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Douglas L. Grant

INTERSTATE ALLOCATION OF RIVERS BEFORE THE UNITED STATES SUPREME COURT: THE APALACHICOLA-CHATTAHOOCHEE-FLINT RIVER SYSTEM

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INTRODUCTION

The Apalachicola-Chattahoochee-Flint ("ACF") River System encompasses parts of Georgia, Alabama, and Florida.[1] The Chattahoochee River originates in north-central Georgia and flows southwest through Atlanta to the Alabama-Georgia border where it turns south and forms the southern half of the border between those states and a small part of the border between Florida and Georgia.[2] The Flint River begins south of Atlanta, flows southeast, and then flows southwest until it joins the Chattahoochee River in the southwest corner of Georgia.[3] The two rivers combine to become the Apalachicola River, which flows south through the Florida panhandle and empties into Apalachicola Bay.[4]

The three states have been at odds over water allocation from the ACF River System for nearly two decades.[5] The main cause of tension is Georgia's desire to obtain more water for municipal and

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* Cord Foundation Professor of Law, William S. Boyd School of Law, University of Nevada-Las Vegas. The author based this Article in part on remarks that he made January 7, 2004 at the Georgia State University College of Law program on Critical Issues in Georgia Water Law and Policy: A Seminar on Georgia's Surface & Ground Water in the 21st Century. The author acknowledges with thanks the support of the James E. Rogers Research Grant Foundation.

1. *See* William L. Andreen, *Alabama*, *in* 6 WATERS AND WATER RIGHTS 17, 41 (Robert E. Beck ed., Supp. 2003) (including a basin map).

2. Dustin S. Stephenson, *The Tri-State Compact: Falling Water and Fading Opportunities*, 16 J. LAND USE & ENVTL. L. 83, 84 (2000). "[T]he west bank of the Chattahoochee River constitute[s] the eastern border of Alabama." Carl Erhardt, *The Battle Over "The Hooch": The Federal-Interstate Water Compact and the Resolution of Rights in the Chattahoochee River*, 11 STAN. ENVTL. L.J. 200, 207-08 (1992).

3. *See* Stephenson, *supra* note 2, at 84; Roy R. Carriker, *Water Wars: Water Allocation Law and the Apalachicola-Chattahoochee-Flint River Basin*, UNIVERSITY OF FLORIDA: IFAS EXTENSION, *at* http://edis.ifas.ufl.edu/BODY_FE208 (last visited Sept. 10, 2004).

4. Stephenson, *supra* note 2, at 84.

5. *See id.* at 86.

industrial use in the rapidly growing metropolitan Atlanta area.[6] Buford Dam, a United States Army Corps of Engineers structure that forms Lake Lanier, is north of Atlanta on the Chattahoochee River.[7] Lake Lanier is the major source of water for the Atlanta area.[8] Georgia would like to secure additional water from Lake Lanier and the Chattahoochee River for the anticipated growth of that area.[9] As downstream states, Alabama and Florida worry that increased water use in the Atlanta area would adversely affect them.[10] Alabama fears interference with its own growth.[11] Florida fears ecological damage to the Apalachicola Bay Estuary and economic harm to the oyster, crab, and finfish industries the Estuary supports.[12]

In 1997, the three states entered into the ACF River Basin Compact that called for them to negotiate an allocation of the ACF River System.[13] As extended negotiations drew to a close, Georgia and Alabama sought to address Florida's ecological and economic fears by proposing to guarantee a minimum flow for the Apalachicola River.[14] Florida rejected the proposal on the ground that the health of its estuary requires fluctuating natural flow conditions rather than maintenance of a minimum flow.[15] Negotiations under the compact expired on August 31, 2003 with Florida threatening to sue in the United States Supreme Court for an equitable apportionment of the

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6. *See id.* at 85.

7. *Cf.* Carriker, *supra* note 3, para. 9; Stephenson, *supra* note 2, at 84-85.

8. Stephenson, *supra* note 2, at 84.

9. *See id.* at 86-87.

10. *Id.* at 87. Florida also worries about withdrawals from the Flint River by irrigators in south Georgia. Editorial, *Georgia Must Dive, Not Dip, Into Water-Sharing Process*, ATLANTA J. CONST., Sept. 4, 2003, at A16, *available at* 2003 WL 61733595 [hereinafter *Dive, Not Dip*].

11. Stephenson, *supra* note 2, at 85.

12. *Id.* at 85-86; Charles Seabrook, *Water Costs Likely to Rise, Legal Tangle: The U.S. Supreme Court Probably Will Be the Next Battlefield for the Tri-State Dispute*, ATLANTA J. CONST., Sept. 8, 2003, at F1, *available at* 2003 WL 61734096; Editorial, *Water Wars Our Position: Florida Shouldn't Give Up Water to Fuel Growth in Georgia or Here*, ORLANDO SENTINEL, Sept. 3, 2003, at A8, *available at* 2003 WL 61858292 [hereinafter *Water Wars Our Position*].

13. Apalachicola-Chattahoochee-Flint River Basin Compact, Pub. L. No. 105-104, 111 Stat. 2219 (1997).

14. *See* Bob Mahlburg, *Florida Abandons Tri-State Water Pact, Disputed Sharing Plan Heads Back to Courts*, ORLANDO SENTINEL, Sept. 2, 2003, at A1, *available at* 2003 WL 61858237; Stacy Shelton, *Water Feud Likely to Spill into Court*, ATLANTA J. CONST., Sept. 2, 2003, at A1, *available at* 2003 WL 61733265.

15. *Water Wars Our Position*, *supra* note 12.

ACF River System.[16] While a suit has not materialized, it remains a serious possibility.

This Article examines the prospect of Supreme Court apportionment of the ACF River System. After a brief overview of equitable apportionment doctrine, this Article focuses on two central questions to apportionment litigation for this River System. First, what barriers exist to getting an apportionment from the Court? Second, if the case moves past these barriers, what factors will the Court consider, and how will it weigh them when making the apportionment? This Article shows that there is no assurance that the Court will provide an apportionment, and if it does, the terms could be unpredictable. In light of these uncertainties, this Article recommends that the states redouble their efforts to negotiate an allocation—if not before apportionment litigation begins, then during the course of it.

I. INTRODUCTION TO EQUITABLE APPORTIONMENT BY THE SUPREME COURT

The Supreme Court has original and exclusive jurisdiction over suits between states;[17] therefore, it is the only court that can hear equitable apportionment litigation between states.[18] The Supreme Court customarily appoints a special master to conduct necessary pretrial and trial proceedings and to make recommendations on how to resolve the issues.[19]

Litigating states stand before the Supreme Court on equal footing—no state can impose its law on another, and no state has to

16. Mahlburg, *supra* note 14; Stacy Shelton, *Water Talks a Washout*, ATLANTA J. CONST., Sept. 6, 2003, at G1, *available at* 2003 WL 61858237 [hereinafter *Water Talks a Washout*].

