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Comment

Who Gets the Hooch?: Georgia, Florida, and Alabama Battle for Water From the Apalachicola-Chattahoochee-Flint River Basin

During a time when technology is constantly changing and becoming more advanced, one of the constants that our planet, and all of the creatures on it, will always rely upon is fresh water. Throughout history, rivers have been the lifeblood that supports cities by providing drinking water, irrigation, transportation, trade, recreation, power, and many other industrial and domestic uses. As the human population grows, rivers and lakes are more pressured to support the growing needs of the communities and cities that rely on these bodies of water. Because many rivers in the United States flow across numerous states, problems develop when different states have different needs concerning the same river.

Typically, the western states have had more disputes concerning the usage of rivers because of the scarcity of water in the region and the vast amount of land that relies on that water. The eastern states are located in a more humid environment that receives a larger amount of rainfall; consequently, they have more fresh water at their disposal.

However, as the population in the eastern states continues to grow and rivers are more strained, eastern states are beginning to encounter the same water problems as the western states.

The Chattahoochee River, locally referred to as "the Hooch," is one of the Southeast's most important water resources, providing drinking water, hydroelectric power, irrigation, waste treatment, and transportation. More importantly, at least to some, the Hooch and its tributaries provide an escape for hundreds of fly fishermen. The scenic Chattahoochee begins in the mountains of north Georgia, flows through Atlanta, and moves south a distance of over 400 miles, where it joins the Flint River at the borders of Alabama and Florida. In Florida, the river becomes the Apalachicola River and flows into the Apalachicola Bay on the Gulf of Mexico.

The Apalachicola-Chattahoochee-Flint ("ACF") River System is a crucial resource for all three states. The rapidly expanding city of Atlanta, with a population of over four million, relies heavily on the Chattahoochee, which feeds Lake Lanier, located just north of Atlanta.4 Lake Lanier, which is maintained by the United States Army Corps of Engineers, provides approximately seventy percent of Atlanta's water, as well as much of its hydroelectric power.⁵ Lake Lanier is also used for recreation, bringing millions of dollars to the state each year.⁶ Additionally, Georgia is seeking the flexibility to make withdrawals based on changing conditions because the Chattahoochee provides irrigation to thousands of acres of farmland in Georgia. Unfortunately, Atlanta is located near the headwaters of the Chattahoochee, so the greatest pressure on the river is on the section with the smallest natural flow.8 Alabama also relies on the Chattahoochee for drinking water, irrigation, industrial use, and recreation.9 Although southern Alabama is not growing as rapidly as the Atlanta area, the state is impacted by and

^{1.} Dustin S. Stephenson, The Tri-State Compact: Falling Water and Fading Opportunities, 16 Fla. St. U. J. Land Use & Envil. L. 83, 84 (2000).

^{2.} Id.

^{3.} *Id*.

^{4.} Id. at 85.

^{5.} David N. Copas, The Southeastern Water Compact, Panacea or Pandora's Box? A Law and Economics Analysis of the Viability of Interstate Water Compacts, 21 WM. & MARY ENVIL. L. & POL'Y REV. 697, 697-98 (1997).

^{6.} Stephenson, supra note 1, at 84-85.

^{7.} Id. at 86-87.

^{8.} Id.

^{9.} Id. at 87.

concerned with the strain that Atlanta and other Georgia cities are putting on the river. 10

Florida relies heavily on the waters from the Chattahoochee to sustain the oyster beds in the nutrient-rich Apalachicola Bay. Ninety percent of Florida's oysters, which are a \$70 million industry each year, come from the Apalachicola Bay. The fresh water from the ACF River Basin serves the significant role of washing nutrients from the Florida wetlands into the bay so that the salinity of the water remains at the ideal level for oyster bed cultivation. Florida also relies on the Apalachicola River to provide irrigation to the timber and pulpwood forests in the Florida panhandle. As a result of the increasing demands placed on the river system by all three states, each state is beginning to realize the importance of future control over, and regulation of, the ACF River Basin System.

This Comment examines the current dispute between Georgia, Florida, and Alabama over the use of water from the Chattahoochee, Flint, and Apalachicola rivers. Part one provides an overview of water rights doctrines in general and the means by which water disputes are settled. Part two focuses on the history of the ACF River System dispute. Part three examines other cases that have addressed similar issues. Part four discusses the current state and the future of the dispute.

I. WATER RIGHTS DOCTRINES AND METHODS OF CONFLICT RESOLUTION

A. Water Rights Disputes

Water rights disputes have traditionally been associated with states west of the Mississippi River. These states have utilized the doctrine of prior appropriation to solve such disputes. Under the doctrine of prior appropriation, water rights are acquired "when three requirements have been met: (1) an intent to divert water for a beneficial use, (2) an actual diversion of water, and (3) application of the water to the beneficial use intended. Appropriative rights are fixed in quantity and do not depend on land ownership because they are acquired and

^{10.} Id. at 85.

^{11.} *Id*.

^{12.} Id.

^{13.} Id. at 86.

^{14.} Id.

^{15.} Id. at 89.

^{16.} Id.

maintained by actual use.¹⁷ One of the drawbacks to prior appropriation is that when there is a conflict over water use, whoever has the senior claim to the rights will prevail.¹⁸ Under this rule of priority, seniority, rather than the need for or reasonable use of the water, controls water use in such a system.¹⁹ However, water rights may be bought and sold under this system; so, theoretically, water rights may be put to the most economically efficient use.²⁰

The eastern states, on the other hand, settled water disputes by using a strict system of allocation because of the historically abundant rainfall in the region. Instead, the eastern states have traditionally used a riparian system of water rights.²¹ Under this doctrine, the owner of land contiguous to a river is entitled to a flow of the river that is undiminished in quantity and unpolluted in quality.²² The "eastern" doctrine is composed of two sub-doctrines: (a) the natural flow subdoctrine and (b) the reasonable use sub-doctrine. Under the "natural flow" sub-doctrine, a landowner who has land adjacent to a river is entitled to an undiminished flow of water, both in quantity and quality.²³ The more widely used system in the eastern United States, however, is the "reasonable use" sub-doctrine. Under this system, riparian landowners may reasonably use the water running adjacent to their land as long as the rights of other (upper and lower) landowners on the same natural watercourse are not adversely affected.²⁴ Also, downstream landowners have the right to a continuous flow of unpolluted water.25 In addition to the fact that riparian rights originate from land ownership and remain vested even if they are not exercised,

[o]ne of the significant features of a riparian system is its relative self-governance. Riparian systems generally require very little control from a centralized authority. While this system keeps cost and regulation to a minimum, the resulting riparian rights are very generalized, increasing uncertainty and creating enforcement problems. Also problematic is an imprecise definition of the term "reasonable use." These shortcomings often force riparians to look to the courts—the

^{17.} Id. at 89-90.

^{18.} Id. at 90.

^{19.} Id.

^{20.} Id.

^{21.} Copas, supra note 5, at 699.

^{22.} Id.

^{23.} Id. at 700.

^{24.} Stephenson, supra note 1, at 91.

^{25.} Jeffery Uhlman Beaverstock, Learning to Get Along: Alabama, Georgia, Florida and the Chattahoochee River Compact, 49 Al.A. L. REV. 993, 997 (1998).

most inefficient and costly method possible—for dispute resolution and clarification of rights.²⁶

Pure riparianism assumes that there is enough water to accommodate the needs of everyone; however, as the population grows, pressuring the rivers more, the water supply in the East is quickly becoming limited.²⁷ As a result, eastern states have begun to use a hybrid system that combines the prior appropriations system and the riparian rights system. For example, in Georgia, riparianism is regulated by requiring a permit for the withdrawal, diversion, or impoundment of more than 100,000 gallons per day on a monthly average.²⁸ Florida uses a hybrid system that focuses on a "'reasonable beneficial use' standard of water rights allocation."²⁹ In Florida those applying for a water-use permit must show that their proposed use is reasonably beneficial, not harmful to other riparian users, and consistent with the public interest.³⁰

B. Methods of Conflict Resolution

Three ways exist to solve interstate disputes over water rights: (1) legislative apportionment, (2) judicial apportionment, and (3) interstate compacts. Although Congress has the power under the Commerce Clause³¹ to apportion interstate waters, legislative apportionment is used sparingly due to "politics, limited information, and lack of interest." The issues surrounding a water rights dispute are highly technical, requiring more specialized knowledge than can be gained from a few speeches and hearings.³³

The second way to solve an interstate water dispute, judicial apportionment, is utilized more often than legislative apportionment but has similar drawbacks. One of the major drawbacks is that courts are not able to handle the large quantity of technical information introduced into evidence.³⁴ Because courts lack the resources and expertise to evaluate most interstate water rights disputes, a Special Master is usually assigned "to hear evidence, preside over hearings, report findings, and recommend a solution."³⁵ Another drawback to judicial

^{26.} Stephenson, supra note 1, at 91.

