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EVOLVING UNDERSTANDINGS OF EQUITABLE APPORTIONMENT AND WATER RIGHTS AT THE FLORIDA-GEORGIA LINE

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AUTHOR'S NOTE: Just before the publication of this note, Special Master Ralph Lancaster issued his Report in *Florida v. Georgia*. While not binding on the Supreme Court, the report recommends a denial of Florida's request for relief. Specifically, Lancaster pointed out that Florida did not meet its burden of showing that it would suffer material harm without the apportionment—in the form of a cap on Georgia's water consumption—that it requested. The Special Master's utilitarian recommendation is somewhat surprising given past cases recognizing environmental harm. Still, the Special Master's emphasis on the Army Corps of Engineers' discretion in the operation of water controls in the ACF Basin⁴ appears to qualify his answer and suggests that there are still more battles to be fought in these water wars.

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[†] Duke University School of Law, J.D. expected 2017; University of Florida, B.A. 2014. I would like to thank the members of the Duke Environmental Law and Policy Forum for their help in preparing this note for publication. I would also like to thank my wife, Victoria Perez, for her constant encouragement and would like to thank my family for cultivating my love for Florida's natural resources.

^{1.} Report of the Special Master February 14, 2017, Florida v. Georgia, No. 22O142 ORG (U.S. 2013).

^{2.} Id. at 70.

^{3.} Id. at 68-69.

^{4.} See, e.g., id. at 69 (noting the Corp's "extensive discretion" and ability to determine when to increase or decrease water flows).

"Yeah, way down yonder on the Chattahoochee Never knew how much that muddy water meant to me."⁵

I. Introduction

Water scarcity has received much attention in recent years. With extensive droughts in western states such as California, Nevada, and Arizona, the issue of water use—who may use, how much, and for what—has grown in importance. States east of the Mississippi have for the most part been spared the difficult questions of water rights and allocation that western states have historically faced.⁶ However, over the past three decades, a tense water dispute has emerged in the east between Florida, Alabama, and Georgia over the Apalachicola-Chattahoochee-Flint River (ACF) River Basin.⁷ This dispute has now reached a critical point in *Florida v. Georgia*,⁸ a case within the Supreme Court's original jurisdiction⁹ and currently under consideration by a special master.¹⁰

In one of the few major equitable apportionment cases in the east,¹¹ Florida has asked the Court to equitably apportion—that is, fairly divide among the affected states—water flows from the ACF River Basin, flows that Florida claims are being impeded by water use in Georgia.¹² Florida's theory of the case, which highlights ecosystem effects and incorporates environmentally guided arguments,¹³ presents an opportunity for the Supreme Court to better tailor its equitable apportionment doctrine to address contemporary understandings of environmental interrelationships and the values of ecosystem services.

^{5.} ALAN JACKSON, *Chatahoochee*, *on* A LOT ABOUT LIVIN' (AND A LITTLE 'BOUT LOVE) (Arista Records 1992).

^{6.} See Barton H. Thompson, *The Role of the Courts in Water Law*, 66 S.C. L. REV. 581, 581 (2015) (discussing the differences and fragmentation of water rights across the United States).

^{7.} See generally Florida's Complaint for Equitable Apportionment & Injunctive Relief, Florida v. Georgia, No. 22O142 ORG (U.S. 2013) [hereinafter Complaint] (asserting Florida's right to equitable apportionment of the Apalachicola-Chattahoochee-Flint River Basin).

^{8.} Id.

^{9.} U.S. CONST. art. III, § 2, cl. 2 ("In all Cases . . . in which a State shall be Party, the Supreme Court shall have original Jurisdiction.").

^{10.} William Droze, Angela Levin & Kate Warihay, *Special Master Appointed in Florida v. Georgia "Water Wars" and New ACT Lawsuits*, ENVTL. LAW & P. MONITOR (Jan. 5, 2015), http://www.environmentallawandpolicy.com/2015/01/special-master-appointed-in-florida-v-georgia-water-wars-and-new-act-lawsuits/.

^{11.} See, e.g., Nebraska v. Wyoming, 325 U.S. 589, 645 (1945) (finding a flat percentage appropriation to be the most equitable method of division after taking into consideration the principle of priority of appropriation and other relevant factors).

^{12.} Complaint, supra note 7, at 21.

^{13.} Id. at 17-20.

This paper explores Florida v. Georgia in light of the novel arguments presented and their potential interactions with the existing equitable apportionment framework. Part II begins by briefly profiling the ACF River Basin and the various uses of its water flows in Florida, Georgia, and Alabama. Next, it traces the history of the ACF dispute (and the agreements preceding it), noting the various failed attempts to resolve this complex tri-state issue. Part II concludes with a consideration of each party's interest in Florida v. Georgia, paying special attention to the elements that make this case unique. Part III focuses on laying out the current equitable apportionment doctrine and describes the key cases (notably, nearly all cases between western states) on the subject.¹⁴ Part IV examines the specific environmentalist justifications for apportionment that Florida is presenting in this case, which contrast markedly from Georgia's more traditional economic and use-based arguments. This section also looks at Alabama's interests as an intervener in the case. Finally, Part V offers predictions for how Florida v. Georgia may ultimately be resolved and what sorts of injuries the Court will be willing to consider in deciding the case. Specifically, it will explore whether the arguments presented in Part IV might find a place in equitable apportionment doctrine and, if so, what sort of outcomes the doctrine might produce in both this water rights dispute and others that could arise in the future. When appropriate, the paper will approach each state's interests and arguments in turn, working downstream from Georgia through Alabama and ending in Florida to highlight the flow of effects southward through the ACF River Basin.

II. THE RIVER, THE PARTIES, AND THE CASE: WHAT'S AT STAKE

The facts of *Florida v. Georgia* are complex. The case involves a system of three major rivers flowing through and providing water for as many states (Florida, Georgia, and Alabama).¹⁵ Each state involved in the dispute uses the water for different purposes—purposes that, they argue, are often at odds with one another.¹⁶ Moreover, the ACF River Basin has been the subject of litigation since the late 1980s,

^{14.} See, e.g., Nebraska, 325 U.S. at 617–18 (discussing factors to be considered when making equitable appropriation decisions).

^{15.} Complaint, *supra* note 7, at 1–2.

^{16.} See Douglas L. Grant, Interstate Allocation of Rivers Before the United States Supreme Court: The Apalachicola-Chattahoochee-Flint River System, 21 GA. St. U. L. Rev. 401, 401–02 (2004) (noting Georgia's desire to increase water consumption for municipal and industrial purposes, while Florida and Alabama fear the adverse impacts this would have on their communities, both ecologically and economically).

resulting in a veritable saga of cases preceding this one.¹⁷ This section unpacks these key issues of use and the history of failed compromises and stopgap measures. First, it provides an overview of the ACF River Basin, focusing on its ecology and water flows. Next, this section considers the ways in which Florida, Georgia, and Alabama each use flows from the ACF River Basin and how these uses are interrelated. Finally, the section summarizes key moments in the ACF litigation saga, which includes interstate negotiations, failed compromises, and court cases ranging from district courts to the Supreme Court of the United States.

A. The ACF River Basin

The ACF River Basin consists of three major rivers in Alabama, Georgia, and Florida. The Chattahoochee River originates in Helen, Georgia (north of Atlanta) and flows 436 miles southwestward, mostly along the Alabama-Georgia state line, until emptying into Lake Seminole in the Florida panhandle. The Flint River originates south of Atlanta and flows southward through Georgia for 346 miles before it too empties into Lake Seminole. Lake Seminole, in turn, serves as the point of origin of the Apalachicola River, which flows southward from the lake through the Florida panhandle and empties into the Apalachicola Bay in the Gulf of Mexico. The server is a server or server in Alabama, Georgia (north of Alabama) and flows 436 miles southwestward, mostly along the Apalachicola River originates in Helen, Georgia (north of Atlanta) and flows 436 miles southwestward, mostly along the Alabama-Georgia state line, until emptying into Lake Seminole in the Florida panhandle and empties into the Apalachicola Bay in the Gulf of Mexico.

The ACF River Basin is home to a number of human, animal, and plant populations. In 2010, 3.835 million people lived within the River Basin—92 percent of these people in the state of Georgia and 75 percent just within the city of Atlanta alone.²² The remaining 8 percent of the population lives in much smaller communities of fewer than 200,000 in Florida and Alabama.²³ The ACF River Basin is also home to around 150 species of fish (several of which are listed as threatened, rare, unusual or of special concern by at least one state or the U.S. Fish

^{17.} Dustin S. Stephenson, *The Tri-State Compact: Falling Waters and Fading Opportunities*, 16 J. LAND USE & ENVTL. L. 83, 86–88 (2000) (describing series of litigation between Alabama, Florida, and Georgia over the ACF River Basin).