17. U.S. CONST. art. III, § 2, cl. 1 (extending the judicial power of the United States "to Controversies between two or more States"); U.S. CONST. art. III, § 2, cl. 2 (stating that the Supreme Court has original jurisdiction "[i]n all Cases . . . in which a State shall be Party"); 28 U.S.C. § 1251(a)(1) (2000) (providing the Supreme Court's exclusive jurisdiction if a suit is "between two or more States").

18. *See* Kansas v. Colorado, 185 U.S. 125, 142-44 (1902).

19. *See* Anne-Marie C. Carstens, *Lurking in the Shadows of Judicial Process: Special Masters in the Supreme Court's Original Jurisdiction Cases*, 86 MINN. L. REV. 625, 653-56 (2001).

yield to another's law.[20] Consequently, the Court applies federal common law to determine each state's share.[21] The foundational common law principle, which the Court invoked in its first interstate water allocation case, is that there must be an "equitable apportionment of benefits between the . . . States resulting from the flow of the river."[22] Although the Court may frame a decree to allocate stream flow, the underlying objective is to equitably apportion the *benefits* resulting from the flow.[23]

States have asked the Supreme Court to apportion eight interstate rivers.[24] The Court has entered apportionment decrees for three of them.[25] Although the body of case law on equitable apportionment is not large, it clearly establishes barriers that a state must overcome to obtain an apportionment decree. It also illuminates the factors that the Court considers relevant when making an apportionment and sheds light on how the Court weighs competing factors.

II. BARRIERS TO EQUITABLE APPORTIONMENT

A state may be unable to obtain an equitable apportionment decree for any one of several reasons. The Court might refuse to allow a state to file its complaint seeking apportionment.[26] If the Court accepts a complaint, the suit might fail because the United States is an indispensable party but may refuse to participate, and sovereign immunity precludes a state from joining the United States involuntarily.[27] A suit might also fail if the Court concludes that Congress has already made an interstate allocation that leaves no

20. Kansas v. Colorado, 206 U.S. 46, 97-98 (1907).

21. Colorado v. New Mexico, 459 U.S. 176, 183 (1982); Kansas v. Colorado, 206 U.S. 46, 98 (1907) (characterizing the body of law as "interstate common law").

22. Kansas v. Colorado, 206 U.S. 46, 118 (1907).

23. *See, e.g.*, Nebraska v. Wyoming, 325 U.S. 589, 665, 667 (1945).

24. Douglas L. Grant, *Equitable Apportionment Suits Between States*, *in* 4 WATERS AND WATER RIGHTS 574-76 (Robert E. Beck ed., 1996).

25. *Id.* at 627. The three rivers are the Laramie River, the Delaware River, and the North Platte River. *Id.* at 627, 630-31. The rivers that the Court declined to apportion for one reason or another are the Arkansas River, the Colorado River, the Connecticut River, the Vermejo River, and the Walla Walla River. *See id.* at 574-75.

26. *See infra* Part II.A.

27. *See infra* Part II.B.

room for application of the federal common law doctrine of equitable apportionment.[28] Finally, a suit might fail if the state seeking apportionment cannot prove a serious invasion of its right to an equitable share of benefits from the stream flow.[29]

A. The Need for Permission to File a Complaint

1. Historically

A state cannot sue another state by simply filing a complaint in the Supreme Court.[30] The state must first file a motion for leave to file its complaint.[31] The state may include a supporting brief, and a state targeted as a defendant may file a brief in opposition.[32]

The Supreme Court imposes "prudential and equitable limitations" on exercising its jurisdiction over suits between states.[33] The Court looks at two factors when deciding whether to accept these suits. The first is the seriousness and dignity of the complaining state's interest.[34] The Court has regularly accepted complaints in interstate water apportionment cases, so these disputes generally are of sufficient seriousness and dignity.

The second factor is the availability of an alternative forum for resolving the matter.[35] This factor may explain the Supreme Court's denial of two motions by South Dakota for leave to sue Nebraska, Iowa, and Missouri regarding allocation of the Missouri River.[36] South Dakota was not seeking a federal common law equitable apportionment but argued instead that federal flood control legislation implicitly allocated the River between the upper and lower

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28. *See infra* Part II.C.
29. *See infra* Part II.D.
30. *Cf.* SUP. CT. R. 17.3.
31. SUP. CT. R. 17.3 (describing the procedure in original jurisdiction cases).
32. SUP. CT. R. 17.5.
33. California v. Texas, 457 U.S. 165, 168 (1982); *see also* Vincent L. McKusick, *Discretionary Gatekeeping: The Supreme Court's Management of Its Original Jurisdiction Docket Since 1961*, 45 ME. L. REV. 185 app. at 207-14 (1993).
34. Mississippi v. Louisiana, 506 U.S. 73, 77 (1992).
35. *Id.*
36. South Dakota v. Nebraska, 485 U.S. 902 (1988); South Dakota v. Nebraska, 475 U.S. 1093 (1986).

basin states.[37] The Court gave no explanation for denying South Dakota's motions, but one commentator has suggested the probable reason was that South Dakota's "basic controversy was with the United States" over the operation of federal dams on the Missouri River and that it was already in litigation in a federal district court.[38] In other words, an alternative forum was available.

2. *The ACF River System*

The Court might use this rationale to deny a motion by Florida for an equitable apportionment of the ACF River System. The United States Army Corps of Engineers ("Corps") has several water projects on the Chattahoochee River that affect downstream flows in the System, including the Lake Lanier project.[39] Lower federal court litigation between the Corps and basin states regarding Georgia's efforts to obtain more water from Lake Lanier for the Atlanta area goes back to 1990[40] and continues today in different lower federal courts.[41] A key issue in the pending cases is whether the federal

37. The legislation was the O'Mahoney-Milliken Amendment to the Flood Control Act of 1944, Pub. L. No. 78-534, § 1(c), 58 Stat. 887, 889 (codified at 33 U.S.C. § 701-1(b) (2000)). For discussion of this legal theory, see John P. Guhin, *The Law of the Missouri*, 30 S.D. L. Rev. 347, 383-411 (1985) and George S. Mickelson, *My View of the Missouri River*, 36 S.D. L. REV. 1 (1991).

38. McKusick, *supra* note 33, at 199 n.83.

39. The State of Florida's Memorandum in Support of Its Motion to Defer Consideration of or in the Alternative Disapprove the Proposed Settlement Agreement at 6, Southeastern Fed. Power Customers, Inc. v. Caldera, No. 1:00CV02975 (D.D.C. filed Dec. 12, 2000), *available at* www.chattahoochee.org/TriState/pdfs/DC%20Disapprove%20mem1.pdf [hereinafter Florida's Memorandum]. In addition to the Lake Lanier project, the United States Army Corps of Engineers ("Corps") maintains the West Point Lake project, the Lake George project, and the Lake Seminole project. *Lake Project Locations*, U.S. ARMY CORPS OF ENGINEERS: MOBILE DISTRICT, *at* http://www.sam.usace.army.mil/op/locations.htm (Jan. 9, 2005); Press Release, Frank Raines, Budget Director, The White House, Press Briefing on the Line Item Veto, *at* http://www.clintonpresidentialcenter.org/legacy/101797-press-briefing-on-the-line-item-veto.htm (Oct. 17, 1997).

