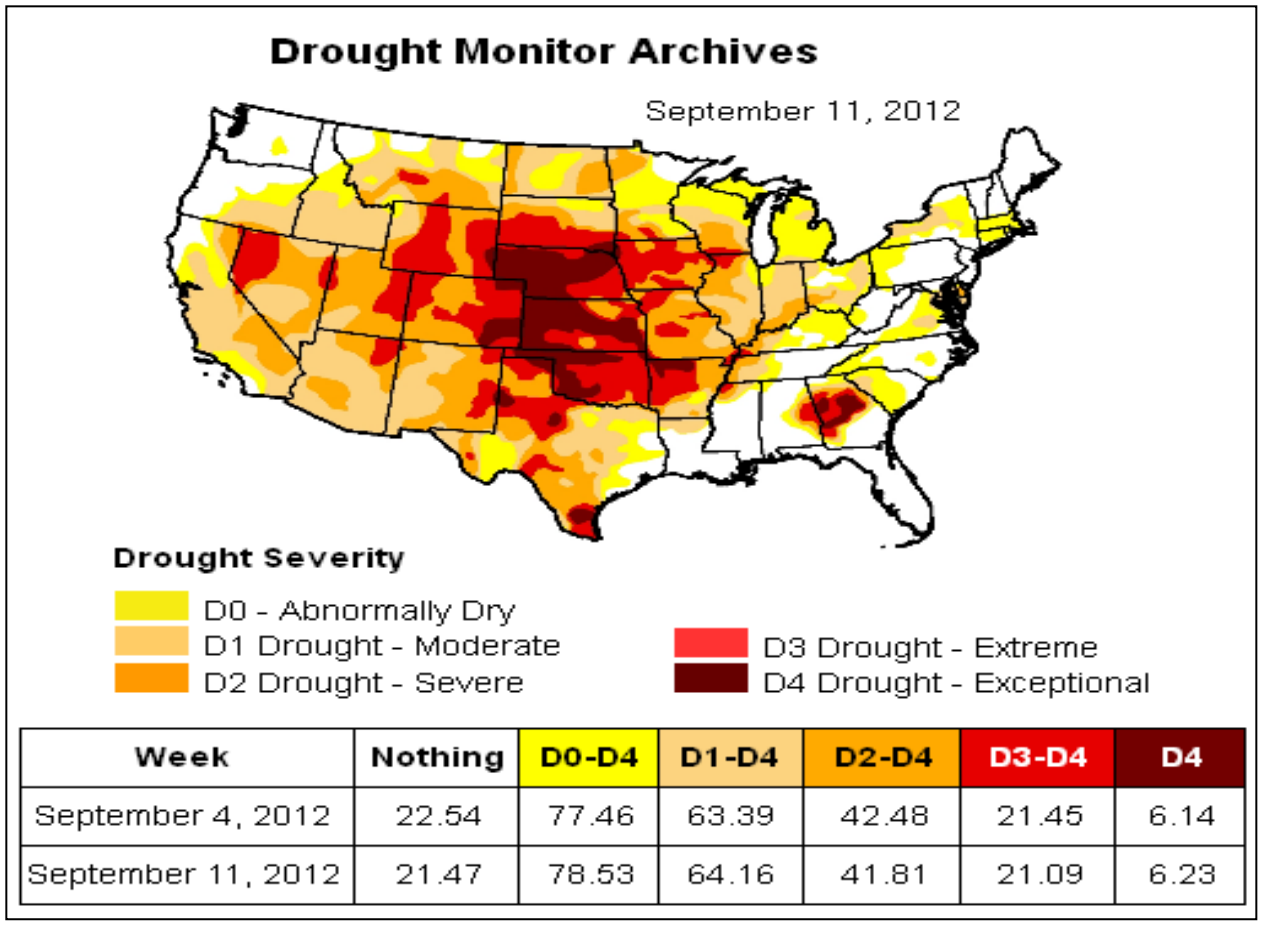
> "*[T]he courtroom battle over water supply in the ACF/ACT basins ended. By denying to hear petitions from Florida, Alabama and the Southeast Federal Power Customers, the United States Supreme Court let stand the 11th Circuit Court of Appeals' decision that water supply is an authorized purpose of Lake Lanier. This decision affirmed that water supply is indeed an authorized purpose of Lake Lanier and that metro Atlanta's future water supply is now more secure*" (Metropolitan North Georgia Water Planning District 2012, 1).

That metropolitan Atlanta was granted a secure and plentiful supply of municipal water and that the 2011 court ruling, in effect, ended the region's water woes in perpetuity is strongly reflected

by metropolitan Atlanta and Georgia State stakeholders' discursive representations of: (a) the significant threat posed to the water supply by "drought" conditions; and, (b) the need, or lack thereof, to implement "water conservation policies" in order to avoid water shortages. In this context, it is clear that the 2011 ruling drastically transformed the politics of water production and distribution throughout the ACF Basin and that the Court demonstrated a clear bias in favor of metropolitan Atlanta. The ruling thereby severely altered the ever-evolving metabolic relationship between metropolitan Atlanta and freshwater in the ACF Basin.

Atlanta and Georgia's Wholesale Avoidance of Drought Discourse

As shown in Figures 19 and 20 below, "*[s]ince 1999, [the State of Georgia] has spent more years in drought than in normal conditions. Federal maps show that more than half of Georgia is now [2012] in extreme or exceptional drought*" (Banerjee 2012, 1). Yet, despite the far-reaching effects of the 2011-2012 drought, which were described by the Chattahoochee Riverkeeper Water Policy Director, Laura Hartt, as, "*yet another drought which for some portions of Georgia may prove to be almost as severe as the one from 2006 to 2009*" (Chattahoochee Riverkeeper 2012, 2), the drought received scant attention from water managers and state and regional officials, prompting some to criticize officials for giving the drought "*the silent treatment*" (Banerjee 2012, 1).



Week	Nothing	D0-D4	D1-D4	D2-D4	D3-D4	D4
September 4, 2012	22.54	77.46	63.39	42.48	21.45	6.14
September 11, 2012	21.47	78.53	64.16	41.81	21.09	6.23

Figure 19: 2012 U.S. Drought Monitor.

Source: U.S. Department of Agriculture 2012.

The 2006-2009 drought prompted a significant public response from state and regional officials. In 2007, during the second year of the four-year drought period, metropolitan Atlanta had suffered an 18-inch rainfall deficit by year's end. The drought's severity prompted then-Mayor of Atlanta, Shirley Franklin, to call the situation a "*dire, severe, extreme drought*" (CNN 2007). Yet in 2012, the second successive year in which Georgia faced drought conditions and which resulted in metropolitan Atlanta suffering a 13-inch rainfall deficit by year's end, the drought conditions barely prompted any responses from state or regional officials. As Gil Rogers, a senior attorney with the Southern Environment Law Center in Atlanta, noted, "[*i*]*t's*

very odd that we are into the second year of an historic drought, and we're still not hearing about it" (Rogers, as quoted in Banerjee 2012, 2).

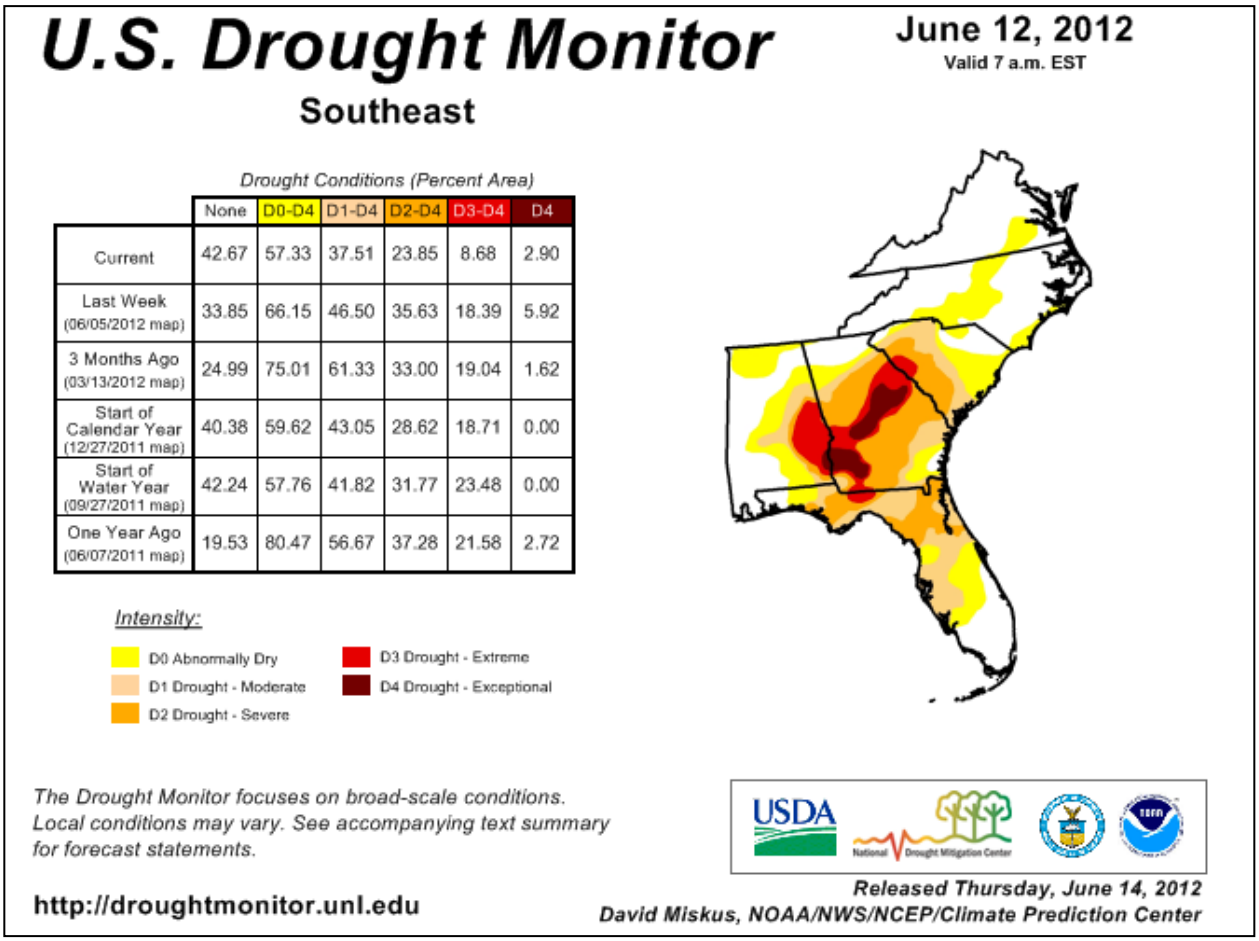


Figure 20: 2012 Southeast Drought Monitor.
Source: U.S. Department of Agriculture 2012.

The failure of state and regional officials to comment on the threat posed to metropolitan Atlanta's water supply by the 2011-2012 drought likely contributed to the lack of media coverage by the region's largest newspaper, the *Atlanta Journal-Constitution*. Table 4 below shows that an advanced Boolean search, conducted using the keywords "drought AND georgia"

and “drought AND atlanta,” resulted in ten times as many newspaper articles on the topic of the 2006-2009 drought when compared to the 2011-2012 drought.

Table 4: AJC Newspaper Article Search Results Using Advance Boolean Phrases.

Year	"drought" AND "georgia"	"drought" AND "atlanta"
2005	70	169
2006	181	327
2007	659	1,037
2008	631	1,000
2009	148	257
2010	81	130
2011	84	131
2012	64	105

Source: Wong, J. via Access World News Database.

Not only did the drought fail to gain traction in the media, but some high-ranking Georgia officials also chose to ignore and/or minimize the significance of the drought. When prompted by reporters to comment on the looming threat of drought and its potential impacts on the state’s water supply, avoidance of the problem was not feasible. Instead, Georgia officials chose to outright deny the existence of a water shortage, and thereby significantly minimized the impact of the drought by alluding that there were “other strategies” that the state was pursuing to increase its water supply. At a 2012 press conference in which Georgia Governor Nathan Deal was expected to explain why he had chosen not to issue a disaster declaration in response to the statewide drought, the Governor’s Press Secretary, Brian Robinson, relayed the following

message: "*We don't have wide-scale water shortages at this juncture…We can't make it rain, we can't squeeze the washcloth, but we are taking active steps to increase our water supply*" (Press Statement, 2012). That Georgia did not fear that water shortages would result from an extreme drought, which afflicted much of the state, was in stark contrast to only five years earlier. For example, in October of 2007, then-Governor Sonny Perdue declared a state of emergency due to the 2006-2009 drought (Lohr 2007). Then one month after declaring a state of emergency, the Governor organized a candlelight vigil on the steps of the Georgia State Capitol and led attendees in a group prayer to seek relief from the drought, exclaiming, "*God, we need You. We need rain.*"

Ignoring the Problem: Water Conservation Policies Become Deprioritized

In 2012, despite much of the State of Georgia again being plagued by extreme and exceptional drought conditions similar to those of 2006-2009, there were no dramatic presentations or group prayers by state officials to seek heavenly relief. While the same cannot be said for the rest of the state, metropolitan Atlanta maintained such a high degree of immunity from the drought that efforts to encourage water conservation in the region were subsequently characterized as *unnecessary* and *reactionary* by high-ranking state officials. For example, Nap Caldwell, a former Chief Negotiator for Georgia and then-Head of the Georgia Environmental Protection Division's (GaEPD) Drinking Water Program, deemed an outdoor water conservation program in metropolitan Atlanta to be an inconsequential and unnecessary effort to stave off water shortages experienced by rural counties south of the metropolitan region. Caldwell claimed that: "*a gallon of water saved in the metro Atlanta area would fail to ensure that there would be*

adequate water for human consumption in southern parts of the state" (Banerjee 2012, 1). With this quote, Caldwell implied that water conservation would not alone improve water quality in southern parts of the state and that water pollution continues to be a problem due to chemical and biological contaminants, which enter rivers and streams and accumulate in the basin *vis-à-vis* outflow from storm and sanitation sewers in metropolitan Atlanta (Frick, et al. 2000).

The 2011 ruling, which established municipal water supply as an authorized purpose of the Buford Dam, appears to be responsible for this shift in the attitudes of Georgia and metropolitan Atlanta officials toward water, in which the problems of water scarcity and water shortage were considered to be "under control" (Kaika 2003). Evidence for this discursive shift, pre-2011 and post-2011, came in the form of contrasting statements made by public officials in regard to the Appellate Court's ruling between 2009 and 2013.

Immediately following the 2009 ruling by U.S. District Court Judge Paul Magnuson, which declared municipal water supply to be an incidental benefit to metropolitan Atlanta, then-Mayor Shirley Jackson agreed, saying that: "*[Metropolitan Atlanta's] water resources are not unlimited…and we hope that Atlantans continue to do their part by conserving water wherever possible*" (Springston 2009, 1). However, Mayor Jackson was not alone in her calls to conserve water, as officials from around Georgia also attempted to rally support to enact water conservation legislation in the hope that legislative efforts would result in a more sustainable water metabolism across the state. Acting in the same spirit as Mayor Jackson, State Representative Debbie Buckner, introduced a bill to the 2010 state legislature, which advocated for a partial outdoor watering ban to be implemented across Georgia as part of a statewide push to conserve water. Speaking on why she called for a partial watering ban, Representative

Buckner announced her support for the District Court's 2009 ruling, observing that Judge Magnuson's ruling:

> "*has forced us to do what we needed to be doing for a long time…we have got to do water conservation…we have got to show our neighboring states that we are serious about doing things a little different in the way we handle our water in Georgia*" (Buckner, as quoted in Springston 2009, 1).

However, according to a high-ranking communications specialist from the ARC, who has been involved in designing and implementing water conservation policies for metropolitan Atlanta for a number of years, Atlanta decided to "promote" water conservation via a voluntary conservation campaign called "mydropcounts" rather than supporting mandatory outdoor watering bans similar to those enacted on a temporary basis in previous dry years.

Beginning in 2013, the "mydropcounts" campaign is currently metropolitan Atlanta's most serious effort to promote water conservation. However, the strictly voluntary effort seeks to accomplish the goal of conserving water through a combination of thus far ineffective and unproven tactics, such as promoting awareness of water issues among the general public and educating metropolitan Atlanta's residential users about their water consumption habits. The campaign originated from a 2010 amendment to the Metropolitan North Georgia Water Planning District's *Water Supply and Water Conservation Management Plan, Action Item 5.17*, which required that parties to the Metro Chattahoochee River & Lake Lanier Water Systems "*provide sufficient funding and staffing to implement the required water conservation measures [by] maintaining a strong water conservation program [which] might include educating customers*

[and] responding to questions about water conservation measures" (Metropolitan North Georgia Water Planning District 2012, 9).

The voluntary efforts to conserve water came in lieu of forcing residents to restrict outdoor water use and, according to the ARC's website, "*[t]he 'My Drop Counts' campaign is built around the theme 'How Much Water Do You Use,' with TV spots on local access TV channels, radio spots, theater ads and billboards*" (Atlanta Regional Commission 2013). However, in a personal conversation with a high-ranking ARC communications specialist, she cautioned that the campaign is not a success story for metropolitan Atlanta for several reasons. First, the Metropolitan North Georgia Water Planning District did not "*provide sufficient funding and staffing to implement the required water conservation measures*" (Metropolitan North Georgia Water Planning District 2012, 9), as the supervisor confided that the ARC was unable to secure enough money to finance television or radio advertisements. Second, she also admitted that a major reason for the campaign's lack of success has been due to the lack of an established goal to conserve a specific amount of water. From that conversation with the communications specialist, it is clear that the secure supply of water flowing to metropolitan Atlanta has resulted in all water conservation efforts being hampered at both the state and regional scales. Moreover, for those state and regional officials who have advocated for stronger water conservation policies, the politics of the 2011 Appellate Court ruling have resulted in their efforts being deprioritized. Thus, all policies designed to promote lasting changes to the politics of water in Georgia and metropolitan Atlanta have either been temporally displaced into the future, or denigrated as either unnecessary now or in the future. At any rate, all such efforts are currently seen as unnecessary due to the security of metropolitan Atlanta's municipal water supply. Correspondingly, as Terry Lawler, the Executive Director of the Regional Business Coalition of

Metropolitan Atlanta, reinforced in 2013: "*we should go ahead and celebrate our recent [sic] improved water situation…but we should also use this window of opportunity to plan ahead for those days when water may not be so abundant*."

A Victory for Metropolitan Atlanta: Shifting the 'Crisis'

The 2011 ruling by the U.S. Court of Appeals for the Eleventh Circuit that made supplying metropolitan Atlanta with municipal water an authorized purpose of the Buford Dam drastically altered the politics of water supply and demand between the Atlanta region, Florida and Alabama. The 2011 decision, in combination with a 2010 ruling by U.S. District Court Judge Paul Magnuson determining the Corps was not required to consider threats to endangered species when considering how to manage the ACF Basin (Metropolitan North Georgia Water Planning District 2012; Peters 2010), effectively dispossessed Florida and Alabama of their riparian rights, thereby rendering them nearly powerless to challenge metropolitan Atlanta's water grab in the ACF Basin. Having nearly exhausted all of their options to (re)capture a historical stream flow of the ACF Basin, some water managers and public officials from Florida and Alabama still hold out hope that USACE can be convinced to operate the basin more equitably. A high-ranking USACE water manager, mentioned earlier, expressed his opinion that the 2011 Appellate Court ruling would not be the final chapter in the ACF conflict. Similarly, a leading water manager from Alabama, mentioned earlier, also hinted that his state had not yet exhausted its options to achieve a balanced resolution in the future. This is how he put it:

"*All [the 2011 Appellate Court ruling] did was just talk about the water flowing out of Lake Lanier when there is generating power - that Atlanta could use that water, you know…They can use those releases…for their water supply…Now, what the ruling didn't mention in the Eleventh Circuit ruling was direct withdrawals from Lake Lanier…that's still out there…The Eleventh Circuit didn't touch that…One of the things that the court asked, the Eleventh Circuit asked the Corps, was to take a year and, you know, basically evaluate upgrading, you know, the reservoirs for hydropower generation and the water supply…So, in the end of June of this past year [2012; sic], they issued the opinion…And so, we do have comments based on some things in the study that we took issue with, and some of the assumptions in there, regarding those operations…so that's in our comments*" (Interview, January 31, 2013; brackets added).

As mentioned in chapter 5, metropolitan Atlanta has certainly enjoyed an "improved water situation" (Lawler 2013) since the 2011 Appellate Court ruling was handed down. Without facing a serious challenge to the 2011 ruling by the U.S. Court of Appeals for the Eleventh Circuit and with Alabama and Florida officials left with only the option to influence the Corps' water management practices through scoping comments, the region has enjoyed a secure supply of municipal water. Meanwhile, having suffered the consequences of recurrent droughts, population growth and fleeting economic development prospects (Salzer 2007; Personal conversation with a Georgia State industrial recruiter, February 6, 2013), the "crisis" of water production has been spatially displaced to the States of Florida and Alabama (Elliott 2012). In a 2013 statement to the U.S. Senate Committee on Environment & Public Works, Deputy Secretary of the Florida Department of Environmental Protection (FDEP), Greg Munson,

testified that Florida was burdened with massive oyster deaths as a direct result of metropolitan Atlanta's water consumption habits, contending that:

> "*In 2012, Florida experienced widespread damage to its oyster resource resulting from two years of prolonged low flow conditions. Indeed, last year set a record for the least amount of water delivered to the Bay since records were started in 1923, although this was not the year with the least rainfall*" (Munson 2013, 4).

Munson later added that due to declining oyster harvests, "*Governor Rick Scott requested the Secretary of the U.S. Department of Commerce declare a commercial fishery failure for Florida`s oyster harvesting areas in the Gulf of Mexico pursuant to Section 312 (a) of the Magnuson-Stevens Fishery Management and Conservation Act* [*MSA*]" (*ibid*, 4). Section 312 (a)(1) of the MSA determines the conditions under which an affected state may issue a disaster declaration for fisheries and includes: "*(A) natural causes; (B) man-made causes beyond the control of fishery managers to mitigate through conservation and management measures, including regulatory restrictions* ***(including those imposed as a result of judicial action)*** *imposed to protect human health or the marine environment; or (C) undetermined causes"* (NOAA 2007; bolded for emphasis). Thus, Governor Scott's disaster declaration simultaneously brought attention to the damage suffered as a result of reduced stream flows in Apalachicola Bay and fingered the 2011 Appellate Court ruling as having caused reduced oyster harvests.

Alabama also experienced the deleterious effects of the 2011 court ruling and relayed these concerns to the U.S. Senate. As Brian Atkins, Division Director of the Alabama Office of

Water Resources, noted in his testimony to the Senate Committee on Environment & Public Works:

> "*Rather than go through the appropriate Congressional process to seek permission for water supply usage at Lake Allatoona and Lake Lanier, Atlanta-area interests have simply taken water without any legal authority to do so. It has been a 'take first, seek permission later' mindset. And much to the dismay of Alabama, the Corps of Engineers has been complicit in this improper water grab by taking no steps to curtail the unauthorized use of federal resources. But it is even worse than that. Not only has the Corps failed to prevent the massive and illegal water supply uses of these two federal reservoirs, but the Corps also has taken steps to curtail operation of the projects for their congressionally authorized purposes in order to protect Georgia's water supply usage at the expense of the downstream states, Alabama and Florida…What is happening is crystal clear. Georgia wants Alabama to take less water than it has always received historically so Atlanta may take more water in order that Atlanta may expand at the expense of downstream communities and without regard to the taking's ecological effect*" (Atkins 2013, 2-3).

Whereas the representatives of Florida and Alabama chose to testify about the harmful effects of metropolitan Atlanta's additional water withdrawals out of Lake Lanier, Judson Turner, Director of the Georgia Environmental Protection Division (GEPD), praised the USACE's updated basin operations *vis-à-vis* the 2011 court ruling, noting that:

"*Georgia is proud of its water conservation and management record, and it has a long history of working with the Corps to see that the waters in the State of Georgia are soundly managed for the benefit of all users in the basins and for the environment. Georgia is gratified that the Corps finally is updating its Water Control Manuals for the ACF and ACT Basin reservoirs*" (Turner 2013, 2).