^{27.} Copas, supra note 5, at 701-02.

^{28.} O.C.G.A. § 12-5-31 (2001).

^{29.} Stephenson, supra note 1, at 92.

^{30.} Id.

^{31.} U.S. CONST. art. I, § 8, cl. 3.

^{32.} Stephenson, supra note 1, at 93.

^{33.} Id. at 94.

^{34.} Id. at 96.

^{35.} Id.

apportionment is the exorbitant cost of litigation.³⁶ In addition to the time spent litigating, collecting the technical data necessary to litigate a water-rights dispute can be extremely expensive.³⁷ The final, major drawback to judicial apportionment is enforcement; courts are unable to follow-up on the resolution of the conflict to be certain the parties are complying, because policing the water withdrawals of each state is prohibitively difficult and expensive.³⁸ As a result, parties have an incentive to stretch the rules. Furthermore, because further litigation is the only way to address a breach, "small transgressions are not remedied because it is simply not cost effective for the state to do so."³⁹

The third way in which water rights disputes are handled is through interstate-water compacts. Water compacts are used to allocate water for future use. This remedy is tricky because it is difficult to accurately estimate an area's future growth and water needs. Therefore, the enforcement provisions in the compact become exceedingly important. Modern compacts provide for a commission to monitor each state's compliance with the compact. These commissions gather new data and conduct negotiations so they can enforce the compact, or at least adjust it, to meet the changing conditions of the river system and needs of the states.

There are a number of advantages to interstate water compacts. First, compacts are typically a cheaper method of dealing with a water dispute because court costs are avoided, and the commission can handle the dispute more efficiently.⁴⁴ Also.

[t]ied to this advantage is the idea of certainty. Because compacts create a baseline for the apportionment of rights in the long run, as well as establishing an authorized body to deal with, compacts generate a level of certainty for those utilizing water resources. Certainty, the basis of contract theory, assists in planning for all economic actors, be they public or private.⁴⁵

Second, compacts are designed to address a specific situation in a specific area, resulting in greater flexibility. The structure of a compact

^{36.} Id.

^{37.} Id.

^{38.} Id. at 96-97.

^{39.} Id.

^{40.} Id. at 97.

^{41.} Id. at 98.

^{42.} Id. at 99-100.

^{43.} Id. at 99.

^{44.} Copas, supra note 5, at 721.

^{45.} Id.

allows it to adjust to the changing conditions in each state.⁴⁶ Finally, the commission in charge of the compact is usually composed of experts who are able to evaluate and understand all of the technical data.⁴⁷

Although compacts have a number of advantages over legislative and judicial apportionment, they also have some disadvantages. First, interstate water compacts are only adopted after long, expensive negotiations. A large amount of research is needed to ensure that the compact is designed in an effective manner. Second, some of the more difficult issues addressed in a compact are drafted in a way that gives the parties some "wiggle room." While a compact should be flexible enough to handle the fluctuating conditions of a river system, as well as the states' needs, if the loopholes in a compact are too large, the compact will not have any "teeth." Another related disadvantage is that water-supply studies and estimates often are inaccurate, which can cause future problems. The last major disadvantage is that the commissioners are not completely independent and neutral. Because state governors usually appoint them, commissioners might not always be able to avoid political influence when casting a vote. Sa

II. HISTORY OF THE DISPUTE

A. The Problem

In the late 1980s, Georgia experienced a serious drought that resulted in the Chattahoochee River and Lake Lanier dropping to extremely low levels.⁵⁴ The amount of hydroelectric power produced by water from Lake Lanier fell, and barge traffic on the Chattahoochee became threatened.⁵⁵ To combat the effects of the drought and to prepare for the anticipated surge in population over the next ten years, the city of Atlanta and the United States Army Corps of Engineers announced a plan to withdraw an additional 529 million gallons per day (a fifty

^{46.} Stephenson, supra note 1, at 99.

^{47.} Id.

^{48.} Id. at 100.

^{49.} Id.

^{50.} Id.

^{51.} Copas, supra note 5, at 722.

^{52.} Stephenson, supra note 1, at 100.

^{53.} Id.

^{54.} Mary R. Hawk, Conservation and Natural Resources: Allocate Surface Water Resources from the AlabamaCoosa-Tallapoosa River Basin Between Georgia and Alabama; Allocate Surface Water Resources from the Apalachicola-Chattahoochee-Flint River Basin Among Alabama, Florida, and Georgia, 14 GA. St. U. L. Rev. 47, 48 (1997).

^{55.} Id.

percent increase) from Lake Lanier and downstream from the lake.⁵⁶ The plan also included the construction of new reservoirs to support the population of North Atlanta.⁵⁷

In 1990 the state of Alabama responded to Georgia's water withdrawal plan by filing suit against the United States Army Corps of Engineers in federal court.⁵⁸ Alabama sought an injunction to prevent the withdrawal plan before any additional water was taken out. 59 Alabama did not want any "rights to vest in the citizens of Georgia who consumed that water."60 This was the beginning of what has become known as the "water wars" between Georgia, Florida, and Alabama. Alabama claimed that the additional withdrawal of water upstream would harm economic development in southern Alabama. 61 The state of Florida joined the suit, claiming that Atlanta's increased withdrawal would disrupt the natural flow of the river and negatively impact Florida's oyster, seafood, and pulpwood industries.⁶² The drought in 1988 devastated Florida's oyster industry, which accounted for one out of every seven ovsters consumed in the United States before the drought. and Florida objected to any more water being taken out of the river. 63 In addition to concerns over the quantity of water, Alabama and Florida also were worried about the proposed withdrawal's effect on the quality of the water.64 Increased withdrawals in Atlanta could result in a decreased water flow, which in turn would result in pollutants from Atlanta becoming less diluted when they reached the downstream Each new resident of Atlanta produces an estimated 85 gallons of sewage daily, and by 2003, Atlanta had already exceeded the projected population for 2010.66 Georgia maintained that it had sovereignty over the use of waters within its borders and a reasonable need for the additional water.⁶⁷

Fortunately, on January 3, 1992, the governors of the three states agreed to move the lawsuit to the inactive docket and try to settle the

^{56.} Stephenson, supra note 1, at 86-87.

^{57.} Id. at 87.

^{58.} Id.

^{59.} Id.

^{60.} Beaverstock, supra note 25, at 994.

^{61.} Stephenson, supra note 1, at 87.

^{62.} Id.

^{63.} Hawk, supra note 54, at 49.

^{64.} Stephenson, supra note 1, at 87.

^{65.} Hawk, supra note 54, at 49.

^{66.} Beaverstock, supra note 25, at 996.

^{67.} Hawk, supra note 54, at 50.

dispute outside of the courtroom.⁶⁸ All three states agreed to fund a five-year, \$15 million study of the current and future water needs of the states to be conducted by the United States Army Corps of Engineers.⁶⁹ The "treaty" called for water withdrawals to remain at current levels, with increases made only with the consent of all three states.⁷⁰ Additionally, all three states agreed to share information concerning the ACF Basin ⁷¹

B. The Compact

During the 1997 legislative sessions of the three states, each state adopted identical bills creating the Apalachicola-Chattahoochee-Flint River Basin Compact ("ACF Compact"). The ACF Compact called for each state to study the results of the United States Army Corps of Engineers's research and to develop a water allocation plan accordingly.78 The ACF Compact was ratified by Congress and signed by President Clinton on November 20, 1997.74 The states entered into the ACF Compact "for the purposes of promoting interstate comity, removing causes of present and future controversies, equitably apportioning the surface waters of the ACF, engaging in water planning, and developing and sharing common data bases." Although the ACF Compact did not contain a formula for determining how much water each state was allowed to take, all three states intended "to develop an allocation formula for equitably apportioning the surface waters of the ACF Basin among the states while protecting the water quality, ecology and biodiversity of the ACF "76

The ACF Compact created an interstate administrative agency, the ACF Basin Commission, to negotiate a water allocation formula.⁷⁷ The ACF Basin Commission was composed of one representative from each state (either the Governor or someone appointed by the Governor) and one non-voting federal representative appointed by the President.⁷⁸ All decisions must be made by a unanimous vote of the three-state

^{68.} Id.

^{69.} Id.

^{70.} Stephenson, supra note 1, at 88.

^{71.} Id. at 101.

^{72.} Id.

^{73.} Id.

^{74.} Id.

^{75.} O.C.G.A. § 12-10-100, art. I (2001).

^{76.} Id. at art. VII(a).

^{77.} Id. at art. VI(a).

