

THE CANARY IN THE COAL MINE: THE APALACHICOLA-
CHATTAHOOCHEE-FLINT RIVER BASIN DISPUTE AND THE
NEED FOR COMPREHENSIVE INTERSTATE WATER
ALLOCATION REFORM

INTRODUCTION203

I. CURRENT METHODS FOR INTERSTATE ALLOCATION OF WATER

RESOURCES205

Congressional Apportionment205

Equitable Apportionment Litigation206

Water Compacts.....208

II. WHY THE PROBLEM IS MORE URGENT THAN IT APPEARS210

III. THE CANARY IN THE COAL MINE211

About the ACF River System.....212

Water Wars: Litigation over the ACF.....213

Water Wars Part II: Failed Attempts at a Negotiated Solution.....214

The ACF Dispute: Lessons Learned215

IV. PROPOSAL FOR FUTURE ACTION216

Agency Management and a Mechanism for Tie-Breaking.....217

Managing Groundwater and Surface Waters Together.....217

Conservation Measures218

CONCLUSION.....218

INTRODUCTION

Water is perhaps our most precious, and necessary, resource. It is essential to our survival, but also to our economic and material well-being. As Justice Holmes aptly put it, “[a] river is more than an amenity, it is a treasure.”¹ Perhaps more than any other resource, it is subject to competing demands from agriculture and aquaculture, municipal and domestic use, commerce and industry of virtually every kind, navigation, power generation, recreation, and the environment. Current water-management policies manage these competing demands poorly; this is particularly true where waters, and the uses demanding them, cross state lines.² The patchwork of interstate water allocations, with few exceptions, provides

1. New Jersey v. New York, 283 U.S. 336, 342 (1931).
2. See *infra* Part I.

little assurance that current apportionments will survive a change of circumstances or that states will promote conservation of their shared waters for their mutual benefit.³ The weaknesses of the interstate water allocation patchwork have, until recently, been overcome by the ability of states and municipalities to move water from areas of low demand to areas of high demand, or alternatively, to pump groundwater to meet local needs.⁴ But these are not permanent solutions.⁵ With easily accessible waters becoming fully appropriated and groundwater supplies diminishing, the time will soon come when more aggressive conservation measures are necessary and when interstate disputes will grow more common and more acrimonious.⁶ There is ample evidence of this happening today.⁷ But states, faced with increasingly difficult water scarcity issues, often have difficulty overcoming the political hurdles to negotiate water compacts with their neighbors, and when they do, they rarely implement strong agency control of their shared resources that would allow for adaptation to future circumstances without litigation.⁸ To overcome these hurdles and to promote effective water-management and conservation policies, Congress should implement a “carrot-and-stick” approach to incentivize states to reach negotiated solutions that are structured to avoid current and future litigation.⁹

This Note consists of four parts. Part I introduces the various legal mechanisms by which water is allocated among states and explains why their current application is inadequate to deal with current and future water scarcity issues. Part II moves beyond the discussion of the shortcomings of legal water allocation mechanisms to examine the unique nature of water as an interstate resource and the perversion of political incentives that conceal the need for substantial changes to state and federal level water-management policies. Part III examines the dispute over the waters of the Apalachicola–Chattahoochee–Flint (ACF) River Basin, which has inspired decades of litigation and negotiation but little progress or agreement. This dispute between some of the nation’s most well-watered states continues unresolved today and signals a need for comprehensive water allocation reform. Part IV calls for congressional creation of incentives to overcome the shortcomings in current market incentives in order to motivate states to

3. *See infra* Part I.

4. *See infra* Part II.

5. *See infra* Part II.

6. *See infra* Part II.

7. *See infra* Part II.

8. *See infra* Part I.

9. *See infra* Part IV.

negotiate water compacts and describes the specific policies that should be incentivized.

I. CURRENT METHODS FOR INTERSTATE ALLOCATION OF WATER RESOURCES

There are three primary ways by which waters are formally allocated among users in different states: congressional apportionment, equitable apportionment litigation in the Supreme Court, and by interstate water compacts negotiated among states and approved by Congress.¹⁰ Each has their strengths and weaknesses, but for the reasons described below, this Note concludes that water compacts negotiated by the states are the most promising option for resolution of current and future disputes over the waters shared by two or more states.