40. Carriker, *supra* note 3, para. 13. Alabama sued the Corps in federal district court in Alabama to enjoin it from implementing a proposal to reallocate storage in Lake Lanier from electric power generation to municipal and industrial supply for anticipated growth in the Atlanta area through 2010. *Id.* para. 12-13. Florida later intervened. Bruce Ritchie, *Judge Blocks Atlanta Water Deal*, TALLAHASSEE DEMOCRAT, Oct. 17, 2003, at B1, *available at* 2003 WL 62468463, http://www.tallahassee.com/mld/democrat/news/local/7033114.htm.

41. Georgia v. U.S. Army Corps of Eng'rs, 302 F.3d 1242, 1246 (11th Cir. 2002). In 2000, Georgia sued the Corps in federal district court in Georgia seeking to compel it to act on a request that Georgia had made for additional water from Lake Lanier to meet the Atlanta area's anticipated needs through 2030. *Id.* at 1247-48. The Corps denied Georgia's request in 2002 on the ground that it lacked statutory

legislation for the Lake Lanier project allows the Corps to reallocate water from navigation, flood control, and hydroelectric power purposes to municipal and industrial use.[42] Conceivably, the Supreme Court might regard the ACF Basin dispute as essentially a matter between Georgia and the United States regarding the operation of federal dams on the ACF River System rather than a matter between Georgia and the other basin states.

Of course, the other basin states also have interests in the operation of the federal dams in Georgia, but that does not necessarily put the matter within the Supreme Court's exclusive jurisdiction of suits between states. The Eleventh Circuit allowed Florida to intervene in Georgia's litigation against the Corps because it decided that Florida's presence did not deprive the federal district court of jurisdiction.[43] It said that the suit was not between Georgia and Florida in a jurisdictional sense because "[t]he states do not seek relief from each other but, rather, want the Corps to act on the water supply request in opposite ways—Georgia seeks to have the Corps grant its request, while Florida wants to have it denied."[44] If this logic appeals to the Supreme Court, the Court might prefer that a lower federal court in Georgia or elsewhere decide on Georgia's demand

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authority to reallocate more project water to municipal and industrial uses. *Id.* at 1249. This final agency action has set the stage for federal district court review.

In 2000, an organization of companies buying electric power produced at Buford Dam sued the Corps in federal district court in the District of Columbia to bar the Corps from expanding the municipal and industrial water supply withdrawals from Lake Lanier. Florida's Memorandum, *supra* note 39, at 14. Georgia participated in mediation that produced a settlement whereby the Corps agreed to supply Georgia with specified additional quantities of water from Lake Lanier for municipal and industrial use. *Id.* at 19-20. In October 2003, the federal district court in Alabama refused to declare the settlement void but enjoined its implementation because it would likely cause irreversible ecological and economic harm and undermine Alabama and Florida's water litigation. *See supra* note 40; Ritchie, *supra* note 40. In February 2004, the Federal District Court for the District of Columbia approved the settlement. Stacy Shelton, *Court Win Gives State Water to Grow on*, ATLANTA J. CONST., Feb. 11, 2004, at B1, *available at* 2004 WL 68883647. Meanwhile, Georgia initially sought review by the Court of Appeals for the Eleventh Circuit of the Alabama federal district court order blocking implementation of the settlement but then moved successfully for stay of the appeal and for remand to the Alabama federal district court for reconsideration of its injunction of the settlement agreement. *Tristate Water Issues: Apalachicola-Chattahoochee-Flint (ACF)*, Upper Chattahoochee Riverkeeper, *at* http://www.ucriverkeeper.org/TriState/Index.shtml (last visited Nov. 22, 2004).

42. Carriker, *supra* note 3, para. 7-8.

43. Georgia v. U.S. Army Corps of Eng'rs, 302 F.3d 1242, 1256 n.11, 1260 (11th Cir. 2002).

44. *Id.* at 1256 n.11.

for more water from the Corps and Alabama, as well as Florida's opposition to that demand.

B. The United States as an Indispensable but Absent and Unjoinable Party

1. Historically

The sovereign immunity of the United States protects it from suit without consent even if the would-be plaintiff is a sovereign state.[45] Although Congress has given blanket statutory consent for joinder of the United States as a defendant in certain kinds of water disputes,[46] it has not done so for equitable apportionment suits between states.[47] Therefore, if federal interests make the United States an indispensable party to an apportionment suit and if it does not elect to intervene, the Court must dismiss the suit.

Although the United States was not an indispensable party to apportionment of the non-navigable North Platte River when its interest was the acquisition of water-use permits under state law for federal reclamation projects,[48] it was an indispensable party to a suit by Arizona for equitable apportionment of the unappropriated waters of the navigable Colorado River.[49] In *Arizona v. California*, the Court said that it could not determine Arizona's equitable share of water impounded behind federal dams on the River "without ascertaining the rights of the United States to dispose of that water in aid and support of its project to control navigation" and without deciding the

45. *Cf.* Kansas v. United States, 204 U.S. 331, 342 (1907).

46. *See, e.g.*, McCarran Amendment, 43 U.S.C. § 666(a) (2000) (joining the United States in general stream adjudications); Reclamation Reform Act of 1982 § 221, 43 U.S.C. § 390uu (2000) (allowing suits by entities with federal reclamation contracts regarding their contractual rights).

47. 43 U.S.C. § 666(c) (2000) (stating specifically that the amendment does not authorize joinder of the United States in Supreme Court litigation regarding the right of states to use interstate streams).

48. Nebraska v. Wyoming, 295 U.S. 40, 43 (1935); *see also* Idaho *ex rel.* Evans v. Oregon, 444 U.S. 380, 385-86 (1980) (finding that the United States was not an indispensable party to a suit for equitable apportionment of anadromous fish runs in the Columbia River because no federal interest would be adversely affected).

49. Arizona v. California, 298 U.S. 558, 561, 568, 571-72 (1936).

status of federal contracts to supply water from the dams to California entities.[50]

2. *The ACF River System*

Florida contends (1) that the congressionally authorized purposes of the Lake Lanier project are only navigation, hydroelectric power, and flood control; (2) that the Corps can only supply municipal and industrial water uses in the Atlanta area from surplus water; and (3) that no surplus exists because Lake Lanier is part of a federal multiproject system on the Chattahoochee River that must be able to release water to lower federal reservoirs to meet their congressionally authorized purposes.[51] It would seem that Florida's claim, to borrow language from the Colorado River case, "cannot be judicially determined in a proceeding to which the United States is not a party and in which it cannot be heard."[52] Whether the United States would consent to joinder in an equitable apportionment suit involving the ACF River System is unclear.