^{18.} STEPHEN J. LAWRENCE, U.S. GEOLOGICAL SURVEY SCIENTIFIC INVESTIGATIONS REPORT 2016-5007, WATER USE IN THE APALACHICOLA-CHATTAHOOCHEE-FLINT RIVER BASIN, ALABAMA, FLORIDA, AND GEORGIA, 2010, AND WATER USE TRENDS, 1985–2010 1 (2016) [hereinafter 2016 USGS REPORT].

^{19.} Id. at 18.

^{20.} Id. at 20-21.

^{21.} Id. at 15.

^{22.} Id.

^{23.} Id. at 15-16

and Wildlife Service) and forty-nine species of mussel.²⁴ The ACF River Basin contains the highest species density of amphibians and reptiles in North America north of Mexico.²⁵ The region is also home to 1,600 plant species, including the Ogeechee tupelo tree, which is the primary source of tupelo honey in the United States.²⁶ More than 100 total species in the ACF River Basin are designated as threatened, endangered, or of concern.²⁷

B. Dueling Uses

The dispute over water rights in the ACF River Basin can be characterized rather succinctly: it is a case of dueling uses. Generally speaking, both Florida and Alabama claim that their uses of water flows from the ACF River Basin are being hindered by uses upstream, primarily those in the Atlanta area.²⁸ Because of the interconnected nature of the Flint, Chattahoochee, and Apalachicola Rivers, they argue, water withdrawals in Georgia limit the flows in Alabama and Florida.²⁹ Each day, roughly 1,645 million gallons of water are withdrawn from the ACF River Basin for a variety of uses by a variety of users—most of these withdrawals (around 1,068 million gallons per day) are from surface water.³⁰ Interestingly, the primary use of the ACF River Basin's flows differs in each state; some of these uses are withdrawal-heavy, while others are not.³¹ It is this fact that makes Florida v. Georgia especially likely to have a substantial impact on the evolution of equitable apportionment doctrine. In order to understand just how these different uses might conflict with one another, it is best to travel downstream with the water flowing through the ACF River Basin.

^{24.} Carol A. Couch, U.S. GEOLOGICAL SURVEY, NATIONAL WATER-QUALITY ASSESSMENT PROGRAM: ENVIRONMENTAL SETTING OF THE APALACHICOLA-CHATTAHOOCHEE-FLINT RIVER BASIN, http://ga.water.usgs.gov/nawqa/publications/environ.ht ml (last visited Nov. 14, 2016).

^{25.} Brief in Support of Motion for Leave to File a Complaint at 15, Florida v. Georgia, No. 22O142 ORG (U.S. 2013) [hereinafter Brief].

^{26.} Complaint, supra note 7, at 10.

^{27.} Id.

^{28.} Grant, supra note 16, at 402.

^{29.} Id.

^{30. 2016} USGS REPORT, supra note 18, at 24.

^{31.} See Matthew Z. Leopold, Florida's Fight to Save the Apalachicola: An Environmental and Cultural Treasure at Risk, 46 No. 1 ABA TRENDS 13, 14 (2014) (comparing the immense differences in use by the states of the water system).

At issue in *Florida v. Georgia* is Georgia's primary use of the ACF River Basin's flows as a source of the state's public water supply.³² Public water supply is water that is "withdrawn, treated, and delivered to domestic (residential), commercial, and industrial customers by public water suppliers," such as municipal governments and utilities.³³ Because northern Georgia lacks significant groundwater resources, the Chattahoochee River serves as the main source of public water for Atlanta, the largest metropolitan area in Georgia.³⁴ Over the past fifteen years, the population of Atlanta—a population served by the Chattahoochee—has increased at a rate of around 24 percent.³⁵ As a result, Georgia's withdrawals in the ACF River Basin are significant; in 2010, Georgia was responsible for 83 percent of surface water withdrawals within the ACF River Basin, which went to serve 93 percent of the ACF River Basin's public water-supplied residents.³⁶ Georgia has projected that it will need to double its withdrawals from the river by 2040 to serve its growing population.³⁷ That being said, despite the growth in Atlanta's population, surface water withdrawals from the Chattahoochee River Basin have actually decreased since 2000.38

Alabama, too, is chiefly concerned with withdrawing water from the ACF River Basin in order to support its population (with specific concerns as to sewage discharge).³⁹ In 2010, Alabama's surface water withdrawals accounted for roughly 16 percent of those within the ACF River Basin, which went to serve approximately 5.7 percent of the basin's population via public water suppliers.⁴⁰ These flows, Alabama contends, are particularly important to spur development in the state's sparsely populated eastern counties along the Georgia border.⁴¹

- 32. Brief, *supra* note 25, at app. 4 (Aff. of Judson H. Turner).
- 33. USGS REPORT, supra note 18, at 6.
- 34. Lewis B. Jones & John L. Fortuna, Florida's (Truly) Original Action and Why It's Unlikely to Advance the ACF Interstate Water Rights Dispute, 46 No. 2 ABA TRENDS 19, 20–21 (2014).
 - 35. ATLANTA REGIONAL COMMISSION, STATE OF THE ATLANTA REGION: 2011 1.
 - 36. USGS REPORT, *supra* note 18, at 1.
 - 37. Brief, supra note 25, at app. 3–5.
 - 38. USGS REPORT, supra note 18, at 41–42.
- 39. Jeffrey Uhlman Beaverstock, Learning to Get Along: Alabama, Georgia, Florida and the Chattahoochee River Compact, 49 ALA. L. REV. 993, 996 (1998) ("However, Alabama's concern is not only with the amount of water that reaches the state, but also the quality of that water Currently, Atlanta discharges large amounts of treated waste into the Chattahoochee.").
 - 40. USGS REPORT, supra note 18, at 1.
- 41. See Sean Selman, Water Dispute Unites Diverse State Interests, MONTGOMERY ADVERTISER, Aug. 4, 1996, at 1A.

Despite the interest with water use that it shares with Georgia, Alabama has somewhat consistently sided with Florida in the ongoing water rights dispute because of its concerns about the quality of the water it receives from upstream Atlanta.⁴²

Florida's uses of ACF River Basin flows, meanwhile, are almost entirely non-extractive and are instead based on Apalachicola River's role in maintaining the Apalachicola Bay's ecology by supplying freshwater. 43 The Apalachicola Bay is one of just twenty-eight federal National Estuarine Research Reserves in the United States, and, as noted above, is home to an abundance of marine life. 44 Specifically, the Bay serves as a spawning ground for blue crabs and a forage area for a number of fish species and migratory birds. 45 Notably, the Apalachicola Bay's oyster fishery has "created over many decades a regional economy and a unique way of life"46 in the region focused on a "strong maritime culture . . . [and] some of the finest oysters in the country."⁴⁷ In 1995, for example, Apalachicola Bay accounted for 12–13 percent and 90 percent of the U.S. and Florida oyster harvests, respectively; those numbers remained stable through 2011.⁴⁸ Florida also receives several ecosystem service benefits from the Apalachicola River, including flood mitigation and attenuation, water filtration, and waste assimilation.⁴⁹ Meanwhile, Florida's surface water withdrawals from the ACF River Basin are fairly low due to a combination of the Apalachicola Bay region's low population and an ample supply of water from the Floridian aquifer system.⁵⁰ In fact, Florida's surface

^{42.} Beaverstock, supra note 39, at 996.

^{43.} See Complaint, supra note 7, at 2–3 (noting the important role the ACF River Basin plays in maintaining Florida's riverine and estuarine habitats and the effects flow depletions caused by upstream uses have had on these areas).

^{44.} Leopold, supra note 31, at 13.

^{45.} Apalachicola Bay Aquatic Preserve, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, http://www.dep.state.fl.us/coastal/sites/apalachicola/aquatic.htm (last visited Nov. 15, 2016).

^{46.} Leopold, *supra* note 31, at 13.

^{47.} APALACHICOLA BAY CHAMBER OF COMMERCE, http://www.apalachicolabay.org/ (last visited Nov. 14, 2016).