Congressional Apportionment

Congress's power to apportion water between two or more states, pursuant to its Commerce power, is undisputed.¹¹ Yet, it has done so only twice in its history, and on neither occasion was Congress's action an unambiguous exercise of its power to impose an apportionment on unwilling states. In the first instance, Congress apportioned the waters of the lower basin of the Colorado River among California, Arizona, and Nevada. But the 1928 Boulder Canyon Project Act that purportedly made the apportionment did so only implicitly, authorizing the states to negotiate a compact that would allocate specific amounts of water to each state.¹² Three and a half decades later, the Supreme Court read the Act to have created a "comprehensive scheme for the apportionment among California, Arizona, and Nevada of the Lower Basin's share of the mainstream waters of the Colorado River."¹³ In 1990, Congress made its second apportionment, this time, dividing the waters of Lake Tahoe and the Truckee and Carson Rivers between California and Nevada.¹⁴ But the terms of the apportionment had been negotiated by the states in the 1950s and 1960s.¹⁵ The two states generally followed the terms of their agreement

10. BARTON H. THOMPSON, JR. ET AL., *LEGAL CONTROL OF WATER RESOURCES* 892 (5th ed. 2013).

11. *See Arizona v. California*, 373 U.S. 546, 564–65 (1963) (apportioning waters between the states upon finding congressional intent to do so).

12. THOMPSON ET AL., *supra* note 10, at 893.

13. *Arizona v. California*, 373 U.S. 546, 565 (1963).

14. Fallon Paiute Shoshone Indian Tribes Water Rights Settlement Act of 1990, Pub. L. No. 101-618, § 204, 104 Stat. 3289, 3295–3304 (1990).

15. THOMPSON ET AL., *supra* note 10, at 894.

while waiting for Congress to approve their agreement, which was delayed due to concerns expressed by the Pyramid Lake Paiute Tribe.¹⁶

If the dearth of congressional action is by choice rather than by lack of political will, its reluctance to act in this area is understandable. Water disputes are generally local or regional affairs, rarely involving more than two or three states. As a result, it is primarily local and regional interests that are most affected by apportionment, and Congress, absent some significant federal interest, has little incentive to act and many political pitfalls to avoid if it were to try.

Equitable Apportionment Litigation

Interstate water disputes that are not resolved through direct apportionment by Congress may be settled by the Supreme Court pursuant to its original jurisdiction over cases “in which a State shall be [a] Party.”¹⁷ The Court describes equitable apportionment as “a flexible doctrine which calls for ‘the exercise of an informed judgment on a consideration of many factors.’”¹⁸ The aim, says the Court, “is always to secure a just and equitable apportionment ‘without quibbling over formulas.’”¹⁹ To do so, the Court considers all relevant factors, including:

[P]hysical 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.²⁰

Equitable apportionment actions are clearly disfavored by the Court, which has itself described them as “a poor alternative to negotiation between the interested States.”²¹ As in other cases invoking the Court’s original jurisdiction, a Special Master is generally appointed to conduct the

16. *Id.*

17. U.S. CONST. art. III, § 2. The Court has stated that it will not entertain equitable apportionment actions where Congress has itself chosen an apportionment, but that a compact negotiated by states, even though it may be enacted as federal law by Congress, “does not foreclose the possibility that [the Court] will be required to resolve a dispute between the compacting States.” *Texas v. New Mexico*, 462 U.S. 554, 567–68 (1983).

18. *Colorado v. New Mexico (I)*, 459 U.S. 176, 183 (1982) (quoting *Nebraska v. Wyoming*, 325 U.S. 589, 618 (1945)).

19. *Id.* (quoting *New Jersey v. New York*, 283 U.S. 336, 343 (1931)).

20. *Id.* (quoting *Nebraska v. Wyoming*, 325 U.S. 589, 618 (1945)).

21. *Texas v. New Mexico*, 462 U.S. 554, 567 n.13 (citing *Vermont v. New York*, 417 U.S. 270, 277–78 (1974)).

trial and make a nonbinding recommendation. Perhaps to encourage negotiated solutions, the Court has historically required a high degree of injury before it will use its equitable powers to divide interstate waters. In its first equitable apportionment case, *Kansas v. Colorado*, the Court held that despite “perceptible injury” to Kansas resulting from Colorado’s upstream uses, Kansas had not shown enough injury to warrant the exercise of the Court’s equitable powers.²² In *New York v. New Jersey*, the court went on to explain that “[b]efore [the] court can be moved to exercise its extraordinary power under the Constitution to control the conduct of one state at the suit of another, the threatened invasion of rights must be of serious magnitude and it must be established by clear and convincing evidence.”²³ Applying these basic principles, the Court has declined to actually apportion waters in all but three equitable apportionment actions brought before it.²⁴

There are numerous pitfalls for litigants, or would-be litigants, in equitable apportionment actions. Potential litigants (and their constituents) have very little guidance with which to form a reasoned opinion as to whether the Court will exercise its equitable powers at all, much less whether it will do so in their favor. If the Court did actually apportion the disputed waters, there remains the threat of relitigation in the event that circumstances change, an event that has happened several times in the history of the equitable apportionment doctrine.²⁵ Additionally, apportionment litigation is expensive and time consuming (not least of all because the parties pay the salary and costs of the Special Master) and frequently ends without any water apportioned.²⁶ If the Court does in fact apportion the disputed waters, it is not necessarily obvious that it will do so well, or fairly. Moreover, apportionment by the Court may help protect inefficient current uses. Although “wasteful or inefficient uses will not be protected” under the equitable apportionment doctrine, the fact that such uses must be proven by clear and convincing evidence means that they will often survive challenge anyway.²⁷ This same principle favors fast-growing states over their slower-growing neighbors and encourages states to use as much water as possible before litigation occurs.²⁸

22. *Kansas v. Colorado*, 206 U.S. 46, 117 (1907).