C. *No Prior Congressional Allocation*

1. *Historically*

If Congress has allocated the ACF River System between the states, the federal common law doctrine of equitable apportionment does not apply.[53] The Court has no power to substitute its notion of an equitable apportionment for one enacted by Congress.[54]

Water lawyers once widely assumed that Congress lacked the constitutional power to allocate interstate rivers between states.[55] In

50. *Id.* at 571. Arizona argued that the federal interest in navigation should subordinate to its equitable share of the River until navigation was actually occurring on the River and that federal legislation had subordinated the federal navigation interest to Arizona's rights. *Id.*

51. *See* Florida's Memorandum, *supra* note 39, at 17-20.

52. Arizona v. California, 298 U.S. 558, 571 (1936).

53. Arizona v. California, 373 U.S. 546, 564-65 (1963).

54. *Id.* at 565.

55. *See* JEROME C. MUYS, NAT'L WATER COMM'N, INTERSTATE WATER COMPACTS: THE INTERSTATE COMPACT AND FEDERAL-INTERSTATE COMPACT 7 (1971).

1963, however, the Supreme Court held that Congress has the power and had exercised it in the Boulder Canyon Project Act by allocating the lower Colorado River among Arizona, California, and Nevada.[56] The intent of Congress to allocate the lower Colorado River was hardly explicit in the Act. Congress was unclear enough about manifesting its intent that the Court divided five to three on the issue.[57] The majority inferred congressional intent to allocate the water from provisions in the Act that did not explicitly discuss interstate allocation.[58]

Little is known about implicit congressional intent to allocate rivers between states. Does Congress implicitly intend an interstate allocation, or at least a partial one, whenever it builds a water project on an interstate river and specifies project purposes that affect how states use and share water? Does Congress implicitly intend a partial interstate allocation by general legislation, such as the Endangered Species Act,[59] that may affect how river basin states use water? Presently, these questions lack answers.

2. *The ACF River System*

As noted earlier, Florida contends that Congress did not include municipal and industrial uses, such as Lake Lanier project purposes, and that no surplus exists for those purposes because it is necessary to release water for other downstream federal projects so that they may serve their congressionally authorized purposes.[60] If proven, these claims could lead to the conclusion that Congress has implicitly allocated the ACF River System, at least in part, between the states.

56. Arizona v. California, 373 U.S. 546, 564-65, (1963); *see* MUYS, *supra* note 55.
57. 373 U.S. at 546.
58. *See id.* at 585-90.
59. 16 U.S.C. §§ 1531-1543 (2000).
60. *See supra* note 48 and accompanying text.

D. The Need for a State to Prove an Invasion of Its Rights of Serious Magnitude by Clear and Convincing Evidence

1. Historically

The Supreme Court regards its power "to control the conduct of one State at the suit of another" in apportionment litigation as an "extraordinary power" that it should not exercise "unless the threatened invasion of rights is of serious magnitude and established by clear and convincing evidence."[61] The Court has dismissed apportionment suits for three interstate rivers because the state seeking the apportionment did not prove that the threatened invasion of its rights was of serious magnitude.[62] Moreover, the Court has never provided an apportionment absent this proof.

The Court may have weakened the serious magnitude requirement in one of its more recent apportionment cases, *Colorado v. New Mexico.*[63] Colorado sought a decree for the Vermejo River to reallocate water from existing irrigation use in New Mexico to new uses upstream in Colorado.[64] The Court's Special Master recommended reallocation of 4000 acre-feet per year.[65] Although Colorado was the plaintiff, the Court held that New Mexico had the initial burden of proving "real or substantial injury" to its interests because it was "seeking to prevent or enjoin a diversion by another State."[66] The Court found that New Mexico met this burden because "*any* diversion by Colorado, unless offset by New Mexico at its own

61. Connecticut v. Massachusetts, 282 U.S. 660, 669 (1931), *quoted in* Washington v. Oregon, 297 U.S. 517, 522 (1936); Colorado v. New Mexico, 459 U.S. 176, 187 n.13 (1982); Nebraska v. Wyoming, 325 U.S. 589, 608 (1945); Colorado v. Kansas, 320 U.S. 383, 393 (1943).

62. Colorado v. Kansas, 320 U.S. 383, 400 (1943) (holding that Kansas did not prove "serious detriment to [its] substantial interests" in the Arkansas River); Washington v. Oregon, 297 U.S. 517, 522-23, 529 (1936) (concluding that Washington produced only "uncertain evidence of damage" to its interests in the Walla Walla River); Connecticut v. Massachusetts, 282 U.S. 660, 666-67 (1931) (finding that Connecticut failed to show harm to navigation, agriculture, or fish or water quality in the Connecticut River and that harm to a future hydropower project was too speculative).

63. 467 U.S. 310 (1984); 459 U.S. 176 (1982).

64. 459 U.S. at 177, 180 & n.6.

65. *Id.* at 180.

66. *Id.* at 187 n.12.

expense, will necessarily reduce the amount of water available to New Mexico users."[67] Even reading the word "any" in the factual context of the Special Master's recommended reallocation of 4000 acre-feet per year, the amount of water at issue was not large. It would probably irrigate only about 2000 acres in New Mexico, so the economic impact was also not significant.[68]

The Court's lenient approach to real or substantial injury is difficult to evaluate because *Colorado v. New Mexico* involved an unusual bifurcated burden of proof.[69] New Mexico had the initial burden of proof.[70] Once New Mexico proved sufficient injury to its interests, the burden shifted to Colorado to prove that it had a claim of serious magnitude for reallocation.[71] The Court's leniency regarding real or substantial injury might well carry over to the serious magnitude requirement. New Mexico, even though it was the defendant, wanted the Court to exercise its extraordinary power to control the conduct of the upstream state, Colorado.[72] This is the precise situation that gave rise to the serious magnitude requirement for entry of an equitable apportionment decree, so there is a commonality between the real or substantial injury and the serious magnitude requirements. Additionally, in *Colorado v. New Mexico*, the Court drew no distinction between the two phrases, and as authority for requiring New Mexico to prove real or substantial injury, it cited to an apportionment case that seemed to use the two phrases interchangeably.[73]

67. *Id.* at 187 n.13.

68. *See* W.S. Ranch Co. v. Kaiser Steel Corp., 439 P.2d 714, 715 (N.M. 1968) (reporting that a 1941 decree adjudicating water rights in the Vermejo River System allowed use of no more than two acre-feet of water per acre of land annually for irrigation of the parcel involved in the litigation).

69. Colorado v. New Mexico, 459 U.S. 176, 187 n.13.

70. *Id.*

71. *Id.*

72. *Id.*

73. *See id.* (citing Connecticut v. Massachusetts, 282 U.S. 660, 666, 669 (1931)) ("serious magnitude"); *Id.* at 672 ("real or substantial injury").