^{48.} Compare USGS REPORT, supra note 18, at 1 with Brief, supra note 21, at 6 (reporting Apalachicola Bay's share of U.S. oyster production as 13 percent and 12 percent, respectively). Alyssa S. Lathrop, Comment, A Tale of Three States: Equitable Apportionment of the Apalachicola-Chattahoochee-Flint River Basin, 36 FLA. ST. U.L. REV. 865, 869 (2009).

^{49.} Complaint, *supra* note 7, at 13.

^{50.} See USGS REPORT, supra note 18, at 15 (finding that "[a]bout 92% of the 2010 ACF population resided in Georgia" and noting how the nature of Florida's aquifer system, composed of layers of various sediments with many underground channels and cavities, provides large amounts of water).

water withdrawals account for just 4 percent of all ACF River Basin withdrawals, and none of the surface water withdrawn by Florida is used for public water supply.⁵¹

C. Water Wars

The ACF River Basin has been a water rights battleground since the late 1980s. ⁵² Beginning in 1989, the U.S. Army Corps of Engineers, which operates the main dam north of Atlanta, increased its withdrawal of water from the Chattahoochee River by 529 million gallons per day—an increase of over 50 percent—in response to a water crisis and anticipated population growth in northern Georgia.⁵³ In June 1990, Alabama filed suit against the Corps, seeking to enjoin the Corps from increasing withdrawals from Lake Lanier, near the headwaters of the ACF system, and to force compliance with the National Environmental Policy Act. 54 This litigation was stayed while Alabama, Florida, and Georgia met at the negotiating table to attempt to resolve the ACF issue out of court.55 These negotiations resulted in a 1992 Memorandum of Agreement, which allowed each state to continue its withdrawals with increases allowed only in response to "reasonable" demand."⁵⁶ The Memorandum was incorporated into the 1997 ACF Compact.⁵⁷ This agreement represented a congressionally sanctioned attempt by the three states to solve the problem of ACF water allocation, but it ended in 2003 without any long-term solution in place.58

In the years following the collapse of the ACF Compact, Alabama, Florida, and other parties continued to oppose Georgia's ongoing plans to increase water withdrawals at Lake Lanier, while Georgia itself challenged the Corps' denials of its requests for increased withdrawals.⁵⁹ Since 2003, this water war has been waged on several fronts: the Middle District of Florida,⁶⁰ the Northern District of

^{51.} Id. at 26.

^{52.} See Stephenson, supra note 17, at 86 (noting that "problems first arose in 1986, when Georgia weathered an extreme drought").

^{53.} Id.

^{54.} Alabama v. U.S. Army Corps of Eng'rs, 424 F.3d 1117, 1122-23 (11th Cir. 2005).

^{55.} Id. at 1123.

^{56.} *Id*.

^{57.} H.R.J. Res. 91, 105th Congress (1997).

^{58.} Lathrop, *supra* note 48, at 870–71.

^{59.} Id. at 872-73.

^{60.} In re Tri-State Water Rights Litigation, 639 F.Supp.2d 1308, 1355–56 (M.D. Fla. 2009) (holding that reallocation of reservoir's water storage capacity for local consumption without

Alabama, ⁶¹ the 11th Circuit, ⁶² and D.C. Circuit ⁶³ all heard cases related to the ACF dispute. With the 11th Circuit's decision in *In Re MDL-1824 Tri-State Water Rights Litigation*, 644 F.3d 1160, which held that the Corps was authorized to allocate Lake Lanier reservoir water for Georgia's water supply under the Rivers and Harbors Act, it appeared that the dispute had been resolved in Georgia's favor (pending a final decision by the Corps). ⁶⁴

However, Florida reopened the issue in an October 1, 2013 complaint invoking the Supreme Court's original jurisdiction over interstate water rights disputes and calling for an equitable apportionment of the ACF River Basin's flows. 65 The Supreme Court agreed to hear the case, originally distributing it for conference during its Spring 2014 term. 66 At the Court's request, the United States filed an amicus curiae brief on September 18, 2014, in which it maintained its position that the Supreme Court should refrain from deciding the case until the Corps made a decision (expected in 2017) on a revised ACF River Basin plan.⁶⁷ Since November 19, 2014, the case has been under consideration by a Court-appointed Special Master, Ralph Lancaster, who will review evidence and ultimately recommend a decision to the Supreme Court.⁶⁸ Lancaster is no stranger to water disputes—he previously served as a Special Master in a dispute between Virginia and Maryland over flows from the Potomac River.⁶⁹ His recommendation in that case came after three years of evidence collection and review; it is expected that he will be working on a similar timetable in *Florida v. Georgia*.⁷⁰

congressional approval violated Water Supply Act), rev'd, 644 F.3d 1160, 1200-01 (11th Cir. 2011).

- 64. In re MDL-1824, 644 F.3d at 1205.
- 65. Complaint, supra note 7, at 1.

- 69. Id
- 70. Id.

^{61.} Alabama v. U.S. Army Corps of Eng'rs, 441 F.Supp 2d 1123, 1124 (N.D. Ala. 2006) (dealing with a "taking" of protected mussels based on Army Corps' building of dams).

^{62.} See, e.g., Alabama v. U.S. Army Corp of Eng'rs, 424 F.3d 1117, 1135–36 (11th Cir. 2005) (invalidating injunction against Army Corps); *In re* MDL-1824 Tri-State Water Rights Litigation, 644 F.3d 1160, 1205 (11th Cir. 2011) (authorizing Army Corps to store water in reservoirs in ACF River Basin).

^{63.} Se. Fed. Power Customers, Inc. v. Green, 514 F.3d 1316, 1322–23 (D.C. Cir. 2008) (considering multi-state agreement and states' standing).

^{66.} Florida v. Georgia, SCOTUSBLOG: SUPREME COURT OF THE UNITED STATES BLOG, http://www.scotusblog.com/case-files/cases/florida-v-georgia-2/ (last visited Nov. 14, 2016).

^{67.} Brief for the United States as Amicus Curiae at 17, Florida v. Georgia, No. 22O142 ORG (U.S. 2013).

^{68.} Droze, Levin & Warihay, supra note 10.

III. THE DOCTRINE: EQUITABLE APPORTIONMENT AND ITS HISTORY

As discussed above, equitable apportionment is a unique power of the Supreme Court, which hears controversies between states. This section outlines the origins and evolution of that doctrine, specifically by discussing the seminal cases in the area of equitable apportionment. These cases are generally divided into two categories: those involving western states and those involving eastern states, with the former drastically outweighing the latter. This division reflects the differing requirements of states in each region vis-à-vis water rights. Because Florida and Georgia are eastern states with relatively plentiful water resources, the most analogous cases to *Florida v. Georgia* will naturally be those between other eastern states. Still, it is important to look to western cases for guidance, as these cases make up the bulk of equitable apportionment precedent.

A. The Supreme Court's Power

Article III, section 2 of the Constitution of the United States provides that the judicial power shall extend to "Controversies between two or more States" and that the Supreme Court shall have original jurisdiction over cases "in which a State shall be a Party[.]" By definition, interstate water disputes meet both of these criteria, putting them on a fast track to hearing before the Supreme Court of the United States. Additionally, the Supreme Court has determined that interstate waters are covered under its Interstate Commerce Clause authority. In these cases, the Supreme Court wields a powerful common law tool in the form of equitable apportionment. In an equitable apportionment action, the Supreme Court determines whether and how the flows from a shared water source should be

^{71.} See U.S. CONST., art. III, § 2, cl. 1 (describing Supreme Court power over "controversies between two or more states").

^{72.} See James Rasband, James Salzman & Mark Squillace, Natural Resources Law and Policy 758–59, (2d ed. 2009) (contrasting eastern states' riparian rights systems against western states' systems based on prior appropriation).

^{73.} U.S. CONST., art. III, § 2, cl. 1.

^{74.} U.S. CONST., art. III, § 2, cl. 2.

^{75.} Sporhase v. Nebraska, ex. rel. Douglas, 458 U.S. 941, 953–54 (1982).