23. *New York v. New Jersey*, 256 U.S. 296, 309 (1921).

24. THOMPSON ET AL., *supra* note 10, at 936.

25. *Id.* at 940.

26. *Id.*

27. *See, e.g., Colorado v. New Mexico (II)*, 467 U.S. 310, 335 (1984).

28. *See* Robert Haskell Abrams, *Interstate Water Allocation: A Contemporary Primer for Eastern States*, 25 U. ARK. LITTLE ROCK L. REV. 155, 171 (2002).

Water Compacts

With Congress's reluctance to impose apportionment on the states, and the numerous shortcomings of equitable apportionment litigation in the Supreme Court, it is unsurprising that negotiated interstate water compacts are the preferred method of resolving interstate water disputes. As noted above, the Supreme Court itself strongly prefers negotiated apportionments over exercise of its equitable powers in disputes between two or more states.²⁹ When done right, water compacts can help fairly and voluntarily apportion disputed waters, adapt to changing circumstances, and promote improved water-management practices, all without resort to litigation. When done poorly, water compacts mire their constituent parties in litigation much as they might have been without such a compact.

Although Congress generally does not impose allocations on states, it does have a meaningful role to play in the process. The Compact Clause of the Constitution states that “[n]o State shall, without the Consent of Congress . . . enter into any Agreement or Compact with another State.”³⁰ Although the Supreme Court has read the Clause somewhat narrowly, not requiring congressional consent in all cases, congressional action is a key component of interstate water compacts.³¹ Today, most compacts allocating interstate waters are negotiated by the party-states first and then taken to Congress for approval and enactment in federal legislation, but Congress can, and sometimes does, enact enabling legislation authorizing states to negotiate a compact to allocate their shared waters.³² Once ratified by Congress, water compacts become enforceable as federal law, which supersedes any contrary state laws by virtue of the Supremacy Clause.³³ Moreover, congressional ratification removes any potential dormant Commerce Clause problems that states might otherwise have in attempting to prevent water from leaving their boundaries.³⁴

The Pecos River Compact, negotiated by Texas and New Mexico and ratified by Congress in 1949, has the dubious honor of being an example of what not to do in negotiating a water compact.³⁵ The first mistake was that the compact failed to articulate clearly Texas's entitlement. Under the terms of the agreement, Texas was entitled to “a quantity of water

29. *Texas v. New Mexico*, 462 U.S. 554, 567 n.13 (1983) (citing *Vermont v. New York*, 417 U.S. 270, 277–78 (1974)).

30. U.S. CONST. art. I, § 10, cl. 3.

31. See THOMPSON ET AL., *supra* note 10, at 901–02.

32. *Id.* at 902.

33. U.S. CONST. art. VI, § 1, cl. 2.

34. THOMPSON ET AL., *supra* note 10, at 902–03.

35. *Texas v. New Mexico*, 462 U.S. 554, 557–59 (1983) (citing 81 Pub. L. No. 91, 63 Stat. 159 (1949)).

equivalent to that available . . . under the 1947 condition” of the river.³⁶ But the compact was unclear as to the meaning of “the 1947 condition.”³⁷ Second, and perhaps more importantly, the compact lacked an effective mechanism for resolving disputes, including the dispute over the meaning of “the 1947 condition.” Although the commission created by the compact was given the authority to make any findings of fact necessary to properly administer the compact, it was structured such that there was no way to break a tie between the two equally represented parties.³⁸ There were three commissioners on the commission, one from each party-state and one from the federal government, but the commissioner from the federal government had no vote.³⁹ When Texas, unhappy with upstream New Mexico’s ability to maintain a status quo against Texas’s wishes, brought an action against New Mexico in the Supreme Court, the Court refused, despite recommendation by the Special Master, to appoint a tie-breaker vote.⁴⁰ It explained that “[t]o provide a third, tie-breaking vote on regular Commission business would be to alter fundamentally the structure of the Commission.”⁴¹ The dispute was eventually resolved twenty years after the initial Supreme Court decision when the states agreed to a comprehensive settlement in 2003.⁴²

If the Pecos River Compact is the archetypal example of what *not* to do in structuring an interstate water allocation compact, then the Delaware River Basin Compact might be the archetypal example of a compact done well. The Delaware River was the subject of one of three equitable apportionments by the Supreme Court.⁴³ Unhappy with the Court’s bare-bones apportionment, New York, New Jersey, Pennsylvania, and Delaware came to an agreement on management of the Delaware and on the creation of a commission to manage the compact.⁴⁴ In its final form, the Delaware River Basin Commission (DRBC) included equal representation for each of its four constituent states, but importantly, it also provided the federal government with full representation, including a vote on commission matters.⁴⁵ The federal government’s vote on the commission avoids the possibility of a two-against-two gridlocked vote by the four party-states.