2. *The ACF River System*

If Florida seeks an apportionment decree for the ACF River System, it may assert that increased water consumption by Georgia would cause great ecological and economic harm to the Apalachicola Bay.[74] As further explained later in this Article, Florida's claims of ecological and economic harm have sound legal bases.[75] However, the factual bases of the claims may be more problematic. Predictions of ecological and economic harm raise complex factual issues about the consequences that varying levels of increased upstream diversions have on the Apalachicola Bay Estuary and on the industries that it supports. It is likely that the states will hotly dispute the data and scientific theories bearing on these issues. Even if the magnitude of harm that Florida must prove is not large, it must still prove the harm by clear and convincing evidence.

III. APPORTIONMENT FACTORS AND THEIR WEIGHT

The Supreme Court has said that to determine an equitable apportionment "all the factors which create equities in favor of one state or the other must be weighed . . . ."[76] The relevant factors in the ACF River System apportionment could be numerous and will remain unknown until evidentiary proceedings occur.[77] While a complete analysis of relevant factors is presently impossible, both for lack of space and for lack of developed facts, it is possible to examine three factors likely to be highly important. These factors are a harm-benefit comparison, the feasible measures to improve water use efficiency and enhance water supplies, and the protection of existing economies dependent on water.[78] This Article also includes a

74. *See Dive, Not Dip*, *supra* note 10; Seabrook, *supra* note 12; *Water Wars Our Position*, *supra* note 12.

75. *See infra* notes 79-82, 96-97 and accompanying text.

76. Colorado v. Kansas, 320 U.S. 383, 394 (1943), *quoted in* Nebraska v. Wyoming, 325 U.S. 589, 618 (1945).

77. *See, e.g.*, Colorado v. New Mexico, 459 U.S. 176, 183 (1982) (stating that the doctrine of equitable apportionment includes "consideration of many factors").

78. *See infra* Parts III.A-C.

discussion of a fourth factor of uncertain importance: the size of each state's river basin drainage area and of its contribution to stream flow.[79]

A. *Harm-Benefit Comparison*

1. *Historically*

When the Court indicated in its first interstate water allocation case that the objective is an equitable apportionment of benefits resulting from the stream flow, it compared harms and benefits from Colorado's proposed diversions of Arkansas River water that Kansas wanted blocked.[80] The Court refused to stop the Colorado diversions because

> when we compare the amount of . . . detriment [in Kansas] with the great benefit which has obviously resulted to the counties in Colorado, it would seem that equality of right and equity between the two States forbids any interference with the present withdrawal of water in Colorado for purposes of irrigation.[81]

That suit involved a riparian doctrine state and an appropriation doctrine state.[82] The ACF River System states all have water law regimes built on the riparian doctrine,[83] but the Court has compared harms and benefits regardless of the water law doctrine that the competing states use internally.[84]

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79. *See infra* Part III.D.

80. *See* Kansas v. Colorado, 206 U.S. 46 (1907).

81. *Id.* at 114.

82. *See id.* at 98. Kansas recognizes both riparian and appropriation doctrine rights, but Kansas relied mainly on a riparian doctrine claim to undiminished flow of the river. *See id.* The Court later characterized the case as a suit between a riparian doctrine state and an appropriation doctrine state. Wyoming v. Colorado, 259 U.S. 419, 464 (1922).

83. *See* William L. Andreen, Donna R. Christie, & James L. Bross, *State Surveys*, *in* 6 WATERS AND WATER RIGHTS 185, 289, 301 (Robert E. Beck ed., 1994) (discussing the regimes in Alabama, Florida, and Georgia).

84. *See* Colorado v. New Mexico, 459 U.S. 176, 178-79 (1982) (appropriation doctrine states); Nebraska v. Wyoming, 325 U.S. 589, 591-92 (1945) (appropriation doctrine states); Washington v. Oregon, 297 U.S. 517, 521 (1936) (appropriation doctrine states); New Jersey v. New York, 283 U.S. 336, 343 (1931) (riparian doctrine states by implication); Kansas v. Colorado, 206 U.S. 46, 98 (1907)

Comparison of harms and benefits requires a determination of what constitutes harm and of what constitutes benefit. The Court has taken a broad view of harms and benefits. It limited the amount of water that New York could divert from the Delaware River System to avoid downstream harm to New Jersey oyster fisheries and recreational uses dependent on river flow.[85] More recently, in a suit by Nebraska to modify a half-century-old equitable apportionment decree for the North Platte River System, the Court said harm to wildlife and wildlife habitat in Nebraska by proposed upstream diversions in Wyoming should be considered when rebalancing the equities.[86] The Court characterized the harm as "environmental injury."[87] It seems unlikely that the Court would refuse to account for other forms of environmental injury in the harm-benefit comparison.

Perhaps the high point for the harm-benefit comparison came in *Colorado v. New Mexico*.[88] New Mexico users had appropriated the full flow of the Vermejo River; no diversions of Vermejo River water existed in Colorado.[89] Colorado sought a decree "to divert water for future uses."[90] The competing states followed the appropriation doctrine,[91] and previously the Court had indicated priority of appropriation was an important factor in apportionment between appropriation doctrine states.[92] In addition, the Court previously recognized the desirability of protecting existing economies dependent on water.[93] Nonetheless, the Court announced its willingness to reallocate water from existing uses in New Mexico to

(riparian doctrine state and appropriation doctrine state).

85. New Jersey v. New York, 283 U.S. 336, 345-46 (1931). The Court refused to further limit New York's diversion in response to New Jersey's claim of threatened harm to various other interests, including navigation, shad fisheries, municipal water supply, water power development, and cultivated lands along the river. *Id.* at 343-44. However, this was because New Jersey failed to prove a material injury to these interests. *Id.* at 345. The Court's opinion contains no hint that material harm to these interests was irrelevant.

86. Nebraska v. Wyoming, 515 U.S. 1, 11-13 (1995); Nebraska v. Wyoming, 507 U.S. 584 (1993).

87. 515 U.S. at 13.

88. 459 U.S. 176 (1982).

89. *Id.* at 177-78, 180.

90. *Id.* at 177.

91. *Id.* at 178-79.

92. *See* Nebraska v. Wyoming, 325 U.S. 589, 618 (1945) (stating that priority use was a "guiding" factor but not the sole factor).

