No. 142, Original

In the Supreme Court of the United States

STATE OF FLORIDA,

Plaintiff,

v.

STATE OF GEORGIA,

Defendant.

Before the Special Master Hon. Ralph I. Lancaster

AMICUS BRIEF OF THE ATLANTA REGIONAL COMMISSION IN SUPPORT OF THE STATE OF GEORGIA

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The Atlanta Regional Commission ("ARC") submits this amicus curiae brief in support of the State of Georgia. As instructed, the brief is focused on equitable apportionment jurisprudence, state and federal statutes and regulations, and the application of this legal framework to this proceeding, focusing on the circumstances of Metro Atlanta.

I. Identity and Interest of the Atlanta Regional Commission

ARC is a regional governmental entity composed of ten counties and the cities within them. As the Metropolitan Planning and Development Commission for Metro Atlanta, ARC is responsible for coordinating and managing the planning, development, implementation, construction, management, and operation of regional water projects. It acts as the contracting and coordinating agent for local governments, and as the representative for local governments on matters related to reservoir and water supply operations by the United States Army Corps of Engineers (the "Corps"). It also coordinates the Chattahoochee River/Lake Management System described in Part V of this brief. ARC thus has a strong interest in ensuring a safe and reliable water supply for the metropolitan area.

II. The Principles of Equitable Apportionment Protect Existing Users and Established Economies Above All Else

Only eight interstate equitable apportionment cases have resulted in substantive decisions; of these, only three have resulted in decrees apportioning water.² Most other interstate water cases have required the Court to enforce or interpret existing compacts—a function very different from allocating a river in the first instance. In deciding the few "pure" equitable

¹ Pursuant to Supreme Court Rule 37.6, ARC declares that the State of Georgia and its counsel did not author or pay for any part of this brief. ARC paid for the brief with funds provided by the City of Atlanta, Fulton County, DeKalb County, Gwinnett County, Fulton County, the Cobb County-Marietta Water Authority, and the City of Gainesville.

² In one other case, *Arizona v. California*, 373 U.S. 546 (1963), the State of Arizona requested an equitable apportionment of the Lower Colorado River, but the Supreme Court ultimately determined that the resource had already been apportioned by Congress in the Boulder Canyon Project Act.

apportionment cases that have come before it, the Court has stated that its aim "is always to secure a just and equitable apportionment without quibbling over formulas." *Colorado v. New Mexico*, 459 U.S. 176, 184 (1982) (citing *New Jersey v. New York*, 283 U.S. 336, 343 (1931)). "[A]II the factors which create equities in favor of one state or the other must be weighed as of the date when the controversy is mooted." *Colorado v. Kansas*, 320 U.S. 383, 394 (1943); *see also Nebraska v. Wyoming*, 325 U.S. 589 (1945) (providing an illustrative list of factors to be considered). But, notwithstanding these broad declarations of principle, the law as actually applied can be explained by two consistent themes: (1) extreme caution by the Court to use its power to control the conduct of one State at the behest of another; and (2) unfailing protection of existing uses and established economies with a present need for water. For the Court to grant any relief to Florida in the present case would require a radical departure from this past precedent.

The Court first recognized its power to apportion interstate waters in *Kansas v. Colorado*, 206 U.S. 46 (1907), a case that presented a clash between two different systems of water law. Kansas, the downstream state, was at that time a common law riparian state. Colorado, which had a rapidly growing irrigation economy in the Arkansas Valley, followed the law of prior appropriation. Based on its riparian principles, Kansas asserted it was entitled to receive the natural flow of the Arkansas River "undiminished" in quantity or quality. The doctrine of prior appropriation, on the other hand, emphasizes the right to appropriate water for beneficial uses by giving the first person to do so a right superior to subsequent users. Consistent with this doctrine, Colorado claimed that it was entitled to appropriate the entire river, to the extent the water could be used beneficially. *Id.* at 98. The Court rejected both extreme theories on grounds that neither state could impose its policy on the other, concluding that it was the role of the Court "to settle

[the] dispute in such a way as will recognize the equal rights of both [states] and at the same time do justice between them." *Id*.