^{78.} Id. at art. VI(b), (c).

commissioners,⁷⁹ and the deadline for the equitable apportionment plan was December 31, 1998.⁸⁰ Additionally, the ACF Compact stated that all of the meetings of the Commission were open to the public.⁸¹

Among the powers given to the Commission was the power to plan and monitor the water in the ACF Basin, to improve water quality and quantity, and to assist in conservation.⁸² The Commission also had the power to conduct studies regarding the water resources in the ACF Basin.⁸³ To accomplish these acts, the Commission had the authority to receive and spend money, sue in court, hire and fire staff, and enter into contracts.⁸⁴

C. Progression of the Conflict

As December 1998 approached, the states were not close to reaching an agreement, and to add to the problem, all three states elected new governors, resulting in "new policies, less cooperation, and less knowledge of the situation as a whole." Because some progress had been made and the new governors needed time to develop their own positions, the ACF Basin Commission agreed to a one-year deadline extension. He lections of the new governors, Alabama's new governor did not have a close working relationship with the ACF Commission, and, as a result, Alabama did not rejoin the negotiations until March of 1999. Since the first deadline extension, the Commission has extended the deadline twelve additional times, primarily due to the inability of the states to agree to any specific minimum-flow requirements on the rivers.

An interesting development in the dispute occurred in 2001, when Florida claimed that Georgia circumvented the ACF Compact by petitioning the United States Army Corps of Engineers to release more water from the Buford Dam and to allow the city of Atlanta to withdraw more water from Lake Lanier.⁸⁹ Georgia also needed an increased

^{79.} Id. at art. VI(d).

^{80.} Id. at art. VIII(a)(3).

^{81.} Id. at art. VI(f).

^{82.} Id. at art. VI(g)(7).

^{83.} Id. at art. VI(g)(9).

^{84.} Id. at art. VI(g)(1) to (12).

^{85.} Stephenson, supra note 1, at 102-03.

^{86.} Georgia v. U.S. Army Corps of Eng'rs, 302 F.3d 1242, 1247 (11th Cir. 2002).

^{87.} Stephenson, supra note 1, at 104.

^{88.} Benjamin B. Bush, *Recent Developments*, 18 FLA. St. U. J. LAND USE & ENVIL. L. 477, 488 (2003). Minimum-flow requirements prevent a state from taking an amount of water out of the river that causes the flow of the river to fall below a certain point.

^{89.} Georgia, 302 F.3d at 1247.

withdrawal to supply irrigation to crops in the southern portion of the state.⁹⁰ After nine months and no response from the Corps,

Georgia filed suit seeking (1) an order compelling the Corps to grant its water supply request; (2) a declaration that the Corps has the authority, without additional Congressional authorization, to grant its request; (3) a declaration that the Corps is subject to state law insofar as it does not conflict with federal law and that state law mandates that the Corps grant the request; and (4) a declaration that, if applicable federal law prohibits the Corps from granting Georgia's request, then such federal law is unconstitutional on its face or as applied by the Corps.⁹¹

Southeastern Federal Power Customers, Inc. ("SeFPC"), a nonprofit consortium of rural electric cooperatives and municipal electric systems, filed a motion to intervene as a defendant. SeFPC complained that granting Georgia's request for increased water withdrawal would reduce the amount of hydropower available to SeFPC's members. 92 Florida also filed a motion to intervene as a defendant, as well as a motion to dismiss, arguing that "Georgia was seeking to effect a de facto partial apportionment of the water in the ACF Basin in violation of the ACF Compact."93 Florida, concerned that a larger water withdrawal from the Chattahoochee would result in less usable water in Florida, also maintained that the ACF Compact was "designed to be the exclusive mechanism to resolve disputes involving the ACF Basin, and that [the] litigation improperly contravenes the ACF Compact."94 contended that the issue was water use in Georgia, not Georgia's interstate obligation to Florida. Furthermore, Georgia argued that Florida lacked standing because Florida had no legally protectable interest.95

The district court denied Florida's motion to intervene, reasoning that Florida had no legal interest in the dispute between Georgia and the Corps and that disposition of the case would not prevent Florida from protecting its interests because the ACF Compact would not be affected, and Florida could still file an equitable-apportionment suit in the United

^{90.} Id. at 1247-48.

^{91.} Id. at 1248.

^{92.} Id.

^{93.} Id.

^{94.} Id.

^{95.} Id.

States Supreme Court. 96 The court of appeals reviewed the denial of the motion to intervene de novo. 97

The first issue addressed by the court of appeals was whether Florida had an interest in the subject matter of the lawsuit. Florida asserted that it had a direct interest in the subject matter of the lawsuit because if Georgia received the relief it was seeking (withdrawing more water from Lake Lanier for the city of Atlanta), then Florida would be directly and adversely impacted. Florida claimed that Georgia's proposed withdrawal plans would decrease the amount of water Florida receives and would increase the amount of wastewater discharge in the river system, thereby threatening Florida's endangered species and harming the stock of seafood and fish in the Apalachicola Bay. 99

Florida also argued that before the Corps could grant Georgia's request, it would have to prepare an environmental impact statement to make sure that its actions would not harm endangered or threatened species in Florida. 100 Florida claimed that Georgia wanted the Corps to act without regard to the Endangered Species Act ("ESA")101 or the National Environmental Policy Act ("NEPA"). 102 In its final argument concerning its interest in the subject matter of the suit, Florida maintained that Georgia's request to the Corps directly conflicted with the purpose of the ACF Compact and the intent of all three parties to that agreement. 103 The purpose of the ACF Compact was to develop an allocation formula for equitably apportioning the waters in the ACF Basin, while at the same time protecting the environment as provided in the Clean Water Act, ESA, and NEPA.¹⁰⁴ Because Florida was a party to the ACF Compact and because the ACF Compact concerned the same subject matter as Georgia's litigation, Florida argued that it had a direct, substantial interest in the litigation. 105

Georgia contended that the outcome of the litigation would "not affect Georgia's obligation to deliver to Florida its equitable share of wa-

^{96.} Id.

^{97.} Id. at 1249.

^{98.} Id. at 1250.

^{99.} *Id.* In addition to supplying ninety percent of Florida's oysters, the Apalachicola Bay is a spawning ground for the Gulf Sturgeon, an endangered species, and the Gulf Striped Bass, which is a threatened species. *Id.* at 1250 n.6.

^{100.} Id.

^{101. 16} U.S.C. § 1531 (1999).

^{102. 42} U.S.C. § 4321 (1989).

^{103.} Georgia, 302 F.3d at 1251.

^{104.} O.C.G.A. § 12-10-100, art. VII (2001).

^{105.} Georgia, 302 F.3d at 1251.

ter."106 The court concluded that, regardless of Florida's involvement in the ACF Compact, the State had a protectable interest in the quality and quantity of water entering the Apalachicola Bay. 107 The court determined that, although the remedy sought by Georgia involved actions that would occur entirely within its borders. "it will have a practical effect upon water flowing in the Chattahoochee River, water that is part of the ACF basin and to which Florida has a right." The court distinguished withdrawing water for purposes of hydroelectricity and withdrawing water for municipal and industrial purposes, recognizing that water used to generate hydroelectricity goes right back into the river, while water used for municipal or industrial purposes is either not returned to the river or is returned as wastewater. 109 The court held that Florida had an interest in the subject matter of the lawsuit. confirming that a state has a "right to an equitable apportionment of water flowing through an interstate stream located within its borders."110

The court then turned to the issue of whether the litigation affected Florida's ability to protect its interests. 111 Georgia argued that even if Florida had an interest in the lawsuit, it could protect its interest through other means, such as through the ACF Compact or filing an original action in the United States Supreme Court. Georgia also maintained that its lawsuit did not interfere with the ACF Compact. 112 The court began its analysis of this issue by noting that Article VII of the ACF Compact provided that the parties to the Compact could reasonably increase withdrawals to satisfy increases in demand between the time the ACF Compact was signed and the time a water allocation formula was developed. 113 However, the court was unsure of the impact a long-term contract between Georgia and the Corps would have on the ACF Compact negotiations. 114 The court also determined that if the Compact deadline continued to be extended, as it had been, and Georgia was allowed to take more water out of Lake Lanier during the extensions, then Florida would have no way to protect its interests during the impasse.115

^{106.} Id.

^{107.} Id. at 1252.

^{108.} Id. at 1251.

^{109.} Id. at 1251-52.

^{110.} Id. at 1252.

^{111.} Id. at 1253.

^{112.} Id.

^{113.} Id.

^{114.} Id.

^{115.} Id.