93. *See infra* notes 110-117 and accompanying text.

new uses in Colorado if "the benefit[s] [would] substantially outweigh the . . . harm that might result."[94]

New Mexico had the initial burden of proving that reallocation would substantially injure it.[95] Once New Mexico met this burden, the burden shifted to Colorado to prove that it had a claim of serious magnitude for reallocation.[96] Ultimately, the Court ruled that Colorado failed to meet its burden.[97] Colorado had neither settled on a tentative plan to construct and operate a Vermejo River reservoir within its borders nor prepared an economic analysis of proposed water uses.[98] The Court said, "[I]t would be irresponsible of us to apportion water to uses that have not been, at a minimum, carefully studied and objectively evaluated, not to mention decided upon."[99] The Court explained that "[s]ociety's interest in minimizing erroneous decisions in equitable apportionment cases requires that hard facts, not suppositions or opinions, be the basis for interstate diversions."[100] Although Colorado failed to meet its burden of proof, *Colorado v. New Mexico* established the principle that a harm-benefit comparison may support interstate reallocation of water to achieve a more equitable apportionment of benefits.[101]

2. *The ACF River System*

A harm-benefit comparison should be central to equitable apportionment of the ACF River System. Assuming there is proof of the necessary supporting facts, the Court would compare municipal and industrial water supply benefits to the Atlanta area with ecological and economic harm in Florida that would result from reduced flows. Florida may claim economic harm to its oyster, crab, and finfish industries though the basis for these claims is largely in-

94. Colorado v. New Mexico, 459 U.S. 176, 187 n.13 (1982).
95. *See supra* note 63 and accompanying text.
96. *See supra* note 64.
97. Colorado v. New Mexico, 467 U.S. 310, 321 (1984).
98. *Id.* at 320.
99. *Id.*
100. *Id.* at 320-21.
101. 459 U.S. 176 (1982); 467 U.S. 310 (1984).

stream flows unsupported by private property rights in the water.[102] The Court has extended the doctrine of equitable apportionment from interstate stream flows to interstate fish runs.[103] In doing so, the Court brushed aside the objection that private property rights in uncaptured fish does not exist, noting that "[t]he doctrine of equitable apportionment is neither dependent on nor bound by existing legal rights to the resource being apportioned."[104] The doctrine should also apply when the uncaptured resource being apportioned is water flow rather than fish.

Florida can plausibly argue that the ACF dispute parallels *Colorado v. New Mexico* because it involves a proposed reallocation of water, presently used in-stream in Florida, for new uses in Georgia.[105] Under the *Colorado v. New Mexico* model, Florida would have the initial burden of proving a threatened real or substantial injury to its interests from increased diversions in Georgia.[106] If Florida meets its burden, Georgia would have to prove that the benefits to the Atlanta area of increased diversions would substantially outweigh the harm in Florida from diminished stream flow.[107] *Colorado v. New Mexico* suggests that Georgia could not carry this burden unless it had, "at a minimum, carefully studied and objectively evaluated" its proposed water uses.[108]

B. Feasible Measures to Improve Water Use Efficiency and Enhance Water Supplies

1. Historically

Another important factor in equitable apportionment is the feasibility of building storage dams or of other measures to improve a state's water use efficiency and to enhance its water supplies. In an

102. *See* Stephenson, *supra* note 2, at 85.
103. *See* Idaho *ex rel.* Evans v. Oregon, 462 U.S. 1017 (1983).
104. *Id.* at 1025.
105. *Cf.* 459 U.S. 176, 187 n.13 (1982).
106. *Id.*
107. *Id.*
108. Colorado v. New Mexico, 467 U.S. 310, 320 (1984).

early case, the Supreme Court refused to award a state the full quantity of water that it sought and instead limited it to "the amount . . . reasonably required."[109] In *Colorado v. New Mexico*, the Court said that equitable apportionment "require[s] the reasonably efficient use of water" and also "impose[s] on States an affirmative duty to take reasonable steps to conserve and augment the water supply of an interstate stream."[110] The Court specifically required consideration of "the possibilities of equalizing and enhancing the water supply through water storage and conservation."[111]

In *Colorado v. New Mexico*, the Court also linked feasible efficiency and supply enhancement measures to the harm-benefit comparison.[112] The Court said that "an important consideration" in determining whether the benefits to Colorado would substantially outweigh the harm to New Mexico "is whether the existing [New Mexico] users could offset the [proposed Colorado] diversion by reasonable conservation measures to prevent waste."[113] The Court said that another important consideration is "whether Colorado has undertaken reasonable steps to minimize the amount of diversion that will be required."[114] However, Colorado would have benefited little, if any, from interstate reallocation if it could have freed up water from other sources within its borders through efficiency and supply enhancement and if water from those sources could have substituted for water from the Vermejo River. Thus, feasible efficiency and supply enhancement measures in both states were relevant to the apportionment question.[115]

Just as Colorado had the burden of proof in the harm-benefit comparison, it had the burden of proof on the issue of feasible measures to improve efficiency and to enhance the supply.[116] Colorado needed to show that it had taken sufficient steps within its

109. Wyoming v. Colorado, 259 U.S. 419, 496 (1922).
110. Colorado v. New Mexico, 459 U.S. 176, 185 (1982).
111. *Id.* at 189.
112. *Id.* at 188 & n.13.
113. *Id.* at 188.
114. *Id.* at 186.
115. *Id.* at 188.
116. *Colorado*, 459 U.S. at 187 n.13.

borders to minimize the new diversion required from the Vermejo River.[117] Colorado also had the burden of proving that New Mexico could mitigate the harm from a new Colorado diversion by implementing efficiency and conservation measures within New Mexico's borders.[118]

2. *The ACF River System*

Although *Colorado v. New Mexico* involved appropriation doctrine states,[119] no reason appears for limiting the requirement of feasible efficiency and supply enhancement measures to these cases. It should apply in an equitable apportionment of the ACF River System even though Alabama, Florida, and Georgia are riparian doctrine states.

As noted earlier, during the ACF Compact negotiations, Georgia and Alabama proposed to guarantee a specific minimum river flow for Florida at the state line.[120] Florida rejected the proposal on the ground that natural fluctuations in flow are necessary to protect the ecology of the Apalachicola Bay Estuary.[121] The disagreement is largely a factual dispute perhaps intertwined with issues of scientific theory. If Florida's position proves to have a solid basis, two issues concerning water use efficiency and supply enhancement measures could arise. One is the feasibility of meeting existing and anticipated water needs throughout the ACF Basin by improving efficiency in one or more of the states. The other is whether Georgia could increase water consumption while avoiding harm to Florida through the construction of storage dams that would provide enough fluctuation in flow to protect the Estuary by periodically releasing variable rates of water. Georgia would likely bear the burden of proof regarding feasible efficiency and supply enhancement measures that Florida could implement as well as those possible in Georgia.

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117. Colorado v. New Mexico, 467 U.S. 310, 320 (1984).
118. *Id.* at 316-18.
119. 459 U.S. 176 (1982); 467 U.S. 310 (1984).
120. *See supra* note 13 and accompanying text.
121. *See supra* note 14 and accompanying text.