The above statements made by stakeholders from the three riparian states demonstrated competing understandings of the Corps' operating criteria for managing the ACF Basin. In this context, it is clear that Florida and Alabama, which suffered losses at the hands of the U.S. Court of Appeals for the Eleventh Circuit, attributed the widespread damage felt by their respective economies and ecologies to: (a) metropolitan Atlanta's water consumption and, (b) the Corps' mismanagement of the ACF Basin as a result of the 2011 ruling. Meanwhile, since 2011, the discursive representations of the ACF conflict by stakeholders from the State of Georgia and metropolitan Atlanta focused attention on criticizing past events, even going so far as to retroactively condemn the perceived mismanagement of the ACF Basin by USACE, prior to 2011, and also the "draconian" ruling of District Court Judge Paul Magnuson in 2009. As Marc Goncher, Senior Assistant Attorney for the City of Atlanta, wrote in a 2012 legal opinion:

"*Atlanta metropolitan region residents' awareness of the impact of two of these factors on its water supply, the Corps of Engineers and the litigation, was at its peak by the end of July 2009. That month, the ninth largest metropolitan area in the United States seemed on the brink of devastation after a Untied States District Court Judge issued an order that essentially told millions of Atlanta area residents that within three years their State*

must make peace with their neighboring sister states and competitors for economic growth…It seemed that the law, in the form of a self-described draconian ruling would pour sand in the gears of the economic engine of the Southeast" (Goncher 2012, 1).

Speaking on the topic of metropolitan Atlanta's secured municipal water supply, in a brief interview for this study, Goncher suggested that in addition to the Corps and litigation, drought conditions also had a significant effect upon the region's water production. Goncher, however, continued to retroactively condemn Judge Magnuson's 2009 ruling, arguing that the Judge's ruling created severe and unnecessary panic for metropolitan Atlanta:

"*The drought was another driver in 2006, '07, '08…We suffered a serious, probably the worst drought we've experienced so far…in modern times, I guess…We were forced to use water use restrictions…And, it forced us to curb water production by 10%...You know, everyone was scared…The talk around town was, sort of, as close to panic as you can get…You know, x many days of water left in Lake Lanier, and so on…So, the consumption, you know, just plummeted…and then, toward the end of that drought, we had the ruling by Judge Magnuson, that, sort of, just so you know, cemented the panic*" (Interview, February 7, 2013; brackets added).

Later in the interview, Goncher revealed that, following Judge Magnuson's 2009 ruling, metropolitan Atlanta had strongly considered a *Promethean fix* (Kaika 2003) to its water supply crisis. That is, designing and financing infrastructure to supplement the region's water supply.

However, the 2011 court ruling rendered those plans moot, although Goncher suggested that the fixes may be revisited in the future:

> "*There were a lot of reactions from Governor Perdue at the time [following the 2009 District Court ruling]…He coordinated his task force and folks were looking at, sort of, a doomsday scenario for Atlanta and how it was gonna get worse…The engineering community […] came up with contingency plans that were, necessarily, pretty insane…They had [considered] spending billions of dollars on various structural improvements if Magnuson's ruling was gonna stand, but it ended up, you know, the Eleventh Circuit overturned [Judge Magnuson's ruling] completely, so all those potential plan were, sort of, put on the shelf*" (Interview, February 7, 2013; brackets added).

Despite the continued protestations from Georgia's co-riparians, stakeholders from the State of Georgia and metropolitan Atlanta have continued to discursively represent the ACF conflict as resolved, even going so far as to celebrate the Appellate Court's 2011 ruling as the state's final victory in the "*water war*." This attitude is demonstrated in the competing statements below by Alabama Senator Sessions, Atlanta Mayor Kasim Reed and Georgia Governor Nathan Deal, respectively:

> "*Even though the reservoirs were not built for Atlanta's water supply purposes, the Atlanta area municipalities have made increasing use of those two reservoirs for that purpose – water…Just this year, the State of Georgia asked the Corps for a 280% increase in their contractually authorized storage allocation for Atlanta's water supply*

withdrawals from Lake Allatoona - almost three times [more storage allocation]!...In addition, this year, Georgia has renewed its request for water storage at Lake Lanier, where there is no current contract in place, seeking as much as 30% of Lake Lanier's storage for the Atlanta water supply. And [these are] issues that raise questions from Florida and the Apalachicola Bay and other areas" (Sessions 2013, 3).

"*I am pleased with today's Eleventh Circuit Court water ruling, and it is a welcomed departure from the draconian order which would have had serious consequences for millions of metropolitan Atlanta residents. Had Judge Magnuson's ruling gone into effect in July 2012, the water that millions of people depend on every single day would have been cut off. As a result of today's action by the Eleventh Circuit and their ruling that water supply is an authorized purpose of Lake Lanier, now that won't happen. Today's decision is a win for the people of the State of Georgia and the City of Atlanta*" (Press Statement, Atlanta Mayor Kasim Reed, June 28, 2011).

"*The State of Georgia has won a great victory…This means that the lake will continue to be available to meet Georgia's needs*" (Press Statement, Georgia Governor Nathan Deal, June 28, 2011).

The following chapter will analyze the data collected in order to explore the central research question. Interview and archival data will be interpreted with respect to the environmental-economic-geography (EEG) framework, discussed in chapter 1, in order to make

sense of the study's collection of interview responses and archival documents. Then, the themes, which became evident while analyzing the data will be discussed in order to provide a new approach to understand the intractability and perdurability of the ACF conflict.

CHAPTER SEVEN:

FOR WHOM AND FOR WHAT? COMPETING INTERESTS IN THE ACF BASIN

This chapter will analyze and interpret the data which have been collected for this study in order to theoretically ground answers to the central research question, namely, *Why has the longest water dispute in U.S. history, the ACF River Basin conflict among the riparian States of Georgia, Florida and Alabama, not yet been resolved?*

Plagued by Multiple and Overlapping Conflicts

Numerous stakeholders to the ACF conflict have discursively characterized the struggle for water rights as a 'water war.' As a shorthand reference to the conflict, the term 'water war' has been used to describe the decades long struggle between the States of Georgia, Florida and Alabama for equitable access to the ACF Basin water. An extensive analysis of data collected suggests, however, that this characterization barely scratches the surface of the multiple, competing and overlapping negotiations, agreements and conflicts among a range of stakeholders to secure their respective rights to the water of the ACF Basin. The findings of the extended interviews and other data sources revealed that the struggle among and between *the states* for water is a common denominator to several conflicts that have subsequently multiplied across multiple scales. Thus, alongside (a) the conflict among the States of Georgia, Florida and

Alabama for equitable access to the ACF Basin, there is also: (b) the conflict among and between the three states and USACE for the right to manage the production and allocation of water from Lake Lanier; (c) the conflict among and between Georgia's urban and suburban stakeholders in metropolitan Atlanta and Georgia's southern agricultural interests; and, (d) the conflict among and between the States of Florida and Alabama and the U.S. Court of Appeals for the Eleventh Circuit (triggered by the 2011 ruling), which forced USACE into an 'ask and ye shall receive' relationship with metropolitan Atlanta. Each of these conflicts will be discussed in turn, particularly their role in perpetuating the ACF conflict.

Interstate and Transboundary Conflict

The most widely accepted explanation for the origin of the conflict between the States of Georgia, Florida and Alabama over the waters of the ACF Basin is the 1986 drought, which impacted the entire southeastern U.S. (Erhardt 1992; Stephenson 2000; O'Day, Reece and Nackers 2009). Meteorologists accorded the 1986 event a *100-year drought*, meaning that the recurrence interval of such an extreme drought is estimated to be between 100 and 200 years (Cook, Kablack and Jacoby 1988). In order to stave off the drought's harmful effects on metropolitan Atlanta, the region's water managers sought to tap a greater portion of its largest water supply, the Chattahoochee River. Then in 1989, USACE water managers determined that a portion of Lake Lanier's water storage capacity for hydroelectric production should be reallocated to meet metropolitan Atlanta's municipal water demands (Jordan 2006). This decision resulted in USACE contracting with the region's northern suburbs to increase their water withdrawals out of Lake Lanier. Upon learning of the contract, in 1990, the State of

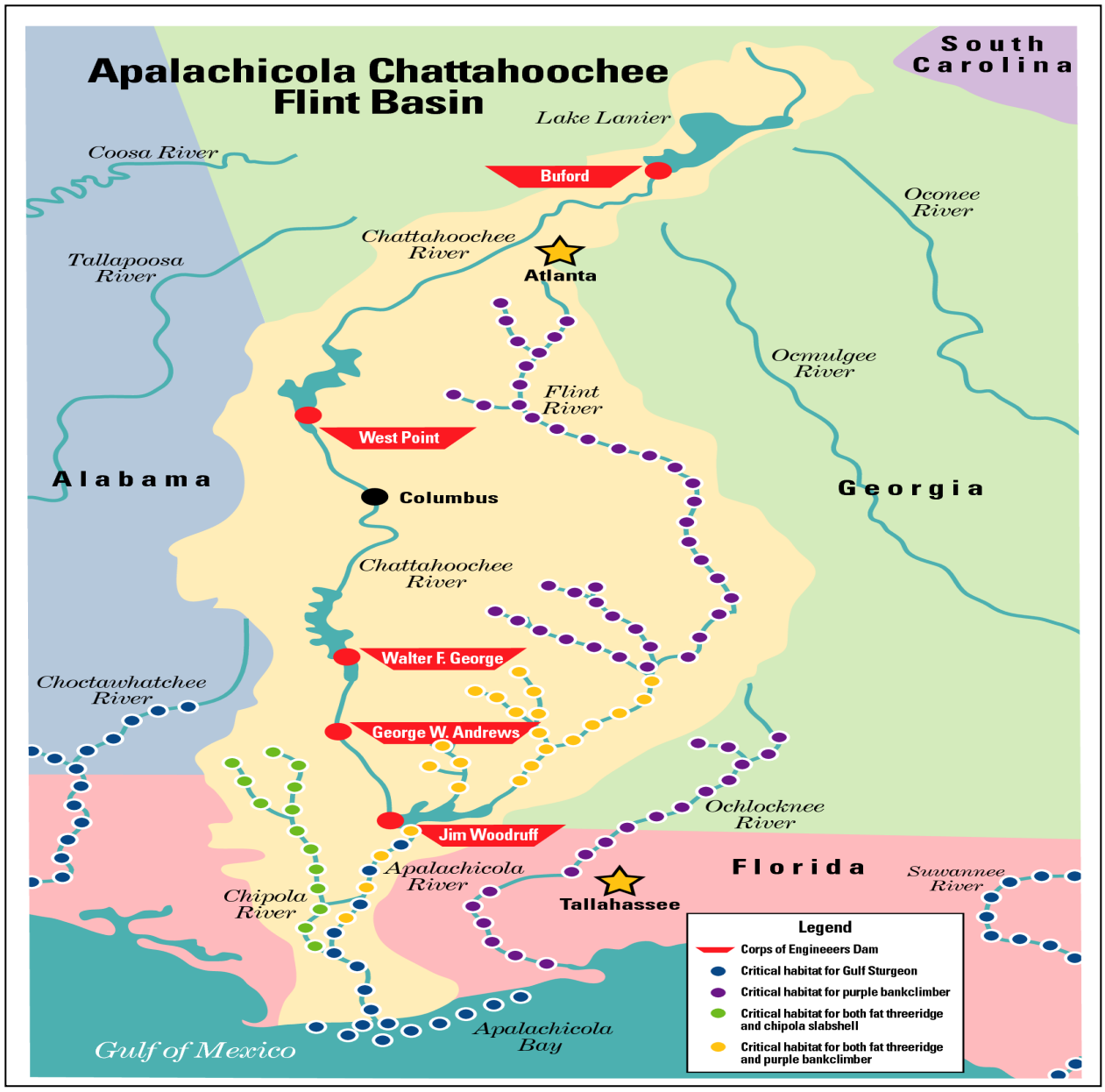
Alabama filed a lawsuit against USACE, which alleged that increasing metropolitan Atlanta's water withdrawals out of the lake would inflict a heavy economic burden on Alabama's agricultural sector, industrial mining operations, recreational and forestry industries, as well as limit the state's ability to produce electricity and transport goods via its waterways (Williams 1991). Shortly thereafter, Florida became a party to the Alabama lawsuit against USACE (Beaverstock 1998) and thus, giving birth to the ACF water conflict.

When Florida joined the lawsuit, both states alleged that additional water withdrawals to metropolitan Atlanta would cause economic injuries due to reduced flows downstream. Extended interviews with several high ranking and knowledgeable Florida stakeholders revealed that Florida's interests in the ACF Basin were related specifically to Apalachicola Bay's ecology and once-prosperous seafood industry, on the one hand, and the prospect for future economic development of its underdeveloped panhandle counties, on the other hand. As described in chapter 5, an estuarine biologist, who has studied Apalachicola Bay's ecology for over 20 years, explained the ACF's significance to the riverine ecosystem in the Florida panhandle by stating that a diverse range of estuarine species have historically relied on the ACF's periodic flood conditions for their survival (see Figure 21 below). Of the species mentioned in this context, several are designated as 'endangered' or 'threatened' species under the Endangered Species Act (ESA), including the *Gulf Sturgeon* and the *Fat Threeridge* and *Purple Bankclimber* mussels, as well as a host of riverine flora (Interview, February 1, 2013). Map 5, pictured below, shows the critical habitat for these riverine species, which extends across all three states' territorial boundaries. From this perspective, as well as that of a former Florida governor, metropolitan Atlanta's excessive consumption of ACF water caused Florida to experience drastic and negative

effects with regard to both the Florida panhandle's unique ecology and its future economic development prospects.

Figure 21: Seafood Catchment in Apalachicola Bay.
Source: Northwest Florida Water Management District 2014.

A high-ranking water manager from the State of Alabama echoed these twin concerns about economic growth and ecological disruption. This finding explains Alabama's 1990 lawsuit, which alleged that metropolitan Atlanta's water withdrawals out of Lake Lanier would cause the state to sacrifice "*badly needed economic development*" (Williams 1991). The same water manager stated that Alabama's industries, municipalities and electric utilities along the Chattahoochee River rely on water from the ACF Basin in order to operate. Furthermore, in line with stakeholders in Florida, he blamed metropolitan Atlanta's water consumption for Alabama's diminished water supply.



Map 5: Riverine Species with Critical Habit in the ACF Basin.
Source: Adapted from the U.S. Fish and Wildlife Service (FWS).

A recurring theme identified from interview data was Florida and Alabama stakeholders' casting a net of blame over metropolitan Atlanta and, to a lesser degree, the USACE for perpetuating and institutionalizing the ACF conflict. The growth of metropolitan Atlanta's population, geography and economy were frequently identified by Florida and Alabama

stakeholders as the main drivers of the conflict among and between the three states. Interviews with communications specialists from the Atlanta Regional Commission (ARC) confirmed this view. To recapitulate, their argument is that metropolitan Atlanta's explosive growth justifies the region's disproportionate use of ACF water. Indeed, these same informants accuse the USACE of misallocation of ACF water resources, thereby making the downstream effects merely *et sequitur* of USACE's water management. An overriding theme emerging from interviews and other data sources is that metropolitan Atlanta's stakeholders believe that USACE should continue to operate the Buford Dam and Lake Lanier to meet the region's municipal water demands.

A second recurring theme that emerges from analysis of the data is that stakeholders from each of the three states shift blame for the persistence of the water conflict away from themselves and their respective states. Commonly, the stakeholders avoid responsibility by shifting blame onto officials from the other states and the USACE for their roles in producing and allocating water in the ACF Basin. While none of the stakeholders interviewed for this study accepted responsibility for perpetuating the ACF conflict, there were also none who expressed confidence that the collective riparian demands could be sustained, either currently or into the future. Furthermore, according to all the stakeholders to the conflict, either the ACF's water supply must be increased – a near geophysical impossibility, or water demand must be decreased – a geopolitical and geoeconomic improbability. However, not a single stakeholder could coherently explain *why* the conflict has persisted for so long. Similarly, among the stakeholders there is no consensus as to whether or how an increase in water supply or decrease in water demand can be equitably achieved.

Altering the Scale and Style of Governance: Federal-State Conflict

In January of 1992, only three years after a major drought and subsequent water withdrawal contract between USACE and metropolitan Atlanta's northern suburbs sparked the beginning of the ACF conflict, the States of Georgia, Florida and Alabama agreed to negotiate a new, equitable allocation formula for the basin in the hope of ending the conflict. The states agreed to negotiate an allocation formula pursuant to the water policy recommendations of USACE and the results of USACE's Comprehensive Study. The 1992 agreement assumed that the Comprehensive Study would be completed by 1995, but a succession of delays ensued and the study was not completed within that timeframe. A high-ranking water manager for the USACE recalled the events, which led the states to abandon the Comprehensive Study:

> "*At some point [the states] decided that the Comprehensive Study was not achieving the goals that it was intended to achieve…The states decided to go the route of forming a compact, and then, the negotiations became strictly between the three states and we were there only to provide technical assistance, as required*" (Interview, February 7, 2013; brackets added).

By December of 1996, the states grew tired of waiting for the Comprehensive Study to be completed and signed a new agreement. The new agreement stipulated that the states would engage in compact negotiations *sans* USACE, with the agency only providing expert technical and scientific assistance, as needed.

In the wake of the states' decision to dismiss USACE and to shift the scale of conflict management and negotiations, the federal government's role in managing the production and allocation of ACF Basin water diminished significantly. As Abrams (2009) suggests, this state-led effort to wrest management authority away from USACE to the three states resulted in basin management becoming an infinitely more complex and intractable conflict. Chapter 4 described a brief history of neoliberal efforts to scale down and "roll-back" (Peck and Tickell 2002) the authority of the federal government in the 1980s regarding the interstate management of water resources. The "roll-back" is a destructive form of neoliberalism in which state capacity is dismantled or otherwise limited, as opposed to the "roll-out" which is the construction of new forms of state governance. Recall that, in Executive Order 12612, President Reagan demanded that the federal government take a hands-off approach to inter-jurisdictional issues, arguing that:

> "*[i]t is important to recognize the distinction between problems of national scope (which may justify Federal action) and problems that are merely common to the States (which will not justify Federal action because individual States, acting individually or together, can effectively deal with them)*" (R. Reagan 1987).

In fact, for the Reagan administration, two classic examples of problems "common to the States" that did not justify federal intervention were water management and water resource planning assistance (Gerlak 2005, 238).

Reagan first articulated the doctrine that water management and resource planning were best left to the states during his tenure as Governor of California, from 1967 to 1975; and then he made this national policy after becoming President in 1981. Regarding water programs, Reagan

(1967, 5) once observed that Congress and, by extension, the federal government, should "*continue to seek a regional solution to what is truly a regional problem.*" It is, therefore, clear that Reagan and his successors believed that federal authorities would serve the states well by transferring the power to manage and plan water production and distribution back to state authorities. In the context of the ACF conflict, however, the "roll-out" (Peck and Tickell 2002) of a new water management doctrine has been neither smooth nor effective.

As Bakker and Cook (2011) put it, efforts to appropriately scale water management authority inevitably lead to a tension between "subsidiarity" (here taken to mean decentralized, localized water management authority) and "harmonization" (here taken to mean centralized water management authority). Neoliberals dress up and ideologically and discursively tout decentralized water management as the democratization of decision-making (Gaventa and Valderrama 1999; Rhodes 1996; Hughes, Smith and Tabellini 1991; Gibbins 2001) and as a cost-effective strategy to increase government responsiveness to the needs of local and individual water consumers (Dillinger and Fay 1999; Rogers 2002; O'Riordan 2004). Meanwhile, the costs and benefits of rolling-out new forms of water management authority continue to be a source of exploration and debate in the environmental geographic literatures (Swyngedouw, Kaika and Castro 2002; Maddock 2004; Gandy 1997; Bakker and Cook 2011). Based on this literature, it is clear that geographically rescaling the ACF water conflict resulted in a severely fragmented water management system, which in turn led to a series of protracted secondary conflicts among the three states, on the one hand, and between the states and the USACE, on the other hand, regarding rolling-out a new interstate water regime.

The Contradictions of Rescaling Water Management Authority

The competitive logic of Reagan's neoliberal water doctrine assumed that, absent interference by federal water managers, regional governments would efficiently and effectively produce, allocate and distribute water according to the economic principle of "highest and best use." With regard to water, the "highest and best use" principle holds that water should be allocated and used to maximize its economic value (Levi 1969; Trelease 1954). Moreover, this principle holds that through competition for water access, preferences for water use will be articulated *vis-à-vis* market exchange, which allows for water uses to be ordered according to a hierarchy and for value to be monetized. In order to embed this logic in water policy, the Reagan administration and its neoliberal successors strove to facilitate competition for water by first rescaling water management authority to the subnational scale, thus allowing states and regions to compete for water security.

Competition by states and regions to achieve water security, whether by capturing water management authority or by other means, is part and parcel of what Harvey calls the "territorial logic of power" (2003, 93-94). For "*state actors, statesmen* [*sic*] *and politicians, 'whose power is based in command of a territory and the capacity to mobilize its human and natural resources,*" these actors must attempt to configure territories in a way that allows them to stand out as differentiated, distinctive and unique sites, which are suitable for capital accumulation, but which results in a contradiction between *internal* and *external* territorial logics (R. Brenner 2006, 80). For these actors, the territories over which they preside must achieve a certain degree of "structured coherence" to enable the molecular processes of capital accumulation. That is, territories must assume a coherent character, which often extends to synergetic flows of

"*production, distribution, exchange, and consumption,*" as well as shared attitudes, cultural values, beliefs, and even religious and political affiliations (Harvey 2003, 102). But, while territories must strive to assume a coherent character within the territorial borders, at the same time, they are forced to differentially produce territorial space with respect to competitors external to the borders. In a process which Harvey (*ibid*) calls "regionality," coherent territories must converge into distinct regions in order to leverage advantages over competitors so that the region becomes a more attractive site for capital investments (Harvey 2003, 101-102). If successful, the region may proceed to grow and consolidate both geopolitical and geoeconomic power in a convergence of the "territorial and capitalist logics of power," thereby allowing their influence to be wielded across the body politic of the state (*ibid*, 104-105).

It is in this context that metropolitan Atlanta should be regarded as a dominant and hegemonic region, able to exert both territorial and capitalist influences throughout the American South. Chapters 3 and 4 described the massive, historical efforts undertaken by the region's business and political elites to produce an economic agenda of "soft services" and suburbanization across the region as early as World War II, as well as sanctioning the annexation of the wealthy suburbs surrounding Atlanta's central business district (Stone 1989). However, as early as 1940, metropolitan Atlanta's water managers recognized that regionalization in the form of geographic and economic expansion would be threatened by the region's "*inconsistent water supply*" and "*insufficient water pressure and inadequate supply during dry spells*" (Atlanta Journal Constitution 1940).

Despite warnings by metropolitan Atlanta's water managers that the region's water resources would not sustain its growth trajectory, both the population and economy boomed throughout the next four decades and beyond. In the late 1980s, however, this unchecked growth

culminated in a water crisis which, in turn, generated a conflict between metropolitan Atlanta and its regional competitors, Florida and Alabama, as well as southern Georgia's agricultural interests. Ultimately, the politically and economically powerful commercial and residential interests of metropolitan Atlanta successfully exerted influence over USACE and the U.S. Court of Appeals for the Eleventh Circuit, maintaining access to progressively more Chattahoochee River water to support those interests. Secured flows of water thus exacted a one-two punch against metropolitan Atlanta's competing riparians by draining their economies and ecologies of freshwater while also allowing the Atlanta region to remain a suitable site for capital accumulation and suburbanization.

Far from Reagan's (1987) hands-off approach to regional water problems, Harvey (2003) suggests that it is often the state which plays an active role in mediating regional processes of capital accumulation. While Harvey consistently uses the word "state" to refer to national governments, in the context of the ACF conflict, it is more appropriate to suggest that capital accumulation in the Atlanta metropolitan region was mediated by "supra-regional" governments. A contradiction is evident in which metropolitan Atlanta's processes of capital accumulation were mediated by both federal and state policies and laws. This allowed metropolitan Atlanta to pressure federal and state governments to continue providing a secure water supply. This contradiction will be discussed in further detail later in the sections that follow. For now, suffice it to say that the Georgia State government has made evident its urban and regional biases, having dispossessed the state's southern agricultural interests of water so that it may instead continue to flow to metropolitan Atlanta. Similarly, actions by both the USACE and the U.S. Court of Appeals for the Eleventh Circuit stacked the deck in favor of the State of Georgia and

metropolitan Atlanta to secure their water supply by delaying compact negotiations and overturning a landmark court decision.

Reagan's aforementioned parochial attitude toward water management has become hegemonic, particularly in the American South, where it has resulted in a scalar reconfiguration of power away from USACE and towards the states. The first efforts to rescale water management authority in the ACF Basin materialized in December of 1996. During this time, the states unanimously agreed to negotiate a compact agreement to allocate the water resources within the ACF Basin as opposed to allowing the USACE Comprehensive Study to guide the process because of a two-year delay in the completion of the study. The states' discursive characterization of the Comprehensive Study as "*not achieving the goals that it was intended to achieve*" (Interview, February 7, 2013) alongside the marginalization of the Corps in the negotiations, are hallmark neoliberal strategies to explore alternative modes of water management. That is, by drawing attention to the perceived "failure" of the USACE to manage the basin, the states legitimized the negotiation of a compact according to a purely competitive logic (Lemke 2001; Kaika 2003; Swyngedouw 1995, 2005a, 2005b).