36. *Id.* at 559.

37. *See id.*

38. *Id.* at 560.

39. *Id.*

40. *Id.* at 564–65.

41. *Id.*

42. THOMPSON ET AL., *supra* note 10, at 917.

43. *See* *New Jersey v. New York*, 283 U.S. 336, 341–42 (1931).

44. Joseph W. Dellapenna, *Interstate Struggles over Rivers: The Southeastern States and Struggle over the Hooch*, 12 N.Y.U. ENVTL. L.J. 828, 841–42 (2005).

45. *Id.* at 843.

But that is not the only feature that sets it apart from other compacts. The DRBC was given broad powers to manage the Delaware River watershed, including powers to manage and enforce allocations among the member states; plan, construct, and operate facilities necessary to deliver public water supplies; develop and sell hydroelectric power; regulate pollution; provide flood protection; and plan and manage water recreation in the river basin.⁴⁶ But the most novel feature of the compact was that Congress permitted the commission, by unanimous vote, to subordinate federal projects in the Delaware River Basin to authority of the DRBC.⁴⁷ Thus, unlike many compacts that simply allocate specified volumes of shared waters, the Delaware River Compact provides a model for future compacts where active, adaptive, and cooperative management is desired to avoid protracted litigation.⁴⁸

II. WHY THE PROBLEM IS MORE URGENT THAN IT APPEARS

Water is perhaps *the* quintessential interstate resource. The hydrologic cycle respects no state boundaries, except to the extent that those boundaries were formed along existing watercourses. And yet, perhaps no other resource is subject to exploitation incentives as perverse as our water supplies. The reasons for this are clear. First, where there is abundant water, it can, with enough effort, be moved to where it is needed. Second, regardless of the quantity or quality of surface water supplies, groundwater has historically been both clean and plentiful, even in the country's most arid climate regions. The history of Los Angeles provides the most compelling and extreme example of the first phenomenon.⁴⁹ In 1913, after years of construction and a secretive campaign of land and water rights acquisition that angered many, the Los Angeles Aqueduct was completed, diverting the waters of Owens Valley and carrying them over 200 miles to Los Angeles.⁵⁰ But even this Herculean effort was not enough; by the early 1950s, an extension of the Los Angeles Aqueduct was completed, reaching even farther north to the creeks feeding Mono Lake.⁵¹ As this demonstrates, states and municipalities have done a remarkable job moving water from areas of low demand to areas of high demand. But this is a temporary solution: moving water from Place A to Place B doesn't create any supply; it just moves an existing supply around. Likewise, many cities have

46. *Id.*

47. *Id.* at 844.

48. *See id.*

49. For a fascinating and in-depth discussion of Los Angeles's quest for water, see MARC REISNER, *CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER* (rev. ed. 1993).

50. *Id.* at 84–86.

51. *Id.* at 343.

avoided any serious consequences resulting from surface water scarcity by exploiting groundwater resources that are either non-renewable or that recharge at a rate less than current use, a phenomenon known as “mining” groundwater.⁵² Mining groundwater is inherently unsustainable. It can satisfy demand only as long as there remains groundwater to be pumped. Once it is gone, it can be pumped, at best, at a rate equal to its rate of recharge.⁵³ Groundwater mining is not a phenomenon confined to the arid American West.⁵⁴ A study by the U.S. Geographical Survey found that while groundwater depletion is severe in the West, it is unequivocally a nationwide problem.⁵⁵ About 40% of irrigated agriculture and 40% of domestic use in the United States are satisfied by groundwater withdrawal.⁵⁶ Approximately 15% of the U.S. population relies *solely* on groundwater where municipal water supplies are unavailable.⁵⁷ If, and in many cases *when*, aquifers go dry, there will be a substantial deficit in water supply in affected areas.

III. THE CANARY IN THE COAL MINE

State governments, particularly in the arid American West, have long recognized the importance of defending their interests, and those of their citizens, from competing users in other states.⁵⁸ As a result, state-level disputes over interstate waters are nothing new.⁵⁹ But in recent years, such disputes have erupted between some of the most hydrologically-blessed states in the Union. The Supreme Court has, for example, decided disputes between Virginia and Maryland in 2003,⁶⁰ and between North Carolina and South Carolina in 2010.⁶¹ Perhaps most importantly, the long-running dispute between Florida, Georgia, and Alabama over the waters of the ACF River Basin appears, as of this writing, to be headed to the Supreme

52. See THOMPSON ET AL., *supra* note 10, at 445.

53. See *id.* at 448.

54. See generally LEONARD F. KONIKOW, U.S. GEOLOGICAL SURVEY, GROUNDWATER DEPLETION IN THE UNITED STATES (1900–2008): SCIENTIFIC INVESTIGATIONS REPORT 2013-5079 (2013).