The court then looked at the possibility of Florida's bringing an action in the United States Supreme Court. 116 Florida conceded that it could bring an action, but it argued that "the Court would almost certainly decline to exercise its jurisdiction over a matter that is presently being negotiated pursuant to a Compact created to achieve that same purpose." Florida also contended that because "an equitable apportionment action weighs the competing equities existing at the time the case is brought," the Supreme Court would not re-adjudicate an equitable-apportionment action already litigated by the district court. 119 The court sided with Florida, recognizing that the Supreme Court has never decided an equitable-apportionment case while an interstate compact was being negotiated. 120 The court also reasoned that if Georgia were given the additional water, the Supreme Court would be less likely to disrupt Georgia's "established use." 121

Having held that Florida proved that the current litigation would impede Florida's ability to protect its interests, the court turned to the issue of whether the existing parties could protect Florida's interests. The court began its discussion of this issue by stating that, while Florida had the burden of proving that the existing parties could not adequately represent its interests, that burden was minimal. The court held that the Corps did not represent Florida's interests because the Corps had "no stake in how much water reaches the Apalachicola." Based on its determinations, the court of appeals reversed the district court's denial of Florida's motion to intervene and remanded the case for further proceedings.

In December of 2000, SeFPC sued the Corps in the United States District Court for the District of Columbia. SeFPC argued that the

^{116.} Id. at 1254.

^{117.} Id.

^{118.} Id.

^{119.} Id.

^{120.} Id.

^{121.} Id. at 1255.

^{122.} Id.

^{123.} Id.

^{124.} Id. at 1256.

^{125.} Id. at 1260. The court also concluded that allowing Florida to intervene would not destroy the district court's jurisdiction because Georgia and Florida were not seeking relief from each other. Id. at 1256. Instead, they wanted the Corps to act in opposite ways. Id. The court reasoned that "although Florida technically will be a defendant and Georgia a plaintiff, Georgia does not seek redress for any harm caused by Florida, and Florida will not be subjected directly to any ruling of the district court." Id.

^{126.} Memorandum & Order, Southern Fed. Power Customers, Inc. v. Luis Caldera, Secretary of the U.S. Dep't of the Army (D. D.C. filed Feb. 10, 2004) (C.A. 00-2975 (TPJ))

diminished flow of water from the Buford Dam reduced the amount of hydropower that was generated, which forced SeFPC's members to buy electrical power elsewhere at a higher price.¹²⁷ In March of 2001, the court ordered the parties to mediate the dispute.¹²⁸

D. The Conservation Coalition

In addition to the ACF Basin Commission, an organization called the Upper Chattahoochee Riverkeeper ("Riverkeeper") began efforts to promote a resolution to the conflict. Riverkeeper played a key role in ensuring that the language in the ACF Compact protected the water quality, biodiversity, and ecology of the ACF River Basin. Riverkeeper's goal is to keep environmental concerns at the forefront of the negotiations between the three states and the federal government. Riverkeeper formed the Tristate Conservation Coalition ("Coalition") to foster better cooperation and coordination among the non-governmental conservation organizations" in the ACF Basin. The Coalition hopes to protect the ACF Basin "through the promotion of adequate instream flow regimes, monitoring programs, water conservation, and adaptive management." The Coalition plans to achieve its goals by:

[a]nalyzing technical issues associated with water allocation proposals, including the modeling components of the states' proposals, [d]eveloping policy positions on relevant aspects of the allocation process, [d]rafting comment letters on proposals, environmental impact statements, allocation proposals, etc., [e]mploying legal strategies aimed at protecting water quality, biodiversity, and recreation, [c]ompiling and distributing regular updates on the status of the negotiations and any associated issues, [c]onducting Coalition workshops designed to discuss, refine, and implement strategic approaches to advocacy in the Basins, [and] [s]erving as a primary point of contact on ACF . . . issues for the media and other interested parties. ¹³⁴

[[]hereinafter Southern Federal Memorandum & Order].

^{127.} Id. at 5.

^{128.} Id. at 6.

^{129.} Tristate Water Issues: "Water Wars" Status, History, Riverkeeper Spearheads Tristate Conservation Coalition, available at http://www.chattahoochee.org/TriState/background.shtml#bkgd%20&%20history (Spring 1999).

^{130.} Id.

^{131.} Id.

^{132.} Id.

^{133.} Tristate Water Issues: Conservation Coalition, available at http://www.chattahoo.chee.org/TriState/coalition.shtml.

^{134.} *Id*.

The Coalition has the ability to influence and inform the public, thereby putting more pressure on the governments of Georgia, Florida, and Alabama to resolve present and future conflicts.

On August 12, 1999, Matt Kales, a Coalition representative, spoke to the ACF Committee on behalf of the Coalition. Kales made it clear to the Committee that he—along with the "thousands of anglers, paddlers, lake association members, and river conservationists" that he represented—was concerned that the environmental interests surrounding the dispute were not being given adequate attention during the negotiation process. Kales stated that although "the states claim that they are negotiating in the best interests of their constituents, the profound lack of substantive dialogue about ecological aspects of the allocations reveals that the states are, in fact, not representing the full scope of stakeholder concerns." 137

Kales then conceded that the ACF Basin is needed to support communities and industries, but he argued that the environmental value of the river system should not be sacrificed "simply to perpetuate rampant urbanization and short term economic gain." Kales went on to set forth a plan by which the ACF Basin could be managed for both humans and the environment. The Coalition's management plan consisted of:

[c]onsumptive demand specification combined with reservoir operations that minimize departures from the low range of the natural flow regime . . . [p]hased implementation of the allocation formula, which will give the states the flexibility they need to respond to demographic or climatic changes in the system . . . [d]rought management planning that includes aggressive water conservation measures . . . [and] [c]omprehensive monitoring aimed both at gauging the response of the system to the allocation formula and verifying that the states comply with the formula. 139

Kales concluded by arguing that any allocation formula developed by the ACF Commission must be based on more than just minimum flow requirements. Kales reasoned that if water allocation was solely based on minimum flow requirements, evaluating the allocation

^{135.} Coalition Comments to the ACF Negotiating Committee Montgomery, AL, available at http://www.chattahoochee.org/TriState/coalition.shtml (Aug. 12, 1999).

^{136.} Id.

^{137.} Id.

^{138.} Id.

^{139.} Id.

^{140.} Id.

formula's impact on the environment would be difficult.¹⁴¹ Urging the ACF Committee to consider the future of the ACF Basin, Kales told the ACF Committee that "the states have the opportunity to leave a healthy ecological legacy for future generations in [the] Basin, one that proves we have the foresight and vision to manage these rivers for something more than the mere conveyance of wastewater." Kales's speech is a prime example of the balancing effect organizations such as the Coalition can have on the process of settling water disputes. While millions of dollars are at stake, along with the growth and urbanization of Georgia, Florida, and Alabama, the Committee needs to be reminded of the environmental stakes.

In April of 2003, the Coalition released a document that contained three concepts the Coalition believed should be included in the allocation formula for the ACF Basin. The first concept was instream-flow protection. Essentially, instream-flow protection means that the rivers should contain enough water to support human and aquatic life, recreational use, and waste discharge. This can be accomplished by imitating the natural flow of the river as much as possible, maintaining minimum flows that are directly related to fluctuating conditions such as rainfall, limiting the amount of water withdrawal a certain section of the river can sustain, and implementing a "scientifically and legally meaningful" definition of "reasonable use."

The second concept concerned public involvement in the allocation process. By being involved, the public will realize they have a stake in the decisions of the ACF Committee and will understand the reasoning behind the water allocation plan. Looking to the broader goal of getting citizens involved at the local level, the Coalition believes that public involvement in the ACF River System dispute would induce citizens to reduce water use and discharge. Suggestions for increasing public involvement include providing open meetings in which citizens can be informed of the options each state is considering, a website that allows citizens to monitor data, and "[o]pportunities for

^{141.} Id.

^{142.} Id.

^{143.} Tristate Coalition Concept Document, available at http://www.chattahoochee.org/TriState/coalition.shtml (April 2003).

^{144.} Id.

^{145.} Id.

^{146.} Id.

^{147.} Id.

^{148.} Id.

public input into the U.S. Army Corps of Engineers Water Control Plans." 149

Finally, the Coalition's concept document contains plans for adaptive management. Because of changes in the climate, population, and land surrounding the ACF Basin, the Coalition advocates an adaptive approach that allows the ACF Committee to react to changes in the above-mentioned conditions. "Specifically, adaptive management is needed to respond to developments in the [s]tate's instream flow policies . . . determine the effectiveness of reservoir operations, and examine the feasibility of additional water allocation for various human demands in the Basin." To make adaptive management a reality, the Coalition stated that an allocation formula should provide for monitoring of flow rates, periodic and public reviews of the allocation process by the Scientific Advisory Council, a database shared by all three states, and mechanisms that monitor each state's compliance with the ACF Compact. 152

III. WATER RIGHTS DISPUTES CASE LAW

Because the dispute over the ACF River System likely will reach the United States Supreme Court, examining past water-rights cases decided by the Court is advantageous. Judicial apportionment was first used to solve a water rights dispute in 1907 in a suit by Kansas against Colorado over the Arkansas River. Kansas sued Colorado, claiming that the large amount of water Colorado was withdrawing from the Arkansas River for irrigation was harming the state of Kansas.