The usurpation of the Corps' congressionally mandated authority by the states did not, however, streamline compact negotiations. Moreover, a consistent and recurring theme emerged from extended interviews with stakeholders from Georgia, Florida and Alabama, namely, that the persistence of water inequity in the ACF Basin is largely attributed to USACE's failure to operate the Buford Dam and Lake Lanier according to the respective and competing needs of the three states. Accordingly, the states' strategic efforts to usurp power from USACE went horribly wrong and in the process exposed a contradiction that is inherent to the neoliberal shift in water policy: spatiotemporal shifts in the regional configuration of capital accumulation create an

uneven landscape of water needs and an uneven landscape of water competitors. Regional unevenness, including uneven access to water leads, inevitably, to contested notions of what constitutes "water equity."

The ongoing neoliberalization of water management in the ACF Basin has exposed a management deficit between the federal and state scales in which neither the Corps nor the states are sufficiently capable of resolving the conflict. As demonstrated above, balancing the competing needs of the three states is a tall order for the Corps. Yet, while many of the stakeholders interviewed for this study blame USACE for failing to equitably allocate the water of the ACF Basin, USACE water managers and an agency mediator to the negotiations placed blame squarely on the three states for failing to negotiate a compact. In other words, in contrast to certain state actors who blamed USACE for failing to provide water to meet their states' respective needs, the USACE's response was that it was never provided with specific management directives as to how to allocate the waters of the ACF Basin. Thus, left with the responsibility but not the power and authority to manage the basin according to its erstwhile congressional mandate, USACE is effectively powerless to intervene in the conflict yet it shoulders blame from state stakeholders who were overwhelmed by the scale of the conflict.

While "good governance" is often given as a justification for rescaling the state (Batterbury and Fernando 2006), the contradictions of neoliberalism were made evident as relations among the states, on the one hand, and between the states and USACE, on the other hand, remain far from "good." Once USACE relinquished its management authority, the compact negotiations became infinitely more complex and politically contentious. Competing political and economic goals, another hallmark of neoliberalism, make it even more unlikely that the states will be able to negotiate a fair and sustainable water allocation formula by which

USACE can operate the ACF Basin. And yet, in the eyes of state officials, the states do not bear responsibility for this failure. Instead, from their perspective, it was the Corps that was guilty of "bad governance" for failing to exercise its management authority to meet the water demands of each respective state. Meanwhile, in terms of the conflict, the Corps' weakened position *vis-à-vis* scalar reconfiguration played right into the hands of Georgia and metropolitan Atlanta's competitive strategy.

Negotiating in Bad Faith

By 1997, eight years after the ACF conflict first began, with the USACE downgraded to a technical assistant, each state selected a Chief Negotiator to represent its respective interests in the compact negotiations while an appointee from Congress represented federal interests (Ezzard 1997). Finally, by the end of 1997, the U.S. Congress approved the states' agreement to allocate ACF Basin water through compact negotiations, and thus allowed the states to proceed toward a long awaited resolution to the water conflict (Seabrook 1997).

It did not take long, however, before water managers from the State of Alabama, including Walter Stevenson Jr., head of the Water Resources Division of the Alabama Department of Economic and Community Affairs, accused Georgia water officials of negotiating in bad faith. One month after Congress ratified the 1996 agreement to pursue compact negotiations, a coalition of West Georgia officials submitted House Bill 489 in the state legislature, urging the construction of the *West Georgia Regional Reservoir*. HB 489 called for the construction of a 3,500-acre lake along the Tallapoosa River to supplement north Georgia's water supply. This decision, according to Florida and Alabama officials, violated the terms of the

1996 agreement by altering the hydrological conditions under which water allocation formulas were created (Seabrook 1997).

Far from solving the twin problems of water management and production, the neoliberal strategy of decentralizing water management made a bad situation worse for the State of Florida and Alabama. Seeking a "*regional solution to what is truly a regional problem*" (R. Reagan 1967, 5), USACE's authority to manage the ACF Basin was turned over to the states and the agency was relieved of its capacity to mediate and assist the compact negotiations. In response to severely weakened federal water management authority, each state was forced to adopt a competitive logic in order to secure the flow of water into its territorial boundaries. Against this background, the *laissez-faire* conditions of water governance, created in the material absence of a coherent governing body, resulted in the states availing themselves of the "zero-sum" (Hirsch 1977) opportunity to compete for water resources. The opportunities opened up by decentralization and "roll-back" necessitated a range of competitive strategies, one of which was Georgia's refusal to negotiate on equitable terms.

The controversy surrounding the *West Georgia Regional Reservoir* was the first time Georgia officials attempted to solve their water problem through a *spatio-technical fix* (Harvey 1981, 2003; Jessop 2006), by investing in a *Promethean* project to increase the state's water supply (Kaika 2003). Officials from Florida and Alabama condemned HB 489 as an effort to frustrate the negotiating process by stalling progress towards a resolution of the water conflict (Seabrook 1997). For Florida and Alabama, the reservoir project would have safeguarded metropolitan Atlanta's position as a regional hegemon and secured both the flows of water and power into its already formidable metropolitan growth machine (Kaika 2004; Swyngedouw 2004). At the same time, the reservoir would have been a *temporal fix* for Georgia's crisis of

water scarcity – not resolving the conflict among the three states, but allowing Georgia to further delay compact negotiations into the indefinite future. However, Georgia's proposals to construct a reservoir should not only be seen as an effort to temporally stall the negotiating process. Rather, it should also be considered as an effort to spatially displace the crisis to Florida and Alabama, as well as to its own agricultural interests downstream of metropolitan Atlanta (Harvey 1989, 201-210). As shown in Table 5 below, between the years of 1996 and 2008, when the states were engaged in compact negotiations, Georgia stakeholders proposed six *spatio-technical fixes* in the form of massive infrastructural projects in order to increase the state's water supply. The proposals were formulated despite Florida and Alabama's protestations that the projects violated the terms of the negotiations, namely, the flow requirements and adaptive management protocol outlined in the 2003 Memorandum of Understanding.

Despite warning signs that Georgia was not fully committed to resolving the ACF conflict, compact negotiations dragged on despite a notable lack of progress. Since the first attempt by the states to negotiate a resolution in September of 1990 (Teegardin 1990) until the last attempt in February of 2008 (Eberly and Shelton 2008), compact negotiations were marred by successive delays, missed deadlines and time extensions, as shown in Figure 22 below. Per the terms of the November 1997 agreement, compact negotiations were slated to be completed within one year, by a December 1998 deadline. Negotiations, however, were dragged out over a period of 18 years due in large part to 11 extensions of the negotiation deadlines.

Table 5: Georgia's Proposed Infrastructural Projects, 1997-2011.

Date of Proposal	**Project Type**	**Location of Project**	**Estimated Cost**
1997	Construction of a West Georgia Regional Reservoir	Western Georgia	$55 million
1998	Construction of a County Water Reservoir	Pike County, GA	Not Projected
1998	Storage Capacity Upgrades to Dog River Reservoir	Douglas County, GA	Not Projected
2000	Construction of Shoal Creek Filter Plant	Gwinnett County, GA	$38 million
2001	Upgrades to Atlanta's Sewer System	Atlanta, GA	$2 billion
2004	Improvements to County's Freshwater Intake System	Gwinnett County, GA	$162 million
2009	Upgrades to City's Water Distribution System	Atlanta, GA	$4 billion
2011	Construction of a Statewide Reservoir System	Several locations across Georgia	$46 million

Source: Wong, J., History compiled from AJC "Water Wars" Archival Materials.

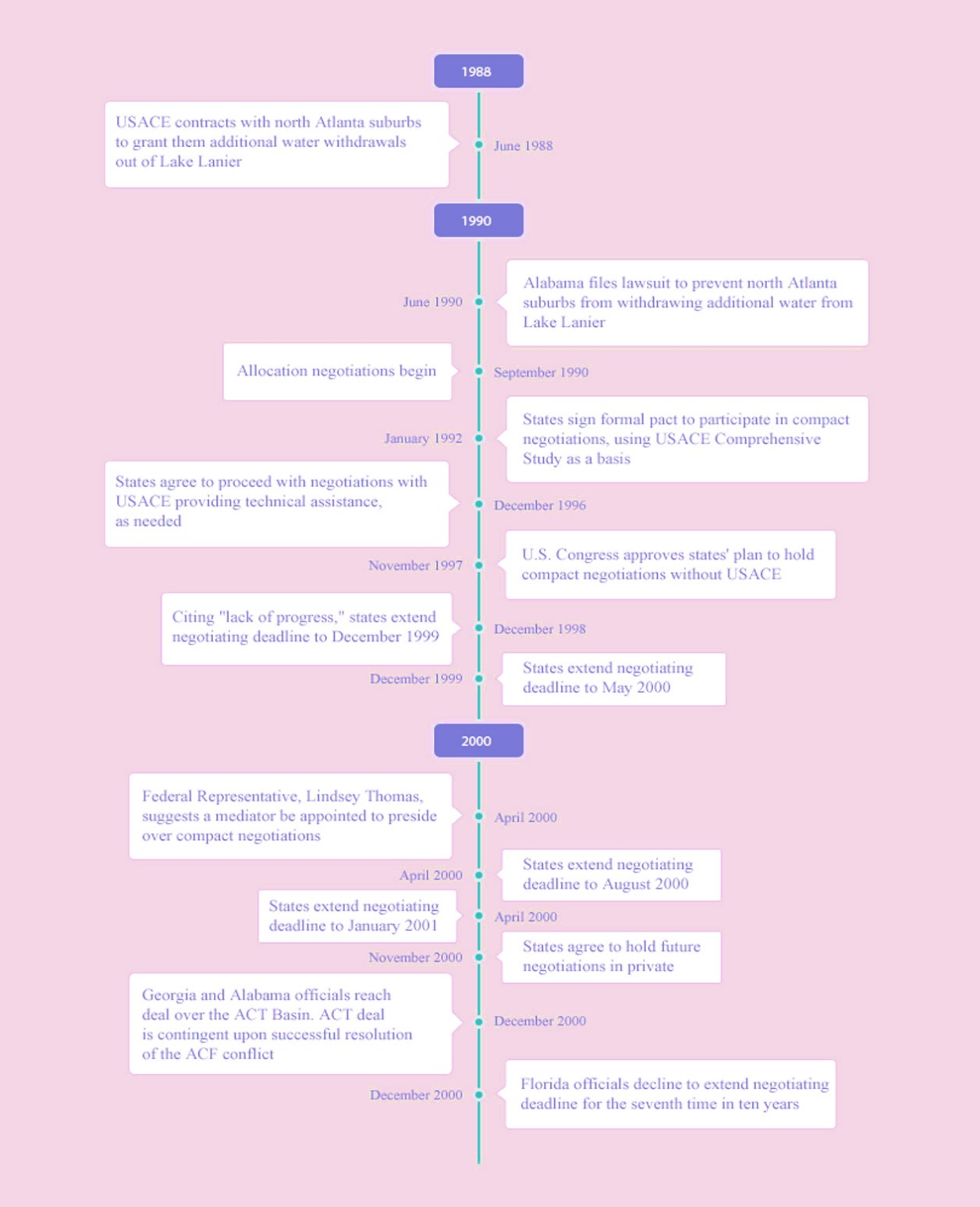


Figure 22: ACF Compact Negotiations Timeline.

Continued on page 181.

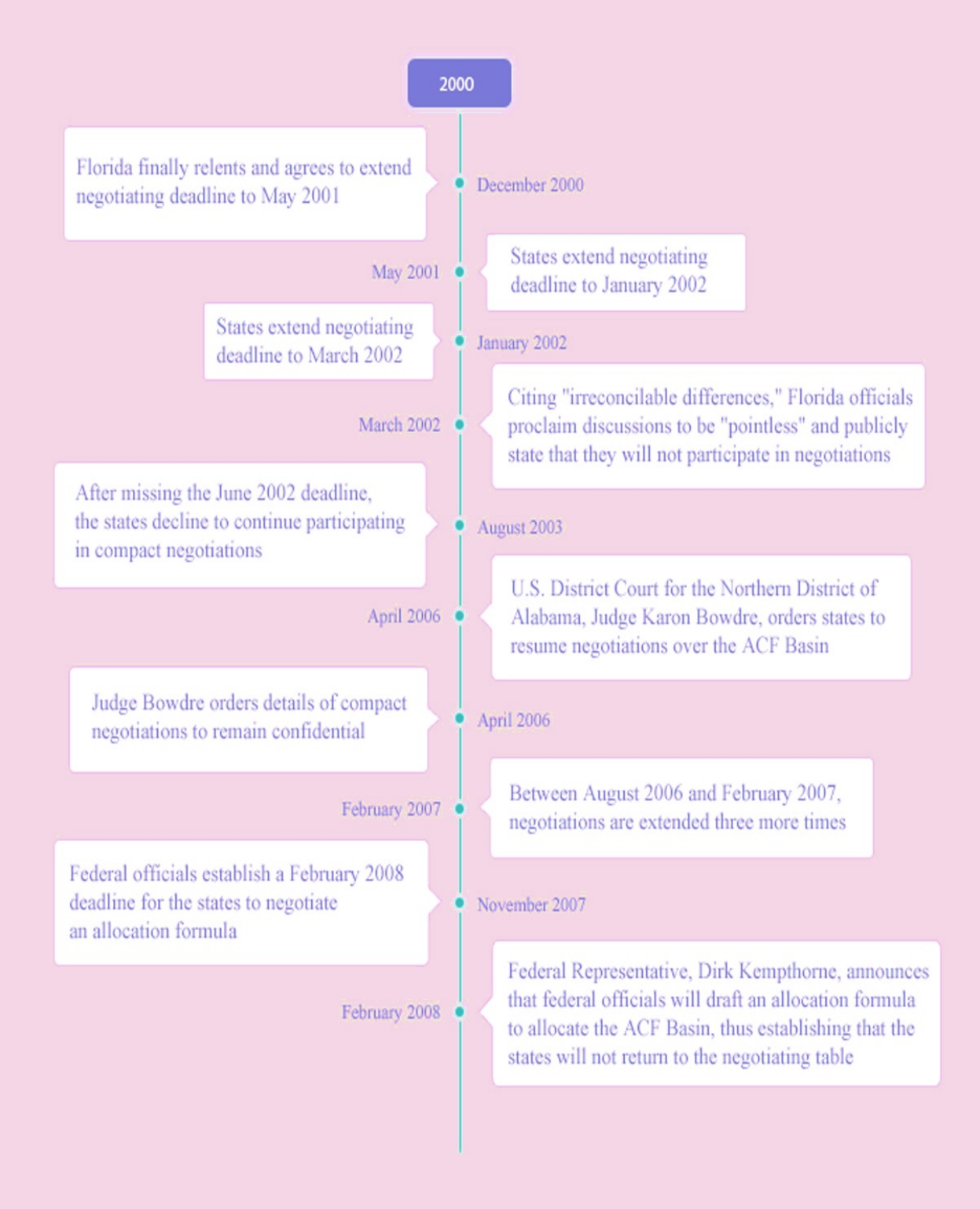


Figure 22: ACF Compact Negotiations Timeline (Continued).

Source: Wong, J., History compiled from *Atlanta Journal-Constitution* "Water Wars" Archival Materials.

Georgia Officials' Spatiotemporal Fix

Despite the obvious lack of measurable progress over the 18-year period of negotiations, Florida officials were the only parties to the conflict who were prepared to indict the negotiations as a "pointless" endeavor. A major reason for their indictment was the unwillingness of Georgia officials to provide Florida with "reasonable assurances" that minimal flows delivered to the Georgia-Florida state line would be a regular occurrence. All but confirming this charge, Georgia's then-Chief Negotiator, Bob Kerr, responded: "*Georgia will get its water…It may prove difficult and expensive, but we will meet our citizens' needs*" (Seabrook 2002). Given this uncompromising attitude, which is corroborated by interviews with other parties to the conflict, officials in Florida, and Alabama to a lesser degree, felt justified to accuse Georgia of negotiating in bad faith. According to a former compact mediator, during the negotiations, Georgia and metropolitan Atlanta only seemed to be committed to sustaining Atlanta's suburban "growth machine" (Molotch 1976), even to the detriment of Georgia's own agricultural interests in the south (Seabrook 2000; Kundell 2001). In addition to interviews with a high-ranking water manager from Alabama and a former Florida Governor, the compact mediator's statements clearly demonstrate that Georgia's chief negotiators had a vested interest in *not* resolving the conflict and were content to maintain the status quo for water allocation in the ACF Basin.

Having portrayed Georgia officials as the antagonists in the ACF conflict, Florida and Alabama stakeholders interviewed for this study regarded the discursive and symbolic gestures of their Georgian counterparts (Badertscher 2003; Signatory States 2003) as well-disguised delay tactics. A compact mediator from Florida suggested that Georgia's rhetorical displays of commitment were only intended to conceal the state's efforts to delay a final resolution.

According to him, Georgia officials were willfully ignorant of Florida and Alabama's water needs. In support of this claim of willful ignorance, the mediator described an incident in which Georgia negotiators proposed an allocation formula based on a patently flawed hydrological model. In his view, Georgia officials submitted the proposal with full anticipation that it would be rejected, but they simply did not care to budge from their position. From the mediator's perspective, Georgia officials came to the negotiating table absolutely unwilling to compromise *any* of metropolitan Atlanta's municipal water supplies.

Thus, the strategic efforts by Georgia officials to delay negotiations were successful in that the status quo for water allocation was only challenged twice during 18 years of negotiations. During that time, Florida and Alabama only achieved two short-term symbolic victories. First, in 2006, Judge Karon Bowdre of the U.S. District Court for the Northern District of Alabama ordered USACE to drastically increase the quantity of water released to stakeholders in the State of Florida. Judge Bowdre ruled that USACE should release 8,500 cubic feet per second (cfs) of water from the Jim Woodruff Dam, which is at the confluence of the Flint and Chattahoochee Rivers, in order to provide adequate flow to endangered species in Florida. This was a massive increase considering that, prior to the ruling, USACE operated the dam to release only 5,500 cfs (Alabama v. U.S. Army Corps of Engineers 2006; Fiese 2006). Second, a 2009 ruling by U.S. District Court Judge Paul Magnuson determined that providing metropolitan Atlanta with municipal water was neither an authorized purpose of Buford Dam nor of Lake Lanier. According to the Georgia Department of Natural Resources (2009), Judge Magnuson's ruling concluded that "*water supply was not an originally authorized purpose of Lake Lanier under the legislation that created Lake Lanier, but instead that Congress intended for water supply to be an 'incidental' benefit of releases for hydropower and other purposes.*" The ruling

sent shockwaves across the three states. Stakeholders in Florida and Alabama rejoiced but stakeholders in Georgia and metropolitan Atlanta declared the ruling "draconian" and claimed that it unfairly placed the region "*on the brink of devastation*" (Goncher 2012, 1).

These two judicial rulings against Georgia and metropolitan Atlanta's water excesses were the only short-term victories against their longstanding inequitable and unsustainable consumption of water from the ACF Basin. The 8,500 cfs released from Woodruff Dam, per Judge Bowdre's 2006 ruling, was eventually reduced to a baseline level of 6,000 cfs – due to a voluntary agreement between the three states that an environmental storage pool would be constructed in the ACF Basin system to maintain a consistent flow to the State of Florida (Fiese 2006). Then, two years after Judge Magnuson ruled that metropolitan Atlanta's municipal water supply was only an 'incidental benefit' of hydropower produced by the Buford Dam, the 2009 ruling was infamously overturned on appeal in 2011 by the U.S. Court of Appeals for the Eleventh Circuit, as was discussed in chapter 5 and 6. Three years before the Appellate Court issued its historic ruling, the states finally walked away from the negotiating table and, instead, chose to litigate a resolution. The landmark ruling in 2011, however, compelled the Corps to operate the ACF Basin according to a preferential "ask and ye shall receive" relationship with metropolitan Atlanta and likely guaranteed that the states will never again return to the negotiating table. Against this background, it seems clear that Georgia officials' spatiotemporal strategies to displace the water crisis to Florida and Alabama while simultaneously delaying a negotiated resolution were successful.

Georgia's Urban-Rural Divide

Chapter 6 discussed how, despite the states' inability to negotiate a water compact, metropolitan Atlanta has enjoyed an "improved water situation" (Lawler 2013). As discussed above, the landmark 2011 ruling by the U.S. Court of Appeals for the Eleventh Circuit determined that supplying metropolitan Atlanta with a municipal water supply is an authorized purpose of the Buford Dam. The ruling drastically altered the "urban metabolism of water" in the region, that is, the ways in which the politics and power of water drive the material production of the urban center (Kaika 2006; Gandy 2004). And yet, while metropolitan Atlanta rejoiced in the ruling, the rest of the State of Georgia found itself in a more precarious position in the wake of the court's ruling.

The reason is that in 1987, two years prior to the start of the ACF conflict, another conflict arose between Georgia's urban and rural water users over House Bill 137 (HB 137), in which sponsors sought to decentralize the state's water management authority. Similar to the three states' efforts to wrest power from USACE, HB 137 proposed that Georgia's Department of Natural Resources (DNR) hand over its authority to grant water permits to regional water management boards, known as water planning regions (WPRs) throughout the state (Hallman 1987). The bill was popular among farmers representing Georgia's southern agricultural interests who believed that DNR was primarily concerned with providing water to metropolitan Atlanta's booming residential and commercial counties in the north. Georgia's southern agricultural interests, therefore, saw decentralization or subsidiarity as a means to protect their water supply from being dispossessed by the state DNR to supplement metropolitan Atlanta's water supply. As E. Dunn Jr., a Calhoun County farmer in southern Georgia proclaimed, "*to me, the solution is*

to leave [water permitting] up to the local counties. I'd like to see the landowner freed from any restrictions from Atlanta" (Hallman 1987, 2).

Historically, a tension has existed between Georgia's northern urban commercial and residential interests and southern agricultural interests over withdrawing water from the ACF Basin to either expand suburbanization in the north or irrigate crops in the south. The two WPRs which manage the agricultural withdrawals from the Chattahoochee River are the Upper Flint and Lower Flint Ochlockonee. In 2008, the Upper Flint WPR estimated that 136 mgd were withdrawn for irrigation while the Lower Flint Ochlockonee WPR estimated that 301 mgd were withdrawn from the Chattahoochee River, thus amounting to 437 mgd (Hook 2010). Meanwhile during the same years, the Metropolitan North Georgia Water Planning District, which includes the metropolitan Atlanta region, minus DeKalb County, estimated water withdrawals at a staggering 515 mgd (Metropolitan North Georgia Water Planning District 2011). While Georgia's northern urban interests consumed nearly 100 mgd more than the agricultral interests in 2008, the urban interests of metropolitan Atlanta actually joined Florida in leveling accusations of excessive water withdrawals against Georgia's southern farmers. In the opinion of the Florida estuarine biologist mentioned earlier, Georgia's agricultural interests have significantly contributed to diminished streamflows received at the Florida-Georgia state line. He described the problem in the following way:

> "*It's not just Atlanta's demands…Certainly, the agricultural withdrawals [in] southwestern Georgia contribute rather sizably to the loss of water upstream…And, it doesn't help that there have been thousands of small ponds and impoundments that have developed over the years throughout, primarily, Georgia's portion of the basin, that now*

capture water that, at one time, had come back as groundwater…A lot of this has been, I use the term 'captured'…[The stream flow] was not able to come back as stream flows and, if that water has been either used for irrigation or lost in evaporation, just the manipulation of putting all those ponds and impoundments in place caused a decline in rainfall…We are losing more water upstream for a variety for reasons" (Interview, February 1, 2013; brackets added).

In early 2000, the urban-rural struggle over water allocation materialized in the form of HB 1362, the Flint River Drought Protection Act. This controversial bill sought to allocate $30 million ($39 million in 2013) to a drought mitigation fund (Kundell 2001, 3) through which the Georgia General Assembly promised to financially compensate the state's southern farmers to forego irrigating crops during times of drought. Thus, avoiding irrigation was seen as a practical measure to avoid reducing the stream flow to the Flint River, and consequently, to Florida and Alabama (Seabrook 2000). The bill passed and by April of 2000, the Georgia Environmental Protection Division (GEPD) placed a moratorium on all new water withdrawal permit requests and would not approve any new agricultural permits (Seabrook 2000), which effectively amounted to northern urban interests dispossessing agricultural water from southern farmers.