55. See *id.* at 51.

56. THOMPSON ET AL., *supra* note 10, at 446.

57. *Id.*

58. The first state-level dispute decided by the Supreme Court was in 1907, when the Court, under its original jurisdiction, heard arguments between Kansas and Colorado over the Arkansas River. See *Kansas v. Colorado*, 206 U.S. 46, 85 (1907).

59. See *id.*

60. *Virginia v. Maryland*, 540 U.S. 56, 79–80 (2003).

61. *South Carolina v. North Carolina*, 558 U.S. 256, 259 (2010).

Court.⁶² As discussed previously, many cities and private users are able to satisfy their present water needs through unsustainable groundwater use.⁶³ Atlanta, whose growing water use is at the center of the ACF controversy, cannot rely significantly on groundwater to meet its needs because the bedrock in the region is non-porous and stores little water.⁶⁴ When groundwater supplies run out in other parts of the country, similar disputes over limited surface waters are likely to follow. Therefore, the heated dispute over the ACF should be seen as the “canary in the coal mine,” signaling a need for meaningful and immediate action by Congress.

About the ACF River System

The ACF System is comprised of three rivers and their tributaries: the Chattahoochee, which rises in Georgia’s Blue Ridge Mountains; the Flint, which rises south of Atlanta; and the Apalachicola, which forms at the confluence of the Chattahoochee and Flint near the Florida–Georgia Border, then flows into Florida’s Apalachicola Bay.⁶⁵ The basin drains slightly less than 20,000 square miles, predominantly in Georgia, but also in Alabama and Florida.⁶⁶ The ACF System is subject to a number of competing demands. It supplies about 78% of Metro-Atlanta’s municipal water,⁶⁷ generates electricity through twelve hydroelectric dams,⁶⁸ provides recreational boating and fishing opportunities,⁶⁹ irrigates hundreds of thousands of acres of crops,⁷⁰ sustains a variety of ecosystems including habitat for thirty-four endangered or threatened species,⁷¹ and supports the ecological health of Apalachicola Bay, one of the most productive estuarine fisheries and oyster hatcheries in the Gulf of Mexico.⁷² But the waters of

62. On October 1, 2013, Florida initiated a lawsuit against Georgia. *See* Motion for Leave to File a Complaint at 1, *Florida v. Georgia*, No. 220142 (U.S. Oct. 1, 2013) [hereinafter ACF Complaint], available at http://www.eenews.net/assets/2013/10/02/document_gw_03.pdf.

63. *See supra* Part II.

64. *See Tri-State Water Wars*, ATLANTA REGIONAL COMMISSION, <http://www.atlantaregional.com/environment/tri-state-water-wars> (last visited April 7, 2014).

65. ENVTL. PROT. DIV., GA. DEP’T OF NATURAL RES., CHATTAHOOCHEE RIVER BASIN MANAGEMENT PLAN § 2.1 (1997).

66. WATER POLICY INST., WATER WARS: CONFLICTS OVER SHARED WATERS 4 (2009), available at http://www.huntonfiles.com/files/webupload/WPI_Water_Wars_White_Paper.pdf.

67. *Tri-State Water Wars*, *supra* note 64.

68. RICHARD L. MARELLA & JULIA L. FANNING, U.S. GEOLOGICAL SURVEY, SCIENTIFIC INVESTIGATIONS REPORT 2011-5130, WATER WITHDRAWALS, WASTEWATER DISCHARGE AND WATER CONSUMPTION IN THE APALACHICOLA-CHATTAHOOCHEE-FLINT RIVER BASINS, 2005, AND WATER-USE TRENDS, 1970–2005, at 19 (2011).

69. *Id.* at 2.

70. *Id.*

71. Richard Hamann, *Can the Endangered Species Act Save the Apalachicola?*, 29 GA. ST. U. L. REV. 1025, 1040 (2013).

72. ACF Complaint, *supra* note 62, at App. 36–37.

the ACF are not sufficient to meet all these various demands placed upon them.⁷³ Metro-Atlanta continues to grow rapidly; meanwhile, reduced flows into Apalachicola Bay have contributed to the collapse of the bay's famed oyster hatchery.⁷⁴