^{76.} William D. Olcott, *Equitable Apportionment: A Judicial Bridge over Troubled Waters*, 66 NEB. L. REV. 734, 737 (1987) (explaining "[t]he doctrine of equitable apportionment is a form of federal common law" and that "in the context of resolving interstate water disputes is attributed to Justice Brandeis in *Hinderlider v. LaPlata Rivery & Cherry Creek Ditch Co.*").

divided among the states involved in the dispute.⁷⁷ This determination is based on many factors (discussed in Parts III.C and III.D, *infra*), including the theory of water rights in each state through which the water source in question runs.⁷⁸

It should be noted that resorting to an equitable apportionment action is not the only means of resolving interstate water disputes. States can attempt to negotiate an interstate compact, just as Florida, Georgia, and Alabama did in 1997. Such compacts are typically approved by Congress, making them enforceable under federal law. States also tend to enact state law to enforce the compacts. Alternatively, Congress may act proactively and apportion a watercourse via statute. However, it has only done so twice: once in the case of the Lower Colorado River Basin and a second time with the Carson and Truckee Rivers near Lake Tahoe. States are disputed.

B. Water Rights: East vs. West

One significant factor for the Supreme Court to consider in any equitable apportionment case is the system for allocating water rights in each of the states implicated in the suit.⁸⁴ The U.S. has two predominant systems of water rights allocation: prior appropriation in the western states and riparianism in the east.⁸⁵ Additionally, a number of states on both sides of the country employ hybrid permit-based systems mixing elements of riparianism and prior appropriation.⁸⁶

Prior appropriation, which dominates water rights doctrine in western states, is "rooted in aridity and water scarcity" and allocates rights to water based on first use. 87 Its key characteristics are individualistic: the doctrine emphasizes, for example, beneficial use and the ability of rights holders to sell or lease their rights to others. 88

^{77.} Id. at 738.

^{78.} See id. at 737–38 (explaining that each state has a right to use interstate waters, "but usually not to the complete exclusion of another state").

^{79.} Ala. Code. 1975 §33-19-1 Art 2.

^{80.} Id.

^{81.} Id.

^{82.} Josh Clemons, Esq., *Interstate Water Disputes: A Road Map for States*, 12 SOUTHEASTERN ENVTL. L.J. 115, 128 (2004).

^{83.} Beaverstock, supra note 39, at 1004.

^{84.} Id. at 997.

^{85.} RASBAND, SALZMAN & SQUILLACE, supra note 72, at 758.

^{86.} Id.

^{87.} Id. at 777.

^{88.} Charles F. Wilkinson, Crossing the Next Meridian: Land, Water, and the Future of the West 231–35 (1992).

Prior appropriation rights traditionally attached only upon a diversion of water flows—in-stream use was insufficient to secure rights.⁸⁹ Still, nearly prior appropriation states have made accommodations recognizing the values of in-stream uses, reflecting an evolving understanding of the nature of water as a resource.⁹⁰ The traditional focus on extractive use is, in part, a function of the geography of the west—in order to create agricultural infrastructure, land users have to divert water from the closest water source, which can often be several miles away. 91 In the traditional prior appropriation system, the uses of "senior" rights holders (those who acquired water rights earlier) take precedence over those of "junior" rights holders in cases where water supply becomes limited.92

For the purposes of this paper, the eastern doctrine of riparianism is more relevant, as the water rights regimes in Alabama, Florida, and Georgia all are rooted in riparianism. 93 Riparianism is built upon the basic assumption that water is relatively available to those seeking to use it.⁹⁴ Under this doctrine, landowners living along a watercourse have a right to reasonable use of water flows. 95 The reasonableness of a use is based on the purpose of the use, the suitability of the use, any economic and social values of the use, any harm caused by the use, the practicability of avoiding harm by changing use among rights holders, the practicality of adjusting quantity of use among rights holders, the protection of existing values, and the justice of requiring a user causing harm to another's reasonable use to bear the loss. ⁹⁶ Generally speaking. riparianism emphasizes the relationship between downstream and upstream uses by multiple rights holders along a watercourse. 97 Many eastern states, including Alabama, Florida, and Georgia, use riparianism as the baseline for their water rights systems. 98 However,

^{89.} Id. at 234.

^{90.} See Lawrence J. MacDonnell, *Prior Appropriation: A Reassessment*, 18 U. DENV. WATER L. REV. 228, 279 (2015) (characterizing the trend of abandoning the diversion requirement and accepting flow maintenance as a beneficial use as "a significant shift in thinking about water").

^{91.} See id. at 264 (referencing geographies and agriculture in regards to why certain states adopted different apportionment policies based on regional necessity).

^{92.} Id. at 229-30.

^{93.} See Lathrop, supra note 48, at 896.

^{94.} Id. at 881.

^{95.} RASBAND, SALZMAN & SQUILLACE, supra note 72, at 760.

^{96.} RESTATEMENT (SECOND) OF TORTS § 850A (1979).

^{97.} See RASBAND, SALZMAN & SQUILLACE, supra note 72, at 765–66 (describing intricacies of riparian water rights systems).

^{98.} See Lathrop, supra note 48, at 881.

there is some variation among the states with the addition of permitting processes and individual state regulations.⁹⁹

C. How the West Was Won

The vast majority of equitable apportionment cases before the Supreme Court have involved disputes between western states. 100 Most seminal equitable apportionment cases also occurred before the advent of the modern era of environmental regulation, meaning that the doctrine has not had the opportunity to adapt to contemporary environmental concerns or the policy goals underlying federal environmental protection statutes and programs. 101 Still, since 1907's *Kansas v. Colorado*, the first major equitable apportionment case, the doctrine has become more intricate, developing a multi-factor analysis largely in response to water disputes in the west. 102

The Supreme Court first grappled with the issue of equitable apportionment in *Kansas v. Colorado*, where Kansas sued Colorado to enjoin it from diverting flows from the Arkansas River.¹⁰³ The Court approached the issue with the "cardinal rule" that each state "stands on the same level as all the rest" in all interstate relations, including rights in a water body crossing state lines.¹⁰⁴ Working from this baseline, the Court determined that Kansas, the downstream state, could only prevail if it showed that Colorado's diversions affected Kansas's substantial interests to the point of "destroying the equitable apportionment of benefits between the two states resulting from the flow of the river."¹⁰⁵ This has become enshrined within equitable

^{99.} RASBAND, SALZMAN & SQUILLACE, supra note 72, at 767-68.

^{100.} See Andrew Thornley, A Tale of Two River Basins: The Southeast Finds Itself in a Rare Interstate Water Struggle, 9 U. DENV. WATER L. REV. 97, 98 (2005) (noting that "[w]hereas the West has routinely been the site of interstate water struggles, the Southeast has traditionally had enough water to please everyone").

^{101.} See J.B. Ruhl, Equitable Apportionment of Ecosystem Services: New Water Law for a New Water Age, 19 J. LAND USE & ENVTL. L. 47, 48–49 (2003) (explaining if this matter were to get in front of the Supreme Court, which seems likely, it would be the first major interstate apportionment case the Court has entertained in the age of mature environmental statutory law. It is not at all clear how thirty years of environmental awareness and regulation may have affected the Court's demeanor when it comes to interstate water allocation).

^{102.} See id. at 52 (explaining how the doctrine is "open-ended" and that "equitable apportionment encompasses whatever seems relevant to a fair division of the resource between the states. This means equitable apportionment is a flexible doctrine, able to incorporate new knowledge not only about water demands and uses, but also about the ecology of water in general").

^{103.} Kansas v. Colorado, 206 U.S. 46 (1907).

^{104.} Id. at 97.

^{105.} Id. at 117-18.

apportionment doctrine as the substantial injury rule, which involves the court balancing upstream benefits and downstream harms. 106

The current multi-factor test for equitable apportionment cases originated in the 1945 case *Nebraska v. Wyoming.* 107 In this case, Nebraska sought to enjoin Colorado and Wyoming's upstream irrigation diversions from the North Platte River. 108 The multi-factor test for apportionment developed in this case takes into account the following considerations: the practical effect of wasteful uses on downstream areas, junior appropriators' economic dependence on the contested waters, the priority of appropriation, the availability of storage water, the geography and climate in the implicated states, the benefits and costs distributed among users, the extent of established uses, any consumptive and wasteful uses, and the character and rate of return flows. 109 While this "test" has been followed in subsequent cases, the Court in Nebraska v. Wyoming explicitly noted that the list of factors was "merely an illustrative[,] not an exhaustive catalogue." ¹¹⁰ This case also established a specific test for substantial injury, albeit one rooted in the assumptions of the prior appropriation system of water rights allocation.¹¹¹

In cases decided since *Nebraska v. Wyoming*, the Court has placed additional emphasis on the wasteful use factor.¹¹² The Court has determined that unreasonable wasteful use by senior rights holders is so inequitable as to substantially reduce or even completely forfeit the benefits of seniority.¹¹³ Some recognized wasteful uses include diversion of water underground to no real benefit¹¹⁴ and retention by downstream senior rights holders of more water than presently needed.¹¹⁵ This line of cases imposes upon all states a duty not to waste

^{106.} See id. (noting that material depletion of Arkansas river water by Colorado citizens and corporations injures substantial interests of Kansas by "destroying the equitable apportionment of benefits between the two states").