Discourses of Silence With Respect to Urban Bias

Georgia's urban-rural conflict over water became a one-sided fight following the 2011 ruling by the U.S. Court of Appeals for the Eleventh Circuit. The ruling demonstrated not only a clear state bias toward Georgia's interests over Florida and Alabama, but also a clear urban bias

toward metropolitan Atlanta over the rural-agricultural interests of southern Georgia. Following the ruling, USACE issued a 2012 legal opinion, which stated that:

> "*[i]t has always been apparent from the plain text of the Newman Report that the Corps proposed, and Congress authorized, a system that was expressly intended to 'ensure an adequate water supply for the rapidly growing Atlanta metropolitan area' downstream, and the Corps designed, and has always operated, the Buford Project with that goal in mind*" (U.S. Army Corps of Engineers 2012, 27).

The 2011 Appellate Court ruling iterated the justification behind the 1958 Water Supply Act, which authorized the Buford Dam, as follows:

> "*developing such water supplies in connection with the construction, maintenance, and operation of Federal navigation, flood control,* ***irrigation****, or multiple purpose projects*" (U.S. Court of Appeals for the Eleventh Circuit 2011, 16; bolded for emphasis).

However, in the 2012 USACE legal opinion, the Corps struck the word 'irrigation' from the record and inserted 'municipal and industrial,' summarizing the court's ruling as to the intent of the Water Supply Act as follows:

> "*Congress intended for the Corps to use this authority to assume an active role, in conjunction with State and local interests, 'in developing [municipal and industrial] water supplies in connection with the construction, maintenance, and operation of*

Federal navigation, flood control . . . or multiple purpose projects,' i.e., by including storage for water supply in the planning for new Corps projects, or by allowing the use storage in existing Corps projects for water supply" (U.S. Army Corps of Engineers 2012, 34-35; brackets in original).

The Corps' legal opinion codified the agency's commitment to protect Georgia's urban interests from water insecurity even if it meant sacrificing the state's agricultural interests. The federal and state biases have, therefore, greatly contributed to metropolitan Atlanta's immunity from water scarcity and created an environment in which discourses of water scarcity are ignored and otherwise avoided. Since the landmark 2011 ruling, even as Georgia suffered from drought conditions characterized as "*extreme or exceptional*" by meteorologists (Banerjee 2012, 1), public officials and water managers for metropolitan Atlanta failed to comment on its effects. Despite much of the state suffering from water shortages, metropolitan Atlanta maintained a degree of immunity from the drought such that efforts to encourage water conservation in the region were subsequently characterized as *unnecessary* and *reactionary* by high-ranking state officials. Even Nap Caldwell, a former Chief Negotiator for Georgia and then-Head of the Georgia Environmental Protection Division's (GaEPD) Drinking Water Program, deemed an outdoor water conservation program in metropolitan Atlanta to be an inconsequential and unnecessary effort to stave off water shortages in rural counties south of metropolitan Atlanta. In 2012, Caldwell stated that: "*a gallon of water saved in the metro Atlanta area would fail to ensure that there would be adequate water for human consumption in southern parts of the state*" (Banerjee 2012, 1). Metropolitan Atlanta has, therefore, successfully dispossessed its regional competitors of water, which has both swiftly and thoroughly (re)produced geopolitical

and geoeconomic unevenness among metropolitan Atlanta, Florida, Alabama and southern Georgia. Furthermore, any efforts to resist metropolitan Atlanta's water hegemony have been defeated for the foreseeable future.

Atlanta's Water Security and Florida's Contestation of the 2011 Ruling

The fourth and final conflict revealed by the study data is Florida and Alabama's continued contestation of the 2011 Appellate Court ruling and Georgia's institutionalized dispossession of downstream states' water supplies. The multiple implications of the 2011 ruling were detailed in chapter 5, which included a discussion of how the ruling: (a) abruptly transformed the water metabolism of metropolitan Atlanta; (b) significantly altered the politics of water distribution between USACE and the States of Georgia, Florida and Alabama; and, (c) resulted in water supply and demand management policies being deprioritized, ignored and/or displaced into the future by metropolitan Atlanta officials. Interviews with communications specialists at the Atlanta Regional Commission (ARC), in addition to water production and distribution data collected from the USACE Mobile District, confirm that the Appellate Court's ruling effectively compelled the Corps to provide metropolitan Atlanta's municipal utilities with all the water they need to sustain the region's growth trajectory. A communications specialist at the ARC even suggested that the 2011 ruling provided metropolitan Atlanta's water utilities with the opportunity to work in tandem with USACE to coordinate the amount of water released from the Buford Dam – a claim which was confirmed by a high-ranking Legislative and Public Affairs specialist at the USACE Mobile District and also a high-ranking water manager in Alabama.

While metropolitan Atlanta stakeholders enjoyed an improved water situation following the 2011 ruling, a high-ranking water manager from Alabama characterized the extreme distributional disparity between metropolitan Atlanta and his state as unfair and unbalanced. Whereas the Appellate Court granted metropolitan Atlanta the highest priority with respect to water use and allowed the region's utilities to coordinate releases with USACE, the Alabama water manager complained that since 2011, USACE has made no efforts to educate itself about Alabama's water needs, let alone coordinate releases with the state's water utilities. Against this background, for many stakeholders from Florida and Alabama, the 2011 ruling represented a major blow to any lingering hope for an equitable production and distribution of the waters of the ACF Basin.

Stakeholders from the State of Georgia, metropolitan Atlanta, and even USACE, subsequently treated the 2011 ruling as Atlanta's final victory in the ACF conflict. Yet, despite having suffered a momentous setback, the State of Florida has continued to contest the Appellate Court's decision. In June of 2012, the State of Florida petitioned the U.S. Supreme Court (SCOTUS) to revisit the *Tri-State Water Rights Litigation* in an effort to overturn the Appellate Court's ruling. SCOTUS, however, denied the petition for *writ of certiorari* and thereby stayed the Appellate Court's earlier decision, once again frustrating Florida and Alabama's pursuit of water equity (Florida, et al., Petitioners v. Georgia, et al. 2012).

One year later, in October of 2013, the State of Florida filed a second motion in the U.S. Supreme Court to seek relief from the ecological and economic injuries suffered as a result of the 2011 ruling. Denied the petition for *writ of certiorari* by SCOTUS in 2012, the State of Florida claimed that its second appeal to SCOTUS represented Florida's last hope of reclaiming its water rights. The motion claimed that:

"*Florida has exhausted all other reasonable means to arrest Georgia's unchecked use of water and halt the continuing degradation of the Apalachicola Region. Florida now, of necessity, invokes the Court's original jurisdiction seeking an appropriate apportionment to redress existing harm and to avert additional harmful depletions caused by uses in Georgia. There is no other forum in which Florida may vindicate its interests and obtain the requisite relief against Georgia*" (State of Florida 2013, 6).

The motion, which is slated to be heard by the Court in January of 2014, alleges that Georgia:

"*took advantage of the time between initiation of the Comprehensive Study in 1992 and failure of the ACF Compact in 2003 to continually increase its consumptive uses. Since 1992, Georgia's municipal, industrial, recreational, and agricultural uses of ACF Basin water have grown significantly, but under the terms of the Memorandum of Agreement and the ACF Compact, Georgia had no entitlement to any of these inflated uses. The pattern did not end after the ACF Compact failed, but has continued unabated, despite another decade of lower court litigation and failed judicial and non-judicial settlement efforts. Indeed, Florida has made numerous attempts to resolve this interstate dispute through formal and informal discussions, as well as court-sponsored mediation (including sessions facilitated by the U.S. Secretary of the Interior and the Council on Environmental Quality). See, e.g., Joint Motion for Order Regarding Confidentiality of Settlement Negotiations, In re Tri-State Water Rights Litig., (No. 315). All of these efforts ultimately failed*" (State of Florida 2013, 5-6).

Court-Sponsored (Re)Production of Uneven Development

The quotes above demonstrate two important developments regarding the future of the ACF conflict. First, the State of Florida alleges that Georgia willfully orchestrated the failure of compact negotiations as part of its strategy of *spatiotemporally fixing* the crisis of water. Florida has also gone on the record to claim that Georgia's participation in the compact negotiations was nothing more than a symbolic gesture intended to conceal its goal of hoarding water at the expense of downstream users. In the Supreme Court docket, Florida accused Georgia officials of feigning a commitment to compact negotiations. According to Florida, Georgia used the time between 1992 and 2003 to increase its consumption of water and grow its municipal, industrial, recreational and, to a lesser extent, agricultural consumptive uses, thus making it politically unthinkable and economically unlikely to cut off the water supply to a rapidly growing state.

Second, according to Florida and Alabama, the U.S. Court of Appeals for the Eleventh Circuit actively sponsored Georgia's dispossession of the states' respective water rights. Furthermore, alongside the Appellate Court's decisive bias toward the political and economic interests of metropolitan Atlanta, USACE and SCOTUS demonstrated tacit complicity with the lower court's decision by failing to challenge the 2011 ruling on the grounds of well-established ecological and economic consequences. USACE's complicity was demonstrated clearly in its 2012 legal opinion, in which USACE's Chief Counsel was forced to retroactively concede that the agency had operated the ACF system in error for nearly 60 years, stating that:

"*[i]t has always been apparent from the plain text of the Newman Report that the Corps proposed, and Congress authorized, a system that was expressly intended to 'ensure an*

adequate water supply for the rapidly growing Atlanta metropolitan area' downstream, and the Corps designed, and has always operated, the Buford Project with that goal in mind" (U.S. Army Corps of Engineers 2012, 27).

USACE's position reversal is stunning, considering that the Chief Counsel admitted that "*[i]n 2002 and 2009, I reached different conclusions regarding the extent of the Corps' authority for water supply associated with the Buford Project*" (U.S. Army Corps of Engineers 2012, 2). The conclusions reached by USACE suggest an extremely deferential attitude toward the Appellate Court, which actively crafted water management policies. Second, the legal opinion revealed the Corps' capricious attitude toward basin management procedures, thus making the agency a pedestrian to the water conflict.

In contrast to the ARC communications specialist, who suggested that metropolitan Atlanta has thrived due to the 2011 ruling by the U.S. Court of Appeals for the Eleventh Circuit, the landmark decision was not the lone factor that allowed metropolitan Atlanta to thrive economically. Atlanta's rapid growth from a stopover destination to "*the economic jewel of the Southeast*" (Saporta 2013) was due to the region's post-World War II transition from "heavy" industries toward a service economy (Stone 1989), a suburban restructuring of the region and, above all, a consistently available water supply.

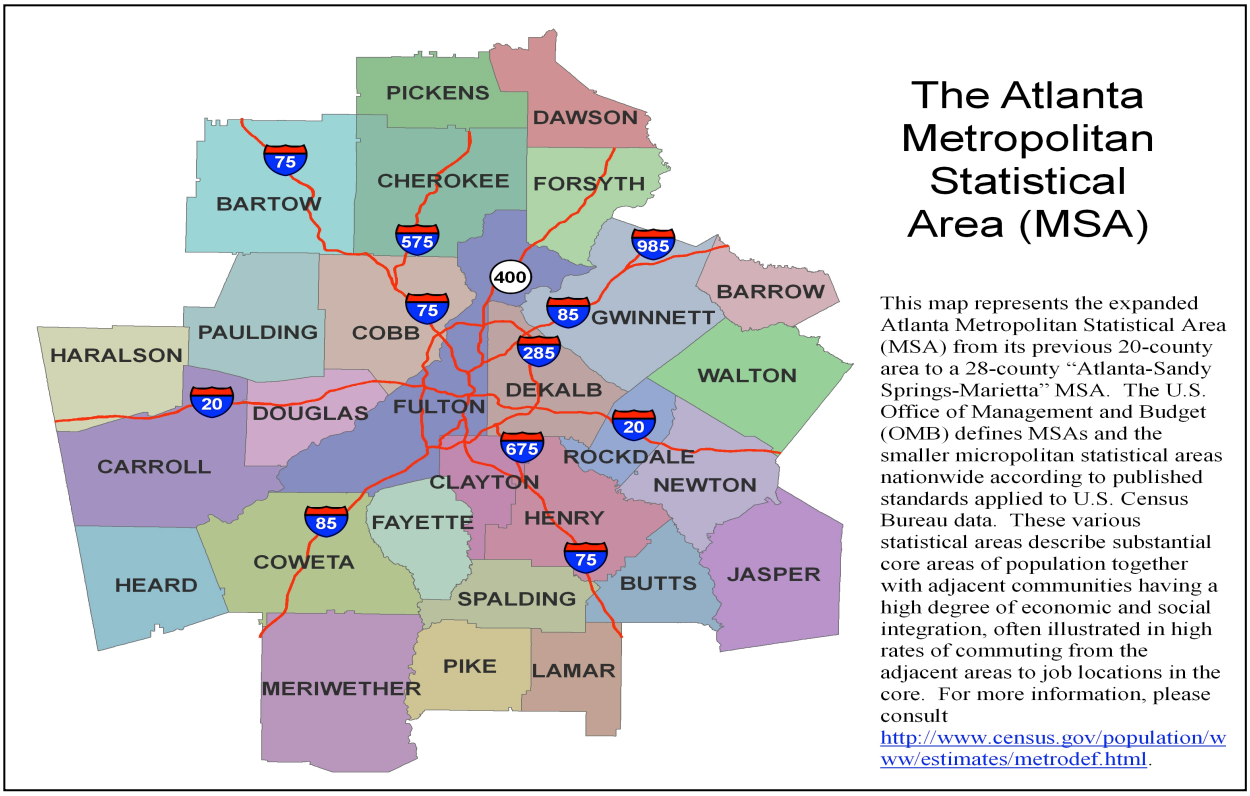
The 2011 Appellate Court ruling should not be portrayed as the single event responsible for producing uneven development across the States of Georgia, Florida and Alabama. However, the ruling undoubtedly contributed to reproducing political and economic disparities between metropolitan Atlanta, eastern Alabama and the Florida panhandle. The 2011 ruling and the failure by SCOTUS and USACE to challenge the ruling amount to the institutionalization of

metropolitan Atlanta's "*prevailing laissez-faire market economy-driven approach to growth*" (Hartshorn and Ihlanfeldt 2000, 17). Like many other major metropolitan regions, Atlanta's economic model was founded upon the twin principles of geographical expansion and geographical restructuring (Harvey 1981, 1989, 2001, 2003; N. Smith 1984, 2007) and to that end, massive quantities of water *were, are* and *will be* necessary to meet the demands of a sprawling urban center. Both the U.S. Court of Appeals for the Eleventh Circuit and SCOTUS have set the stage for water policy in the American South by expressly providing metropolitan Atlanta with the water necessary to continue its water-intensive, suburban growth. Table 6 and Map 6 show that over an eight-year period from 2000 to 2008, the metropolitan Atlanta region increased its housing stock by nearly 40% in the counties outside of the densely populated "Core" 10-counties of metropolitan Atlanta, thus further exacerbating regional sprawl.

Table 6: Housing Units and Households, 10 and 20-County Regions.

County	2008 Housing Units	2000 Housing Units	Total Change	Percent Change	2008 Households	2000 Households
Cherokee	79,966	51,937	28,029	54.0%	74,017	49,495
Clayton	107,337	86,461	20,876	24.1%	99,739	82,243
Cobb	278,391	237,522	40,869	17.2%	255,878	227,487
DeKalb	300,663	261,231	39,432	15.1%	276,775	249,339
Douglas	50,806	34,825	15,981	45.9%	47,028	32,822
Fayette	39,568	32,726	6,842	20.9%	37,240	31,524
Fulton	434,408	348,632	85,776	24.6%	382,422	321,242
Gwinnett	284,698	209,682	75,016	35.8%	262,974	202,317
Henry	71,314	43,166	28,148	65.2%	67,596	41,373
Rockdale	31,247	25,082	6,165	24.6%	29,527	24,052
"Core" 10	**1,678,398**	**1,331,264**	**347,134**	**26.1%**	**1,533,196**	**1,261,894**
% of 20-county	**80.2%**	**81.7%**	**75.0%**	**NA**	**79.8%**	**81.8%**
Barrow	25,165	17,304	7,861	45.4%	23,409	16,354
Bartow	36,286	28,751	7,535	26.2%	33,880	27,176
Carroll	43,982	34,067	9,915	29.1%	40,163	31,568
Coweta	44,389	33,182	11,207	33.8%	41,772	31,442
Forsyth	61,267	36,505	24,762	67.8%	57,215	34,565
Hall	64,482	51,046	13,436	26.3%	59,290	47,381
Newton	37,213	23,033	14,180	61.6%	35,322	21,997
Paulding	45,420	29,274	16,146	55.2%	43,730	28,089
Spalding	26,783	23,001	3,782	16.4%	24,531	21,519
Walton	29,323	22,500	6,823	30.3%	27,802	21,307
"External" 10	**414,310**	**298,663**	**115,647**	**38.7%**	**387,114**	**281,398**
% of 20-county	**19.8%**	**18.3%**	**25.0%**	**NA**	**20.2%**	**18.2%**
20-County Total	**2,092,708**	**1,629,927**	**462,781**	**28.4%**	**1,920,310**	**1,543,292**

Source: U.S. Census Bureau, 2007 American Community Survey.



Map 6: 28-County Metropolitan Statistical Area, 2013.

Source: Atlanta Regional Commission 2013.

Continuation of Atlanta's Booming Growth

As of 2013, with a population of greater than 5.3 million people and projected to add another 500,000 by the year 2018 (U.S. Census Bureau 2013), metropolitan Atlanta's water consumption can only be expected to increase. Table 7 below shows that over a 20-year period, the Atlanta Metropolitan Statistical Area (MSA) added more than 2.2 million people. Figures 23, 24 and 25 below show that metropolitan Atlanta's own water managers, as they did in 1940, still recognize that rapid population growth will lead to unsustainable increases in water consumption. However, the Metropolitan North Georgia Water Planning District (2009) also projects that alongside suburban growth, its water supplies will simultaneously increase and thus,

the region will somehow be able to stave off future crises of water scarcity. Furthermore, a 2011 report by the ARC projected that by 2040, the Atlanta region will add an additional 3 million people and will require approximately 2,000 new residential subdivisions to house this population (Atlanta Regional Commission 2011). As Florida alleged in its motion filed in the U.S. Supreme Court:

> "*Georgia officials have projected that Georgia's consumption of ACF Basin water will nearly double from present levels by 2040…If Georgia's consumption increases as planned, the sole source of fresh water sustaining the Apalachicola River and Bay will shrink further, jeopardizing the viability of the Apalachicola Region's ecology, economy, and way of life*" (State of Florida 2013, 3).

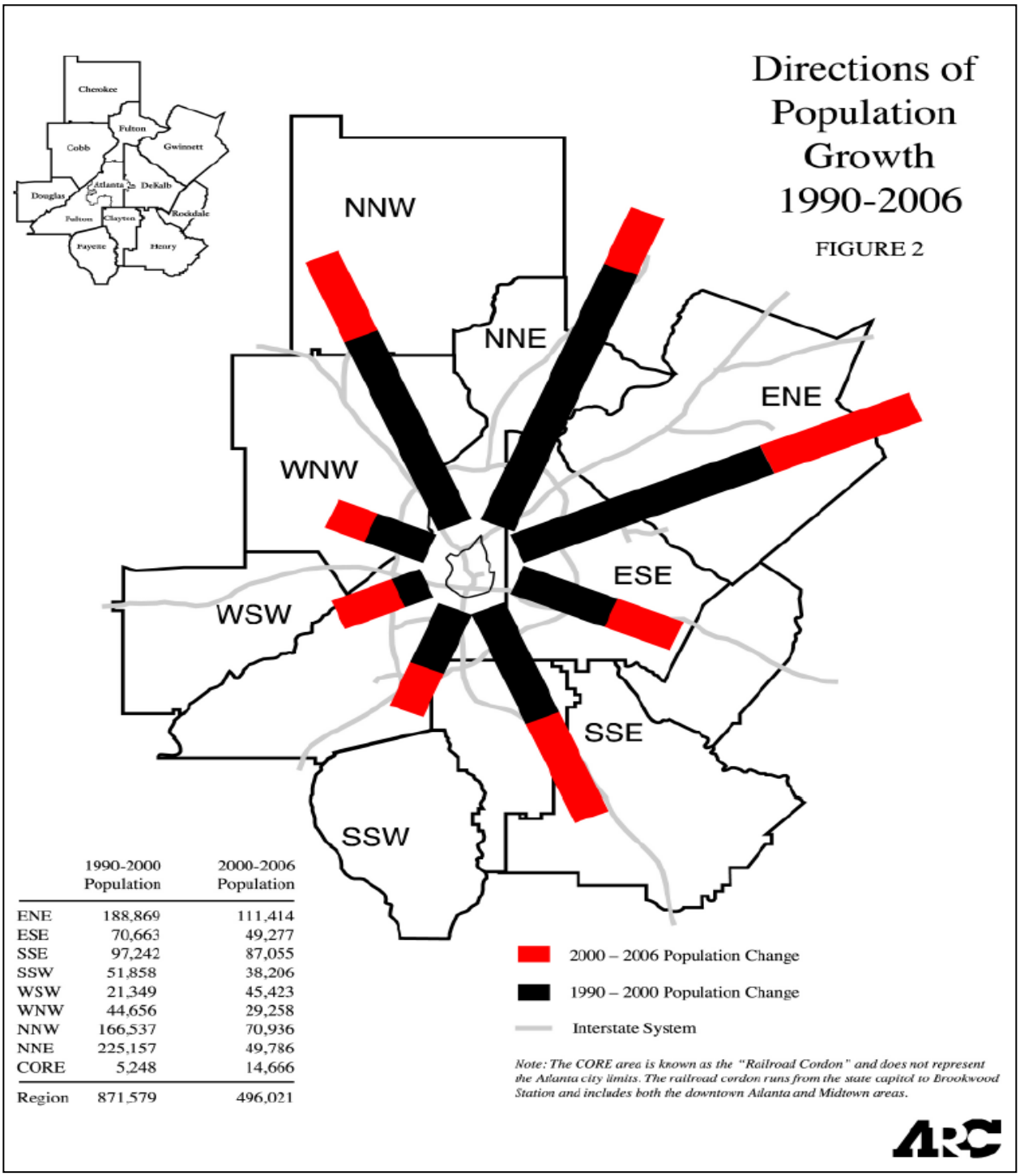
Table 7: Population Growth of Atlanta MSA, 1990-2010.

Table 20. Large Metropolitan Statistical Areas—Population: 1990 to 2010

[As of April 1. In thousands, except as indicated (658 represents 658,000). Covers metropolitan statistical areas with 250,000 and over population in 2010, as defined by the U.S. Office of Management and Budget as of November 2009. All geographic boundaries for 2000 and 2010 population are defined as of January 1, 2010. For definitions and components of all metropolitan and micropolitan areas, see Appendix II. Minus sign (–) indicates decrease]

Metropolitan statistical area				Change				Rank, 2010
				1990–2000		2000–2010		
	1990	2000	2010	Number	Percent	Number	Percent	
Akron, OH	658	695	703	37	5.7	8	1.2	72
Albany–Schenectady–Troy, NY	810	826	871	16	2.0	45	5.4	58
Albuquerque, NM	599	730	887	130	21.7	157	21.6	57
Allentown–Bethlehem–Easton, PA–NJ	687	740	821	54	7.8	81	10.9	64
Anchorage, AK	266	320	381	54	20.1	61	19.2	133
Ann Arbor, MI	283	323	345	40	14.1	22	6.8	146
Asheville, NC	308	369	425	61	19.9	56	15.1	117
Atlanta–Sandy Springs–Marietta, GA	3,069	4,248	5,269	1,179	38.4	1,021	24.0	9
Atlantic City–Hammonton, NJ	224	253	275	28	12.6	22	8.7	166
Augusta–Richmond County, GA–SC	436	500	557	64	14.7	57	11.4	92
Austin–Round Rock, TX	846	1,250	1,716	404	47.7	467	37.3	35
Bakersfield, CA	545	662	840	117	21.4	178	26.9	62

Source: U.S. Census Bureau 2010.



	1990-2000 Population	2000-2006 Population
ENE	188,869	111,414
ESE	70,663	49,277
SSE	97,242	87,055
SSW	51,858	38,206
WSW	21,349	45,423
WNW	44,656	29,258
NNW	166,537	70,936
NNE	225,157	49,786
CORE	5,248	14,666
Region	871,579	496,021

Figure 23: Directions of Population Growth in Metropolitan Atlanta, 1990-2006.
Source: Atlanta Regional Commission.

Figure 24: Photograph of Metropolitan Atlanta's Urban Sprawl.
Source: ATL-Urbanist, 2013.