The issue was whether Kansas had a right to the continuous flow of the Arkansas River as it existed before humans interfered with its flow, or whether Colorado had a right to appropriate the waters of the Arkansas River in a way that diminished the continuous flow of the river. The Court posed the question of whether Colorado, in the absence of the absolute right to appropriate the waters, was infringing on the rights of Kansas in such a manner that required judicial intervention. Colorado argued that the only way for it to irrigate its arid land to make it more valuable was to use as much water as it

^{149.} Id.

^{150.} Id.

^{151.} Id.

^{152.} Id.

^{153.} Kansas v. Colorado, 206 U.S. 46 (1907).

^{154.} Id. at 85.

^{155.} Id.

^{156.} Id.

needed from the Arkansas River. The problem with Colorado's extreme position was that if Colorado could use unlimited amounts of water for irrigation to improve its land along the river, the lands along the river in Kansas would become less arable. 157

Kansas took the opposite, extreme position, arguing that it had a right to a natural flow of the river, with no portion of the river to be appropriated in Colorado for the purpose of irrigation. The Court disapproved of this argument, stating that if Colorado could not use any of the river's water for irrigation the result would be the perpetuation of "a desert condition in Colorado beyond the power of reclamation." The Court noted that, "[i]f the two States were absolutely independent nations it would be settled by treaty or by force. Neither of these ways being practicable, it must be settled by decision of this [C]ourt." 160

The task facing the Court was "to secure as far as possible to Colorado the benefits of irrigation without depriving Kansas of the like beneficial effects of a flowing stream." Instead of looking solely at the amount of water Colorado was withdrawing from the Arkansas River, the Court considered the effects of such water appropriation on Kansas. By balancing the usefulness of the appropriated water to Colorado with the detrimental effects of Colorado's water withdrawal on Kansas, the Court was able to determine whether Colorado's actions were reasonable. 163

The Court dismissed the idea of banning the diversion of any water from the Arkansas River, reasoning that "the result would be that the waters, except for the meager amount required for domestic purposes, would flow through eastern Colorado and Kansas and be of comparatively little advantage to either State, and both would lose the great benefit which comes from the use of the water for irrigation." To balance the benefit to Colorado against the harm to Kansas, the Court examined a large amount of conflicting scientific testimony and data, including the crop production over the past fifteen years in the counties near the Arkansas River, population growth or decline in such counties, and the changes in the rate and volume of water moving through Kansas. 165

^{157.} Id. at 98.

^{158.} Id.

^{159.} Id.

^{160.} *Id*.

^{161.} Id. at 100.

^{162.} Id. Although navigability of the river was not an issue in this case, the Court indicated that this would be a key factor in cases when it was an issue because interstate commerce would be involved.

^{163.} Id. at 100-01.

^{164.} Id. at 105.

^{165.} Id. at 105-14.

Finally, the Court concluded that, although Colorado's withdrawal of water for the purposes of irrigation diminished the flow of water in Kansas, "the result of that appropriation has been the reclamation of large areas in Colorado, transforming thousands of acres into fertile fields and rendering possible their occupation and cultivation when otherwise they would have continued barren and unoccupied." The Court held that the benefit of the irrigation to both states outweighed the detriment to Kansas, although the Court noted that if the waters of the Arkansas River continued to be depleted, there would be a point at which the scales would tip in favor of Kansas. 167

Kansas v. Colorado 168 established how the Court would generally address water-rights disputes between states. 169 Although the disputed water was being withdrawn for irrigation purposes, the Court's reasoning applies to current uses of river water, such as hydroelectric power, sanitary and other domestic uses. Not only did the Court establish that it had the authority to settle such disputes, it explained that the principle of equitable apportionment would be used to settle future disputes. 170

In 1931 the doctrine of equitable apportionment, as opposed to the strict application of the common law rules of riparian rights, again was used by the Court in *New Jersey v. New York*, ¹⁷¹ a lawsuit involving similar facts to the current dispute over the Chattahoochee, Flint, and Apalachicola Rivers. New Jersey sued to enjoin New York from diverting water from the Delaware River or any of its tributaries. New York needed the diverted water to increase the water supply to New York City. ¹⁷² The Court began by noting that,

[a] river is more than an amenity, it is a treasure. It offers a necessity of life that must be rationed among those states who have power over it. New York has the physical power to cut off all the water within its jurisdiction. But clearly the exercise of such a power to the destruction of the interests of the lower States could not be tolerated. And on the other hand equally little could New Jersey be permitted to require New York to give up its power altogether in order that the River might come down to it undiminished.¹⁷³

^{166.} Id. at 117.

^{167.} Id. at 123-24.

^{168. 206} U.S. 46 (1907).

^{169.} Id. at 117-18.

^{170.} *Id.* at 117.

^{171. 283} U.S. 336 (1931).

^{172.} Id. at 341-42.

^{173.} Id. at 342.

Because of the unique nature of water and the crucial purpose it serves, the Court stated that neither state could have its way completely.¹⁷⁴ Acknowledging that water-rights regimes differ in different parts of the country, the Court asserted that its job was to "secure an equitable apportionment without quibbling over formulas."¹⁷⁵

New Jersey claimed that the diversion of the river by New York would interfere with the navigability of the Delaware, deprive riparian owners of the undiminished flow of the stream to which they were entitled by the common law of each state, affect the ability to generate power, and make the Delaware less sanitary. New Jersey also demonstrated that the diminished flow of water would "increase the salinity of the lower part of the River and of Delaware Bay to the injury of the oyster industry there," and could have a harmful effect on agriculture and recreation throughout the watershed. 177

Due to the large volume of evidence and scientific data, the Court appointed a Special Master to analyze the data and give the Court a report. The Special Master concluded that the navigable capacity of the Delaware was not an issue, and went on to find that the taking of 600 million gallons per day by New York would not "materially affect the River or its sanitary condition, or as a source of municipal water supply, or for industrial uses, or for agriculture, or for the fisheries for shad." The Special Master also mentioned that New Jersey's claim that the increased water withdrawal would harm its future power production was invalid because New Jersey had not started to build the dams to be used to create power. To be entitled to relief, New Jersey had to show a present interest. The Special Master did, however, find that New York's withdrawal had a more serious effect on recreation and the oyster industry.

Because the total effect of the withdrawal was "found to be greater than New Jersey ought to bear," the Special Master recommended that the damage to New Jersey could be mitigated by limiting New York's withdrawal to 440 million gallons per day, implementing an effective and efficient sewage treatment plan, releasing water from one of New

^{174.} Id. at 342-43.

^{175.} Id. at 343.

^{176.} Id.

^{177.} Id. at 343-44.

^{178.} Id. at 344-45.

^{179.} Id. at 345.

^{180.} Id.

^{181.} Id.

^{182.} Id.

York's reservoirs in the event the flow of the river dropped below a certain level, and granting New Jersey the right to inspect the dams, reservoirs, areas of diversion, and all records pertaining to the diverted flow in New York. Because this case concerned a water dispute in the East and the facts are very similar to the current dispute over the ACF River system, the Court undoubtedly would look to its 1931 decision for guidance if the dispute over the ACF system ever reached the United States Supreme Court.

The dispute over the Delaware River was not the only water dispute heard by the Court in 1931. In Connecticut v. Massachusetts, 184 the Court addressed a dispute over Massachusetts's use of the watershed of the Connecticut River. 185 Massachusetts proposed a plan in which water would be diverted from the watershed of the Connecticut River to provide water to the city of Boston and its suburbs. Connecticut sought to enjoin Massachusetts from diverting the water, contending that both states recognize the common law doctrine of riparian rights, which entitled each state to an undiminished flow free from contamination. 186 Connecticut argued that the proposed plan to divert water would reduce the "navigability of the stream, lessen productivity of river bottom lands by diminution of inundation during times of high water each year, diminish the power capable of development at King's Island, diminish the run of shad in the river and decrease its capacity to discharge and destroy sewage." 187

Massachusetts responded by asserting that the additional amount of water to be taken out was negligible, and that Massachusetts desperately needed the water to avoid "serious injury to the people of the Commonwealth." Massachusetts argued that the Court should balance the potential severe harm to the state if the proposed plan was prohibited with "the trivial damage possibly caused to Connecticut." Again, due to the large volume of evidence, the Court appointed a Special Master to evaluate the evidence and report to the Court.