The Court then ruled for Colorado. It agreed with Kansas that Colorado had caused "perceptible injury," *id.* at 114 & 118—as the flow of the river had indeed been diminished to Kansas's detriment—but it held that the injury to Kansas was outweighed by "the great benefit" inuring to Colorado. *Id.* at 114. It thus dismissed the case without prejudice, instructing Kansas that it could file again if Colorado's uses grew to the point that "substantial interests" of Kansas were being injured "to the extent of destroying the equitable apportionment of benefits resulting from the flow of the river." *Id.* at 118.

Kansas v. Colorado provided no further guidance about the standards to be used in apportioning a river. The Court apportioned three rivers between 1922 and 1931, however, and the legal doctrines announced in these cases remain the bedrock of equitable apportionment jurisprudence.

In *Wyoming v. Colorado*, 259 U.S. 419 (1922), Wyoming sought to prevent Colorado from constructing a tunnel to divert water from the Laramie River to reclaim arid Colorado lands. *Id.* at 490 (describing the project). Because both States followed the doctrine of prior appropriation, the Court determined the rule of priority "furnishe[d] the only basis . . . consonant with the principles of right and equity" on which the controversy could be decided. *Id.* at 470. The resulting decree thus limited Colorado's diversion to the amount that could be taken without injuring established users in Wyoming with vested water rights. *See Colorado v. Kansas*, 320 U.S. 383, 392 n.2 (1943) (describing the *Wyoming v. Colorado* decree).

The next two cases—*Connecticut v. Massachusetts*, 282 U.S. 660 (1931), and *New Jersey v. New York*, 283 U.S. 336 (1931)—required the Court to apportion rivers between states that

both followed the common law of riparian rights. Both cases involved large proposed interbasin transfers of water to serve major cities (Boston and New York City). And in both cases, the downstream state sought to enforce an archaic common law rule (still followed at that time) prohibiting interbasin transfers of water.³ Both of the proposed interbasin transfers were, eventually, allowed, however, because the Court perceived they were needed to serve a "high public purpose." It was in this context that Justice Holmes famously declared that the aim of equitable apportionment "is always to secure a just and equitable apportionment without quibbling over formulas." *New Jersey v. New York*, 283 U.S. 336, 343 (1931).

In the second of these cases—*New Jersey v. New York*—the Court, while denying New Jersey's request to enjoin the proposed interbasin transfer altogether, did limit the diversion to mitigate potential injury to New Jersey. New York was thus permitted to take approximately 75 percent (440 million gallons per day ("mgd")) of the 600 mgd originally proposed. Three critical facts distinguish *New Jersey v. New York* from *Florida v. Georgia*. First, New York was proposing to construct a new interbasin transfer to supply a major city outside the basin of the origin. In contrast, Florida seeks to limit existing uses within the basin of origin.⁵ Second, because interbasin transfers of the type New York was proposing were prohibited by then-prevailing local law, New York (similar to Colorado in *Colorado v. New Mexico*, discussed

³ Like other regulated riparian jurisdictions, Georgia and Florida abandoned the prohibition against interbasin transfers long ago. *See* Fla. Stat. 373.223(2) (authorizing interbasin transfers); O.C.G.A. § 12-5-31(n)(same).

⁴ See, e.g., Report of the Special Master, New Jersey v. New York, Orig. No. 16 (Oct. Term 1930), 283 U.S. Sup. Ct. Records and Briefs Part 7, at 39 ("Special Master's Report") (finding the proposed diversion to be "for a reasonable purpose and, indeed, a high public purpose"). See also Connecticut v. Massachusetts, 282 U.S. 660, 673 (1931) ("Drinking and other domestic purposes are the highest uses of water.").

⁵ To the limited extent that interbasin transfers occur in Georgia, they are the result of county-based water distribution systems that cross watershed boundaries. Because it is extremely expensive and wasteful of energy to pump sewage upstream, most sewer systems operate by gravity; therefore wastewater is usually treated and discharged in the basin where it is used. The net transfer out of the ACF basin is relatively minor, however, at about 81 mgd. Because the water distribution and sewer networks were built long ago, it would be extraordinarily expensive to "replumb" Metro Atlanta to eliminate these "incidental" interbasin transfers.

below) bore a heavy burden to prove the equities of its case. Third, the limit imposed by the Court did not curtail any *existing* use or present need. The diversion had been sought, instead, to meet the *future* needs of New York City. By granting 75 percent of the proposed diversion, the Court provided enough water to supply a significant portion of the city's projected future need. The Court also issued an "open decree," allowing the parties to seek modifications in the future. Interestingly, the Court modified the decree in 1954 to allow an even larger diversion than New York originally requested. *New Jersey v. New York*, 347 U.S. 995 (1954).