^{107. 325} U.S. 589 (1945).

^{108.} Id. at 594.

^{109.} See id. at 618 (noting the need "to prove by clear and convincing evidence that actual inefficiencies in present uses or future benefits from other uses were highly probable").

^{110.} Id.

^{111.} Id. at 608-09.

^{112.} See Colorado v. New Mexico, 459 U.S. 176, 182–83 (1982) (rejecting the argument that priority was the sole focus in equitable apportionment cases).

^{113.} Id. at 184.

^{114.} Washington v. Oregon, 297 U.S. 517, 523 (1936) (explaining that this small quantity of water "would be quickly absorbed and lost in the deep gravel beneath the channel).

^{115.} Nebraska, 325 U.S. at 658 (holding that "[n]o State may play dog in the manger, and build up reserves for future use in the absence of present need and present damage").

water and to make reasonable efforts to actively conserve water.¹¹⁶ Still, the burden of proving wasteful use and alternative conservation measures is ultimately on the state asserting them; this burden must be met by clear and convincing evidence.¹¹⁷ This relatively high burden makes it challenging for plaintiffs to obtain an apportionment in cases without clear waste.¹¹⁸

D. All Quiet on the Eastern Front

As discussed above, the vast majority of cases building equitable apportionment doctrine emerged from conflicts between states in the western U.S., where water has historically been scarce. The relative dearth of equitable apportionment precedent in eastern state conflicts is precisely what gives *Florida v. Georgia* the potential to have a significant impact on the future of equitable apportionment doctrine. The only major eastern equitable apportionment case, *New Jersey v. New York*, is factually similar to *Florida v. Georgia*, so the decision in that case offers some guidance here. Still, that case was decided in 1931, several years before *Nebraska v. Wyoming* laid out a detailed factor "test" for equitable apportionment cases. ¹¹⁹ Thus, the Court's consideration of only a limited number of factors in *New Jersey* limits the case's usefulness as a guiding source or outcome predictor for a modern equitable apportionment case.

In *New Jersey v. New York*, ¹²⁰ New Jersey (with Pennsylvania intervening) sought to prospectively enjoin Delaware River diversions by New York. New Jersey introduced a number of facts that it claimed supported a finding of substantial injury resulting from New York's withdrawals, including pollution, injuries to fisheries, damage to recreational use, and increased salinity affecting the local oyster harvest. ¹²¹ The Court accepted the last two as supporting a finding of substantial injury. ¹²² Hinting at its decision, the Court opened its opinion in the case with a somewhat romantic, nature- and equity-focused framing: "A river is more than an amenity, it is a treasure. It offers a necessity of life that must be rationed among those who have

^{116.} Colorado v. New Mexico, 467 U.S. 310, 328-29 (1984).

^{117.} Id. at 323-24.

^{118.} See id. at 317 (noting the necessity "to prove by clear and convincing evidence that actual inefficiencies in present uses or future benefits from other uses were highly probable").

^{119.} See Nebraska v. Wyoming, 325 U.S. 589, 618 (1945) (outlining detailed factors to consider in equitable apportionment disputes).

^{120. 283} U.S. 336 (1931).

^{121.} Id. at 343-44.

^{122.} Id. at 345.

power over it."123 In its brief four-page opinion, the Court went on to quickly dispose of the issue, limiting New York's withdrawals so as to protect New Jersey from the damages it feared. 124 Focusing on the potential of New York's use to damage the oyster fishery and affect the salinity of the river, the Court limited discharges of industrial waste and mandated treatment of water entering the river so as to ensure reduction of impurities.¹²⁵ Implicit in this decision is a riparianismfocused version of equitable apportionment rooted in concerns for all users along the watercourse without much weight given to priority of appropriation. Arguably, the focus on water quality as it related to the recognized effects on New Jersey's oyster fishery and the river's salinity also suggests that the Court recognized ecosystem-based injuries in this case (even though the tie to the oyster fishery linked the injury to economic concerns as well). In fact, some scholars view this case as the Supreme Court's earliest—and, so far, only—acceptance of environmental claims in the context of equitable apportionment of a watercourse. 126 With this precedent in mind, it would only take a small step for the Court to explicitly recognize environmental injuries in Florida v. Georgia.

IV. THE ARGUMENTS: ECONOMICS & ECOSYSTEMS

The primary arguments in *Florida v. Georgia* fall into two categories: economics-based and ecosystems-based. Georgia's pleadings emphasize the utility of the ACF River Basin's flows as a water supply for its population.¹²⁷ Alabama also emphasizes economic use, although its use takes the form of irrigation, wastewater treatment, and power-generation in the developing eastern portion of the state.¹²⁸ Finally, Florida's affirmative case presents a mix of both traditional economics-based arguments for water rights and more novel ecosystems-based arguments based on the in-stream value of the ACF River Basin's flows.¹²⁹ This section considers each state's arguments

^{123.} Id. at 342.

^{124.} Id. at 346-47.

^{125.} Id. at 346.

^{126.} See, e.g., Ruhl, supra note 101, at 54–55 (referencing first noted case to include ecosystem services in the calculus of the apportionment analysis).

^{127.} State of Georgia's Opposition to Florida's Motion for Leave to File a Complaint at 12, *Florida v. Georgia*, No. 22O142 ORG (U.S. 2013) [hereinafter Opposition].

^{128.} See Grant, supra note 16, at 402 (explaining "Alabama fears interference with its own growth"; Lathrop, supra note 48, at 874 (describing Alabama and Florida's uses of ACF flows for power generation).

^{129.} See Brief, supra note 25, at 5-6.

and evaluates them in light of equitable apportionment case law.¹³⁰ Special attention is paid to Florida's environmentally based claims of injury, which, if accepted by the Court, would signal a turning point in the doctrine of equitable apportionment.

A. Not A Drop to Drink: Georgia's Consumptive Use Argument

In all of its pleadings so far, Georgia has highlighted the importance of its consumptive uses of the waters of the ACF Basin.¹³¹ Georgia argues that its use of the Chattahoochee to supply water to Atlanta has minimal impacts on the ACF River Basin as whole, especially because Georgia is able to return 78 percent of withdrawn water to the system.¹³² Georgia also explains that, because of the growth of the Atlanta area, it is already internally motivated to conserve water—and has taken measures to do so with a statewide water plan and increased involvement by the Metropolitan North Georgia Water Planning District in monitoring withdrawals.¹³³

Georgia contrasts its traditional consumptive uses with Florida's non-consumptive uses, implying that the former takes precedence over the latter in equitable apportionment cases. ¹³⁴ In order to state a claim, Georgia argues that Florida must show significant harm to Floridians "being deprived of water for drinking, domestic, agricultural, or other consumptive uses." ¹³⁵ This argument provides some insight into how Georgia views the natural resources provided by the ACF River Basin. Georgia's consumption-focused argument suggests that the state adopts a mostly utilitarian view of natural resources, at least as far as the ACF River Basin is concerned. ¹³⁶ To be certain, Georgia does have an interest in conserving water, suggesting at least some concern with intergenerational equity and preserving water for future generations. ¹³⁷ However, it frames this concern as an anthropocentric one—Georgia

^{130.} Additional, outcome-specific evaluation of the principal arguments in this case is presented in Part 2.A, *infra*.

^{131.} See generally Opposition, supra note 127; Supplemental Brief for the State of Georgia, Florida v. Georgia, No. 22O142 ORG (U.S. 2013) [hereinafter Supplemental Brief].

^{132.} Opposition, *supra* note 127, at 12.

^{133.} Jones & Fortuna, supra note 34, at 3.

^{134.} See Opposition, supra note 127, at 28.

^{135.} Id.

^{136.} See RASBAND, SALZMAN & SQUILLACE, supra note 72, at 16 (defining the traditionally anthropocentric doctrine of utilitarianism as seeking "to provide the greatest good to the greatest number of people").