After studying all of the data, the Special Master found that the Boston area was growing rapidly and would face a serious water shortage in the near future unless additional water could be diverted

^{183.} Id. at 345-47.

^{184. 282} U.S. 660 (1931).

^{185.} Id. at 662.

^{186.} Id.

^{187.} Id. at 664.

^{188.} Id. at 663

^{189.} Id.

^{190.} Id. at 664.

from the Connecticut River watershed.¹⁹¹ Massachusetts petitioned the Secretary of War for the authority to withdraw more water, and the Secretary granted the state's request, although it did limit the additional amount that could be withdrawn.¹⁹² Additionally, the Special Master concluded that the diversion of water would not interfere with navigation.¹⁹³ While the Special Master found that the diversion would result in some areas of farmland not receiving water, he stated that the damage to the farmland was "not shown to be of serious magnitude; and, far from being established by clear and convincing evidence it is not shown by evidence making it possible of computation or proving that it is large."¹⁹⁴

The Special Master then turned to Connecticut's claim that the diversion of water would reduce the amount of power that could be produced at King's Island. ¹⁹⁵ At the time of the suit, 4000 horsepower was being produced at King's Island. The owner of King's Island had been authorized to build a larger dam to produce 50,000 horsepower, but no evidence existed that the company had decided to do so or had raised any money for such a project. Therefore, the Special Master analyzed the effect of a diversion on the present use of the water for power generation and concluded that the present use would not be disturbed by the additional withdrawal. ¹⁹⁶ Finally, the Special Master stated there was no merit to Connecticut's claims that the diversion would harm the shad run or increase the pollution in the river. ¹⁹⁷

The Court expressed its hesitancy to settle disputes between states, stating that, "unless the threatened invasion of rights is of serious magnitude and established by clear and convincing evidence," the Court would not exert its power over the states. Based on the Special Master's report, the Court concluded that Connecticut had not supported its claims with clear and convincing evidence, adding that the "burden on Connecticut to sustain the allegations on which it seeks to prevent Massachusetts from making the proposed diversions is much greater than that generally required to be borne by one seeking an injunction in a suit between private parties." The Court concluded by emphasizing that a mere possibility of damage from the diversion is not enough

^{191.} Id. at 664-65.

^{192.} Id.

^{193.} Id. at 666.

^{194.} Id. at 666-67.

^{195.} Id. at 667.

^{196.} Id.

^{197.} Id.

^{198.} Id. at 669.

^{199.} Id.

for an injunction to be issued. Because no evidence existed of any present, real or substantial, injury from the diversion, the Court dismissed Connecticut's suit without prejudice. Even though New $Jersey\ v.\ New\ York^{202}$ and $Connecticut\ v.\ Massachusetts^{203}$ involved eastern states that followed the riparian-rights doctrine, the Court's "allocation of water for future uses rested on the federal common law of equitable apportionment."

In Nebraska v. Wyoming, 205 decided in 1945, the Court elaborated on how and why the doctrine of equitable apportionment would be used to settle disputes between states that used the rule of priority of appropriation. 206 The disputed water system in that case was the North Platte River. Nebraska claimed that Wyoming was diverting too much water, which was resulting in a reduction in the amount of water Nebraska could use for irrigation purposes. 207 Not only did the Court consider the present uses of the water in Nebraska, it also factored in projected additional uses when equitably apportioning the water. 208

While the Court acknowledged that priority of appropriation would be the guiding principle in a water dispute between two states governed by the priority system, it listed a number of factors that would also be taken into consideration, including:

physical and climatic conditions, the consumptive use of water in the several sections of the river, the character and rate of return flows, the extent of established uses, the availability of storage water, the practical effect of wasteful uses on downstream areas, [and] the damage to upstream areas as compared to the benefits to downstream areas if a limitation is imposed on the former.²⁰⁹

The Court then noted that the list was not exhaustive and that the process of equitable apportionment required a "delicate adjustment of interests." The Court did not apportion the storage water in each state, although it did take into account the amount of each state's

^{200.} Id. at 673.

^{201.} Id. at 674.

^{202. 283} U.S. 336 (1931).

^{203. 282} U.S. 660 (1931).

^{204.} Colorado v. New Mexico, 459 U.S. 176, 187 (1982).

^{205. 325} U.S. 589 (1945).

^{206.} Id. at 618.

^{207.} Id. at 591-92.

^{208.} Id. at 610.

^{209.} Id. at 618.

^{210.} Id.

storage water when equitably apportioning the water of the North Platte. 211

In a more recent case, Colorado v. New Mexico,²¹² the Court examined the doctrine of equitable apportionment and the various factors relevant to a just apportionment of the water.²¹³ New Mexico had fully appropriated the waters of the Vermejo River, a small, non-navigable river, while Colorado wanted to divert some of the water for future use. Colorado argued that the doctrine of equitable apportionment applied. A Court-appointed Special Master recommended that Colorado be apportioned a certain amount of water each year, and New Mexico took several exceptions to the Special Master's report.²¹⁴

While a strict application of the doctrine of prior appropriations would not allow Colorado any diversion because New Mexico needed the entire water supply to meet its needs, and its requirements were senior to those of Colorado, the Special Master applied the doctrine of equitable apportionment and concluded that "the injury to New Mexico, if any, [would] be more than offset by the benefit to Colorado."215 In addition to applying a balancing test, the Special Master pointed out that New Mexico could compensate for the water diverted by Colorado through water conservation.²¹⁶ Stating that the doctrine of equitable apportionment had evolved throughout its prior cases, the Court agreed that the doctrine of equitable apportionment should be used in the place of the rule of priority.217 However, the Court did not believe enough information existed in the Special Master's report to determine whether the Special Master's application of the doctrine of equitable apportionment was correct.²¹⁸ Therefore, the Court remanded the case to the Special Master with instructions to make additional findings of fact. 219

Reaffirming the significance of applying the doctrine of equitable apportionment, the Court emphasized that "[i]t is a flexible doctrine which calls for 'the exercise of an informed judgment on a consideration of many factors' to secure a 'just and equitable' allocation." In addition to balancing the benefits to the downstream state of restricting water use against the harm to the upstream state, the Court took into

^{211.} Id. at 639-40.

^{212. 459} U.S. 176 (1982).

^{213.} *Id.* at 187-90.

^{214.} Id. at 177-78.

^{215.} Id. at 180.

^{216.} Id. at 186.

^{217.} Id. at 182-83.

^{218.} Id. at 183.

^{219.} Id.

^{220.} Id. (citing Nebraska v. Wyoming, 325 U.S. 589, 618 (1945)).

consideration the environment of the land in the river drainage area, the amount of water being returned to the river by each state, the amount of storage water in each state, and the manner in which each state was using the water.²²¹ The Court acknowledged that the relevant laws of each state would be considered, especially when both Colorado and New Mexico recognized the doctrine of prior appropriation; however, it added that state law was not controlling and that the Court would consider other facts.²²²

The Court then elaborated on the doctrine of equitable apportionment, noting that the doctrine causes states to reasonably conserve the water supply of an interstate stream.²²³ While priority was an important consideration, the Court also asked the Special Master to conduct additional fact-finding concerning the following five areas:

- (1) the existing uses of water from the Vermejo River, and the extent to which present levels of use reflect current or historical water shortages or the failure of existing users to develop their uses diligently;
- (2) the available supply of water from the Vermejo River, accounting for factors such as variations in streamflow, the needs of current users for a continuous supply, the possibilities of equalizing and enhancing the water supply through water storage and conservation, and the availability of substitute sources of water to relieve the demand for water from the Vermejo River;
- (3) the extent to which reasonable conservation measures in both States might eliminate waste and inefficiency in the use of water from the Vermejo River;
- (4) the precise nature of the proposed interim and ultimate use in Colorado of water from the Vermejo River, and the benefits that would result from a diversion to Colorado;
- (5) the injury, if any, that New Mexico would likely suffer as a result of any such diversion, taking into account the extent to which reasonable conservation measures could offset the diversion.²²⁴

In his concurring opinion, Chief Justice Burger emphasized that while the Court would consider such factors as prior dependence on, or inefficient uses of, the water, both states would "come to the Court on equal footing." ²²⁵

^{221.} Id.

^{222.} Id. at 184.

^{223.} Id. at 185.

^{224.} Id. at 189-90.

^{225.} Id. at 191 (Burger, C.J., concurring).