The Court has decided four more equitable apportionment cases, but only one of these, *Nebraska v. Wyoming*, 325 U.S. 589 (1945), resulted in a decree actually apportioning a river. The next case after *New Jersey v. New York* was *Washington v. Oregon*, 297 U.S. 517 (1936), in which the Court continued its practice of protecting existing users. Washington sought to enjoin diversions by irrigators in Oregon. The Court declined the relief that Washington requested because it was not persuaded that irrigators in that state would benefit from it: "To restrain the diversion . . . would bring distress and even ruin to a long-established settlement of tillers of the soil for no other or better purpose than to vindicate a barren right. This is not the high equity that moves the conscience of the court in giving judgment between states." *Id.* at 523.

The same result ensued when the Kansas-Colorado dispute returned to the Court in 1943. The Court once again denied relief, finding that the injunction Kansas requested "would inflict serious damage on existing agricultural interests in Colorado," causing large investments "in canals, reservoirs, and farms" to be abandoned. 320 U.S. at 394. The Court further held that Kansas bore some responsibility, because it had taken no action to stop the "open" development

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⁶ See, e.g., Special Master's Report, *supra* note 4, at 21 ("[I]f the strict rule of common law is . . . applicable, it must necessarily follow that New Jersey is entitled to an injunction. . ."). As discussed above (*see supra* note 3), both Florida and Georgia abandoned this rule long ago.

of irrigation in Colorado for twenty-one years. *Id.* at 395. It stated this fact added "gravely" to the burden Kansas would otherwise bear. So too, here.⁷

The third and last equitable apportionment decree was entered in *Nebraska v. Wyoming & Colorado*, 325 U.S. 589 (1945). Consistent with all prior cases, the Court fashioned its decree to protect existing users and established economies. The Court declined to enjoin substantial out-of-priority diversions in Colorado that were already the basis of a thriving local economy, notwithstanding that both states followed the rule of priority. The Court explained: "Strict application of the priority rule might well result in placing a limitation on Colorado's present use for the benefit of [Nebraska]. But as we have said, priority of appropriation, while the guiding principle for an apportionment, is not a hard and fast rule. Colorado's countervailing equities indicate it should not be strictly adhered to in this situation." *Id.* at 622.

The *Nebraska v. Wyoming & Colorado* decision illustrates one other important point, which is that the Court has more options than just constructing a "mass allocation" between States. Wyoming had advocated such relief (as had been decreed in *Wyoming v. Colorado*), but the Court held there was no "hard and fast rule" requiring it to proceed in that manner. Instead, the Court divided the river into six sections corresponding to naturally defined reaches of the river, and it apportioned each separately. *See id.* at 620. This procedure allowed the Court to enter a decree reflecting the priority of appropriators and the balance of equities in each section—allowing it to preserve existing development and established economies in each section.

The most recent equitable apportionment case, *Colorado v. New Mexico*, was decided in 1984. The case was an outlier, because it was brought by the upstream state to authorize a new

⁷ Florida admits that center-pivot irrigation developed in the lower Flint River Basin in the early 1970s, Fla. Pretrial Brief at 1, 17-18, and yet it took no action until now. All prior litigation in the ACF Basin has been focused on actions of the Corps, not Georgia.

diversion to the detriment of vested interests in New Mexico. Nonetheless, like all other cases, the end result was to protect existing users and established economies. The dispute was about the Vermejo River, which had been fully appropriated by long-established users in New Mexico. A private entity in Colorado sought to engineer a transmountain diversion to supply speculative industrial development. *Colorado v. New Mexico*, 459 U.S. 176, 178-79 (1982). When a federal district court enjoined the proposed diversion based on the rule of priority followed in both states, Colorado sued New Mexico for an equitable apportionment. The case resulted in two substantive decisions—one in 1982, in which the Court identified the factors to be considered in determining whether to allow the out-of-priority diversion, *Colorado v. New Mexico*, 459 U.S. 176 (1982) ("*Colorado v. New Mexico I*"); and a second in 1984, in which the Court expounded on the "clear and convincing evidence" standard before dismissing the case, *Colorado v. New Mexico*, 467 U.S. 310 (1984) ("*Colorado v. New Mexico II*").