Water Wars: Litigation over the ACF

The dispute between Georgia, Florida, and Alabama over the waters of the ACF has spawned a cottage industry of ACF-related litigation.⁷⁵ For more than twenty years, litigants challenged the authority of the U.S. Army Corps of Engineers to use the waters of Lake Sidney Lanier (created by the Buford Dam) to supply water to Atlanta and other local municipalities.⁷⁶ Several cases from multiple jurisdictions involving multiple parties were consolidated to answer this question.⁷⁷ The district court concluded that the Army Corps of Engineers had acted outside the scope of its authority when it considered municipal water supply in its management of Lake Lanier and that Congress would have to authorize such allocations.⁷⁸ But the Eleventh Circuit overturned that ruling, holding that Congress had sanctioned allocations for municipal water supply when it authorized construction of the Buford Dam.⁷⁹ Petitions for rehearing and en banc review by the Eleventh Circuit were denied.⁸⁰ The Supreme Court has so far declined to review any of the ACF-related litigation.⁸¹ As noted previously, that may soon change.⁸² Citing the “intractable” nature of the multi-decade dispute and the “jurisdictional limits of the lower courts,” Florida now seeks to invoke the original jurisdiction of the Supreme Court to prosecute an equitable apportionment action.⁸³ To date, the Court has not signaled

73. Dellapenna, *supra* note 44, at 880.

74. See *Commerce Secretary Pritzker Declares Fisheries Disaster for Florida Oyster Fishery*, NAT'L OCEANIC AND ATMOSPHERIC ADMIN., http://www.noaanews.noaa.gov/stories2013/20130812_oysterdisasterdeclaration.html [hereinafter *Pritzker*] (last visited April 5, 2014).

75. See, e.g., *In re MDL-1824 Tri-State Water Rights Litigation*, 644 F.3d 1160, 1165 (11th Cir. 2011) [hereinafter *In re MDL-1824*] (consolidating four cases relating to the U.S. Army Corps of Engineers' authority to operate the Buford Dam at Lake Lanier for the provision of local water supply).

76. *Id.*

77. *Id.*

78. *In re Tri-State Water Rights Litigation*, 639 F. Supp. 2d 1308, 1347 (M.D. Fla. 2009), *rev'd* 644 F.3d 1160 (11th Cir. 2011).

79. *In re MDL-1824*, *supra* note 75, at 1186.

80. *In re MDL-1824 Tri-State Water Rights Litigation*, No. 09-14657 (11th Cir. Sept. 16, 2011) (order denying petition for rehearing en banc).

81. See, e.g., *Alabama v. U.S. Army Corps of Eng'rs*, 547 U.S. 1192 (2006).

82. ACF Complaint, *supra* note 62.

83. Brief in Support of Motion for Leave to File a Complaint at 22–23, *Florida v. Georgia*, No. 22O142 [hereinafter *Support Brief*] (U.S. Oct. 1, 2013).

whether it will take the case, but has requested a brief from the United States expressing its views on the dispute.⁸⁴

Water Wars Part II: Failed Attempts at a Negotiated Solution

Despite how the dispute was framed in previous litigation,⁸⁵ it is clear that the underlying concern of the various plaintiffs in the Tri-State Water Rights Litigation was not whether the Army Corps of Engineers had authority to allocate waters under its management for municipal use.⁸⁶ Rather, the animating concern behind the litigation was the de facto allocation of interstate waters that resulted from the Army Corps of Engineers' management of the Buford Dam and Lake Lanier.⁸⁷ Unable to litigate that issue directly in the lower courts,⁸⁸ the states attempted resolution through negotiation of a water compact, beginning with the signing of a Memorandum of Agreement (MOA) in 1992.⁸⁹ The MOA stayed some pending litigation and committed the parties to studies of the ACF Basin and to negotiations over the terms of a water compact.⁹⁰ In fact, the states *did* form a compact that was ratified by Congress in 1997.⁹¹ The ACF Compact limited both new uses and increases in existing uses of the ACF's waters, but otherwise provided no allocation formula to determine the relative entitlement of the party states.⁹² Instead, the compacting parties merely agreed to agree on an allocation formula in the future.⁹³ Moreover, the ACF compact provided for a number of termination conditions.⁹⁴ Among them was a provision stating that the compact would terminate if an agreement on the apportionment of ACF surface waters was not reached

84. Order Requesting Brief from the Solicitor General, *Florida v. Georgia*, No. 220142 (U.S. Mar. 3, 2014), available at http://www.supremecourt.gov/orders/courtorders/030314zor_0971.pdf (last visited Aug. 23, 2014).

85. See *Alabama v. U.S. Army Corps of Engr's*, 424 F.3d 1117, 1130 (11th Cir. 2005) ("Contrary to Georgia's assertion, Alabama and Florida are not attempting to litigate their right to a certain amount of the water in the ACF Basin. Rather, Alabama and Florida seek to ensure the Corps' compliance with federal law governing its management of projects in the ACF Basin . . .").

86. See, e.g., Luther Strange, Op-Ed., *Feeding Atlanta at Alabama's Expense*, BIRMINGHAM NEWS, Aug. 28, 2011, http://blog.al.com/birmingham-news-commentary/2011/08/viewpoints_feeding_atlanta_at.html (arguing that the Eleventh Circuit's *In re MDL-1824* decision secures water for Atlanta at the expense of Alabama).