When determining whether the benefits of a diversion to Colorado substantially outweighed the harm to existing uses in New Mexico, the Court stressed that the doctrine of equitable apportionment must be flexible. 226 Because the potential benefits from a proposed diversion are speculative and sometimes remote, while "the protection of existing economies will usually be compelling,"227 and the "harm that may result from disrupting established uses is typically certain and immediate,"228 the Court reasoned that the state seeking the diversion must show by clear and convincing evidence that the benefits of the diversion substantially outweigh the harm.²²⁹ When considering whether Colorado had carried its burden of showing that the benefits of the river to Colorado substantially outweighed the harm to New Mexico. the Court stated that it also would consider whether New Mexico could "offset the diversion by reasonable conservation measures to prevent waste."230 Essentially, the Court was imposing a duty on one state to conserve water to facilitate the future water withdrawal by another state.231

Colorado v. New Mexico²³² was a significant case because it reinforced the Court's position that regardless of whether the water dispute was between eastern states or western states, the doctrine of equitable apportionment would be used to resolve the dispute.²³³ Furthermore, the Court elaborated on the factors it would consider in a thorough and descriptive manner.²³⁴ The Court devoted a great deal of attention to whether reasonable conservation measures by the existing users could offset the reduction in supply from the diversion and whether the benefits to the state seeking the diversion substantially outweigh the harm to the existing uses in the other state.²³⁵

Having explained the factors relevant to the determination of an equitable apportionment, the Court faced the task of explaining the

^{226.} Id. at 188.

^{227.} Id. at 187.

^{228.} Id.

^{229.} Id. at 187.

^{230.} Id. at 187-88. The Court noted that New Mexico bore the initial burden of showing that a diversion would substantially harm New Mexico's interests. Because New Mexico met its burden "since any diversion by Colorado, unless offset by New Mexico at its own expense, [would] necessarily reduce the amount of water available to New Mexico users," the burden shifted to Colorado to show that regardless of the harm to New Mexico, the doctrine of equitable apportionment would permit a diversion. Id. at 188.

^{231.} Id. at 187.

^{232. 459} U.S. 176 (1982).

^{233.} Id. at 190.

^{234.} Id.

^{235.} Id.

standard of proof in an equitable-apportionment action. The Court found an opportunity for such an explanation in an original action involving Colorado, New Mexico, and the Vermejo River.²³⁶ The facts of the litigation were the same as those giving rise to the 1982 litigation between Colorado and New Mexico. During its previous term, the Court remanded the 1982 case for additional factual findings, and in 1984 Colorado sought an equitable apportionment of the Vermejo River based on the Special Master's recommendation that Colorado be permitted to divert 4,000 acre-feet per year.²³⁷ New Mexico took exception to the Special Master's additional factual findings.²³⁸

The task before the Court was expounding the reasoning behind the standard of proof that would be used to judge the evidentiary material offered by Colorado.²³⁹ In the previous case involving the two states, the Court held that the evidence would be judged by a clear-andconvincing standard.240 Considering the "unique interests involved in water rights disputes between sovereigns,"241 the Court held that the clear-and-convincing evidence standard reflected the "Court's long-held view that a proposed diverter should bear most, though not all, of the risks of an erroneous decision: 'The harm that may result from disrupting established uses is typically certain and immediate, whereas the potential benefits from a proposed diversion may be speculative and remote.'"242 Additionally, the clear-and-convincing standard balances society's interest in stabilizing property rights with its interest in using resources in the most efficient manner. 243 Because New Mexico already had established use of the river, Colorado's proposed diversion would be allowed only if Colorado could prove, by clear-and-convincing evidence, that (1) New Mexico's use of the water was inefficient, and conservation measures by New Mexico could compensate for the reduction in supply due to the diversion, and (2) the benefits of the diversion would outweigh the harm to existing users.244

Because New Mexico proved, during the previous case, that a diversion would cause it injury, the burden shifted to Colorado to prove that

^{236.} Colorado v. New Mexico, 467 U.S. 310 (1984).

^{237.} Id. at 312.

^{238.} Id.

^{239.} Id. at 315.

^{240. 459} U.S. at 187-88.

^{241. 467} U.S. at 316.

^{242.} Id. (quoting Colorado v. New Mexico, 459 U.S. at 187).

^{243.} Id.

^{244.} Id. at 323-24.

reasonable conservation measures existed.²⁴⁵ Colorado attempted to use the Special Master's findings to prove that New Mexico could take steps to conserve more water, while New Mexico submitted evidence of specific, considerable steps the state had taken to make future water use more efficient.²⁴⁶ The Court mentioned that New Mexico's use of water could be more efficient; however, the Court emphasized that Colorado had not identified any methods of reducing inefficiency that were financially or physically reasonable.²⁴⁷ Rather than mere assertions, a state must use specific evidence and hard facts to demonstrate how existing uses might be improved.²⁴⁸

The Court then briefly discussed the fact that Colorado had not provided any evidence to show that Colorado had begun to take steps to minimize the amount of water that needed to be diverted.²⁴⁹ While the Court agreed with Colorado that absolute precision in predicting the benefits and harms of a diversion would be unrealistic, the Court stressed the requirement "that a [s]tate proposing a diversion conceive and implement some type of long-range planning and analysis of the diversion it proposes." Such planning would reduce the uncertainties surrounding equitable apportionment.²⁵¹

With only "generalizations about unidentified conservation measures and unstudied speculation about future uses," Colorado was unable to meet its burden of proof.²⁵² The clear-and-convincing evidence standard called for Colorado, not New Mexico, to "bear the risk of error from the inadequacy of the information available." Accordingly, the Court sustained New Mexico's exceptions to the Special Master's report and dismissed the case.²⁵⁴

^{245.} Id. at 321. To prove harm, New Mexico hired independent economists to study the direct and indirect effects a diversion would have on the state. Although the Court noted that these predictions were just as speculative as Colorado's generalizations, the Court found that such an effort was an example of "concrete steps towards addressing the query" posed by the Court. Id. at 322.

^{246.} Id. at 319.

^{247.} Id. at 320.

^{248.} Id.

^{249.} Id.

^{250.} Id. at 322.

^{251.} Id.

^{252.} Id. at 324.

^{253.} *Id.* at 323. In a dissenting opinion, Justice Stevens argued that the Special Master's factual findings did provide adequate information and that it was not the Special Master's job "to draw up blueprints for New Mexico to eliminate its waste." *Id.* at 339. 254. *Id.* at 324.

IV. CURRENT STATE OF THE CONFLICT

At the beginning of September 2003, after five years of negotiations and pushing back deadlines, Florida broke the Compact with Georgia and Alabama and decided to let the federal courts, rather than mediators provided for in the Compact, settle the ACF Basin dispute. Ironically, in 2002, Florida claimed Georgia broke the Compact by trying to withdraw more water without consulting Florida or Alabama. David Struhs, Secretary of the Florida Department of Environmental Protection, said, I believe that over time, with the impartial oversight of our highest court, we will be able to better protect our river and bay than to compromise further. Struhs went on to say, In the end, Florida was unable to accept only minimum flows, plus whatever else the upstream states were not able to consume or store. This would place too great a risk on one of the most naturally productive rivers and bays in the United States.

That Florida was the first state to back out of the ACF Compact is really no surprise. Florida is downstream from both Georgia and Alabama and receives polluted discharge and runoff from both upstream states. With its lucrative oyster industry totally dependent on the nutrient content of the Apalachicola Bay, Florida stands to lose a valuable resource if Georgia is given free reign over how much water it takes out of the Chattahoochee and Flint Rivers. Nevertheless, a few more months of negotiations that could have resulted in a workable agreement are now being replaced with an expensive, lengthy court battle. On October 15, 2003, United States District Judge Karon Bowdre of the Northern District of Alabama issued an injunction, preventing Georgia and the United States Army Corps of Engineers from entering into any new storage or withdrawal contracts affecting the ACF Basin. 259

The mediation of the District of Columbia case concluded in January 2003, ultimately producing a proposed settlement agreement, which would adjust and formalize the relationship between the Corps and those who use the water in Lake Lanier. Two weeks later, Alabama and

^{255.} Florida to Take Georgia, Alabama to Court Over Water Rights, available at http://miami.com/mld/miamiherald/news/state/6668709.htm?template=contentModules/printstory.jsp (posted Sept. 01, 2003).

^{256.} Id.

^{257.} Id.

^{258.} Id.

^{259.} Order, Alabama v. U.S. Army Corps of Engineers (N.D. Ala. E. Div. filed Oct. 15, 2003) (No. CV 90-BE-1331-E).

Florida, who knew of, but did not participate in, the two-year mediation, intervened and expressed their opposition to the settlement. On February 10, 2004, Judge Thomas Jackson approved the settlement agreement, with the proviso that it would not be implemented until the dissolution of the injunction entered by Judge Bowdre. Judge Jackson noted that the settlement would not end the controversy over the waters of the Chattahoochee or the related federal litigation in the Northern District of Georgia and the Northern District of Alabama. Turning to the issue of jurisdiction, Judge Jackson emphasized that the purpose of the settlement was not to apportion water rights of an interstate river between sovereign states. Such an issue was not within the court's jurisdiction.