In the 1982 opinion, Justice Marshall held (before remanding the case for further fact-finding) that the proposed diversion might theoretically be allowed if Colorado (the state appealing to the Court's equitable power to authorize an out-of-priority diversion) could prove by clear and convincing evidence that (1) New Mexico could mitigate the harm to its users caused by Colorado's proposed diversion by adopting reasonable conservation measures, and (2) any remaining harm to New Mexico would be more than offset by benefits to Colorado. A troubled Justice O'Connor wrote in a concurring opinion that, by even admitting the possibility that such factors could be considered, the Court had gone "dangerously far toward accepting [the] suggestion . . . that it is appropriate in equitable apportionment litigation to weigh the harms and benefits to competing States." 459 U.S. at 193. Justice O'Connor noted that past Courts had engaged in this type of balancing only in the rarest of cases:

[T]his Court has never undertaken that balancing task outside the concrete context of either two established economies in the competing States dependent upon the waters to be apportioned or of a proposed diversion in one State to satisfy a demonstrable need for a potable supply of drinking water. In the former context, the Court may assess the relative benefit and detriment by reference to the actual fruits of use of the waters in the respective States. In the latter context, the compelling nature of the proposed use reduces the speculation that might otherwise attend assessment of the benefits of a proposed diversion. Where, as here, however, no existing economy in Colorado depends on the waters of the Vermejo and the actual uses in New Mexico rank in equal importance with the proposed uses in Colorado, the difficulty of arriving at the proper balance is especially great.⁸

When the case returned to the Court two years later on a more complete record, Justice O'Connor wrote for the 8-1 majority, which denied relief to Colorado. Justice O'Connor emphasized that a state in Colorado's position must prove its factual contentions by "clear and convincing evidence." This standard, O'Connor explained, requires the state seeking to disrupt the status quo to "bear most, though not all, of the risks of an erroneous decision." *Colorado v. New Mexico II*, 467 U.S. at 316.9

The "clear and convincing evidence" standard here requires that Florida inspire in the factfinder "an abiding conviction that the truth of its factual contentions are [sic] highly probable." *Id.* at 316-17 (internal quotes omitted). This demanding standard will be satisfied only if the proof "*instantly* tilt[s] the evidentiary scales in the affirmative when weighed against the evidence . . . offered in opposition." *Id.* (emphasis added). Florida must carry this burden for all elements of its equitable claim, including that (1) Georgia's water use is "unreasonable"; (2) Georgia's "unreasonable" water use has caused specific harm to "substantial interests" in Florida; and, (3) capping Georgia's consumption at the level Florida has proposed will

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⁸ Colorado v. New Mexico I, 459 U.S. at 193 (O'Connor, J., concurring).

⁹ See A. Dan Tarlock, The Law of Equitable Apportionment Revisited, Updated and Restated, 56 Col. L. Rev. 381, 407 (1985).

ameliorate any specific impacts that Florida can prove. As shown by the expert reports, Florida cannot provide clear and convincing evidence of any of these elements.

III. Georgia's Uses of Water in the ACF Basin Are Existing, Lawful Uses Under Regulated Riparian Principles Accepted by Both States

That the law of equitable apportionment is federal common law "does not mean that federal courts should create the controlling law. Absent a demonstrated need for a federal rule of decision, the Court has taken 'the prudent course' of 'adopt[ing] the readymade body of state law as the federal rule of decision until Congress strikes a different accommodation.' "Am. Elec.

Power Co. v. Connecticut, 564 U.S. 410, 422 (2011). The equitable apportionment cases follow this course. The Court has held that local laws accepted by both states should be the "guiding principle" of equitable apportionment. See Nebraska v. Wyoming, 325 U.S. at 618. As discussed above, the Court has strayed from local law only (1) by rejecting the "natural flow" theory as a basis for equitable apportionment in states where that is the law; and (2) by adjusting local laws as necessary to protect existing uses or established economies in specific cases.