^{137.} See id. at 20 (describing the notion of passing on the planet and its resources to future generations so as to provide equitable access to its resources and assets).

needs to conserve water because it wants to maximize its availability to future Georgians to promote the state's growth.¹³⁸ Without Florida showing that its uses fall into a similar category, Georgia argues, the Sunshine State cannot make out a claim.¹³⁹

Moreover, Georgia highlights the distance involved in this case, saying that water withdrawals over four hundred miles upstream from the Apalachicola Bay make only a minute difference in the flows received by Florida. ¹⁴⁰ Implicit in this argument is a soft rejection of the concept of ecological interdependence. 141 By noting the large distance between the Chattahoochee's headwaters and the Apalachicola Bay, Georgia attempts to minimize the effects of upstream use, suggesting that, at least from a causal perspective, harms in the Florida panhandle cannot be blamed on water withdrawals in northern Georgia. 142 Interestingly, Georgia appears to lean somewhat on the concept of progressive management, 143 noting that it is the Army Corps of Engineers, not Georgia, who is responsible for assuring flows to Florida. 144 Before the Court granted Florida leave to file its Complaint, Georgia consistently argued that the suit was meaningless if the Corps was not involved or had not yet issued its new Master Manual for the ACF River Basin. 145 Georgia argues that it is doing its part to responsibly use and conserve water, but that the Corps needs to update its plans to address any concerns Florida may have about the ACF River Basin. 146 Without expert intervention by the Army Corps, Georgia argues, any discussion of this matter is incomplete.¹⁴⁷

Considering these perspectives in the context of equitable apportionment doctrine also reveals some weak points in Georgia's

^{138.} See Opposition, supra note 127, at 37a–38a (chart showing historical and forecasted population of counties using Lake Lanier system for water supply).

^{139.} See id. at 31 (arguing that Florida failed to plead plausible facts and that "[t]he court should therefore deny Florida leave to file its complaint").

^{140.} Opposition, supra note 127, at 3-4.

^{141.} See Jedediah Purdy, American Natures: The Shape of Conflict in Environmental Law, 36 HARV. ENVTL. L. REV. 169, 174 (2012) (explaining how the concept of ecological interdependence persists).

^{142.} Jones & Fortuna, supra note 34, at 21.

^{143.} See Purdy, supra note 141, at 173 (explaining that progressive management requires expert governance to serve human ends).

^{144.} Opposition, *supra* note 127, at 4, 20–21 (explaining that Georgia's requests for additional withdrawals and Florida's concerns about the flow of water from Lake Sidney Lanier should be addressed by an upcoming update of the Corps' Master Manual, which governs the operation of Buford Dam and release of water downstream).

^{145.} Id. at 3.

^{146.} Id. at 20-21.

^{147.} Id. at 17.

case. Firstly, while the factor analysis set forth in *Nebraska v. Wyoming* does take into account consumptive use as a factor, nowhere does it say that that consumptive use should be given any more weight than other types of uses. Additionally, Georgia does not make a clear argument that benefits from the ACF flows are already equitably apportioned among the states in which the river basin lies, which would be an effective counter to Florida's demand for an apportionment. Instead, Georgia highlights that the majority of the ACF River Basin is located in Georgia; again, while the geographic distribution of the watercourse is a consideration in the *Nebraska v. Wyoming* factor analysis, it is not dispositive. Lastly, and perhaps most significantly, Georgia all but ignores the facts of *New Jersey v. New York* by characterizing the facts of the current case as completely novel and rejecting the notion that the Supreme Court could view proven environmental damages as favoring an equitable apportionment. So

B. Good Allocation Makes Good Neighbors: Alabama's Interest

Although not named as a party in this case, Alabama also has important interests in the ACF River Basin and thus has filed a brief as amicus curiae. As noted above, Alabama was previously involved in a number of suits and negotiations with Georgia and the Army Corps of Engineers dealing with the same uses at issue in this case. In fact, Alabama has consistently made use of the ACF River Basin's flows since an 1889 agreement with Georgia ceding some control of the Chattahoochee to Alabama (despite the fact that the river technically is on the Georgia side of the state line). Is

The Chattahoochee River serves as an important waterway for eastern Alabama.¹⁵⁴ Most pertinently, Alabama has consistently argued that diminished flows in the Chattahoochee might slow

^{148.} See Kansas v. Colorado, 206 U.S. 46, 118 (1907) (describing equitable apportionment as principally concerned with equitable distribution of benefits from a shared watercourse).

^{149.} See Nebraska v. Wyoming, 325 U.S. 589, 606 (1945) (accepting the Special Master's finding on the location of the river mostly in Nebraska as an "exceptional" feature of the river).

^{150.} See New Jersey v. New York, 283 U.S. 336, 345 (1931) (characterizing increased salinity in the Delaware River as a result of upstate uses as "serious").

^{151.} Brief for Alabama as Amicus Curiae Regarding Non-Joinder of Alabama at 2, *Florida v. Georgia*, No. 22O142 ORG (U.S. 2013).

^{152.} See, e.g., Alabama v. U.S. Army Corps of Eng'rs, 441 F. Supp.2d 1123 (N.D. Ala. 2006).

^{153.} 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, 210 (1992).

^{154.} See Grant, supra note 16, at 402 (describing the Chattahoochee River's role in increased water use in Atlanta and its effect on Alabama).

industrial and commercial growth in the eastern portion of the state. ¹⁵⁵ Specifically, Alabama claims that the already-tainted water it receives from upstream impedes its ability to discharge its own wastewater into the river while remaining in compliance with environmental standards. ¹⁵⁶ Like Florida, Alabama does not actually consume much water from the ACF. Thus, its interests are similar to those of Florida in that it seeks to emphasize the value of in-stream use and water quality and highlight the detrimental effects of upstream use in Atlanta. ¹⁵⁷

C. Much Ado About Mollusks: Florida's Environmental Concerns

In this case, Florida makes an argument that is somewhat novel in the context of equitable apportionment actions. Essentially, Florida argues that an equitable apportionment of the ACF River Basin is appropriate because of the environmental value that the river's natural flows deliver to the Apalachicola Region. Florida makes this argument in three ways: by criticizing Georgia's use, to by detailing the ecological and cultural significance of the Apalachicola Bay, and—perhaps most significantly—by urging the Court to make room for science's evolving understandings of the environment in its equitable apportionment doctrine.

Florida's complaint sets the ACF River Basin up as a realm of competing uses. On the one hand, there is Georgia, whose "unrelenting thirst" hinders flows to both Alabama and Florida. Then there is Florida, which is portrayed as a responsible steward who has historically utilized the river's natural flows to sustain ecological and economic communities. Like Georgia, Florida points out that

^{155.} *Id. See also* Lathrop, *supra* note 48, at 874 (explaining how "low flows" can harm industrial and power uses in Alabama).

^{156.} Beaverstock, supra note 39, at 996.

^{157.} See Lathrop, supra note 48, at 895 (explaining how Alabama and Florida do not consume "large amounts of water from the ACF River Basin").

^{158.} See Leopold, supra note 31, at 16 (describing Florida's argument for equitable apportionment of ACF River Basin waters).

^{159.} See Complaint, supra note 7, at 2–3 (claiming that the ecosystem is suffering from Georgia's storage of water from the Chattahoochee River).

^{160.} Id. at 15.

^{161.} Id. at 10.

^{162.} See State of Florida's Reply in Support of its Motion for Leave to File a Complaint, Florida v. Georgia at 11, No. 22O142 ORG (U.S. 2013) [hereinafter Reply] (noting that estimates of return flows and downstream impacts are debated).

^{163.} Complaint, supra note 7, at 21.

^{164.} See generally id.

Atlanta uses water from the ACF River Basin for the population of Atlanta—and that its demands are anticipated to double within the next twenty-three years. 165 Unlike Atlanta, however, Florida describes at length Georgia's use of ACF flows for agricultural irrigation, which Florida says accounts for most of the water use in the Flint River Basin. 166 While it stops short of labeling this use as wasteful (a term that carries weight in equitable apportionment decisions), Florida emphasizes that the Flint River Basin is sufficiently irrigated by rainfall to keep crops growing, meaning that withdrawing additional waters from the ACF River Basin provides Georgia only marginal, minimal value. 167 By steering mostly clear of the Atlanta water use, Georgia's strongest justification for its withdrawals, and attacking Georgia's other withdrawals as redundant or needless, Florida makes its strongest case against Georgia's current water use practices—practices that Florida claims reduce the flows that ultimately reach the Apalachicola Bay.