Florida and Alabama could file suit in the United States Supreme Court, which has original jurisdiction. If the Court decides to hear the case, the first step in the analysis will be determining whether Florida and Alabama have proven injury by clear-and-convincing evidence.²⁶⁴ If Florida and Alabama carry this burden, the Court will then determine the appropriate remedy using a balancing test.²⁶⁵ Economic interests will be balanced against environmental and social interests, and the Court will consider the relative hardships of each party.²⁶⁶ Due to the relatively small amount of case law dealing with interstate water disputes among eastern states, the United States Supreme Court undoubtedly will look to its previous cases concerning interstate water disputes for guidance.

Based on the Court's prior handling of water disputes, it probably will use the doctrine of equitable apportionment to settle the dispute. Under this doctrine, the rights of the states will be balanced against each other to determine how much water each state is entitled to receive and use. ²⁶⁷ As in the case of Kansas v. Colorado, ²⁶⁸ the Court may determine that the benefit of the Chattahoochee to the millions of people in the Atlanta area far outweighs the harm to Florida and Alabama. This determination will depend in part on the alternative water sources that are available to Georgia, as well as the economic impact of restricting Georgia's withdrawals. Florida will argue that its oyster industry is in

^{260.} Southern Federal Memorandum & Order at 16.

^{261.} Id. at 16.

^{262.} Id. at 15-16.

^{263.} Id. at 1-2.

^{264.} See generally Colorado v. New Mexico, 459 U.S. 176 (1982).

^{265.} Id.

^{266.} Id.

^{267.} Id.

^{268. 206} U.S. 46 (1907).

jeopardy. Although considering the money generated by Lake Lanier, urban development in North Georgia, and agriculture, Georgia has a persuasive argument that it stands to lose much more than Florida, at least economically, if a certain amount of water cannot be maintained in Lake Lanier. The creation of the Georgia Water Resources Council and other conservation efforts will benefit Georgia's position if the dispute gets as far as the Supreme Court. Any conservation efforts by Georgia clearly will aid in tipping the scales in Georgia's favor.

Florida also may argue that increased withdrawals would violate federal laws, such as the Endangered Species Act²⁶⁹ and the Clean Water Act.²⁷⁰ Georgia's best response to this argument would be that federal law trumps any interstate water agreement; therefore, Florida would receive plenty of water in amounts and quality necessary to meet federal guidelines, regardless of the provisions in a water-withdrawal agreement.

When examining prior cases, the Court probably will focus on New Jersey v. New York²⁷¹ and Connecticut v. Massachusetts²⁷² because these two cases involving eastern states are factually similar to the current dispute. While the facts are comparable, these cases were decided in 1931, and since then, significant scientific developments have occurred. These developments are noteworthy when reading the older cases because in 1931 the findings of the Special Master could not have been as accurate as current scientific studies. Accordingly, the burden on Florida and Alabama to prove harm from Georgia's water withdrawal should be easier to shoulder. Future harm will appear more definite if Florida and Alabama can provide the Special Master with reliable, scientific data that shows a pattern of harm resulting from increased water withdrawal.

Regardless of the advances in science, the Court's decisions concerning the two cases between Colorado and New Mexico indicate that proving future harm by clear-and-convincing evidence will be a daunting task, as will providing evidence of reasonable conservation measures that can compensate Georgia for any limitation of its withdrawals. Florida also could have difficulty attributing harm to its oyster industry to Georgia's increased water withdrawals, rather than to natural conditions, such as drought. The number of people in North Georgia that are supported by

^{269. 16} U.S.C. § 1531 (1999).

^{270. 33} U.S.C. § 1251-1387 (2000).

^{271. 283} U.S. 336 (1931).

^{272. 282} U.S. 660 (1931).

the Chattahoochee is expected to double within the next few years, ²⁷³ so Florida and Alabama will need to provide strong, convincing evidence of harm to offset the huge benefit which the Chattahoochee provides to the Atlanta area. Florida probably will have to produce data showing the specific correlation between a certain decrease in the level and quality of the water entering the Apalachicola Bay and a decrease in oyster productivity. While current technology can be beneficial when calculating a change in the probability of harm, determining specific injury due solely to increased water withdrawals remains much more speculative. If Florida does carry its burden of proof, then the Court likely will examine the five factors set forth in the 1982 case involving Colorado and New Mexico when equitably apportioning the water.

Conversely, Georgia should be prepared to show that the state has begun conservation programs and plans for locating alternative sources of water. In Nebraska v. Wyoming, 274 the Court did consider future uses when equitably apportioning the water, and has done so ever since. Like Georgia, Florida may be required to prove that it also will use the water in an efficient manner. Recently, Georgia has begun to take measures to alert the public about water conservation. campaign partly is due to the prospect of millions of additional people moving to the Atlanta area over the next few decades, but the new court battle with Florida and Alabama is another reason for Georgia's current concern over water conservation. 275 State environmental regulators have estimated that over 1000 miles of rivers and streams do not meet Clean Water Act guidelines, due to overflowing sewers and runoff from streets, parking lots, and lawns.²⁷⁶ Because state officials have estimated that North Georgia's rivers and lakes will not be able to support Atlanta's growing population after 2030, the state is looking into the possibility of alternative water sources, such as other river basins.277 Desalinization, the process of converting saltwater into freshwater, has been discussed, although this process would be extremely expensive and is not a reasonable alternative for the near future. 278

Georgia also invested \$80,000 in a survey of 1000 state residents to determine the percentage of people that expressed concern over the

^{273.} Stacy Shelton, State Leaders Want Water Use Curbed, ATLANTA J. CONST. Nov. 10, 2003, at F2 [hereinafter Shelton, State Leaders].

^{274. 325} U.S. 589 (1945).

^{275.} Shelton, State Leaders, supra note 273, at F2.

^{276.} Id.

^{277.} Id.

^{278.} Id.

state's water supply and other natural resources.²⁷⁹ Water was the primary concern, followed by air pollution, landfills, and endangered species.²⁸⁰ Interestingly, one-third of the people surveyed claimed that they did not conserve water because "they don't get feedback on whether their efforts are helping."²⁸¹ Also, fifty-five percent of those interviewed said that they would support state outdoor watering laws that only allow watering of lawns every other day, while ninety-one percent said that they would conserve water if they thought that their children's health was at risk.²⁸²

In addition to the survey, Governor Sonny Perdue recently signed an order creating a Georgia Water Resources Council, whose job is to ensure that state agencies, such as the Department of Natural Resources and the Department of Agriculture, make water quantity and quality one of their top priorities. These steps taken by Georgia will make future and projected plans appear more definite to the Court and will become a large factor in the Court's equitable allocation of the water. Georgia should use information, such as that gained from the telephone survey and work of the Georgia Water Resources Council, to develop a water conservation program. Informing the public about current and future water shortages may help Georgia's case in court, but more importantly, it would help sustain the growth of North Georgia. Organizations such as the Upper Chattahoochee Riverkeeper also likely will continue to put pressure on the Georgia legislature to ensure that lawmakers have a thorough knowledge of all the issues involved.

If Florida demonstrates harm by clear-and-convincing evidence, what are some possible methods of resolving the conflict? Will the Court opt for a resolution of the conflict similar to that used to resolve the battle between New York and New Jersey? In other words, will the Court limit the amount of water taken out of the Chattahoochee, require Georgia to revamp its sewage treatment facilities, and allow Florida and Alabama to inspect Georgia's dams, reservoirs, and treatment facilities to ensure that Georgia is complying with the Court's order? Will the Court allow Georgia to continue to take large amounts of water from the Chattahoochee, but limit this amount in some manner and require water for future uses to be taken from other sources? Does Georgia have a greater duty than Florida or Alabama to implement conservation measures? Based

^{279.} Id.

^{280.} Id.

^{281.} Id.

^{282.} Id.

^{283.} Id.

on the complexity and sheer volume of data addressing these questions, the answers may not be so straightforward.

One of the reasons the battle for water from the ACF Basin is so intriguing is that there are many different rights involved with the subject matter of the dispute. These rights are related to navigability of the interstate waterway, federal control of Lake Lanier, environmental laws, and servitude to downstream states, which is the only issue being litigated. Apportionment of water is an inchoate right, derived from common law, and has yet to be quantified. Georgia seeks the flexibility and security of a long-term withdrawal program, while Florida and Alabama wish to constrain the amount of water allocated for future use in Georgia. Regardless of the outcome of this dispute, if it ever reaches the United States Supreme Court, it will be a significant decision because eastern interstate-water disputes are going to become more prevalent as the population continues to grow along the East Coast. The ultimate reasoning of the Court concerning the ACF Basin dispute likely would assist other eastern states in learning how to avoid such a problem in the future.

C. HANSELL WATT, IV

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