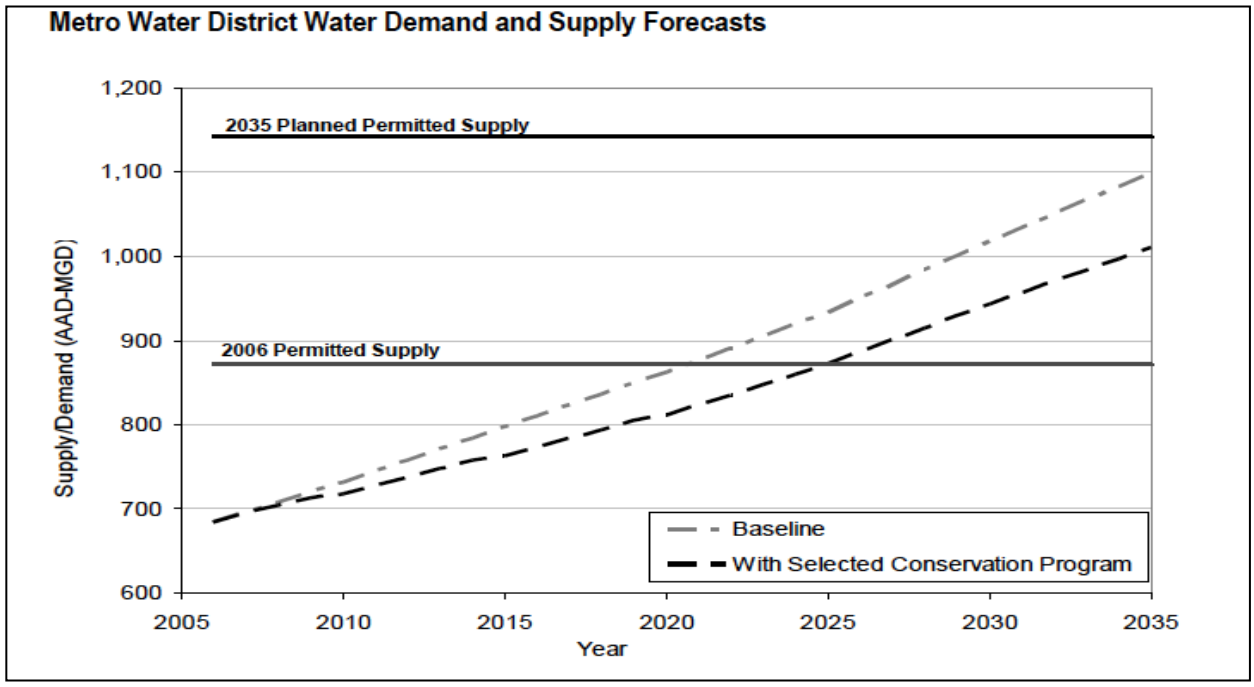


Figure 25: Metropolitan Atlanta Water Demand and Supply Forecasts, 2005-2035.
Source: Metropolitan North Georgia Water Planning District 2009.

While many land and real estate developers in metropolitan Atlanta view the projected growth as an opportunity to expand their businesses (Chapman 2011), stakeholders in Florida and Alabama view this as a disaster and potential death knell to their economies and ecologies. As Florida Governor Rick Scott summarized in a letter to Timothy Skaggs, Regional Director of the U.S. Small Business Administration:

> "*[t]he economy of Apalachicola and Franklin County is tied inextricably to the commercial seafood industry, which is heavily dependent on a healthy natural ecosystem. In the summer of 2012, the State of Florida experienced an unprecedented decline in the supply of oysters within Apalachicola Bay, resulting from a lack of necessary freshwater inflows to support productive oyster communities. The collapse of the oyster fishery caused a significant loss of income to commercial oyster fishermen, oyster processors, and rural coastal communities. As a result, many businesses in Franklin County have experienced economic injury*" (Rick Scott 2013).

Chapter 8 will conclude and summarize this study's findings and will also discuss its contributions to the existing scholarship on the ACF conflict. Finally, the study limitations will be considered and suggestions for future research directions will be offered.

CHAPTER EIGHT:

CONCLUSIONS

Discussion of Study Conclusions

The primary goals of this doctoral dissertation are to explore, describe and provide an empirical explanation as to why multiple efforts to resolve the 25-year old Apalachicola-Chattahoochee-Flint River conflict involving the riparian states of Georgia, Florida and Alabama, have been unsuccessful and largely counterproductive. Data collected over an almost four year-long period from in-depth interviews, archival sources and first-hand observations provided a rich historiographical account of the conflict and presented new insights into the negotiating strategies and tactics used by competing stakeholders in order to either maintain or secure greater access to the waters of the ACF Basin. By securing interviews with high-ranking federal, state and regional water managers, state officials, lawyers, scientists and communications specialists, this study offers new insights and specific conclusions regarding the consequences of rescaling and rolling-back water management authority in the ACF Basin.

This study suggests that the collective decision by the three states to usurp USACE's water management authority over the ACF Basin resulted in a governance failure due to a lack of state capacity to collectively manage the basin. Instead of using USACE's Comprehensive Study technical reports to inform the allocation formula, the states determined that compact

negotiations would resolve the conflict quickly and cheaply. Yet, the decision to negotiate a compact was hijacked by metropolitan Atlanta's territorial and capitalist logics of power (Harvey 2003, 104-105) to secure water for the region. Florida was the first state to publicly recognize that the tri-state compact negotiations were an inappropriate state apparatus to create water equity, as this process was laden with contradictions and amounted to a "zero-sum" (Hirsch 1977) political exercise. The removal of USACE from the compact negotiations left the states to collectively design a water allocation formula in spite of their respective overlapping and competing economic interests. It is, therefore, no surprise that the interest of metropolitan Atlanta prevailed because as the "economic jewel of the Southeast" (Saporta 2013), its territorial and capitalist power was reinforced by the competition for water. And thus, metropolitan Atlanta's combined geopolitical and geoeconomic power forced USACE and the U.S. Court of Appeals for the Eleventh Circuit to endow the region with enough water to sustain its residential and commercial interests for the foreseeable future.

Metropolitan Atlanta's success in securing ever more water is contingent upon the region's ability to establish its water needs as the "highest and best use" of water from the ACF Basin. Dating back to World War II, metropolitan Atlanta's rapid population, economic and suburban growth enabled the region to win billing as a premiere destination in the New American South (Rutheiser 1996, 1997; Allen 1996; Bullard, Johnson and Torres 2000). As a result of the region's preeminence in the South, metropolitan Atlanta was able to (a) outcompete Georgia's southern agricultural interests for intrastate water supplies; (b) recruit Georgia state officials to actively compete for interstate water supplies on behalf of the region's powerful urban and suburban interests; and, (c) successfully leverage its geopolitical and geoeconomic

clout in the U.S. Court of Appeals for the Eleventh Circuit so as to dispossess both Florida and Alabama of their respective riparian rights to the waters of the ACF Basin.

Against this background, the *initial hypothesis* that the State of Georgia strategically orchestrated the failure of compact negotiations is correct. The findings of this study suggest that Georgia's negotiators used a series of delay, defer and discursive strategies and tactics in order to both increase and guarantee the state's consumption of water and grow its municipal, industrial, recreational and, to a lesser extent, agricultural consumptive uses. A series of *spatiotemporal fixes* made it politically unthinkable to cut off the water supply to a rapidly growing state and one of the most significant regions in the southeastern U.S. (F. Allen 1996). However, while this study's findings support the initial hypothesis, they also partially contradict the central research question, namely, *why has the longest water dispute in U.S. history, the ACF River Basin conflict among the riparian States of Georgia, Florida and Alabama, not yet been resolved?* The reason is that while the current status of the ACF conflict may not be equitable and is far from resolved from the perspective of the States of Florida and Alabama, it has in fact been resolved, at least for the foreseeable future, from the perspective of the State of Georgia.

Review of Literature and Theoretical Context of the ACF Conflict

This study was theoretically informed by several strands of the burgeoning environmental-economic-geography (EEG) literature. First, literature on the resolution of capitalist crises informed the study by framing the ACF conflict as an historically specific interruption of the molecular processes of capital accumulation. Drawing primarily from the works of David Harvey (2001, 2003, 2007, 2009), Giovanni Arrighi (1978, 2004) and Peck,

Theodore and Brenner (2010), this study treats metropolitan Atlanta's geographical restructuring and economic expansion as both distinctive responses to a crisis of overaccumulated capital, as well as the causes of a crisis of water scarcity. Harvey's second and third "cuts" at crisis theory identify *spatiotemporal fixes* as strategic responses to crises of overaccumulation. For Harvey, geographically restructuring the built environment and economic expansion into new markets are two ways in which the disruptions of capital accumulation can be temporarily, although not structurally, resolved. This theoretical contribution is useful in that it explains why, after World War II, Atlanta's political and economic elites sought to intitiate an economic transformation by expanding the region's transportation network and annexing underdeveloped counties surrounding the city. By encouraging low-density suburban growth, Atlanta's elites were able to transfer capital from less profitable "hard" industries, like defense manufacturing, to more profitable "soft" services, thereby massively expanding residential real estate and commercial markets. The 1946 Lochner Report and 1952 Plan for Improvement not only encouraged expansion of Atlanta's spatial economy, but strategically encouraged investment into projects with *"long lag times between investment and payoffs"* (Sheppard 2004, 472), which thus acted as capital sinks providing future streams of benefits to investors.

Metropolitan Atlanta's strategy to open and expand commercial and residential markets was thus contingent upon the production of a secure supply of municipal water. As Swyngedouw (2004) argues, neoliberalism is transforming local waters into global money through processes of capital accumulation. The consequences of this transformation are evident in that, while the *spatiotemporal fix* to the crisis of overaccumulated capital allowed metropolitan Atlanta to consolidate economic and political power through a process of regionality (Harvey 2003), Atlanta soon confronted the biophysical limits of that strategy vis-à-vis a severe drought which

produced water scarcity in the ACF Basin. Relative water scarcity, with respect to the various competing interests in the basin, thus led to conflict over access to the water supply.

The processes of allocating water to competing political and economic interests has been interrogated often in the literature on water conflicts. While contemporary water conflict scholars (Zeitoun and Warner 2006; Davidson-Harden, Naidoo and Harden 2007; Loftus and Lumsden 2008; Selby and Hoffmann 2014) have expanded this literature by incorporating Gramsci's (1971) notion of hegemony to explain the political and economic dimensions of accumulation processes, neo-Gramscian frameworks stop short of framing *spatiotemporal fixes* as water accumulation strategies. Closely related, Loftus (2006) applies Harvey's concept of *spatiotemporal fixes* to explain the capital accumulation strategies of Umgeni Water, a water supplier to Durban, South Africa. Here, like Bond (2004), Loftus situates market expansion in South Africa as part and parcel of the neoliberal logic to search for proftability and capital accumulation wherever possible. Loftus explains that in the 1990s, Umgeni Water sought to construct new infrastructural projects and expand distribution into rural markets so as to increase bulk water sales. While Lofton (2006) successfully confirms that water suppliers are using Harvey's concept of *spatiotemporal fixes* to resolve crises of *underaccumulation,* the South African case study is fundamentally different from the ACF Basin case study in which the *spatiotemporal fix,* alongside other strategies, has been used to facilitate water accumulation as a precondition for capital accumulation. The framework adopted in this study necessarily problematizes the 'natural' existence of a neo-Gramscian *hydro-hegemony* by applying Harvey's concept of *spatiotemporal fixes* to explain how water simultaneously produces political and economic power and how power produces water security. By problematizing the existence of a hydro-hegemony and interrogating how hegemonic power is produced and manifest with respect

to water conflicts, this study is poised to make several valuable contributions to the literatures discussed below.

Contributions to Scholarship

Spatiotemporal Fixes as Water Accumulation Strategies

The findings of this study extend the works of David Harvey (1981, 2003), Jessop (2000, 2006), Arrighi (2004), and Brenner and Theodore (2002) on *spatiotemporal fixes* as crisis-avoidance-strategies to the study of interstate water conflicts. Here, this study contributes a new way to understand *spatiotemporal fixes,* which is similar to that of Bolin, Collins and Darby (2008), who applied the framework to explore place-based water conflicts in the Arizona Central Highlands. However, whereas Bolin, Collins and Darby explore the ways in which water infrastructure projects are used to defer groundwater depletion into the future, this study extends *spatiotemporal fixes* to include strategies to: (a) delay the equitable resolution of a 25-year crisis of water scarcity by negotiating in bad faith and, (b) geographically expand the Atlanta metropolitan region via suburbanization and annexation in order to develop facts on the ground. By employing these two complementary strategies, metropolitan Atlanta was simultaneously able to avoid confronting the natural limits of its excessive water consumption while also making it politically unthinkable to and economically unlikely to cut off the water supply to a rapidly growing metropolitan region.

Production of Economic Space and Regionality

This single-case study makes a valuable empirical contribution to the literature on the uneven production of space and nature, especially the work of David Harvey (1982, 1989, 2001, 2003), Neil Smith (1984, 2007), Erik Swyngedouw (2000, 2004, 2005b) and Maria Kaika (2003, 2004) by extending their concepts and theories into the study of environmental geography, especially water conflicts. By examining the ACF conflict through an economic-environmental-geographical (EEG) lens, this study provides empirical support to Harvey and Smith, who suggest that the production of economic space is mediated by the capitalist production of nature. Borrowing from Smith's (1984, 2007) work on the uneven development of space and Harvey's (1982, 1989, 2001, 2003) work on the regional dynamics of capital accumulation, this study demonstrates that uneven production and allocation of the waters of the ACF Basin, *vis-à-vis* water competition, has worked to secure a locational advantage for metropolitan Atlanta, thereby making the region a suitable site for capital accumulation. Accordingly, this study shows how the twin logics of capital accumulation and urbanization in the American South are contingent upon the ability of dominant metropolitan *regions* to successfully outcompete, out-litigate and/or out-negotiate riparian competitors for access to water resources. By providing a precise historical account of the complexity of the water conflict over the last 25 years, this study systematically connects the various failures and delays of the water conflict to a number of interconnected causes, notably the institutionalization of water competition, the neoliberalization of water management and the underlying logic of capitalist regionalization that overwhelmingly serves the commercial and residential interests of metropolitan Atlanta.

Metabolism of Water

The findings of this study also complement and extend the works of Kaika (2003, 2004) and Swyngedouw (2004), which use an urban metabolic approach to examine the power relations embedded in, but also fetishized by, urban technological networks (Kaika and Swyngedouw 2000). Whereas Kaika and Swyngedouw limit the metabolic framework to the urban scale, this study extends their work on the uneven metabolism of water to the regional and interstate scales. For Kaika and Swyngedouw, power relations are materially embedded in the production of urban technological networks which, at once, provide secure flows of water to rich urban enclaves and simultaneously exclude or unevenly include the urban poor and powerless from these networks. Accordingly, this study contributes to the contested spatiality of water metabolism by demonstrating how regional and interstate water conflicts produce: (a) hegemonic regions, which are able to secure access to water networks and (b) dispossessed regions, which are excluded from water networks.

For the American South, which is characterized by a high degree of decentralized water management authority, examining the power relations embedded within the regional metabolism of water offers a distinct advantage and opportunity over the urban scale. First, by theorizing the ACF conflict as a power struggle between regional riparians, this avoids privileging the urban scale as the *de facto* scale where water inequities materialize. Accordingly, this study avoids falling into the "local trap" (Brown and Purcell 2005; Purcell 2006) and, rather than placing the city at the "*centre of political analyses of socioecological sustainability*" (Davison 2007, 263), recognizes that the competitive logic for water materializes across all geographical scales of analysis and governance.

Rescaling of Water Governance

Finally, this study also corroborates the findings of Bakker and Cook (2011), which suggest that efforts to decentralize water management authority can result in a highly fragmented policy framework with governance overlaps, gaps and semi-autonomous governing bodies. For Bakker and Cook, the appropriate institutional and geographical scale of water governance lies somewhere between "subsidiarity" (meaning decentralized, localized water management authority) and "harmonization" (meaning centralized water management authority). It is by negotiating this tension that water users determine how best to balance: (a) decision-making and policy implementation, and (b) standardization of laws pertaining to water production and distribution and ecological and economic health. As an example, Bakker (2003) uses the French regulatory approach (Aglietta 1979; Lipietz 1987) to explain how governance changes and restructuring of the English and Welsh water industries led regulatory bodies to adopt neoliberal management practices. Future research on the ACF conflict may benefit from applying a similar regulatory (Bakker 2003; Gandy 1997) or institutional (Martin 2003; Amin 2004; Gibbs 2006) framework to explore how USACE's changing capacity to manage the basin constitutes a putative and strategic effort to institutionalize commercialization of the ACF Basin (Bakker 2007, 441). However, for Bakker (2003) and Bakker and Cook (2011), neoliberalism's tendency toward subsidiarity means that water governance responsibilities often devolve to multiple stakeholders, who may have vastly divergent geoeconomic, geopolitical and geoecological interests.

In the context of the ACF conflict, policy fragmentation resulted from the transfer of water management authority from USACE, a centralized institution with demonstrated capacities

to govern interstate water bodies, to the states, which individually lack the state capacity to equitably manage the ACF Basin. As the current case demonstrates, federal power was dismantled through decentralization and roll-back neoliberalism (Peck and Tickell 2002), which compelled the three states to restructure the scale of water governance in terms of the capitalist logic of the market. This new competitive system overwhelmingly favored the commercial and residential interests of metropolitan Atlanta.

Many advocates of governance decentralization (Bardhan 2002; Ribot 2002; Larson and Ribot 2004) often assume, incorrectly, that a decentralized system transfers water management authority from the *few* to the *many*. However, this claim is contradicted by the findings of this study, which demonstrate the relative ease with which the State of Georgia manipulated the competitive process of the compact negotiations with Florida and Alabama. In this context, this study also demonstrates that, as a result of decentralization, legal and other institutional decision-making processes governing water production and distribution can easily be hijacked by regional hegemons. For, although the *riparian states* were supposed to negotiate the terms of the compact, the process was marked by competing *regional interests*: Georgia fighting for metropolitan Atlanta's municipal water supply; Florida fighting for Apalachicola Bay's estuarine supply; and, Alabama fighting for water to develop a regional economy in the eastern corridor of the state. Of course, as a result of the vast power inequities among the regions, decentralization produced an overtly undemocratic negotiation process. Subsequently, metropolitan Atlanta and the State of Georgia were able to seize control of the ACF Basin from Florida and Alabama.

Limitations of the Study

This study encountered several major obstacles with regard to data accessibility. Although there is a significant body of literature related to the ACF conflict, many of these studies are: (a) overly quantitative; (b) lack specificity and grounding in the political economy of state restructuring *vis-à-vis* neoliberalism, and the urban and regional dynamics of U.S. capitalism; and, (c) when they do adopt a theoretical framework, it is often legalistic or narrowly economic with very little engagement with the environmental and geographical science literatures (Peterson and Wallick 2006; Wolf, et al. 1999; Jordan and Wolf 2006; Dellapenna 2006). Despite the proliferation of quantitative studies, there is surprisingly little in-depth qualitative and theoretically informed studies of the causes of this enduring conflict. One of the reasons for this gap is that the 2009 and 2010 confidentiality orders by the U.S. District Courts of the Northern District of Alabama and the Middle District of Florida, respectively, greatly restrict access to all data related to litigation and compact negotiations. The 2010 U.S. District Court Order stipulates that:

> "[*t*]he *ongoing negotiations among the three States of Alabama, Florida and Georgia concerning the issues presented by this litigation are, and shall be kept, confidential…This Order extends to all documents, data or other materials prepared in anticipation of or exchanged in the course of such negotiations and to all statements made during negotiations*" (3:07-md-00001 [PAM/JRK]).

The confidentiality order seriously limited the ability to recruit research participants for the study and also limited the depth of interviews. During interviews, participants often declined to speak at length about potentially sensitive topics and, at times, avoided questions but suggested that their opinions could be surmised from the content of published documents and reports. For the purpose of using interview conversations to add depth to theory (Flick 1992), these responses made it difficult to triangulate research findings. Furthermore, the confidentiality orders complicated the initial sampling design for the study. As mentioned in chapter 6, the "gatekeeping" method (Groger, Mayberry and Straker 1999; Johnston and Sabin 2010) turned out to be an ineffective sampling technique due to the clandestine nature of the compact negotiations. In fact, several potential participants utilized "gatekeeping" as a way to distance themselves from the study and either (a) declined to be interviewed, while at the same time offering the names of others whom they believed would participate in the study, or (b) agreed to be interviewed, but declined to offer the names of others. Ultimately, this study found that the confidentiality order significantly limited the availability of interview and other pertinent data because research participants often appeared reluctant to both discuss certain topics and also to refer others to participate**.**

There is a substantive gap in the research literature on empirical and practicable strategies for overcoming the specific methodological barrier of 'gag orders,' which prevent research participants from discussing certain topics. While the condition of a 'gag order' is a highly specific research barrier, general strategies to overcome participants' *reluctance* and *resistance* to discuss certain topics have been theorized in the qualitative research literature. For instance, Becker and Geer (1970) suggest that getting participants to open up is one of the most difficult challenges researchers will face in the field due to the absence of a clear strategy to cope.

According to them, one possible coping strategy would be to simply make informed guesses of participants' potential responses:

> "*frequently, people do not tell an interviewer all the things he* [*sic*] *might want to know. This may be because they do not want to, feeling that to speak of some particular subject would be impolitic, impolite, or insensitive, because they do not think to and because the interviewer does not have enough information to inquire into the matter, or because they are not able to*" (*ibid, 78*).

> "*researchers working with interview materials, while they are often conscious of these problems, cannot cope with them so well. If they are to deal with matters of this kind it must be by inference. They can only make an educated guess about the things which go unspoken in the interview; it may be a very good guess, but it must be a guess*" (*ibid,* 79).

Aside from Becker and Geer's (1970) suggestion to make educated guesses, other coping strategies are similarly problematic. For Adler and Adler (2002), without a willing participant to engage, any coping strategy will result in "significant data gaps" and a poor understanding of the topic (516). However, getting participants to open up under the conditions of a 'gag order' is not likely considering the 'sensitive nature' of the data and the potential threat to participants for violating the confidentiality order (Johnson and Clarke 2003, 421, 422). While there is no sure way to overcome participants' reluctance, resistance or inability to open up about a sensitive topic, Corbin and Morse (2003) suggest using unstructured interactive interviews may encourage participants to reveal information they might not have otherwise offered when prompted. Using

unstructured interactive interviews allows research participants to assume a greater degree of control over the stories they reveal during the research process (Cassell 1980; Fontana and Frey 1998). During an unstructured interview, the researcher will often prompt a response by establishing an opening 'grand tour question' (Spradley 1979) to determine where the narrative will begin. However, from that point on, the participant will then determine where the narrative will proceed. In the coming year, this issue will require more attention in the geographical and environmental sciences at a time when progressively more environmentally important information is being categorized as "sensitive" by state agencies (AAUP 2003).

In addition to the problem of confidentiality, this study also encountered problems related to the limited accessibility of public records and documents. Chapter 2 discussed how the USACE Mobile District, unlike many other USACE district libraries, does not provide reference materials to its customers unless accompanied by a Freedom of Information Act (FOIA) request. Roberts (2005) suggests that although FOIA is discursively promoted as a way to 'empower citizens' by balancing information asymmetries between citizens and government, but bureaucratic agencies often employ techniques of 'message discipline' to preserve a degree of secrecy and confidentiality. In order to deal with the problem of limited accessibility, participants were recruited from the USACE Mobile District using snowball sampling and cold call techniques to provide source materials relevant to the study. However, in one instance where (a) weekly water demand projections from metropolitan Atlanta's water utilities and (b) weekly Buford Dam release reports were needed, it was not possible to access the necessary data without submitting a FOIA. Consistent with USACE Mobile District protocol, a FOIA request was completed and submitted to the agency's FOIA specialist, Keri Schenter. However, a 'no

records' determination was returned. Figures 26 and 27 below show the text of the records request and the 'no records' determination returned by the Corps.

After the request was denied, Ann Taylor, the USACE District Counsel, and Keri Schenter were contacted in order to determine the reason for the denial. In a personal conversation (January 9, 2014), they stated that metropolitan Atlanta's weekly water supply requests could not be provided because the requested data are not the property of USACE, but rather belong to one of metropolitan Atlanta's water agencies. They advised that the Atlanta Regional Commission (ARC) might have access to those records, but cautioned that they were unsure and, in fact, other regional water agencies may maintain the records and not ARC. Several hours after the phone conversation ended, a high-ranking water manager for the USACE Department of Legislative and Public Affairs, who was interviewed for this study, provided the Buford Dam release reports. However, in a second attempt to locate and access metropolitan Atlanta's weekly water supply requests, an ARC communications specialist supervisor, who was also interviewed for this study, was contacted. In a personal conversation (January 9, 2013), she stated that a small fire had occurred in the ARC office and may have damaged or destroyed many of the departmental records, including the weekly supply requests.