Florida's more interesting argument, however, focuses on the value of the ACF River Basin's flows within Florida itself. This argument, which revolves around the ecological, cultural, and historical importance of the Apalachicola Bay and the Apalachicola's natural flows, is couched in language reflecting an interesting understanding of nature as a mix of romantic epiphany and ecological interdependence. The romantic epiphany view is most evident in the language Florida adopts in its complaint and brief, both of which paint the Apalachicola Bay as a pristine wilderness supporting myriad species of plant and animal life. Throughout these documents, Florida also makes efforts to connect water uses four hundred miles upstream in Atlanta with diminished flows in the Florida panhandle, reflecting an acceptance of the interconnectedness of natural resources like water. Florida opens its Brief in Support for Leave to File a

^{165.} Id. at 16.

^{166.} Id.

^{167.} Brief, *supra* note 25, at 7–8.

^{168.} See Purdy, supra note 141, at 173–74 (discussing American understandings of the natural world including romantic epiphany, in which humans find freedom from "places or qualities in the natural world," and ecological interdependence, in which the human experience is linked to the natural world).

^{169.} See Complaint, supra note 7, at 2 (describing the Apalachicola River as "nourish[ing] a rare and exemplary ecosystem" and as "a unique and vibrant cultural, economic and social community"; id. at 10 (discussing the "rich biodiversity of the Apalachicola Region"); id. at 13 (citing ecosystem services supporting "one of the most storied working waterfronts in the State"); Brief, supra note 25, at 1 (describing the Apalachicola River and Bay as "a treasure").

^{170.} Complaint, supra note 7, at 17–20; see Purdy, supra note 141, at 207.

Complaint by quoting Holmes' opinion in *New Jersey v. New York*, characterizing the Apalachicola River as "a treasure—a unique and vibrant cultural, social, and economic community.¹⁷¹ The brief details the history of the Apalachicola Bay's oyster industry and the ecological importance of freshwater flows in assuring the continued existence of a sustainable and economically productive oyster fishery.¹⁷² Still, Florida emphasizes that there is more than economic prosperity at stake here by pointing out the number of species and the "rare and exemplary ecosystem" that calls the Apalachicola Bay home.¹⁷³ Losing this biodiversity, Florida argues, amounts to a substantial injury justifying equitable apportionment.¹⁷⁴

Florida's novel environmental argument in this case stands on somewhat shaky ground, mostly due to the injury requirement. As discussed above, the Supreme Court has not decided an equitable apportionment case since 1982.¹⁷⁵ Consequently, it has had few opportunities consider arguments incorporating environmental science and how they might fit within the doctrine of equitable apportionment, specifically with regard to what constitutes an injury for the purposes of equitable apportionment.¹⁷⁶ In order to prevail in an equitable apportionment case, a state must, among other things, demonstrate by clear and convincing evidence that its interests have been substantially injured by the defendant's use of the shared watercourse.¹⁷⁷ As noted above, states in both the east and the west have come to recognize the value of in-stream use justifications for rights, which generally tend to be somewhat more environmentally focused than traditional, use-based water rights justifications. ¹⁷⁸ Courts in these states have accepted broader conceptions of the beneficial instream value of a river's flows and how damage to in-stream flows can constitute injury. 179 And while the Supreme Court has yet to speak on

^{171.} Brief, *supra* note 25, at 1.

^{172.} Id. at 9-10.

^{173.} Complaint, supra note 7, at 2.

^{174.} *Id.* at 10–12.

^{175.} See Lauren D. Bernadett, Equitable Apportionment in the Supreme Court: An Overview of the Doctrine and the Factors Considered by the Supreme Court in Light of Florida v. Georgia, 29 J. ENVTL. L. & LITIG. 511, 513 n.10 (2014) (noting that the Supreme Court has only decided eight equitable apportionment cases, with Colorado v. New Mexico being the most recent).

^{176.} See Nebraska v. Wyoming, 325 U.S. 589, 610 (1945) (detailing the injury requirement).

^{177.} Ruhl, supra note 101, at 51.

^{178.} *See* MacDonnell, *supra* note 90, at 279; Ruhl, *supra* note 102, at 55 (discussing trends in western states away from diversion requirement).

^{179.} See MacDonnell, supra note 90, at 279 n.338 (citing cases in Idaho and Wyoming where the court considered in-stream uses to be beneficial).

the issues of water quality and in-stream use, it is certainly plausible that it too has come to better understand ecosystem services provided by in-stream water use and could base its conception of injury upon such an understanding. In fact, some scholars have identified the ACF dispute as a sort of litmus test for the Court's modern understanding of water use and quality, potentially marking "the dawn of a new era for the doctrine of equitable apportionment." Is 1

The final section of this paper explores various potential outcomes—all of which turn on the Court's acceptance or rejection of the claim of ecosystem injuries.¹⁸² Before exploring that issue further, however, it is important to note that Florida's strongest argument may well be the one it touches on least in its complaint: the traditional economic argument. 183 In its complaint, Florida lays out damages to the Apalachicola's commercial oyster fishery that it alleges can be traced to Georgia's withdrawal of water from the ACF River Basin. 184 This is the very same sort of injury that the Court viewed as justifying an equitable apportionment of the Delaware River in 1931. 185 Considering this similar fact pattern (increased salinity resulting in decreased oyster viability), as long as Florida's evidence as to causation is sufficient, it is probable that the Court will view the damage to the Apalachicola Bay oyster fishery as rising to the level of injury independent of any damage to the ecosystem of the bay. 186 The more interesting question, however, is whether and to what extent Florida's environmental argument sets precedent for future equitable apportionment cases.

V. THE POTENTIAL OUTCOMES: MODERNIZING EQUITABLE APPORTIONMENT

Florida v. Georgia presents an important question for the Supreme Court: can environmental harms constitute "substantial

^{180.} See Ruhl, supra note 101, at 55.

^{181.} Id.

^{182.} Part V.A., infra.

^{183.} See Complaint, supra note 7, at 12–13 (alleging injury to Florida's economy based on reduced flows from the ACF River Basin that "cannot be replaced").

^{184.} Id. at 9, 12.

^{185.} New Jersey v. New York, 283 U.S. 336, 345 (1931) (pointing to the effect of increased salinity on the oyster fishery as "somewhat more serious" than the effect upon municipal or other uses).

^{186.} See id. However, even in New Jersey, the Court's decision ultimately was steeped in language reflecting economic, not environmental concerns. New Jersey, 283 U.S. at 343–44 (counting among the harms injury to the oyster fishery, shad fisheries, agriculture, and recreational use of the river).

injury" for the purposes of an equitable apportionment? Until now, the Court has recognized only traditional economic harms as meeting the substantial injury requirement. 187 Thus, Florida's claims of injury to the Apalachicola Bay's animal and plant population are mostly (although, as discussed *supra*, not entirely) novel in the equitable apportionment context. The Court's (and, by extension, the Special Master's) acceptance or rejection of Florida's claims of ecosystem-centric injury here will pave the way for the future of equitable apportionment cases. This section explores the three general families of possible outcomes in this case. First, there is the possibility that the Court will simply decide the case in accordance with existing equitable apportionment precedent, which focuses on more economic injuries. While unlikely, the Court might also reverse course somewhat and base its decision purely on economic use. Finally, the Court could affect a significant shift in equitable apportionment doctrine by accepting environmental claims of injury.

A. The Status Quo Outcome

The outcome of *Florida v. Georgia* is somewhat difficult to predict under existing equitable apportionment precedent—this is the very reason why the case has inspired so much scholarship and debate. Still, it is quite possible that the Supreme Court will decide the case in light of its current doctrine. Under this approach, it is likely that Florida will eke out Georgia by a narrow margin and succeed in its efforts to obtain an apportionment.

The key factor here is the precedent set in *New Jersey v. New York.* ¹⁸⁸ Not only is this one of the few eastern equitable apportionment cases, but its facts are also strikingly similar to those in *Florida v. Georgia.* In *New Jersey*, downstream New Jersey, like downstream Florida, presented a mix of economic and environmental claims for injury. ¹⁸⁹ Ultimately, the Court accepted the more traditional economic claims as injury, although its opinion gave important nods to the environmental aspects of New Jersey's harm. ¹⁹⁰

Here, Florida could win under the traditional route based not on the ecological damage to its oyster fishery, but on the economic impact

^{187.} Ruhl, *supra* note 101, at 52–53 (arguing, however, that based on modern understandings of ecosystems, "ecological injury in fact *is* economic injury").

^{188. 283} U.S. 336.

^{189.} *Id.* at 343–44 (noting New Jersey's alleged injuries to navigability, water power, the oyster fishery, water supplies, agriculture, and recreation).