C. *Protection of Existing Economies Dependent on Water*

1. *Historically*

The Supreme Court has shown reluctance to provide an apportionment that would take water from an established economy dependent on a continued water supply. In *Colorado v. New Mexico*, the Court faced a conflict between an existing economy in New Mexico dependent on the Vermejo River and a proposed development in Colorado that would divert from the River.[122] In this situation, the Court said that "the equities supporting the protection of existing economies will usually be compelling. 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."[123]

In *Nebraska v. Wyoming*, in which Colorado was also a party, the Court faced a conflict that arose after years of drought between two long-established economies dependent on water from the North Platte River System.[124] Colorado contained one economy and the other was far downstream in Nebraska.[125] Both Colorado and Nebraska used the appropriation doctrine internally, and the Court acknowledged that priority of appropriation is an important factor in apportionment between appropriation doctrine states.[126] Nonetheless, the Court departed from the priorities and awarded water to Colorado for appropriations that were junior in time to downstream appropriations in Nebraska.[127] The Court said that there were "countervailing equities" in favor of Colorado.[128] These equities included the speculative nature of the effect that shutting down the Colorado appropriators would have on the supply for Nebraska appropriators in

122. *See* 459 U.S. 176 (1982).
123. *Id.* at 187.
124. Nebraska v. Wyoming, 325 U.S. 589, 592-93 (1945).
125. *Id.* at 594.
126. *Id.* at 617-18.
127. *Id.* at 618-21.
128. *Id.* at 622.

times of need and the fact that Nebraska's request would cause more hardship in Colorado than benefits in Nebraska.[129]

2. *The ACF River System*

Florida likely will assert that the existing seafood industries in the Apalachicola Bay are of major economic significance and will ask the Supreme Court to protect them by an apportionment that will assure the health of the Estuary.[130] In *Colorado v. New Mexico* and in *Nebraska v. Wyoming*, one of the Court's concerns was the protection of existing economies built on proprietary water rights.[131] Florida will probably base its claim regarding the seafood industries more on public rights to use Estuary waters than on proprietary water rights. However, the Court is unlikely to regard this difference as significant. Economic disruption can be just as real when an economy depends on public, rather than proprietary, rights in water. Also, Florida's reliance interest in exercising public rights is no less substantial than it would be with proprietary water rights because a later apportionment can wipe out the proprietary rights with no recourse, even when they were recognized by state court decree.[132] Furthermore, insofar as the ultimate objective in equitable apportionment is to give each state an equitable share of benefits from stream flow, it seems unimportant whether the benefits derive from public or proprietary rights to water.[133] The important consideration is how the allocation of stream flow will affect the interstate distribution of resulting benefits.

While Florida may claim protection of an existing economy, Georgia may argue that the conflict is not merely between an existing economy in Florida and proposed water use in Georgia but is between existing economies in both states. Georgia will likely argue that a lack of additional water will halt growth in the Atlanta area and will cause its economy to stagnate and then to shrink because of

129. *Id.* at 619.
130. *See* Mahlburg, *supra* note 14; *Water Talks a Washout*, *supra* note 16.
131. Colorado v. New Mexico, 459 U.S. 176 (1982); Nebraska v. Wyoming, 325 U.S. 589 (1945).
132. *See* Hinderlider v. La Plata River & Cherry Creek Ditch Co., 304 U.S. 92, 101-02 (1938).
133. *See supra* note 14 and accompanying text.

reduced construction activity and because of the ripple effect in other areas of that economy. Of course, Georgia must engage in sophisticated empirical and theoretical work to sustain this argument.

D. Size of Drainage Areas and Contributions to Stream Flow

1. Historically

The Supreme Court has been unclear about the relevance to equitable apportionment cases of the amount of drainage area located in each competing state and of the amount of water that each state's drainage area contributes to the stream flow. The uncertainty began with the Court's first interstate water allocation case, *Kansas v. Colorado.*[134] After deciding that the dispute presented a justiciable controversy, the Court ordered the parties to collect evidence on various matters including "the extent of the watershed or the drainage area of the Arkansas River."[135] The Court said nothing about determining how much of the drainage area existed in each state, but determining the total drainage area would almost inevitably reveal, at least in rough terms, how much of the total area is in each state. However, in the later proceeding when the Court reached the merits of the equitable apportionment claim, it said nothing about the drainage area affecting the result.[136]

Drainage area and contribution to stream flow seemed to play some unascertainable role in the only case in which the Court entered an apportionment decree among riparian doctrine states, *New Jersey v. New York.*[137] There, the Court limited New York's diversions from the Delaware River System to maintain certain flow benefits downstream in New Jersey and Pennsylvania.[138] The decree required that New York release water from storage reservoirs to maintain minimum downstream flows of .50 cubic feet per second per square mile ("c.s.m.") at Port Jervis, New York and at Trenton, New

134. Kansas v. Colorado, 185 U.S. 125 (1902); Kansas v. Colorado, 206 U.S. 46 (1907).
135. 185 U.S. at 141-45, 147.
136. *See* Kansas v. Colorado, 206 U.S. 46 (1907).
137. 283 U.S. 336 (1931).
138. *Id.* at 346-48.

Jersey.[139] Due to differing drainage areas for the two measuring points, .50 c.s.m. translated into a flow of 1535 cubic feet per second at Port Jervis and 3400 cubic feet per second at Trenton.[140] The decree included a proviso that New York never had to release more than 30% of the yield from the drainage area where it diverted the water from reservoir storage.[141]

By defining New York's water delivery obligation in terms of c.s.m., the Court linked the amount delivered to the size of the drainage area supplying each of the two measuring points and to the amount of water contributed to the stream per square mile of drainage area.[142] The Court's proviso linked New York's delivery obligation to the would-be contribution from the drainage areas to stream flow but for the storage.[143] Unfortunately, the Court provided no explanatory discussion for these linkages of drainage area and contribution to stream flow.[144]

Most recently, in *Colorado v. New Mexico*,[145] Colorado sought to gain advantage from the fact that about three-fourths of the Vermejo River's flow came from rain and snowmelt within its borders.[146] The Court had rejected a per se rule of apportionment that would automatically give water to a state based on origination of flow because this rule would conflict with the "emphasis on flexibility in equitable apportionment . . . ."[147] Colorado then argued that, even without a per se rule, the place where the water originates should be a relevant factor in equitable apportionment.[148] However, the Court responded:

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139. *Id.* at 346-47. Cubic feet per second per square mile ("c.s.m.") is the flow in cubic feet per second divided by the drainage area in square miles. RAY K. LINSLEY ET AL., HYDROLOGY FOR ENGINEERS 116 (3d ed. 1982).

140. 283 U.S. at 346.

141. *Id.* at 347.

142. *Id.*

143. *Id.* at 346-47.

144. *See* New Jersey v. New York, 283 U.S. 336 (1931).

145. 467 U.S. 310 (1984).

146. *Id.* at 323.

147. Colorado v. New Mexico, 459 U.S. 176, 188 n.8 (1982).

148. Colorado v. New Mexico, 467 U.S. 310, 323 (1984).

> Both Colorado and New Mexico recognize the doctrine of prior appropriation, and appropriative, as opposed to riparian, rights depend on actual use, not land ownership. It follows, therefore, that the equitable apportionment of appropriated rights should turn on the benefits, harms, and efficiencies of competing uses, and that the source of the Vermejo River's waters should be essentially irrelevant to . . . these sovereigns' competing claims.[149]

The Court's reference to the fact that the riparian doctrine ties water rights to ownership of riparian land, unlike the appropriation doctrine, may leave open the possibility that the origin of an interstate river's water would be relevant in apportionment litigation between riparian doctrine states. However, the Court's reference to this fact is puzzling because much of the run-off within a state that contributes to stream flow might originate from rainfall or snowmelt on nonriparian land. It is difficult to see why tying riparian water rights to ownership of riparian land should make the amount of a state's contribution to stream flow relevant to equitable apportionment.