87. *Id.*

88. See Support Brief, *supra* note 83, at 23.

89. Dellapenna, *supra* note 44 at 870.

90. *Id.* at 870–71.

91. See *Chattahoochee-Apalachicola-Flint River Basin Compact*, Pub. L. No. 105-104, 111 Stat. 2219 (1997) [hereinafter *ACF Compact*].

92. *Id.* at 2222–24.

93. *Id.* at 2222 ("It is the intent of the parties to this Compact to develop an allocation formula for equitably apportioning the surface waters of the ACF Basin among the states . . .").

94. *Id.* at 2224–25.

by December 31, 1998.⁹⁵ By unanimous vote, the states could extend the deadline,⁹⁶ and as negotiations dragged on, the deadline was extended more than a dozen times.⁹⁷ In 2003, there was a glimmer of hope when a tentative agreement was reached.⁹⁸ But the agreement drew significant public criticism and led Florida to vote against a deadline extension, resulting in the termination of the ACF Compact in 2003 and signaling the return of ACF litigation.⁹⁹

The ACF Dispute: Lessons Learned

The ACF dispute has now dragged on for more than three decades with litigation in federal courts beginning in 1990.¹⁰⁰ Still, Florida and Alabama have little to show for their efforts. The ACF Compact negotiations broke down more than a decade ago.¹⁰¹ Expensive and time-consuming efforts to limit Georgia's water use through the lower courts have largely failed.¹⁰² The Apalachicola Bay is suffering a significant collapse of its once-productive oyster hatcheries due to dwindling flows in the Apalachicola River.¹⁰³ Meanwhile, Florida has turned to its last hope: equitable apportionment litigation in the Supreme Court.¹⁰⁴

The failure of the ACF negotiations was not inevitable, but neither was it unlikely. Florida's termination of the ACF Compact illustrates one of the key challenges in interstate water compact negotiation: homegrown political pressure.¹⁰⁵ Everyone uses water, including the powerful and the influential—those who have the ear of state government—and no one wants to see their “treasure” taken away.¹⁰⁶ Inherent to the nature of electoral politics is a preference for keeping up the fight, even if it is detrimental in the long term, over accepting a compromise viewed by voters and donors as a bad deal.¹⁰⁷ Of course, Florida may yet prevail in its

95. *Id.* at 2224.

96. *Id.*

97. Dellapenna, *supra* note 44, at 872.

98. *Id.* at 877.

99. *Id.* at 877–79.

100. *See In re MDL-1824*, *supra* note 75, at 1174 (describing the history of the Tri-State Water Rights Litigation).

101. Dellapenna, *supra* note 44, at 879.

102. *See In re MDL-1824*, *supra* note 75, at 1181.

103. *See Pritzker*, *supra* note 74.

104. *See ACF Complaint*, *supra* note 62.

105. *See Dellapenna*, *supra* note 44, at 877–79.

106. *New Jersey v. New York*, 283 U.S. 336, 342 (1931).

107. *See* Editorial, *Water Wars; Our Position: Florida Shouldn't Give up Water to Fuel Growth in Georgia or Here*, ORLANDO SENTINEL, Sept. 3, 2003, http://articles.orlandosentinel.com/2003-09-03/news/0309030028_1_apalachicola-bay-water-wars-water-resources (endorsing Florida's rejection of the 2003 tentative water sharing agreement).

equitable apportionment litigation in the Supreme Court, but if history provides any hints as to the likely outcome, a decisive victory is unlikely.¹⁰⁸ The Court, reluctant to exercise its equitable apportionment authority, rarely does so.¹⁰⁹ Even if it did, there is little assurance that it would do so well, to the satisfaction of the parties, or that the apportionment scheme would adequately adapt to changing circumstances.¹¹⁰ There is little to indicate that the apportionment action, like the many cases litigated before it, will be worth the substantial costs.¹¹¹ The many millions spent on litigation and failed negotiations underscore the pressing need for meaningful federal incentives to help overcome the shortsightedness of elected government.

IV. PROPOSAL FOR FUTURE ACTION

The availability of groundwater and the large-scale water diversions of the twenty-first century may have delayed, or at least disguised, the need for proactive management of our shared water resources. Unfortunately, state governments continue to kick the can down the road, favoring long-distance diversions and unsustainable groundwater pumping to the less politically palatable conservation measures and interstate cooperation. Congress has from time to time provided incentives for states to negotiate water compacts, primarily through conditioning funding of water infrastructural projects (primarily dams) on negotiation of a compact between states.¹¹² This does not go far enough. Along with the “carrot,” Congress should also employ the “stick.” That is, in addition to the traditional one-time incentives provided by federal construction of water infrastructure, Congress should go further, conditioning other types of federal funds on negotiation of compacts that meet certain requirements, and providing for a congressional apportionment according to such requirements if all else fails. Equally important as the mechanism by which Congress incentivizes negotiation of water compacts are the criteria it requires for compliance. The final portion of this Part will discuss what those criteria might look like.