Consistent with the findings of Roberts (2005), there is an undeniable aura of bureaucratic secrecy, which pervades the USACE Mobile District. From the Corps' response to the FOIA request it is clear that records of metropolitan Atlanta's weekly water supply requests are maintained by the agency. However, the District's FOIA staff remained firm in their determination not to share this information and ultimately did not provide the records. Consequently, because the USACE Mobile District library is supposedly a repository for publicly available records, reports and water data, it is troubling that institutional controls

actively discourage legitimate research efforts to fully expose the historiography of the ACF conflict. Furthermore, USACE's data restrictions in combination with the 2009 and 2010 confidentiality orders create a chilling effect on any independent research, thereby virtually ensuring that all qualitative studies of the ACF conflict will be significantly limited in several key respects.

Given that the water conflict is still far from over, future research on the ACF conflict must take these limitations into serious consideration. As a primary stakeholder in the conflict, the water research community will have to explore collective alternatives with which to engage the USACE Mobile District despite the agency's tight control over data. It may also be beneficial to allocate more time to cultivating and recruiting participants at water agencies and less time attempting to secure access to confidential records and documents, which ultimately may not be accessible, or which may be heavily redacted. Taking the time to gain access to more strategically placed participants may add depth to theory and allow for appropriate methodological triangulation. Hopefully, these suggested tactics will allow future studies to avoid the troubles associated with navigating the bureaucratic minefield which is the USACE Mobile District.

Suggestions for Future Research

Congruent with contemporary literatures on the geography of water, future research related to the ACF conflict may contribute to broader debates on the evolving nature of neoliberalization (England and Ward 2007; Brenner, Peck and Theodore 2010; Peck 2011), particularly with respect to the refinement and intensification of neoliberal resource management

(Bakker 2003, 2013). By focusing attention on the fiscal, ideological and social processes at work within the USACE Mobile District, as a result of decentralization and the 2011 Appellate Court ruling, future research may apply an institutional (Jessop 1995; Goodwin and Painter 1996; Tickell and Peck 1992; Amin 2004) or regulatory (Bakker 2003; Bakker and Cook 2011; Gandy 1997) framework to determine how USACE's regulatory and management mandates help to mobilize capital flows to the metropolitan Atlanta region. Alternatively, by applying a regulation theory framework similar to Bakker's (2003) exploration of the English and Welsh experience with governance restructuring, future research may explore the ways in which the distributional principle of "highest and best use" constitutes a strategic push toward neoliberalization. At the same time, future research might investigate how the discursive representation of decentralization as a progressive and 'democratic' water governance innovation likely softened metropolitan Atlanta's primitive accumulation of the ACF Basin (Roberts 2008; Swyngedouw 2005b; Mansfield 2007; Sneddon 2007).

A second possible direction for future research is related to contemporary literatures on water governance innovations implemented in response to management challenges (Martins, et al. 2013; Bakker and Cook 2011). Future studies on the ACF conflict will benefit from theorizing the ways in which popular protests can effect positive governance changes (Bakker 2007; Perreault 2006, 2008). While decentralization and processes of democratic water governance have both been critiqued here, there still exists the potential for democratic water governance to transform the hegemonic processes of water production and distribution (Castro 2007). Whether or not the State of Florida can singlehandedly continue to challenge metropolitan Atlanta's hegemony of water distribution remains to be seen. However, should Florida be unsuccessful, the current conditions of uneven water scarcity throughout the ACF Basin avail

opportunities for alternative governance innovations like participatory democracy, or Georgia's community response program recently proposed in HB 549, which empowers communities to self-monitor surface water consumption (Georgia General Assembly 2014). According to Hickey and Mohan (2005), alternative participatory approaches to resource governance often arise out of crises which illuminate the politics of underdevelopment and exclusion. Similarly, for Griffin (1981) and Slater (1989), it is not decentralization which begets democratic resource governance, but rather, the circumstances under which decentralization occurs. An exploration of these issue offers a profitable terrain for future research.

The creation of the ACF Stakeholders (ACFS) group was one such innovation which arose from the public's dismay over the compact negotiation process. In September of 2009, in response to the stalled compact negotiations and seemingly irreconcilable differences among the riparian states, the ACFS was created to:

> "*change the operation and management of the ACF Basin to achieve equitable solutions among stakeholders that balance economic, ecological, and social values [and] viable solutions that ensure that the entire ACF Basin is a sustainable resource for current and future generations*" (ACF Stakeholders 2013).

Initially comprised of 50 members that represent the interests of all stakeholder groups affected by the ACF conflict, the ACFS emerged to serve as a model for compact negotiations to follow and shortly thereafter expanded to hundreds of members. The idea was that, if the ACFS could formulate a politically-sound allocation formula, this would form the basis from which Chief Negotiators could foment discussions (Personal conversation with an ACFS board member,

April 25, 2013). The potentialities and limitations of this group, and others, could offer another fruitful avenue of research in the years to come.

13 November 2013
Attn: Keri Schenter; FOIA request
USACE Mobile District
P.O. Box 2288
Mobile, Alabama 36628

RECEIVED
NOV 13 2013
CESAM-OC FOIA OFFICE

Dear FOIA Office,

Under the Freedom of Information Act (FOIA), I would like to obtain access to the following records:

(1) Progress reports, submitted to USACE, which estimate the weekly water supply demand projections for metropolitan Atlanta's water utilities. These progress reports may have been submitted to USACE via the Atlanta Regional Commission (ARC), the Metropolitan North Georgia Water Planning District and/or the water utilities themselves. I need records for the period dating from June 2009 – June 2013.
(2) Records describing the quantity of water released (mgd) from the Buford Dam by USACE, on a weekly basis, for the period dating from June 2009 – June 2013.

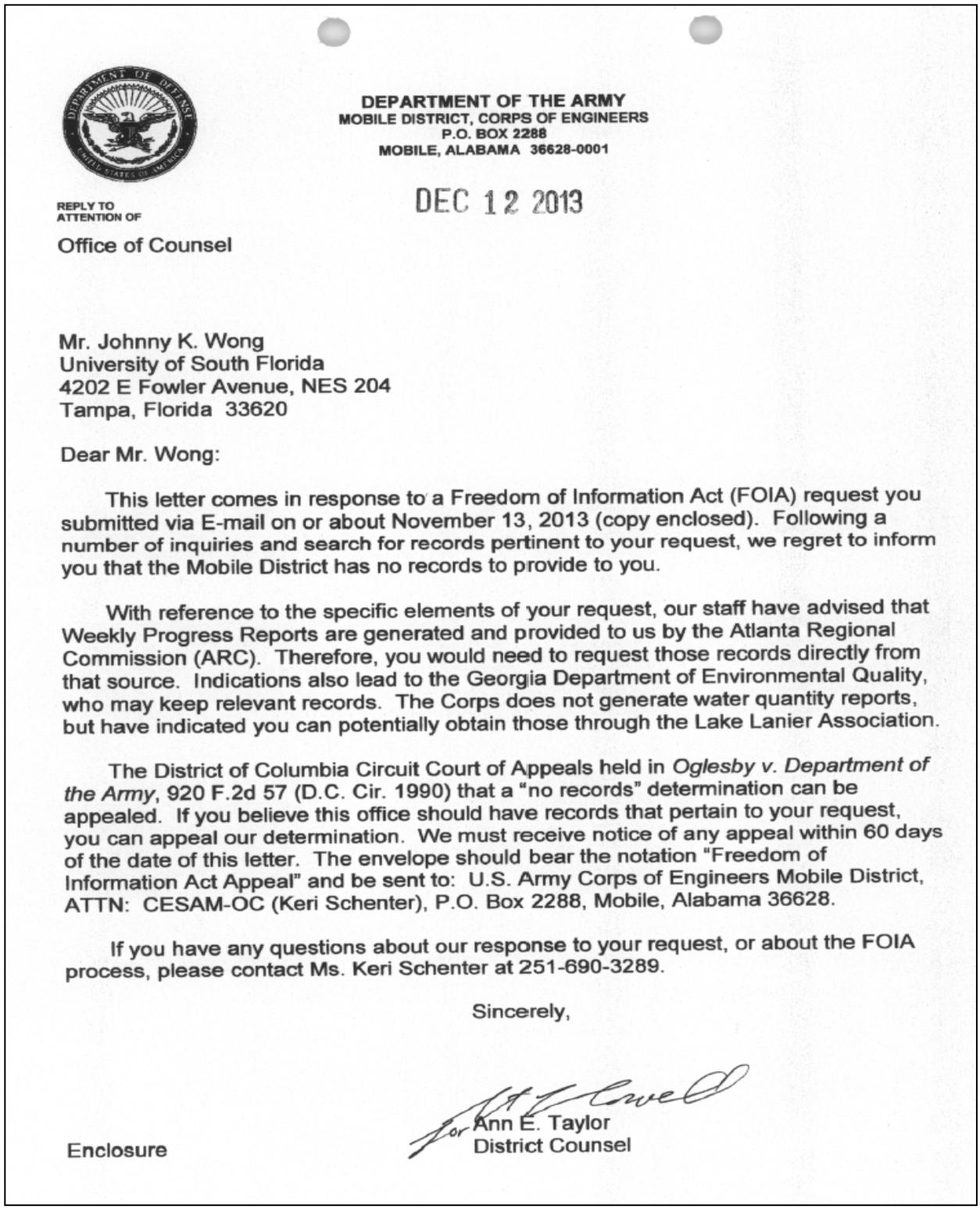
For the purposes of assessing fees, I am making this request on behalf of the University of South Florida, an affiliated educational or non-commercial scientific institution, and not for commercial use.

I am willing to pay up to $100.00 for the response to this request. If you determine fees may exceed that amount, please contact me first. Please send the records in digital (.docx, .xlsx, or .pdf) format, please DO NOT send hardcopies. If only hardcopies are available, please contact me first.

Sincerely,
Johnny King Wong
University of South Florida
4202 E. Fowler Avenue, NES 204
Tampa, FL 33620
305-744-2226
jwong@mail.usf.edu

Figure 26: FOIA Request Submitted to USACE Mobile District.

Source: USACE Mobile District 2013.



DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001

REPLY TO
ATTENTION OF

DEC 12 2013

Office of Counsel

Mr. Johnny K. Wong
University of South Florida
4202 E Fowler Avenue, NES 204
Tampa, Florida 33620

Dear Mr. Wong:

This letter comes in response to a Freedom of Information Act (FOIA) request you submitted via E-mail on or about November 13, 2013 (copy enclosed). Following a number of inquiries and search for records pertinent to your request, we regret to inform you that the Mobile District has no records to provide to you.

With reference to the specific elements of your request, our staff have advised that Weekly Progress Reports are generated and provided to us by the Atlanta Regional Commission (ARC). Therefore, you would need to request those records directly from that source. Indications also lead to the Georgia Department of Environmental Quality, who may keep relevant records. The Corps does not generate water quantity reports, but have indicated you can potentially obtain those through the Lake Lanier Association.

The District of Columbia Circuit Court of Appeals held in *Oglesby v. Department of the Army*, 920 F.2d 57 (D.C. Cir. 1990) that a "no records" determination can be appealed. If you believe this office should have records that pertain to your request, you can appeal our determination. We must receive notice of any appeal within 60 days of the date of this letter. The envelope should bear the notation "Freedom of Information Act Appeal" and be sent to: U.S. Army Corps of Engineers Mobile District, ATTN: CESAM-OC (Keri Schenter), P.O. Box 2288, Mobile, Alabama 36628.

If you have any questions about our response to your request, or about the FOIA process, please contact Ms. Keri Schenter at 251-690-3289.

Sincerely,

for Ann E. Taylor
District Counsel

Enclosure

Figure 27: USACE Mobile District FOIA: A 'no records' Determination was Returned.
Source: USACE Mobile District 2013.

It is evident that the ACFS model did not aid in an equitable resolution of the ACF conflict. However, popular protests organized along the lines of truly democratic and participatory interests groups can inform the literature on inclusionary and exclusionary water governance. While currently more symbolic than material, the ACFS group allows water managers and society at large to imagine feasible alternatives to the conservative and bourgeois 'governance-beyond-the-state movement,' which is discursively dressed up as participatory democracy (Pares 2011; Jessop 1998, 2002; Swyngedouw 2000, 2005b, 2007). Future studies on the ACF conflict could benefit from exploring the ways in which popular protests can effect material changes in the politics of water inclusion and exclusion. Theorized in this way, inclusionary governance practices such as truly democractic and participatory decision-making, constitute a formidable means of not only resisting neoliberalization, but also pursuing 'water peace' (Allan 2002).

REFERENCES

3:07-md-00001 (PAM/JRK). 3:07-md-00001 (PAM/JRK) (Middle District of Florida, January 7, 2010).

79th U.S. Congress. "Rivers and Harbors Act, 1946 Amendments." 1946.

99th U.S. Congress. "Water Resources Development Act." Washington, DC, 1986.

AAUP. "Reports and Publications." *American Association of University Professors.* October 2003. http://www.aaup.org/report/academic-freedom-and-national-security-time-crisis (accessed February 10, 2014).

Abbott, C. *The New Urban America.* Chapel Hill: University of North Carolina Press, 1981.

Aberbach, J., and B. Rockman. "Conducting and Coding Elite Interviews." *PS: Political Science and Politics* 35, no. 4 (2002): 673-676.

Abrams, R. "Water federalism and the Army Corps of Engineers' role in Eastern states water allocation." *University of Arkansas at Little Rock Law Review* 31, no. 395 (2009).

ACF Stakeholders. *Missions/Goals.* 2013. http://acfstakeholders.org/about-acfs/missiongoals/ (accessed October 24, 2013).

Adler, P.A., and P. Adler. "The reluctant respondent." In *Handbook of interview research: Context and method*, by J. Gubrium and J. Holstein, 515-535. Thousand Oaks: Sage, 2002.

Aglietta, M. *A Theory of Capitalist Regulation.* London: New Left Books, 1979.

Alabama Power. *Joseph M. Farley Nuclear Plant.* Southern Company, 2010.

Allan, J. "Hydro-Peace in the Middle East: Why no Water Wars? A Case Study of the Jordan River Basin." *SAIS Review* 22 (2002): 255-272.

Allee, D. *River Basin Management.* Staff Paper, Department of Agricultural Economics, Cornell University, Ithaca: Cornell University, 1986.

Allen and Unwin. *India's Freedom.* London: Unwin Books, 1962.

Allen, F. *Atlanta Rising: The Invention of an International City 1946-1996.* Taylor Trade, 1996.

Andreen, W. *Alabama Water Law.* Vol. 6, in *Waters and Water Rights*, by R. Beck, edited by R. Beck and A. Kelley. Michie, 2005.

Angrosino, M. *Doing Ethnographic and Observational Research.* Thousand Oaks: Sage Publications, 2007.

Ambrose, A. *Counties, Cities & Neighborhoods: Atlanta.* Atlanta History Center. March 15, 2004. http://www.georgiaencyclopedia.org/articles/counties-cities-neighborhoods/atlanta (accessed May 11, 2013).

Amin, A. "An Institutional Perspective on Regional Economic Development." In *Reading Economic Geography*, by TJ. Barnes, J. Peck, E. Sheppard and A. Tickell, 48-59. Oxford: Blackwell, 2004.

Arndt, HW. "The 'Trickle-down' Myth." *Economic Development and Cultural Change* 32, no. 1 (1983): 1-10.

Arrighi, G. "Spatial and Other 'Fixes' of Historical Capitalism." *Journal of World Systems Research,* 2004: 527-539.

Atkins, B. *Army Corps of Engineers Water Project Oversight.* Testimony, Senate Committee on Environment and Public Works, Washington, D.C.: U.S. Senate, 2013.

Atkinson, R., and J. Flint. "Accessing Hidden and Hard-to-Reach Populations: Snowball Research Strategies." *Social Research Update* 33 (2001).

Atlanta Convention & Visitors Bureau. *Buckhead.* 2013. http://www.atlanta.net/buckhead/ (accessed September 30, 2013).

Atlanta Journal Constitution. "Atlanta's Southern Suburbs Plan Water Problem Study." *Atlanta Journal Constitution*, February 1, 1940.

Atlanta Regional Commission. *How Much Water Do You Use?* June 13, 2013. http://news.atlantaregional.com/?p=1100 (accessed November 6, 2013).

Atlanta Regional Commission. *PLAN 2040 Forecast.* Atlanta: Atlanta Regional Commission, 2011.

Badertscher, N. "Perdue to lead state in crucial water 'summit'." *The Atlanta Journal-Constitution*, January 4, 2003.

Bakker, K. "From public to private to … mutual? Restructuring water supply governance in England and Wales." *Geoforum* 34, no. 3 (2003): 359-374.

Bakker, K. "Neoliberal Versus Postneoliberal Water: Geographies of Privatization and Resistance." *Annals of the Association of American Geographers* 103, no. 2 (2013): 253-260.

Bakker, K. "Neoliberalizing Nature? Market Environmentalism in Water Supply in England and Wales." *Annals of the Association of American Geographers*, 2005: 542-565.

Bakker, K. "The “Commons” Versus the “Commodity”: Alter-globalization, Anti-privatization and the Human Right toWater in the Global South." *Antipode*, 2007: 430-455.

Bakker, K., and C. Cook. "Water Governance in Canada: Innovation and Fragmentation." *International Journal of Water Resources Development* 27, no. 2 (2011): 275-289.

Banerjee, N. "Georgia officials give drought the silent treatment." *Los Angeles Times*, September 16, 2012.

Bardhan, P. "Decentralization of governance and development." *The Journal of Economic Perspectives* 16, no. 4 (2002): 185-205.

Barker, J. "Basic Search Tips and Advanced Boolean Explained." *University of California-Berkeley Library*. 2012. http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/Boolean.pdf (accessed August 11, 2012).

Batterbury, S., and J. Fernando. "Rescaling Governance and the Impacts of Political and Environmental Decentralization: An Introduction." *World Development* 34, no. 11 (2006): 1851-1863.

Baxter, P., and S. Jack. "Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers." *The Qualitative Report* 13, no. 4 (2008): 544-559.

Bayor, R. "The Second Ghetto: Then and Now." *Journal of Urban History* 29, no. 3 (2003): 238-242.

Beaverstock, J. “Learning to Get Along: Alabama, Georgia, and Florida and the Chattahoochee River Compact.” *Alabama Law Review*, 1998: 1-13.

Becker, H., and B. Geer. "Participant Observation and Interviewing: A Comparison." In *Symbolic Interaction: A Reader in Social Psychology*, by J. Manis and B. Meltzer, 76-83. Boston: Allyn and Bacon, 1970.

Bederman, S. "The Stratification of 'Quality of Life' in the Black Community of Atlanta, Georgia." *Southeastern Geographer* 14, no. 1 (1974): 26-37.

Bennett, D.L. "Trying to bail out Lake Allatoona - Dreary prognosis: New preservation panel will search for ways to reverse 50 years of neglect and degradation." *Atlanta Journal-Constitution*, July 30, 1999.

Bennett, D.L. "What stinks? High cost of water, sewer: State, Uncle Sam little help as city shoulders $4.1 billion in repairs. Result: Atlantans' steep bills to get even steeper." *The Atlanta Journal-Constitution*, October 4, 2009.

Billington, P., D. Jackson, and M. Melosi. *The History of Large Federal Dams: Planning, Design, and Construction in the Era of Big Dams.* U.S. Department of the Interior, Denver: Bureau of Reclamation, 2005.

Bolan, R. "Emerging Views of Planning." *Journal of the American Institute of Planners*, 1967: 233-245.

Bolin, B., T. Collins, and K. Darby. "Fate of the verde: Water, environmental conflict, and the politics of scale in Arizona's central highlands." *Geoforum* 39 (2008): 1494-1511.

Boustan, L. "Was Postwar Suburbanization 'White Flight'?: Evidence from the Black Migration*." *The Quarterly Journal of Economics*, 2010: 417-443.

Boyatzis, R. *Transforming qualitative information: Thematic analysis and code development* . Thousand Oaks: Sage Publications, 1998.

Brenner, N., J. Peck, and N. Theodore. "Variegated neoliberalization: geographies, modalities, pathways." *Global Networks* 10, no. 2 (2010): 182-222.

Brenner, N., N. Theodore. "Spatial and Other 'Fixes' of Historical Capitalism." *Antipode,* 2002: 350-379.

Brenner, R. "What Is, and What Is Not, Imperialism?" *Historical Materialism* 14, no. 4 (2006): 79-105.

Brown, J., and M. Purcell. "There's nothing inherent about scale: political ecology, the local trap, and the politics of development in the Brazilian Amazon." *Geoforum* 36 (2005): 607-624.

Bullard, R., G. Johnson, and A. Torres. *Sprawl city: Race, politics, and planning in Atlanta.* Island Press, 2000.

Cannon, L. *Governor Reagan: His rise to power.* New York: Public Affairs, 2003.

Carter, J. *Keeping Faith: Memoirs of a President.* New York: Bantam Books, 1995.

Carter, J. *Completion of Screening Process for Water Resource Projects.* Presidential Announcement, Weekly Compilation of Presidential Documents, 1977.

Cartographic Research Laboratory. *Atlanta Geographical Areas.* Department of Geography, Georgia State University, Georgia State University, 1999.

Cassell, J. "Ethical principles for conducting fieldwork." *American Anthropologist*, 1980: 28-41.

Castro, JE. "Water governance in the twentieth-first century." *Ambiente & Sociedade* 10, no. 2 (2007).

Chapman, D. "Region to add 3 million in 30 years, ARC says." *Atlanta Journal Constitution*, february 24, 2011.

Chapman, D., and B. Keefe. "Perdue vows 'fight to death' on Lanier Governor convenes stakeholders' meeting. An appeal, more talks, tapping another river are all options." *The Atlanta Journal-Constitution*, July 22, 2009.

Chattahoochee Riverkeeper. *Filling the Water Gap: Conservation Success and Missed Opportunities in Metro Atlanta.* Progress Report, Atlanta: CRK, 2012.

Christian Science Monitor. "Water projects under Reagan: down, then up." *Christian Science Monitor*, March 03, 1981.

Clymer, A. "Carter's Opposition to Water Projects Linked to '73 Veto of Georgia Dam." *The New York Times*, June 13, 1977.

CNN. "Drought-stricken Georgia says it will sue over water." *CNN*, October 18, 2007.

Couch, C. "National Water-Quality Assessment Program: Environmental Setting of the Apalachicoa-Cahttahoochee-Flint River Basin." *Proceedings of the 1993 Georgia Water Resources Conference.* Athens: Institute of Ecology, University of Georgia, 1993. 30-32.

Cochrane, A. "Illusions of power: interviewing local elites." *Environment and Planning A* 30 (1998): 2121-2132.

Codd, J. "The construction and deconstruction of educational policy documents." *Journal of Education Policy* 3, no. 3 (1988): 235-247.

Cogan, J. "The Decline in Black Teenage Employment: 1950-1970." *American Economic Review* 72 (1982): 621-638.

Cook, E., M. Kablack, and G. Jacoby. "The 1986 drought in the southeastern United States: How rare an event was it?" *Journal of Geophysical Research: Atmospheres*, 1988: 14257-14260.

Corbin, J., and J. Morse. "The Unstructured Interactive Interview: Issues of Reciprocity and Risks When Dealing With Sensitive Topics." *Qualitative Inquiry* 9, no. 3 (2003): 335-354.

Crawford, J., S. Kippax, J. Onyx, U. Gault, and P. Benton. *Emotion and gender: Constructing meaning from memory.* London: Sage, 1992.

Crabtree, B., and W. Miller. "A template approach to text analysis: Developing and using codebooks ." In *Doing qualitative research* , by B. Crabtree and W. Miller, 163-177. Newbury Park, CA: Sage Publications, 1999.

Cresswell, J. *Research design: Qualitative, quantitative, and mixed methods approaches.* Vol. 2. Thousand Oaks: Sage Publications, 1998.

Crow, D. "Politics, Mass Media, and Policy Change: Recreational Water Rights in Colorado Communities." Dissertation, Nicholas School of the Environment and Earth Sciences, Duke University, 2008.

Crotty, J. "Rethinking Marxian Investment Theory: Keynes-Minsky Instability, Competitive Regime Shifts and Coerced Investment." *Review of Radical Political Economics* 25, no. 1 (1993): 1-26.

Custers, P. "Military Keynesianism today: an innovative discourse." *Race Class* 51, no. 4 (2010): 79-94.