Both Florida and Georgia follow the doctrine known as "regulated riparianism." Both states use a permit system to add certainty to the amorphous common law concept of "reasonable use." Administrative agencies in both Georgia and Florida determine what uses are reasonable and authorize such uses by permit. ¹⁰ Because Georgia's uses of water in the ACF Basin have been determined to be reasonable and thus permitted under the regulated riparian system common to both States, Florida (like Colorado in *Colorado v. New Mexico*) bears a heavy burden to prove by clear and convincing evidence that existing lawful uses should be curtailed or eliminated.

¹⁰ Fla. Stat. § 373.223 (adopting "reasonable-beneficial use" as the test for granting new permits); Ga. Comp. R. & Regs. R. 391-3-6-07(8) (permits to be granted to meet "reasonable needs" provided the use will not cause "unreasonable adverse effects").

Florida's Pretrial Brief implies that Florida and Georgia both follow the "natural flow" theory of riparian rights. Fla. Pretrial Br. at 11. Like most other regulated riparian jurisdictions, however, both states abandoned the natural flow theory long ago. 11 Even in states that still follow the common law rule, the "primary interest" that is protected is the right "to make reasonable use of the water," as distinguished from the right to receive natural flow. *Restatement (Second) of Torts* § 850(b). Both Georgia and Florida have adopted "reasonable use" (not "natural flow") as the basis of permit decisions. 12 And, as discussed above, the Supreme Court has expressly rejected the natural flow theory as a basis for equitable apportionment, even in cases between natural-flow States. *See Kansas v. Colorado*, 206 U.S. at 98; *Connecticut v. Massachusetts*, 282 U.S. at 669-70; *New Jersey v. New York*, 283 U.S. at 342.

Florida has also suggested that water rights in regulated riparian systems are no more secure than common law riparian rights, Fla. Pretrial Br. at 14, but this is incorrect. One of the major goals of regulated riparianism is "to provide legal security for water rights." Regulated riparian codes thus typically provide full legal protection to permitted uses for defined periods of time, which in both Georgia and Florida may be up to 50 years, ¹⁴ subject only to the terms and conditions of the permit. Further, although permits must eventually be renewed, this process is *not* wielded to rebalance existing uses and displace them by new uses, as Florida suggests. To the contrary, both Florida and Georgia prioritize existing uses over new applications. ¹⁵ This is

¹¹ See A. Dan Tarlock, Law of Water Rights and Water Resources § 3:56 (July 2016 Update).

¹² See supra note 10.

¹³ See Regulated Riparian Model Water Code (Joseph W. Dellapenna ed. 2003) § 1R-1-06; see also id. (Commentary) ("A permit issued under this Code creates a right to use water . . . that is entitled to full legal protection within the terms and conditions of the permit. Legal security is necessary to foster appropriate investment in water resources.").

¹⁴ Fla. Stat. § 373.236(3); O.C.G.A. § 12-5-31(h).

¹⁵ See Ga. Comp. R. & Regs. 391-3-6-07(8)(b) (giving preference "to an existing use over an initial application"); Fla. Stat. § 373.223 ("all presently existing legal uses of water shall be protected so long as such use is not contrary

consistent with the modern law of riparian rights, which makes "the protection of existing values of water uses, land, investments and enterprises" a major factor in the determination of reasonableness." *See Restatement (Second) of Torts* § 850.

Finally, lest Florida assert that Georgia's regulated riparian policies are not sufficiently protective, two points should be noted. First, regulated riparian systems are inherently more protective of the environment and of downstream users than prior appropriation systems to which the Court routinely defers in equitable apportionment cases. Second, the Chattahoochee and Flint Rivers both flow *through Georgia* for over 300 miles after leaving Metro Atlanta. Georgia is absolutely committed to protecting these rivers because its own citizens demand it. The policies that Georgia has enacted to protect its rivers inure to Florida's benefit, and the unimpeachable test of their reasonableness is the fact that they are applied evenhandedly by Georgia to balance the interests of its own citizens in the same interstate resource. ¹⁶

IV. Georgia's Conservation Practices Far Exceed Any Standard That Has Been Imposed by the Court in Equitable Apportionment Cases

Conservation practices in Georgia far exceed any standard established by previous equitable apportionment decisions. The standard is best illustrated by *Colorado v. New Mexico*, in which the Special Master concluded that the impacts to New Mexico of a proposed new diversion by Colorado could be offset by requiring New Mexico to eliminate waste and inefficiency. 467 U.S. at 318. While the Court agreed in principle, it imposed a very high burden on Colorado: it would have to prove by "clear and convincing evidence" that New Mexico was,

to the public interest"); Fla. Stat. § 373.233(2)(a) (giving preference to renewal application over initial applications). *See also* Fla. Admin. Code 40A-2.301 (to obtain a new permit, applicants must prove the proposed water use "[w]ill not interfere with any presently existing legal use of water").