108. See THOMPSON ET AL., *supra* note 10, at 936.

109. See *id.* at 936–40.

110. See *id.* at 940.

111. See *id.* at 939–40.

112. See *id.* at 902.

Agency Management and a Mechanism for Tie-Breaking

Interstate water-management agencies, commonly called “Commissions,” are an important feature of water compacts. As discussed in Part I of this Note, the key flaw in some water compacts is that they fail to provide a tie-breaking mechanism.¹¹³ This is a common problem because of the prevalence of interstate waters that are shared by only two states. The Delaware River Compact solved this problem by giving the federal government a vote on the Commission, but compacting states could also provide for arbitration or some other formal mechanism to avoid gridlock. The Delaware River Compact, while imperfect, remains the model for successful future interstate water compacts. Yet, the states party to the protracted ACF dispute never “seriously considered the model of the *Delaware Compact* . . . that would cooperatively manage the waters of the shared rivers rather than attempt to allocate the waters according to some formula, leaving each state largely free to do as it wishes with its share of the waters.”¹¹⁴ Florida, the plaintiff in the present litigation over the ACF River System, only argued for a formula that would result in flows mimicking the flows it would have received under natural conditions rather than a model providing for more active management of the ACF Basin.¹¹⁵ Whatever the reasons that states have for avoiding the Delaware River model, it is among the most effective for successful watershed management; federal incentives should be predicated on constructing similarly effective management models.

Managing Groundwater and Surface Waters Together

The historical divide between laws governing groundwater and those governing surface waters has served as a major impediment to smart water management.¹¹⁶ Forty years ago, the National Water Commission identified the need to integrate groundwater and surface water management as one of three principal problems facing groundwater management.¹¹⁷ The hydrological relationship between groundwater and surface waters varies widely from one area to another, and the relationship between the two is often complex, but the U.S. Geological Survey has estimated that 40% of

113. See, e.g., *Texas v. New Mexico*, 462 U.S. 554, 560–63 (1983).

114. Dellapenna, *supra* note 44, at 878.

115. *Id.*

116. As one water rights lawyer once quipped, the divergent laws governing groundwater and surface waters created a “hydrologic bicycle” out of the hydrologic cycle. THOMPSON ET AL., *supra* note 10, at 513 (quoting *Raphael Moses, Basic Groundwater Problems*, 14 ROCKY MTN. MIN. L. INST. 501, 503 (1968)).

117. *Id.*

the stream flows in the United States are fed by groundwater.¹¹⁸ As a result, it is simply impossible to effectively manage water supplies without understanding the relationship between groundwater and surface water. To develop such an understanding, however, requires funds for groundwater surveys. Congress could, if it so chose, provide monetary assistance to states as part of its “carrot” approach to incentivizing better state-level water management.

Conservation Measures

The public’s desire for cheap and plentiful water makes imposition of conservation measures among the least politically palatable water-management policies. But that doesn’t diminish the need for such measures or their importance in a well-conceived water-sharing agreement. Municipal water prices today often bear no relationship to the scarcity of water in the vicinity of the municipality. For example, in Las Vegas, which receives only ten centimeters of rain per year (dry even by desert standards, Phoenix receives almost double that), the average monthly water bill for 600 gallons per day is about \$53 per month.¹¹⁹ The same usage in Seattle, which receives about ten times as much precipitation as Las Vegas, costs more than twice that—at about \$117 per month.¹²⁰ This counterintuitive disparity has real consequences in terms of per capita water use: Las Vegas residents use *more than twice* what Seattle’s residents use every month.¹²¹ Here, Congress should not only provide incentives for scarcity-based water-pricing mechanisms, but it should stop subsidizing water prices by construction and operation of dams. After all, Las Vegas receives the vast majority of its water from Lake Mead.

CONCLUSION

The United States faces a future in which water scarcity is a reality for all states, not just those in the arid American West. Unresolved interstate water disputes between states with significant water resources, such as that between Florida, Georgia, and Alabama over the waters of the ACF River System, call for a new sense of urgency in setting a comprehensive federal water-management policy. While well-designed interstate water compacts

118. *Id.*

119. *The Price of Water: A Comparison of Water Rates, Usage in 30 U.S. Cities*, CIRCLE OF BLUE (Apr. 26, 2010), <http://www.circleofblue.org/waternews/2010/world/the-price-of-water-a-comparison-of-water-rates-usage-in-30-u-s-cities/> (using 2008 figures).

120. *Id.*

121. *Id.*

provide the best hope for promoting conservative water management, states currently lack incentives that reflect the real, underlying risks to their supply of safe water. Congress should intervene by using a “carrot-and-stick” approach to incentivize states to negotiate water compacts that contain provisions for water management that reflect the true scarcity of our water resources.

Joseph Wehr