Cypher, J. "From military Keynesianism to global-neoliberal militarism." *Monthly Review* 59, no. 2 (2007): 37-55.

Davis, C., and J. Jordan. "Waters of Plenty: The Apalachicola-Chattahoochee-Flint and Alabama-Coosa-Tallapoosa Rivers." In *Interstate Water Allocation in Alabama, Florida, and Georgia: New Issues, New Methods, New Models*, by J. Jordan and A. Wolf, 1-20. Gainesville: University Press of Florida, 2006.

Davison, A. "Book Review: Maria Kaika. City of Flows: Modernity, Nature, and the City. London & New York: Routledge, 2005." *Organization & Environment* 20 (2007): 263-265.

Dalton, E. "Reflections on Interviewing Japanese Female Members of Parliament." *Intersections: Gender and Sexuality in Asia and the Pacific* 25 (2011).

Dalton, H. *Racial healing: Confronting the fear between Blacks and Whites.* New York: Doubleday, 1995.

Dameron, R., and A. Murphy. "An International City Too Busy To Hate? Social And Cultural Change In Atlanta: 1970-1995." *Urban Anthropology and Studies of Cultural Systems and World Economic Development* 26, no. 1 (1997): 43-69.

Darke, P., G. Shanks, and M. Broadbent. "Successfully completing case study research: combining rigour, relevance and pragmatism." *Information Systems Journal* 8 (1998): 273-289.

Decrop, A. "Triangulation in qualitative tourism research." *Tourism Management* 20 (1999): 157-161.

Dellapenna, J. "Interstate Struggles Over Rivers: The Southeastern States and the Struggle Over the 'Hooch'." *NYU Environmental Law Journal* 12, no. 828 (2005).

Dellapenna, J. "The Law, Interstate Compacts, and the Southeastern Water Compact." In *Interstate Water Allocation in Alabama, Florida, and Georgia*, by J. Jordan and A. Wolf, 51-77. Gainesville: University Press of Florida, 2006.

DelRossi, A., and R. Inman. "Changing the price of pork: the impact of local cost sharing on legislators' demands for distributive public goods." *Journal of Public Economics*, 1999: 247-273.

Denzin, N. *Interpretive interactionism.* Newbury Park, CA: Sage Publications, 1989.

—. *The research act: A theoretical introduction to sociological methods.* Vol. 3. Englewood Cliffs, NJ: Prentice Hall, 1989.

Denzin, N., and Y. Lincoln. "Introduction: Entering the field of qualitative research." In *Handbook of qualitative research*, by N. Denzin and Y. Lincoln, 1-17. Thousand Oaks: Sage Publications, 1994.

Denning, R. "The Creative Society: Environmental Policymaking in California, 1967-1974." *Ohio State University Electronic Theses & Dissertations Center.* 2011.

Denton, N., and D. Massey. "Patterns of Neighborhood Transition in a Multiethnic World: U.S. Metropolitan Areas, 1970–1980." *Demography*, 1991: 41-63.

Department of the Army, Office of the Chief Counsel. "Memorandum for the Chief of Engineers." Legal Opinion, U.S. Army Corps of Engineers, Washington, DC, 2012.

Dillinger, W., and M. Fay. "From Centralized to Decentralized Governance." *Finance and Development* 36, no. 4 (1999): 19-21.

Drew, E. "Dam Outrage: The Story of the Army Engineers." *Atlantic*, 1970: 51-62.

Duff, W., and C. Johnson. "Accidentally Found on Purpose: Information-Seeking Behavior of Historians in Archives." *The Library Quarterly* 72, no. 4 (2002): 472-496.

Dye, T. *Understanding Public Policy.* Vol. 11. Upper Saddle River: Pearson Prentice Hall, 2005.

Earl, R., and R. Czerniak. "Sunbelt Water War: The El Paso-New Mexico Water Conflict." *Social Science Journal* 33, no. 4 (1996): 359-379.

Eberly, T., and S. Shelton. "Feds tell 3 states: We'll fix this feud." *The Atlanta Journal-Constitution*, March 2, 2008.

Edsforth, Ronald. *The New Deal: America's Response to the Great Depression.* Malden, MA: Blackwell Publishers, 2000.

Eisenhardt, K. "Building Theories from Case Study Research." *Academy of Management Review* 14, no. 4 (1989): 532-550.

Eisenhardt, K., and L. Bourgeois. "Politics of strategic decision making in high velocity environments: Toward a mid-range theory." *Academy of Management Journal*, 1988: 737-770.

Eisinger, PK. *The Rise of the Entrepreneurial State: State and Local Economic Development Policy in the United States.* Madison: University of Wisconsin Press, 1988.

Elliott, H. "Alabama's Water Crisis." *Alabama Law Review* 63, no. 2 (2012): 383-406.

Engelbert, E. "Federalism and Water Resources Development." *Law and Contemporary Problems*, 1957: 325-350.

Engels, F. *The Conditions of the Working Class in England.* Leipzig, 1845.

England, K. "Getting Personal: Reflexivity, Positionality, and Feminist Research." *The Professional Geographer* 46, no. 1 (1994): 80-89.

England, K., and K. Ward. *Neoliberalization: States, Networks, Peoples.* Wiley Blackwell, 2007.

Erhardt, C. "The Battle Over 'The Hooch': The Federal-Interstate Water Compact and the Resolution of Rights in the Chattahoochee River." *Standford Environmental Law Journal*, 1992: 1-24.

Esty, D. "Revitalizing Environmental Federalism." *Faculty Scholarship Series.* Yale Law School, 1996. 570-653.

Ezzard, M. "Compact agreement strikes fair balance." *The Atlanta Journal-Constitution*, January 15, 1997.

Fairclough, N. *Analyzing discourse: Textual analysis for social research.* New York: Routledge, 2003.

—. *Critical discourse analysis: The critical study of language.* New York: Longman, 1995.

Feagin, J. "The Global Context of Metropolitan Growth: Houston and the Oil Industry." *American Journal of Sociology* 90 (1985): 1204-1230.

Fereday, J., and E. Muir-Cochrane. "Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development." *International Journal of Qualitative Methods* 5, no. 1 (2006): 80-92.

Ferejohn, J. *Pork Barrel Politics: Rivers and Harbors Legislation, 1947-1968.* Stanford: Stanford University Press, 1974.

Fiese, A. *Building a bridge over troubled water.* Atlanta: Georgia Senate Research Office, 2006.

Fischman, R., and J. Williamson. "The Story of Kleppe v. New Mexico: The Sagebrush Rebellion as Un-Cooperative Federalism." *University of Colorado Law Review* 83 (2011).

Fitzhugh, T., and B. Richter. "Quenching Urban Thirst: Growing Cities and Their Impacts on Freshwater Ecosystems." *Bioscience* 54, no. 8 (2004): 741-754.

Flick, U. *An introduction to qualitative research: Theory, method and applications.* London: Sage Publications, 1998.

Flick, U. "Triangulation revisited: Strategy or validation or alternative?" *Journal for the Theory of Social Behaviour* 22 (1992): 175-198.

Florida's Motion for Leave to File a Complaint, Complaint, and Brief in Support of Motion. (U.S. Supreme Court, September 25, 2013).

Fontana, A., and J. Frey. "Interviewing: The art of science." In *Collecting and interpreting qualitative materials*, by N. Denzin and Y. Lincoln, 47-78. Thousand Oaks: Sage, 1998.

Frick, E., et al. *Water Quality in the Apalachicola-Chattahoochee-Flint River Basin, Georgia, Alabama, and Florida, 1992-1995.* USGS Circular, U.S. Geological Survey, Reston: U.S. Geological Survey, 2000.

Frisch, S., and S. Kelly. *Jimmy Carter and the Water Wars: Presidential Influence and the Politics of Pork.* Amherst: Cambria Press, 2008.

Gandy, M. "Rethinking urban metabolism: Water, space and the modern city." *City: analysis of urban trends, culture, theory, policy, action* 8, no. 3 (2004): 363-379.

Gandy, M. "The making of a regulatory crisis: restructuring New York City's water supply." *Transactions of the Institute of British Geographers*, 1997: 338-358.

Gaventa, J., and C. Valderrama. "Participation, Citizenship and Local Governance." *Strengthening participation in local governance.* Institute of Development Studies, 1999. 1-16.

Geertz, C. "From the native's point of view: On the nature of anthropological understanding." In *Interpretive social science: A reader*, by P. Rabinow and WM Sullivan, 225-241. Berkeley: University of California Press, 1979.

Georgia Department of Natural Resources. "Memorandum to Regional Water Council Chairpersons." Atlanta, 2009.

Georgia General Assembly. *HB 549: Water pollution; establish water emergency response procedures.* State of Georgia, 2014.

Gergen, M., and K. Gergen. *Qualitative Inquiry: Tensions and Transformations.* Vol. 2, in *The Landscape of Qualitative Research: Theories and Issues*, by N. Denzin and Y. Lincoln, 575-610. Thousand Oaks: Sage, 2003.

Gerlak, A. "Federalism and U.S. Water Policy: Lessons for the Twenty-First Century." *The Journal of Federalism* 36, no. 2 (2005): 231-257.

Gibbins, R. "Local governance and federal political systems." *International Social Science Journal* 53 (2001): 163-170.

Gibbs, D. "Prospects for an Environmental Economic Geography: Linking Ecological Modernization and Regulationist Approaches." *Economic Geography*, 2006: 193-215.

Gibbs, G. *Analyzing Qualitative Data.* London: Sage Publications, 2007.

Glaser, B., and A. Strauss. *The discovery of grounded theory.* Chicago, IL: Aldine, 1967.

Gleick, P. "Water and Conflict: Fresh Water Resources and International Security." *International Security* 18, no. 1 (1993): 79-112.

Glennon, R. *Water Follies: Groundwater Pumping and the Fate of America's Fresh Waters.* Washington, DC: Island Press, 2002.

Goncher, M. "Tri-State Water Rights Litigation: Eastern Water Wars and Multi-Purpose Reservoirs." *Perpsectives on Georgia's Environment: State Bar of Georgia*, no. Spring (2012): 1-4.

Goodwin, M., and J. Painter. "Local governance, the crises of Fordism and the changing geographies of regulation." *Transactions of the Institute of British Geographers* 21, no. 4 (1996): 635-648.

Graves, F. "Fiscal Disparities Between the Atlanta and NonAtlanta Areas of Fulton County, Georgia*." *National Tax Journal* 23, no. 4 (1970): 449-455.

Graf, W. "Damage Control: Restoring the Physical Integrity of America's Rivers." *Annals of the Association of American Geographers* 91, no. 1 (2001): 1-27.

Green, R. "Locating Sources in Humanities Scholarship: The Efficacy of Following Bibliographic References." *Library Quarterly* 70 (2000): 201-229.

Griffin, K. "Economic Development in a Changing World." *World Development* 9, no. 3 (1981): 221-226.

Groger, L., P. Mayberry, and J. Straker. "What we didn't learn because of who would not talk to us." *Qualitative Health Research* 9, no. 6 (1999): 829-835.

Hallman, T. "Water power: Pressure builds over state's dwindling supply." *Atlanta Journal-Constitution*, November 9, 1987.

Hansen, J. *Sociocultural perspectives on human learning: An introduction to educational anthropology* . Englewood Cliffs, NJ: Prentice-Hall, 1979.

Hartshorn, T., and K. Ihlanfeldt. “Growth and Change in Metropolitan Atlanta.” In *The Atlanta Paradox*, by D. Sjoquist, edited by D. Sjoquist, 15-41. New York, NY: Russell Sage Foundation, 2000.

Harvey, D. *A Brief History of Neoliberalism.* Oxford: Oxford University Press, 2005.

Harvey, D. "Flexible Accumulation through Urbanization Reflections on "Post-Modernism" in the American City." *Perspecta* 26, no. Theater, Theatricality, and Architecture (1990): 251-272.

—. *Spaces of Capital: Towards a Critical Geography.* New York: Routledge, 2001.

—. *The Condition of Postmodernity.* Oxford: Blackwell, 1989.

—. *The Enigma of Capital and the Crises of Capitalism.* New York: Oxford University Press, 2010.

—. *The Limits to Capital.* Oxford: Blackwell, 1982.

—. *The New Imperialism.* Oxford: University Press, 2003.

Harvey, D, "The spatial fix—Hegel, Von Thünen, and Marx." *Antipode* 13, no. 3 (1981): 1-12.

Haug, F., et al. *Female sexualization: A collective work of memory.* New York: Verso, 1987.

Hein, V. "The Image of 'A City Too Busy to Hate': Atlanta in the 1960's." *Phylon* 33, no. 3 (1972): 205-221.

Helling, A. "Atlanta Regional Outlook." 1998.

Henderson, K. *Dimensions of choice: A qualitative approach to recreation, parks, and leisure research.* State College: Venture Publishing, 1991.

Hendricks, V., P. Blanken, and N. Adriaans. *Snowball Sampling: A Pilot Study on Cocaine Use.* Rotterdam: IVO, 1992.

Herod, A. "Reflections on interviewing foreign elites: praxis, positionality, validity, and the cult of the insider." *Geoforum* 30 (1999): 313-327.

Hickey, S., and G. Mohan. "Relocating Participation within a Radical Politics of Development." *Development and Change* 36, no. 2 (2005): 237-262.

Hirsch, F. *Social Limits to Growth.* London: Routledge, 1977.

Hook, J. "Surface & Groundwater Water Demand by Water Plannning Regions (WPR's)." NESPAL, University of Georgia, Atlanta, 2010.

Hsieh, H., and S. Shannon. "Three Approaches to Qualitative Content Analysis." *Qualitative Health Research* 15, no. 9 (2005): 1277-1288.

Hughes, G., S. Smith, and G. Tabellini. "Economic Aspects of Decentralized Government: Structure, Functions and Finance." *Economic Policy*, 1991: 425-459.

H.W. Lochner & Company. *Highway and Transportation Plan for Atlanta, Georgia.* Chicago: State Highway Department of Georgia, 1946.

Jackson, S. *Research Methods: A Modular Approach.* Independence, KY: CengageBrain, 2008.

Jaret, C. "Black Migration and Socioeconomic Inequality in Atlanta and the Urban South." *Humboldt Journal of Social Relations*, 1987: 62-105.

Jessop, B. "Liberalism, neoliberalism and urban governance: A state-theoretical perspective." *Antipode* 34, no. 2 (2002): 452-472.

Jessop, B. "Spatial fixes, temporal fixes and spatio-temporal fixes." In *David Harvey: A Critical Reader*, by N. Castree and D. Gregory, 142-166. Oxford: Blackwell, 2006.

Jessop, B. "The regulation approach, governance and post-Fordism: alternative perspectives on economic and political change." *Economy and Society* 24 (1995): 307-333.

Jessop, B. “The Crisis of the National Spatio-Temporal Fix and the Tendential Ecological Dominance of Globalizing Capitalism.” *International Journal of Urban and Regional Research* 24, no. 2 (2000): 323-360.

Jessop, B. "The rise of governance and the risks of failure: The case of economic development." *International Social Sciences Journal* 50 (1998): 29-46.

Johnson, B., and J. Clarke. "Collecting Sensitive Data: The Impact on Researchers." *Qualitative Health Research* 13 (2003): 421-434.

Johnston, L., and K. Sabin. "Sampling hard-to-reach populations with respondent driven sampling." *Methodological Innovations Online* 5, no. 2 (2010): 38-48.

Jordan, J. "Conflict Comes to the Humid East." In *Interstate Water Allocation in Alabama, Florida, and Georgia: New Issues, New Methods, New Models*, by J. Jordan and A. Wolf, 20-30. Gainesville, FL: University Press of Florida, 2006.

Jordan, J., and A. Wolf. *Interstate Water Allocation in Alabama, Florida, and Georgia.* Gainesville, FL: University Press of Florida, 2006.

Kaika, M. *City of Flows.* New York: Routledge, 2004.

Kaika, M. "Constructing scarcity and sensationalising water politics: 170 days that shook Athens." *Antipode* 35, no. 5 (2003): 919-954.

Kaika, M. "Dams as Symbols of Modernization: The Urbanization of Water Between Geographical Imagination and Materiality." *Annals of the Association of American Geographers* 96, no. 2 (2006): 276-301.

Kaika, M., and E. Swyngedouw. "Fetishizing the Modern City: The Phantasmagoria of Urban Technological Networks." *International Journal of Urban and Regional Research* 24, no. 1 (2000): 120-138.

Kaufmann, C. *"Chaining" Sources in Social Science Research.* College of Arts and Sciences, Lehigh University, Bethlehem: Lehigh University, 2007.

Kempner, M. "Sewage Treatment - The ultimate recycling - County ponders reuse of wastewater." *The Atlanta Journal-Constitution*, June 2, 1993.

Kirschten, J. "Draining the Water Projects Out of the Pork Barrel." *National Journal*, April 1977.

Klein, C. "On Integrity: Some Considerations for Water Law." *Alabama Law Review*, 2005: 1-59.

Krutilla, J., A. Fisher, W. Hyde, and V. Smith. "Public versus private ownership: The federal lands case." *Journal of Policy Analysis and Management* 2, no. 4 (1983): 548-558.

Kundell, J. "Water-related Legislation of the 1999-2000 Term of the Georgia General Assembly." *Proceedings of the 2001 Georgia Water Resources Conference.* Athens: University of Georgia, 2001. 1-4.

Kvale, S. *Doing Interviews.* Thousand Oaks: Sage Publications, 2007.

Larson, A, and J. Ribot. "Democratic decentralization through a natural resource lens: an introduction." *European Journal of Development Research* 16, no. 1 (2004): 1-15.

Lawler, T. "Despite rain, Atlanta region needs to keep conserving and harvesting water." *Saporta Report*, May 12, 2013.

Levi, D. "Highest and Best Use: An Economic Goal for Water Law." *Missouri Law Review* 34, no. 2 (1969): 165-177.

Lefkoff, L., and S. Gorelick. "Benefits of an Irrigation Water Rental Market in a Saline Stream-Aquifer System." *Water Resources Research* 26, no. 7 (1990): 1371-1381.

Leitner, H. "Cities in pursuit of economic growth: The local state as entrepreneur." *Political Geography Quarterly* 9, no. 2 (1990): 146-170.

Lemke, T. "'The birth of bio-politics': Michel Foucault's lecture at the Collège de France on neo-liberal governmentality." *Economy and Society* 30, no. 2 (2001): 190-207.

Lilleker, D. "Interviewing the Political Elite: Navigating a Potential Minefield." *Politics* 23, no. 3 (2003): 207-214.

Lipietz, A. *Rebel sons: the regulation school - an interview with Alain Lipietz* (1987).

Lohr, K. "In Drought-Stricken Georgia, a Prayer for Rain." *NPR*, November 14, 2007.

Maass, A. *Muddy Waters: The Army Engineers and the Nation's Rivers.* Cambridge: Harvard University Press, 1951.

Maddock, T. "Fragmenting regimes: how water quality regulation is changing political–economic landscapes." *Geoforum* 35, no. 2 (2004): 217-230.

Malecki, EJ. "Military spending and the U.S. defense industry: Regional patterns of military contracts and sub-contracts." *Environment and Planning C*, 1984: 31-44.

Mansfield, B. "Privatization: Property and the Remaking of Nature–Society Relations." *Antipode*, 2007: 393-405.

Markusen, AR. "The military remapping of the United States." *Built Environment*, 1985: 171-180.

Martin, R. "Institutional Approaches in Economic Geography." In *A Companion to Economic Geography*, by E. Sheppard and TJ. Barnes, 77-95. Oxford: Blackwell, 2003.

Martins, G., et al. "Water resources management in southern Europe: Clues for a research and innovation based regional hypercluster." *Journal of Environmental Management* 119 (2013): 76-84.

Matsumoto, K. "Transboundary groundwater and international law: Past practices and current implications." M.S. Thesis, Department of Geosciences, Oregon State University, Corvallis, 2002.

McBurney, D., and T. White. *Research Methods.* Independence, KY: CengageBrain, 2009.

McGregor, S.L.T. "Critical discourse analysis: a primer." *Kappa Omicron Nu Forum.* 2003. http://www.kon.org/archives/forum/15-1/mcgregorcda.html (accessed March 1, 2012).

Meindl, C. "Water, Water, Everywhere? Toward a Critical Water Geography of the South." *Southeastern Geographer* 51, no. 4 (2011): 615-640.

Mehta, L. *The Politics and Poetics of Water: Naturalising Scarcity in Western India.* New Delhi: Orient Longman, 2005.

Metropolitan North Georgia Water Planning District. "Water Metrics Report." Atlanta, 2011.

Metropolitan North Georgia Water Planning District. "Water Supply and Water Conservation Management Plan." Atlanta, 2009.

Metropolitan North Georgia Water Planning District. "2012 Activities & Progress Report." Progress Report, 2012.

Metropolitan North Georgia Water Planning District. *Amendments to the Water Supply and Water Conservation Management Plan.* Atlanta: Metro Water District, 2012.

Miles, M., and A. Huberman. *Qualitative data analysis: An expanded source book.* Vol. 2. Thousand Oaks: Sage Publications, 1994.

Miller, T. "Recent Trends in Federal Water Resource Management: Are the 'Iron Triangles' In Retreat?" *Review of Policy Research* 5, no. 2 (1985): 395-412.

Molotch, H. "The City as a Growth Machine: Toward a Political Economy of Place." *The American Journal of Sociology* 82, no. 2 (1976): 309-332.

Montopoli, B. "Ronald Reagan Myth Doesn't Square With Reality." *CBS News*, February 4, 2011.

Munson, G. *Army Corps of Engineers Water Project Oversight.* Testimony, Senate Committee on Environment and Public Works, Washington, D.C.: U.S. Senate, 2013.

Newman, R. "Industry Migration and Growth in the South." *The Review of Economics and Statistics* 65, no. 1 (1983): 76-86.

Noble, K. "Reagan Announces New Policy on Water Projects." *The New York Times*, January 25, 1984.

O'Day, S., J. Reece, and J. Nackers. "Wars Between the States in the 21st Century: Water Law in an Era of Scarcity." *Vermont Journal of Environmental Law*, 2009: 229-265.

O'Riordan, T. "Environmental science, sustainability and politics." *Transactions of the Institute of British Geographers* 29 (2004): 234-247.

oDesk. *oDesk Privacy Policy.* April 17, 2013. https://www.odesk.com/info/terms/privacy/ (accessed October 24, 2013).

Olens, S. *Remarks by Sam Olens.* Council for Quality Growth, Atlanta: Atlanta Regional Commission, 2009.

Orlikowski, W., and J. Baroudi. "Studying information technology in organisations: Research approaches and assumptions." *Information Systems Research* 2 (1991): 1-28.

Ozga, J. *Educational Research in Policy Settings: contested terrain.* Buckingham: Open University Press, 2000.

Ozga, J., and S. Gewirtz. "Sex, lies and audiotape: interviewing the education policy elite." In *Researching Education Policy: ethical and methodological issues*, by D. Halpin and B. Troyna. London: Falmer Press, 1994.

Pares, M. "River Basin Management Planning with Participation in Europe: From Contested Hydro-politics to Governance-Beyond-the-State." *European Planning Studies* 19, no. 3 (2011): 457-478.

Peck, J. *Constructions of neoliberal reason.* Oxford University Press, 2011.

Peck, J., and A. Tickell. "Neoliberalizing Space." *Antipode* 34, no. 3 (2002): 380-404.

Pelto, P., and G. Pelto. *Anthropological research: The structure of inquiry* . Vol. 2. Cambridge: Cambridge University Press, 1978.

Perreault, T. "Custom and Contradiction: Rural Water Governance and the Politics of Usos y Costumbres in Bolivia's Irrigators' Movement." *Annals of the Association of American Geographers* 98, no. 4 (2008): 834-854.

Perreault, T. "From the Guerra Del Agua to the Guerra Del Gas: Resource Governance, Neoliberalism and Popular Protest in Bolivia." *Antipode* 38, no. 1 (2006): 150-172.

Personick, V. "Industry Output and Employment through the End of the Century ." *Monthly Labor Review* 110 (1987): 30-45.

Peters, A. "Georgia wins a round in Water Wars." *ATLaw*, July 21, 2010.

Peterson, S., and R. Wallick. "Water Allocation during Scarcity: Reservoir Modeling and Drought Protection in the ACT Basin." In *Interstate Water Allocation in Alabama, Florida, and Georgia*, by J. Jordan and A. Wolf, 202-232. Gainesville: University Press of Florida, 2006.

Petition for writ of certiorari. 11-999 (U.S. Supreme Court, June 25, 2012).

Potter, W., and D. Levine-Donnerstein. "Rethinking validity and reliability in content analysis." *Journal of Applied Communication Research* 27 (1999): 258-284.