¹⁶ *Cf. Sporhase v. Nebraska*, 458 U.S. 941, 955-56 (1982) (holding that Nebraska's conservation law did not discriminate against interstate commerce because it applied evenhandedly to both intrastate and interstate transfers of groundwater).

in fact, unreasonably inefficient. *Id.* It was insufficient for Colorado merely to prove that the water district in question was "not as efficient as other reclamation projects." *Id.* at 319. The Court found that the project in question was "quite arguably in the middle range in reclamation project efficiencies." *Id.* at 318 (internal quotes omitted). This, it held, was enough. The Court further stated, "[o]ur cases require only conservation measures that are 'financially and physically feasible' and 'within practical limits.' " *Id.* at 319 (quoting *Colorado v. New Mexico I*, 459 U.S. at 192). In sum, "[a] State can carry its burden of proof in an equitable apportionment action only with specific evidence about how existing uses might be improved, or with clear evidence that a project is far less efficient than most other projects. Mere assertions about the relative efficiencies of competing projects will not do." *Id.* at 320.

New Jersey v. New York provides a similar example in a case between riparian jurisdictions. New Jersey alleged that the proposed diversion for the benefit of New York City was unnecessary because New York City was wasting water. See Special Master's Report, supra note 4, at 40. New Jersey complained that New York City should instead be required to conserve its existing supply by metering usage and raising water rates (which had remained the same for 75 years). Though finding it "self-evident" that universal metering would result in "substantial savings," the Special Master declined to require such measures. New York met its burden merely by showing that per capita usage was not "grossly excessive." See Special Master's Report, supra note 4, at 43. The Supreme Court, in approving the Special Master's recommendation, did not even comment on this aspect of the case.

V. Water Use by Georgia Should Not Be Capped Because Any Limit Will Inflict Great Damage on Georgia Without Benefiting Florida

One fundamental premise of equitable apportionment is that the Court will not issue a decree to vindicate an "abstract" or "barren" right.¹⁷ This principle has been applied not only to dismiss cases in which the plaintiff state failed to prove that it was injured in any way, but also to limit and tailor the relief in cases where relief was granted.¹⁸ As explained below, this principle militates against limiting water use in Georgia, because any such decree would inflict great harm on Georgia without providing meaningful benefits to Florida.

In *Washington v. Oregon*, Washington sought to enjoin Oregon irrigators from diverting substantially all of the flow of an interstate stream during droughts. The Court denied the injunction based on evidence that most of the water would be lost to Washington (because it would be absorbed by the streambed) even were it not diverted. 297 U.S. at 523. Under these facts, the Court found that an injunction limiting the diversion "would materially injure Oregon users without a compensating benefit to Washington users." *Id.* (internal quotes omitted).

The principle is also illustrated in *Nebraska v. Wyoming*, where it was used, not to dismiss a case, but to refine a decree. The Court declined to cut off junior appropriators in one section of the basin in Colorado, despite finding that senior users in Nebraska were experiencing shortages. Due to transit losses (losses to evaporation and seepage within the canal), the Court found that it was "highly speculative whether the water would reach the Nebraska appropriator in time or whether the closing of the Colorado canal would work more hardship there than it would bestow benefits in Nebraska." 325 U.S. at 619.

¹⁷ See Connecticut, 282 U.S. at 669; Washington, 297 U.S. at 524.

¹⁸ See Nebraska, 325 U.S. at 619 (refusing to apply strictly the prior appropriation doctrine, since it was speculative whether cutting off junior appropriators would increase available water to downstream senior appropriators).