2. *The ACF River System*

The drainage area of the ACF River System is not equal among the three states; almost three-fourths of it is in Georgia.[150] The significance of this to an apportionment decree is uncertain at best given the Court's enigmatic treatment of drainage area and contribution to stream flow in equitable apportionment cases.

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149. *Id.* (citations omitted); *see* Joseph W. Dellapenna, *The Right to Consume Water Under "Pure" Riparian Rights*, *in* 1 WATERS & WATER RIGHTS 7-2 (Robert E. Beck ed., repl. vol. 2001) (discussing riparian rights and stating, "[t]he basic concept of riparian rights is that an owner of land abutting a water body has the right to have the water continue to flow across or stand on the land, subject to the equal rights of each owner to make proper use of the water.").

150. Jeffrey L. Jordan, *Negotiating Water Allocation Using a Comprehensive Study Format: The "Tri-State Water Wars"*, 118 WATER RESOURCES UPDATE 38, 38 (Universities Council on Water Resources 2001).

E. Weighing the Factors

The Supreme Court has said little about how it weighs conflicting apportionment factors, and what it has said leaves much room for interpretation. After stating in *Colorado v. New Mexico* that protection of existing economies dependent on water will usually be compelling, the Court added:

> Under some circumstances, however, the countervailing equities supporting a diversion for future use in one State may justify the detriment to existing users in another State. This may be the case, for example, where the State seeking a diversion demonstrates by clear and convincing evidence that the benefits of the diversion substantially outweigh the harm that might result.[151]

Obviously, the words "may" and "substantially" are ambiguous.

With the word "may" it is hard to tell how much the facts of the case motivated and limited the Court's statement. Water users in New Mexico had fully appropriated the Vermejo River, and there were no existing Colorado appropriations.[152] The Court's opinion contains no hint that either state was realizing in-stream flow benefits.[153] If neither was realizing in-stream flow benefits, New Mexico was getting all the benefits from diverting the stream flow, and Colorado was receiving none. To vary the facts, suppose that half of the existing appropriations were in Colorado but that Colorado could use additional water reallocated from New Mexico far more productively than New Mexico users. Would the Court still say that the substantial benefits in Colorado from new water use compared to the small harm in New Mexico *may* justify reallocation? If the objective is an equitable apportionment of benefits resulting from the stream flow,[154]

151. 459 U.S. 176, 187 (1982).
152. *Id.* at 180.
153. 459 U.S. 176 (1982).
154. *See supra* note 21 and accompanying text.

it is far from clear that a state already receiving significant benefits, perhaps to the point of an equitable share of benefits, could invoke a harm-benefit comparison to increase its benefits, even if the harm resulting to the other state would be small by comparison. Equitable apportionment of benefits is not necessarily the same as interstate maximization of benefits.[155]

The word "substantially" raises the question of how big is substantial. Additionally, it raises the issue of how to compare harms and benefits when some of them lack marketplace valuation or ready commensurability in other terms. In *New Jersey v. New York*, the Court seemed to regard the benefits of more water for New York City as important.[156] The Court would likely regard the benefits of more water for the Atlanta area in the same way, but there is no guidance in the cases on how to weigh municipal water supply benefits against the ecological harm to the Apalachicola Bay Estuary.

Although the Court has provided little specific guidance about weighing apportionment factors that conflict, it has commented on a more general level that equitable apportionment is "a flexible doctrine which calls for 'the exercise of an informed judgment on a consideration of many factors' . . . ."[157] Weighing many factors has a perverse side effect. Professor, later Justice, Stephen G. Breyer noted that the existence of multiple decision-making criteria for administrative agencies "effectively allows . . . near-total discretion."[158] The effect of multiple decision-making factors is the same in the judicial arena as it is in the administrative agency arena—near-total discretion. The discretionary weighing process in equitable apportionment cases, perhaps compounded by the paucity of opinions showing how the Court weighs different factors in particular

155. *See* Nebraska v. Wyoming, 325 U.S. 589, 621 (1945) (stating that simply because water might produce more in Nebraska than in Colorado was "immaterial" to the decree); Wyoming v. Colorado, 259 U.S. 419, 468-70 (1922) (rejecting Colorado's argument that it could use the water more productively than Wyoming).

156. *See* New Jersey v. New York, 283 U.S. 336, 344-45 (1931) ("Some plan [to provide more water for New York City] must be formed and soon acted upon . . . .").

157. Colorado v. New Mexico, 459 U.S. 176, 183 (1982).

158. STEPHEN BREYER, REGULATION AND ITS REFORM 79 (1982).

situations, makes it not just difficult but impossible to predict with confidence and specificity the outcome of apportionment litigation.

CONCLUSION

During the 1920s, states interested in interstate water allocation generally decided that they preferred to negotiate compacts rather than litigate for an equitable apportionment decree.[159] In significant part, this was because states regarded apportionment litigation as too unpredictable.[160] The Supreme Court had decided two apportionment cases at that time,[161] and the results were "unsatisfactory to both sides of each litigated case."[162] The Court has since added to the body of equitable apportionment case law but unpredictability remains the hallmark of this litigation. If anything, the Court's development in later cases of a multifactor approach to apportionment has increased the unpredictability.

This Article has explored issues likely to be prominent in apportionment litigation for the ACF River System. The most certain, and most important, possibility is that the litigation inevitably will take unexpected twists and turns and that the outcome will unpleasantly surprise at least one of the litigating states. If history is a guide, it could unpleasantly surprise all of them. Prudence suggests the need for greater effort by the states to negotiate a solution because it offers them the advantage of greater control over the outcome than a Supreme Court decree under the vague standard of equitable apportionment.

159. *See* M.C. Hinderlider & R.I. Meeker, *Interstate Water Problems and Their Solutions*, 90 TRANSACTIONS AM. SOC'Y CIV. ENGINEERS 1035, 1039 (1927).

160. *See id.* at 1048 (asserting that litigation tends to lead to incomplete or perverted factual presentations, which then become the basis for the Court's decision, and that the law of equitable apportionment is susceptible to "considerable variation in interpretation").

161. Kansas v. Colorado, 185 U.S. 125 (1902); Kansas v. Colorado, 206 U.S. 46 (1907); Wyoming v. Colorado, 259 U.S. 419 (1922); *see* Hinderlider & Meeker, *supra* note 159, at 1041-42.

162. Hinderlider & Meeker, *supra* note 159, at 1039, 1052-61 (discussion of interstate water problems by Frank C. Emerson).