Pruitt, K. "Metro watering restrictions paying off - Demand drops but ban stays; dab of rain helps - Dry2k: The drought in Georgia." *The Atlanta Journal-Constitution*, July 7, 2000.

Purcell, M. "Urban Democracy and the Local Trap." *Urban Studies* 43, no. 11 (2006): 1921-1941.

Quinn, M. "Two public utility groups oppose federal appointment." *Atlanta Journal-Constitution*, June 17, 1998.

Rankin, B. "Georgia exults in water ruling Federal appeals court overturns decision that Lanier was off-limits. Finding erases July 2012 doomsday deadline." *Atlanta Journal-Constitution*, June 29, 2011.

—. "Atlanta a loser in water wars Judge: Drawing from Lake Lanier illegal. 3-year time frame set for Ga., Ala., Fla., to form plan to share resource." *The Atlanta Journal-Constitution*, July 18, 2009.

Rapley, T. *Doing Conversation, Discourse and Document Analysis.* Thousand Oaks: Sage Publications, 2007.

Reagan for President. "'Let's make America great again'." *Campaign Brochure.* Reagan for President, 1980.

Reagan, R. "Executive Order 12612 -- Federalism." *Speech Archives.* October 26, 1987. http://www.reagan.utexas.edu/archives/speeches/1987/102687d.htm (accessed October 31, 2013).

Reagan, R. *Statement of Governor Ronald Reagan on Colorado River Legislation.* State of California, Washington, DC: National Archives and Records Administration, 1967, 1-5.

—. "Remarks to the National Catholic Education Association in Chicago, Illinois." *Speech Archives.* April 15, 1982. http://www.reagan.utexas.edu/archives/speeches/1982/41582a.htm (accessed October 31, 2013).

Reagan, Ronald. "Exec. Order No. 12319." 1981.

Reagan, Ronald. *Statement of Governor Ronald Reagan on Colorado River Legislation.* State of California, Washington, DC: National Archives and Records Administration, 1967, 1-5.

Redmon, J. "3 states: Keep talks secret Motion says closed negotiations on water beneficial; critics object." *Atlanta Journal-Constitution*, January 7, 2010.

Reinharz, S. "Who am I? The need for a variety of selves in the field." In *Reflexivity and voice*, by R. Hertz, 3-20. Thousand Oaks: Sage Publications, 1997.

Reisner, M. *Cadillac Desert: The American West and Its Disappearing Water.* New York: Penguin, 1986.

Reuss, M. *Reshaping National Water Politics: The Emergence of the Water Resources Development Act of 1986.* Water Resources Support Center, Institute for Water Resources, U.S. Army Corps of Engineers, U.S. Army Corps of Engineers, 1991, 1-217.

Rhodes, R. "The New Governance: Governing without Government." *Political Studies*, 1996: 652-667.

Ribot, J. *Democratic Decentralization of Natural Resources. Institutionalizing popular participation.* Food and Agriculture Organization, United Nations, United Nations, 2002.

Rice, BR. "Urbanization, "Atlanta-ization," and Suburbanization: Three Themes for the Urban History of Twentieth-Century Georgia." *The Georgia Historical Quarterly* 68, no. 1 (1984): 40-59.

Rice, BR. "If Dixie Were Atlanta." In *Sunbelt cities: politics and growth since World War II* , by R. Bernard and BR Rice, 31-57. Austin: University of Texas Press, 1983.

Rick Scott. "Request for SBA Economic Injury Declaration – Franklin County, Florida." Tallahassee, FL: State of Florida, October 23, 2013.

Riessman, C. "Narrative Analysis." *Narrative, Memory & Everyday Life*, 2005: 1-7.

Rivera, S., P. Kozyreva, and E. Sarovskii. "Interviewing Political Elites: Lessons from Russia." *PS: Political Science and Politics*, 2002: 683-688.

Roy, A. "The Greater Common Good." *Outlook India*, May 24, 1999.

Roberts, A. "Privatizing Social Reproduction: The Primitive Accumulation of Water in an Era of Neoliberalism." *Antipode*, 2008: 535-560.

Roberts, A. "Spin control and freedom of information: Lessons for the United Kingdom from Canada." *Public Administration* 83, no. 1 (2005): 1-23.

Rodgers, A. "Some Aspects of Industrial Diversification in the United States." *Economic Geography* 33, no. 1 (1957): 16-30.

Rogers, P. *Water Governance in Latin America and the Caribbean.* Environment Division, Inter-American Development Bank, IADB, 2002.

Roosevelt, Frankin. "State of the Union Address." Washington, D.C., 1937.

Roskelley, F. "Outdoorsman to Occupy White House." *Spokane Daily Chronicle*, January 5, 1977. Swyngedouw, E. "Authoritarian governance, power and the politics of rescaling." *Environment and Planning D: Society and Space* 18 (2000): 63-76.

Rubin, H., P. Pronovost, and G. Diette. "The advantages and disadvantages of process-based measures of health care quality." *International Journal for Quality in Health Care* 13, no. 6 (2001): 469-474.

Rutheiser, C. *Imagineering Atlanta: The Politics of Place in the City of Dreams.* New York: Verso, 1996.

Rutheiser, C. "Making place in the nonplace urban realm: notes on the revitalization of downtown Atlanta." *Urban Anthropology and Studies of Cultural Systems and World Economic Development*, 1997: 9-42.

Saldaña, J. "Dramaturgical Coding." In *The Coding Manual for Qualitative Researchers*, by J. Saldaña, 102-103. London: Sage Publications, 2009.

Salt Lake Tribune. "Matheson Urges Conserve Water Now." *Salt Lake Tribune*, December 16, 1977.

Saporta, M. "Regional Atlanta leaders on 2013 LINK trip find Houston to be humbling." *Atlanta Business Chronicle*, May 27, 2013.

Schwandt, T. *Three Epistemological Stances for Qualitative Inquiry: Interpretivism, Hermeneutics, and Social Constructionism.* Vol. 2, in *The Landscape of Qualitative Research: Theories and Issues*, by N. Denzin and Y. Lincoln, 292-332. Thousand Oaks: Sage Publications, 2003.

Scheele, P. "President Carter and the Water Projects: A Case Study in Presidential and Congressional Decision-Making." *Presidential Studies Quarterly* 8, no. 4 (1978): 348-364.

Seabrook, C. "Atlanta to Get More Water From Lanier." *Atlanta Journal & Constitution*, June 10, 1988.

—. "Water worries - Tri-state flap could mean irrigation limits for farmers." *The Atlanta Journal-Constitution*, April 10, 2000.

—. "Water talks end in failure." *The Atlanta Journal-Constitution*, March 19, 2002.

—. "Congress approves tri-state river pacts." *The Atlanta Journal-Constitution*, November 11, 1997.

—. "Push for west Ga. reservoir opposed - Alabama officials say proposal threatens new water compact." *The Atlanta Journal-Constitution*, December 4, 1997.

—. "State releases details of plans on waterways - Formulas to be worked out with Fla., Ala." *The Atlanta Journal-Constitution*, December 12, 1996.

—. "Tri-state water war far from a truce - As third deadline nears, complexities have arisen." *The Atlanta Journal-Constitution*, March 5, 2000.

Secor, A. "Social Surveys, Interviews, and Focus Groups." In *Research Methods in Geography*, by B. Gomez and J. Jones III, 194-206. Oxford: Blackwell, 2010.

Sessions, J. *Sen. Barbara Boxer Holds a Hearing on Oversight of Army Corps of Engineers Water Management.* Testimony, U.S. Senate Committee on Environment and Public Works, Washington, D.C.: U.S. Senate, 2013.

Sherk, G. "The Management of Interstate Water Conflicts in the 21st Century: Is it Time to Call Uncle?" *New York University Environmental Law Journal* 12, no. 3 (2005): 764-827.

Shiva, V. *Water Wars: Privatization, Pollution, and Profit.* Cambridge: South End Press, 2002.

Signatory States. *ACF Allocation Formula Agreement Released for Public Comment Purposes.* Public Comment, ACF Commissioners, 2003.

Sikes, P. "'Truth' and 'Lies' Revisited." *British Educational Research Journal* 26, no. 2 (2000): 257-270.

Skocpol, T., and K. Finegold. "State Capacity and Economic Intervention in the Early New Deal." *Political Science Quarterly* 97, no. 2 (1982): 255-278.

Slater, D. "Territorial Power and the Peripheral State: The Issue of Decentralization." *Development and Change*, 1989: 501-531.

Sneddon, C. "Nature's Materiality and the Circuitous Paths of Accumulation: Dispossession of Freshwater Fisheries in Cambodia." *Antipode*, 2007: 167-193.

Smiley, G. "Recent Unemployment Rate Estimates for the 1920s and 1930s." *Journal of Economic History* 43, no. 2 (1983): 487-493.

Smith, J. *Building New Deal Liberalism: The Political Economy of Public Works, 1933-1956.* New York: Cambridge University Press, 2006.

Smith, N. *Uneven Development: Nature, Capital, and the Production of Space.* Athen, GA: University of Georgia Press, 1984, 2007.

Social Science Data Analysis Network. *Atlanta, GA Population Growth, 1960-2000.* http://www.censusscope.org/us/m520/chart_popl.html (accessed October 1, 2013).

Spradley, J. *The ethnographic interview.* New York: Holt, Rinehart & Winston, 1979.

Springston, J. "Franklin redoubles call for conservation as 'water wars' heat up." *Atlanta Journal-Constitution*, July 21, 2009.

Stake, R. *The art of case study research.* Thousand Oaks: Sage Publications, 1995.

Stewart, C. "The politics of tax reform in the 1980s." In *Politics and Economics in the Eighties*, by A. Alesina and G. Carliner. Chicago: University of Chicago Press, 1991.

Stephenson, D. "The Tri-State Compact: Falling Waters and Fading Opportunities." *Journal of Land Use and Environmental Law* 16, no. 83 (2000): 1-23.

Stone, C. *Regime Politics Governing Atlanta, 1946-1988.* Lawrence, KS: University Press of Kansas, 1989.

Strauss, A. *Qualitative analysis for social scientists.* Cambridge: Cambridge University Press, 1987.

Swyngedouw, E. "Dispossessing H2O: The Contested Terrain of Water Privatization." *Capitalism Nature Socialism* 16, no. 1 (2005a): 81-98.

Swyngedouw, E. "Governance Innovation and the Citizen: The Janus Face of Governance-beyond-the-State." *Urban Studies* 42, no. 11 (2005b): 1991-2006.

Swyngedouw, E. "Modernity and Hybridity: Nature, Regeneracionismo, and the Production of the Spanish Waterscape, 1890-1930." *Annals of the Association of American Geographers* 89, no. 3 (1999): 443-465.

—. *Social Power and the Urbanization of Water: Flows of Power.* Oxford: Oxford University Press, 2004.

Swyngedouw, E. "The contradictions of urban water provision." *Third World Planning Review* 17, no. 4 (1995): 387-405.

Swyngedouw, E. "The post-political city." In *Urban Politics Now. Re-imaging Democracy in the Neoliberal City*, by Bavo, 58-77. Rotterdam: NAI Publishers, 2007.

Swyngedouw, E., M. Kaika, and E. Castro. "Urban Water: A Political-Ecology Perspective." *Built Environment (1978-)* 28, no. 2 (2002): 124-137.

Tarr, J. "Sewerage and the Development of the Networked City in the United States, 1850–1930." In *Technology and the Rise of the Networked City in Europe and America*, by J. Tarr and G. Dupuy, 171. Philadelphia: Temple University Press, 1988.

Teclaff, LA. *The River Basin in History and Law.* Hague: Nijhoff, 1967.

Teegardin, C. "Cease-fire called in water war - Tri-state fight is over Chattahoochee rights." *The Atlanta Journal-Constitution*, September 21, 1990.

Tennessee Valley Authority. *From the New Deal to a New Century.* TVA Info. 2013. http://www.tva.com/abouttva/history.htm (accessed September 23, 2013).

Tetra Tech, Inc. "Private Boat Dock Carrying Capacity Study for Lake Sidney Lanier, Georgia." Final EIS , Buford, 2003.

Thompson, R., H. Lewis, and D. McEntire. "Atlanta and Birmingham: A Comparative Study in Negro Housing." In *Studies in Housing and Minority Groups*, by N. Glazer and D. McEntire, 20. Los Angeles: University of California Press, 1960.

Tibbo, H. "Primarily History in America: How US Historians Search for Primary Materials at the Dawn of the Digital Age." *American Archivist* 66, no. 1 (2003): 9-50.

Tickell, A., and J. Peck. "Accumulation, regulation and the geographies of post-Fordism: missing links in regulationist research." *Progress in Human Geography* 16 (1992): 190-218.

Trelease, F. "Preferences to the Use of Water." *Rocky Mountain Law Review* 27 (1954): 133.

Trend, M. "Anthropology and Contract Research: Managing and Being Managed." *Practicing Anthropology* 1, no. 2 (1978): 13-17.

Tri-State Water Rights Litigation. 3:07-cv-00249 (U.S. Court of Appeals for the Eleventh Circuit, June 28, 2011).

Turner, J. *Army Corps of Engineers Water Project Oversight.* Testimony, U.S. Senate Committee on Environment and Public Works, Washington, D.C.: U.S. Senate, 2013.

U.S. Army Corps of Engineers. *Water Control Infrastructure: National Inventory of Dams.* Washington, DC, 1996.

U.S. Army Corps of Engineers. *Authority to Provide for Municipal and Industrial Water Supply from the Buford Dam/Lake Lanier Project, Georgia.* Legal Opinion, Washington, DC: Department of the Army, 2012.

—. *ACF Master Water Control Manual Update.* 2013. http://www.sam.usace.army.mil/Missions/PlanningEnvironmental/ACFMasterWaterControlManualUpdate.aspx (accessed August 26, 2013).

—. *ACF Master Water Control Manual Update.* 2013. http://www.sam.usace.army.mil/Missions/PlanningEnvironmental/ACFMasterWaterControlManualUpdate/ACFPublicInvolvement.aspx (accessed November 1, 2013).

U.S. Army Corps of Engineers. *Final Updated Scoping Report Environmental Impact Statement: Update of the Water Control Manual for Apalachicola-Chattahoochee-Flint (ACF) River Basin in Alabama, Florida, and Georgia.* Scoping Comment, Mobile: U.S. Army Corps of Engineers Mobile District, 2013.

—. *Lake Sidney Lanier History.* 2006 17-August. http://lanier.sam.usace.army.mil/history.htm (accessed 2011 20-June).

U.S. Bureau of Reclamation. *Hoover Dam: Frequently Asked Questions and Answers.* June 2012. http://www.usbr.gov/lc/hooverdam/faqs/lakefaqs.html (accessed September 24, 2013).

U.S. Census Bureau. *2010 Census Population and Housing Tables (CPH-Ts).* Washington, D.C.: U.S. Census Bureau, 2013.

U.S. Department of Commerce. *Metropolitan Area Population Rankings.* Washington, DC: U.S. Department of Commerce, 1982.

U.S. Department of Commerce. *State Personal Income, 1929-1982.* Washington, D.C.: U.S. Govt. Printing Office, 1984.

U.S. Department of Justice. *How to make a FOIA request.* December 2010. http://www.foia.gov/how-to.html (accessed September 25, 2012).

U.S. Department of the Interior. "Atlanta's Chattahoochee River to become first national water trail of its kind." February 29, 2012. http://www.doi.gov/news/pressreleases/New-National-Water-Trails-System-to-Promote-Healthy-Accessible-Rivers.cfm (accessed November 6, 2013).

Urquhart, M. "The Employment Shift to Services: Where Did It Come From?" *Monthly Labor Review* 107 (1984): 15-22.

Utton, A. "The Battle Over the Allocation of Interstate Waters: Two Contending Doctrines." *Evaluation and Program Planning* 11 (1988): 357-363.

van Dijk, T. *Discourse as social interaction.* London: Sage, 1997.

Van Sickle, J. *Planning for the South: An Inquiry into the Economics of Regionalism.* Nashville: Vanderbilt University Press, 1943.

Wallis, J.J. "Employment in the Great Depression: New Data and Hypotheses." *Explorations in Economic History* 26 (1989): 45-72.

Walsham, G. "Interpretive case studies in IS research. Nature and method." *European Journal of Information Systems* 4 (1995): 74-81.

Weatherford, M., and L. McDonnell. "Ronald Reagan as Legislative Advocate: Passing the Reagan Revolution's Budgets in 1981 and 1982." *Congress & The Presidency* 32, no. 1 (2005): 1-29.

Weiss, R. *Learning from Strangers: The Art and Method of Qualitative Interview Studies.* New York: The Free Press, 1994.

Welch, C., R. Marschan-Piekkari, H. Penttinen, and M. Tahvanainen. "Corporate elites as informants in qualitative international business research." *International Business Review* 11 (2002): 611-628.

Wilkinson, CF. "Aldo Leopold and western water law: Thinking perpendicular to the prior appropriation doctrine." *Land & Water Law Review* 24 (1989).

Williams, M. “Florida Seafood Workers Fear Being Left High, Dry in Water War.” *Atlanta Journal & Constitution*, 1991 йил 9-August.

Wheeler. "Letter from the Secretary of War Transmitting a Letter from the Chief of Engineers, United States Army, Dated May 13, 1946, Submitting a Report, Together with Accompanying Papers and an Illustration, on a Preliminary Examination and Survey of the Inland Waterway from New Orleans, LA., to Apalachicola River, FLA., and the Apalachicola and Chattahoochee Rivers to Columbus, GA., Authorized by Section 8 of the River and Harbor Act Approved on March 3, 1925." U.S. Army Corps of Engineers, South Atlantic Division, 1946.

Wheeler, D. "Racing to the Bottom? Foreign Investment and Air Pollution in Developing Countries." *The Journal of Environment Development* 10, no. 3 (2001): 225-245.

Whitelegg, D. "A battle on two fronts: competititve urges 'inside' Atlanta." *Area* 34, no. 2 (2002): 128-138.

Whitelegg, D. "Keeping their eyes on the skies Jet aviation, Delta Air Lines and the growth of Atlanta." *The Journal of Transport History*, 2000: 73-91.

Whitt, R. "The Flood of '94: An Ongoing Crisis - Dam project might have lessened damage - Carter opposed plan when he was governor." *Atlanta Journal-Constitution*, July 15, 1994.

Wolf, A. "Conflict and cooperation along international waterways." *Water Policy* 1, no. 2 (1998): 251-265.

Wolf, A., H. Bryan, J. Jordan, and C. Kiker. *Models of Interstate Water Allocations in Theory and in Practice: The ACT-ACF Agreements As Applied Case Studies.* University of Alabama, Tuscaloosa: University of Alabama, 1999.

Wright, G. "The Economic Revolution in the American South." *Journal of Economic Perpsectives* 1, no. 1 (1987): 161-178.

Wright, G. "The New Deal and the Modernization of the South, No. 08-042." Discussion Papers, Stanford Institute for Economic Policy Research, 2009.

Wrinn, J. "Lookout Shoals Pipeline Will Help Meet Increasing Need For Water." *Atlanta Journal-Constitution*, August 13, 2000.

Yardley, J. "States to sign accord on water study today - Ga., Fla., Ala. promise to be good neighbors." *The Atlanta Journal-Constitution*, January 3, 1992.

Yergin, D., J. Stanislaw, and D. Tergin. *The Commanding Heights: The Battle Between Government and Market Place that is Remaking the Modern World.* New York: Simon & Schuster, 1999.

Yin, RK. *Case Study Research: Design and Methods.* Vol. 2. Thousand Oaks: Sage Publications, 1994.

—. *Case study research: Design and methods.* Vol. 3. Thousand Oaks: Sage Publications, 2003.

Yoffe, S., et al. "Geography of international water conflict and cooperation: Data sets and applications." *Water Resources Research* 40 (2004): 1-12.

APPENDIX A:

2009 U.S. DISTRICT COURT NORTHERN DISTRICT OF ALABAMA EASTERN DIVISION CONFIDENTIALITY ORDER

FILED
2009 Dec-29 PM 01:18
U.S. DISTRICT COURT
N.D. OF ALABAMA

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ALABAMA
EASTERN DIVISION

STATE OF ALABAMA, Plaintiff, v. THE UNITED STATES ARMY CORPS OF ENGINEERS, et al., Defendants.	Civil Action CV-90-BE-1331-E

ORDER

Upon review of the pending motion of the State of Alabama and the State of Georgia for an order regarding the confidentiality of settlement negotiations, the court hereby ORDERS as follows:

1. The State of Alabama and the State of Georgia shall keep confidential all settlement negotiations regarding disputes related to the Alabama-Coosa-Tallapoosa ("ACT") river basin, including any terms and conditions related to the Apalachicola-Chattahoochee-Flint ("ACF") river basin that Alabama and Georgia may deem necessary to resolve the disputes in the ACT basin and any documents prepared for use in the negotiations.

2. Any other party to this litigation that participates in the settlement negotiations described in Paragraph 1 above shall keep confidential all discussions and related documents regarding such negotiations.

DONE and ORDERED this 29th day of December, 2009.

Karon O. Bowdre

KARON OWEN BOWDRE
UNITED STATES DISTRICT JUDGE

APPENDIX B:

2010 U.S. DISTRICT COURT MIDDLE DISTRICT OF FLORIDA CONFIDENTIALITY ORDER

UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF FLORIDA

In re Tri-State Water Rights Litigation Case No. 3:07-md-00001 (PAM/JRK)

ORDER

This matter is before the Court on a joint Motion for Order Regarding Confidentiality of Settlement Negotiations. In this Motion, the States of Alabama, Florida, and Georgia ask the Court to declare that ongoing settlement negotiations in this litigation be kept confidential. No parties oppose the Motion, although the Southeastern Federal Power Customers responded to the Motion by asking the Court to ensure that the States keep other parties apprised of the settlement negotiations.

The Court is confident that the parties understand that this litigation will be fully resolved only when all parties participate in settlement discussions. However, it is the Court's firm opinion that a settlement of such a complicated and inflammatory case such as this can occur only if some negotiations, whether among all parties or among only some of the parties, are conducted privately. The Court will therefore enter the Order the States seek.

Accordingly, **IT IS HEREBY ORDERED** that:

1. The Motion for Order Regarding Confidentiality of Settlement Negotiations (Docket No. 315) is **GRANTED**;
2. The ongoing negotiations among the three States of Alabama, Florida, and Georgia concerning the issues presented by this litigation are, and shall be

kept, confidential;

3. This Order extends to all documents, data or other materials prepared in anticipation of or exchanged in the course of such negotiations and to all statements made during the negotiations;

4. All parties participating in such negotiations also shall be bound by this Order and shall keep confidential the negotiations and related documents of which they may become apprised;

5. This Order shall continue in effect until modified;

6. This Order shall not affect the current schedule for Phase Two of this litigation.

Dated: Thursday, January 7, 2010

s/ Paul A. Magnuson
Paul A. Magnuson
United States District Court Judge

APPENDIX C:

IRB APPROVAL

USF
UNIVERSITY OF
SOUTH FLORIDA

DIVISION OF RESEARCH INTEGRITY AND COMPLIANCE
Institutional Review Boards, FWA No. 00001669
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799
(813) 974-5638 • FAX (813) 974-5618

August 6, 2012

Johnny Wong, M.P.A.
Geography
4202 E. Fowler Ave., NES 201
Tampa, FL 33620

RE: **Expedited Approval** for Initial Review
IRB#: Pro00009155
Title: Troubled Waters: Georgia, Florida and Alabama's Conflict Over the Waters of the ACF Basin

Dear Dr. Wong:

On 8/3/2012 the Institutional Review Board (IRB) reviewed and **APPROVED** the above referenced protocol. Please note that your approval for this study will expire on 8/3/2013.

Approved Items:
Protocol Document:
Dissertation Proposal_Johnny Wong

Consent Document:
Adult IC minimal risk.pdf
Please use only the official, IRB- stamped consent document(s) found under the "Attachment Tab" in the recruitment of participants. Please note that these documents are only valid during the approval period indicated on the stamped document.

It was the determination of the IRB that your study qualified for expedited review which includes activities that (1) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the categories outlined below. The IRB may review research through the expedited review procedure authorized by 45CFR46.110 and 21 CFR 56.110. The research proposed in this study is categorized under the following expedited review categories:

(5) Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis).

(6) Collection of data from voice, video, digital, or image recordings made for research purposes.

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

As the principal investigator of this study, it is your responsibility to conduct this study in accordance with IRB policies and procedures and as approved by the IRB. Any changes to the approved research must be submitted to the IRB for review and approval by an amendment.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

John A Schinka, Ph.D.

John A. Schinka, Ph.D., Chairperson
USF Institutional Review Board