In this case, the specific harms that Florida has alleged are related to both the quantity and timing of flows in the Apalachicola River and discharges into Apalachicola Bay. Florida must be required to prove by clear and convincing evidence, therefore, not only that a decree limiting water use in Georgia would send more water to Florida, but also that Florida would receive (1) enough additional water (2) at the times when it is needed (3) to produce substantial benefits related to the specific harms it has alleged. Florida cannot prove any of these elements by clear and convincing evidence.

A. Metro Atlanta Reduces the Flow of ACF Water from Georgia to Florida by Only 2 Percent, Causing at Most a Negligible Impact to Florida

A decree limiting water use in Metro Atlanta would not benefit Florida because the metro area does not consume excessive water relative to the flow of the river at the Georgia-Florida state line. Total municipal and industrial water and thermoelectric consumption for Georgia's portion of the ACF Basin (including but not limited to Metro Atlanta) averages about 500 cubic feet per second ("cfs"). ¹⁹ This figure includes much more than just Metro Atlanta, and yet it is a slender 2 percent of the 25,000 cfs annual average flow at the Florida State line. ²⁰ Impacts attributable to Metro Atlanta would be much smaller. By contrast, peaking hydropower operations at Woodruff Dam cause the flow of the Apalachicola River to swing from 16,000 cfs to 6,700 cfs within a matter of hours. ²¹ Operations for hydropower and navigation have also lowered the bed of the Apalachicola River below Jim Woodruff Dam to such an extent that an

¹⁹ See Georgia's Pretrial Brief, Ex. 36 (Defensive Expert Report of Philip B. Bedient, Ph.D., P.E.), 38 (May 20, 2016). This includes thermoelectric water consumption in addition to municipal and industrial. *Id.* at 3 n. 3. ²⁰ See *id.* at 15.

²¹ See U.S. Army Corps of Engineers, Draft Environmental Impact Statement, Update of the Water Control Manual for the Apalachicola-Chattahoochee-Flint River Basin in Alabama, Florida, and Georgia and a Water Supply Storage Assessment, Vol. 2, App. B, p. 7-11 (Oct. 2015) ("Draft ACF EIS") available at http://www.sam.usace.army.mil/Missions/Planning-Environmental/ACF-Master-Water-Control-Manual-Update/ACF-Document-Library/

additional 10,000 cfs is now required to achieve river stages equivalent to those that would have occurred before the channel was altered. 22 Given these other, much larger impacts to the river, it is doubtful that any species in Florida (human or otherwise) would perceive any difference if Metro Atlanta stopped using water altogether. A fortiori, a decree merely limiting water use in Metro Atlanta to 1992 levels would do little to benefit Florida, while working great detriment to Georgia.

Metro Atlanta's impact on the Apalachicola River is so small, in part, because it is located 300 miles north of the Georgia-Florida border. *See* Draft ACF EIS Vol. 1, p. 2-18, 6-37. The vast majority of the water in the ACF Basin enters below, and is thus unaffected by, Metro Atlanta.

Recent studies by the Corps and the United States Fish and Wildlife Service confirm these conclusions. Both studies were prepared to evaluate a new "water control manual" for the Corps reservoirs on the Chattahoochee River. Because the new manuals will include new water contracts for Metro Atlanta, both agencies studied the impact of different consumptive use scenarios. One scenario (the "No Action Alternative") assumed that a net of 91 mgd would be removed from Lake Lanier (withdrawn but not returned). Draft ACF EIS Vol. 1, p. 5-8. Another scenario (1B) put this figure at 10 mgd—a difference of 81 mgd (the equivalent of 150 cfs). The Draft Environmental Impact Statement compared these two consumptive use scenarios and concluded that, despite their stark disparity, the difference between them would have no appreciable effect on the Apalachicola River or Bay. Draft ACF EIS Vol. 1, p. 6-73.

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²² See USGS Scientific Investigations Report 2006-5173, *Water-Level Decline in the Apalachicola River, Florida, from 1954 to 2004, and Effects on Floodplain Habitats*, 25, Figure 13 (2006), *available at*: https://pubs.usgs.gov/sir/2006/5173/. The figure shows the discharge required under current, degraded conditions to replicate pre-dam river stages.