^{190.} Id. at 345.

of this damage upon the Apalachicola region's economy—much like New Jersey did. Florida has pled facts regarding this type of injury, specifically discussing the decrease in oyster production¹⁹¹ and the importance of the river to the area's tourism economy.¹⁹² If it is successful in identifying Georgia's withdrawals as the cause of such injuries, Florida may succeed in obtaining an equitable apportionment of the ACF River Basin's flows.

A decision on this basis is unlikely to herald any groundbreaking changes in the doctrine of equitable apportionment, as this sort of outcome falls squarely within the realm of existing precedent dating back over one hundred years. At most, it will shift equitable apportion doctrine only slightly by clarifying the doctrine's status in riparian rights states. Specifically, a decision on this basis would have to lay out how to apply the *Nebraska* factors in eastern, riparian states in order to reflect a system in which priority of appropriation is not determinative of rights. Still, if the Supreme Court does not accept the environmental argument here, it could signal that the Court will not accept environmentally based injuries for the foreseeable future. If the Court passes on such a claim in this case—its first equitable apportionment decision in over thirty years—it may mean that, at least in the eyes of the current Court, environmental injuries do not rise to a level justifying an extraordinary exercise of the judicial power in the form of apportionment.

B. The Utilitarian Outcome

A decision based on pure economic efficiency is unlikely in this case. Still, considering the possibility of this sort of decision offers insight into the methods the Court uses in valuing natural resources like surface water. In examining this potential outcome, this section considers how the Special Master and the Court might weigh the comparative values of use in the rural Florida panhandle against those in growing metropolitan Atlanta.

From a purely utilitarian perspective, Georgia should win this case and Florida's request for an apportionment should probably be denied. Georgia's filings with the Court cite the growth of the Atlanta metro area and the corresponding increase in pressure on northern Georgia's water supplies.¹⁹³ Without the ability to withdraw from the ACF River

^{191.} Complaint, supra note 7, at 12.

^{192.} Id. at 13.

^{193.} Opposition, *supra* note 127, at 12, 37a (projecting significant increases in population for the Atlanta area through 2040).

Basin at levels sufficient to meet demand, one of the nation's fastest-growing cities would likely see its expansion screech to a halt. 194 Additionally, Georgia has some strong arguments that it is withdrawing water responsibly, which is a factor under the *Nebraska v. Wyoming* analysis and helps to counter Florida's arguments regarding waste. 195 Moreover, a number of the other *Nebraska v. Wyoming* factors—cost and benefits of use distributed users, availability of storage water, and the nature of consumptive use—all indicate that economic considerations, which tend to favor Georgia, do play a significant role in equitable apportionment decisions. 196

A decision on these grounds, however, would mark a bizarre backward step in the doctrine of equitable apportionment. In cases like *Kansas v. Colorado* and *New Jersey v. New York*, the Supreme Court emphasized that all states stand on equal footing when it comes to water rights, suggesting that differences in population among states should not carry significant weight in equitable apportionment decisions. Moreover, the decision in *New Jersey*, where the Court granted the apportionment for the smaller state with fewer traditionally economic uses, marked a step away from the kind of pure economic considerations emphasized by Georgia. A decision in favor of Georgia solely based on economic utility (as opposed to, say, a lack of causation) would make little sense in light of precedent that requires a balancing of both economic and non-economic factors.

C. The Environmentalist Outcome

Finally, the Court could, by embracing Florida's claims of environmental injury, significantly alter the landscape of equitable apportionment doctrine. As discussed above, the Court has not decided an equitable apportionment case during the era of modern environmental science and regulation. *Florida v. Georgia* therefore has

^{194.} See id. at 26-27.

^{195.} *Id.* (noting that 70% of water withdrawn in Atlanta is returned to the Chattahoochee River).

^{196.} See Nebraska v. Wyoming, 325 U.S. 589, 617–18 (1945) (listing various factors as relevant guidelines for apportionment).

^{197.} See Kansas v. Colorado, 206 U.S. 46, 97 (1907) ("One cardinal rule, underlying all the relations of the states to each other, is that of equality of right. Each state stands on the same level with all the rest."); New Jersey v. New York, 283 U.S. 336, 342–43 (1931) (discussing shared rights of states in the Delaware River and observing that neither state could force the other to forfeit its rights).

^{198.} New Jersey v. New York, 283 U.S. 336, 345-47 (1931).

^{199.} Nebraska v. Wyoming, 325 U.S. 589, 617–18 (1945).

the potential to reinvigorate the doctrine in light of modern understandings of ecological interdependence²⁰⁰ and changed environmental values.

If the Court finds a causal connection between Georgia's withdrawals from the ACF River Basin and accepts Florida's claims of environmental injury as meeting the substantial injury requirement, Florida almost certainly wins apportionment in this case. And it is certainly possible—in New Jersey v. New York, the Court acknowledged increased salinity in the Delaware River as justifying an apportionment.²⁰¹ While the *New Jersey* decision was ultimately based on economic damages, the Court's willingness to consider and mention salinity in its decision reflects a fundamental understanding of the interrelatedness of environmental conditions and the economic use of water. A formal recognition of this understanding in the context of Florida's claims of substantial injury to the state's interest in the Apalachicola Bay would be a step further in this direction and an explicit acceptance of the ecological interdependence of natural resource systems. 202 An outcome on this basis also would be consistent with riparian rights systems in eastern states, as it would reflect a concern with all users along a shared watercourse, regardless of priority of appropriation. Thus, Florida v. Georgia, which presents opposing economic and environmental arguments, is the perfect opportunity for the Supreme Court to adopt "a new water law for a new water age." 203

For Florida, victory in this case would mean an assurance of approximate natural flows, Supreme Court-sanctioned protection of biodiversity and natural resources in the panhandle, and a potential source of usable water should Florida's water problems²⁰⁴ worsen with sea level rise. More important, however, is the impact of an "environmentalist" decision on equitable apportionment doctrine as a whole. If the Court issues an "environmentalist" decision, it will better allow downstream states to preserve their waters, even when their uses of those waters are largely non-economic. This sort of protection will be doubly strong in the east, where riparian rights tend to solidify access to shared watercourses. By accepting damage to ecosystem

 $^{200.\} See\ Purdy,\ supra$ note 141, at 173-74 (describing the concept of ecological interdependence).

^{201.} New Jersey v. New York, 283 U.S. 336, 345 (1931).

^{202.} See Purdy, supra note 141, at 173–74 (introducing ecological interdependence as one of the four "distinct understandings" Americans have created about the natural world).

^{203.} Ruhl, supra note 101, at 47.

^{204.} See id. at 48 (considering recent proposals to pipe water from higher-elevation northern Florida to southern parts of the state as populations grow and seas rise).

services as substantial injury, the Court would bring its doctrine into the modern era and assure better consistency with modern scientific understandings of the value of natural resources.²⁰⁵

To be sure, this sort of outcome runs the risk of opening the Supreme Court to a flood (no pun intended) of water rights cases based on ecological injury, so drawing a clear line is crucial. The Court already has the basis for a clear line in its *Nebraska v. Wyoming* factor test. ²⁰⁶ If it chooses to acknowledge ecological injury, it need only modify these factors to more clearly explain the balance between economic and non-economic values of water use. Currently, the test is somewhat unclear on this front, so it is important that any decision in this case provide a means of valuing water resources in a way that accurately takes into account the added benefit of ecosystem services. There is significant room in this area for input from professionals in the environmental policy and science fields; in fact, if equitable apportionment doctrine is ever to become fully consistent with modern understandings of natural resources, expert involvement is crucial.

VI. CONCLUSION

The long-running dispute over the ACF River Basin appears to be coming to an end with the Supreme Court's impending decision in Florida v. Georgia. While the case will hopefully bring closure to the three states involved, it also offers the Court the chance to revise and reinvigorate its equitable apportionment doctrine for the first time in several decades. The clear dichotomy between the arguments presented by each side—traditional economic use by Georgia versus environmentally focused in-stream use by Florida—presents an ideal opportunity for the Court to opine on the different ways to value natural resources, specifically when it comes to use value versus the values of existence and ecosystem services. If the Court embraces the ecological injury proposed by Florida, it will usher in a new era of equitable apportionment doctrine that is consistent with contemporary understandings of ecological interdependence, resource use, and mankind's relationship with the world of natural resources.

^{205.} Id. at 55.

^{206.} Nebraska v. Wyoming, 325 U.S. 589, 617-619 (1945).