The Fish and Wildlife Service not only confirmed these findings but took them a step further in a Biological Opinion released on October 6, 2016.²³ The Biological Opinion specifically studied the potential effects of the proposed operating plan (including the different water consumption scenarios described above) on threatened and endangered species in the Apalachicola River and Bay (one species of fish and three species of mussel). The Service concluded that the *water supply* component of the proposed plan will not adversely affect these species or their habitat. The Service concluded *all* impacts to threatened and endangered species would come from the Corps' discretionary reservoir operations.²⁴

B. It Is Highly Speculative that Capping Water Consumption in the Upper Chattahoochee Would Result in Florida's Getting More Water in a Drought

It is also highly speculative that a decree limiting either current or future water use in Metro Atlanta would result in more water flowing from Georgia into Florida during droughts. As explained below, this is a result of the large storage capacity of Lake Lanier and the manner in which it is operated.

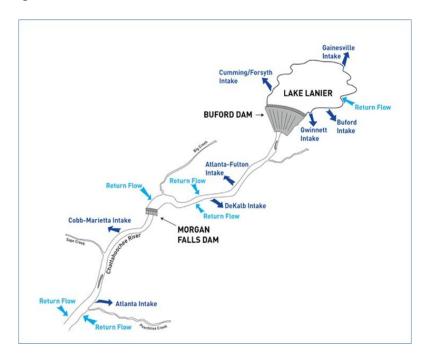
The "Chattahoochee River/Lake Management System" coordinates water supply releases from Buford Dam to meet both water supply and water quality needs in Metro Atlanta. The system has several components depicted in Figure 1 below: (1) Buford Dam, which impounds Lake Lanier; (2) Morgan Falls Dam, a hydroelectric facility owned and operated by Georgia Power Company; (3) four water supply intakes in Lake Lanier (Gwinnett County, the City of Gainesville, the City of Buford, and the City of Cumming); (4) two water supply intakes in the

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²³ U.S. Fish and Wildlife Service, Biological Opinion on the U.S. Army Corps of Engineer's Update of the Water Control Manual for the Apalachicola-Chattahoochee-Flint River Basin in Alabama, Florida, and Georgia and a Water Supply Storage Assessment (Sept. 14, 2016) ("2016 BiOp") *available at*: https://www.fws.gov/panamacity/resources/USFWSBiologicalOpinionforACFWaterControlManual2016.pdf.

²⁴ See id. at 99 (Gulf sturgeon), 187 (mussels) ("To the extent the consumptive use assumptions are accurate, differences between the Baseline and the simulated flows of the [proposed Water Control Manual] are due to differences in reservoir operations.").

Chattahoochee River between Buford Dam and Morgan Falls (DeKalb County and the Atlanta-Fulton County Water Resources Commission²⁵); (5) two water supply intakes in the Chattahoochee River below Morgan Falls (Cobb County-Marietta Water Authority and the City of Atlanta); (6) three local tributaries (Suwanee Creek, Big Creek, and Sope Creek); and (7) a water quality "control point" where Peachtree Creek enters the Chattahoochee River.²⁶



All of the water supply intakes (including those in the river) depend on Buford Dam and Lake Lanier to store their water and/or to regulate the flow of the river to ensure withdrawals can be made while still meeting the water quality flow target at Peachtree Creek. This is done, in part, by using Morgan Falls to "reregulate" peaking hydropower releases from Buford Dam.²⁷ The role of the Atlanta Regional Commission is to project inflow from the local tributaries and to

²⁵ The Water Resources Commission is a joint venture between the City of Atlanta and Fulton County.

²⁶ The water flow target under the current water control plan is 750 cfs. Draft ACF EIS Vol. 2, App. B, p. 7-12. The Draft EIS would reduce this target to 650 cfs during the months from November to April. *Id*.

²⁷ Morgan Falls captures large pulses of water that are released from Buford Dam during the two- to four-hour periods on weekdays when Buford generates hydropower. Draft ACF EIS Vol. 1, p. 2-30 to -32. It releases this water as needed to provide water to the two downstream intakes and to meet the flow target at Peachtree Creek.

communicate with the individual water systems to project water supply demands for the upcoming week. This information is provided to Georgia Power Company and the Corps. Although the Corps sometimes releases water from Buford Dam to meet other objectives specified in the manual, water supply and water quality demands are the main factors determining how much water is released from Buford Dam during drought operations.²⁸

The direct effect of limiting water use in Metro Atlanta would be to reduce the amount released from Buford Dam. The water "saved" would not go to Florida; it would remain in Lake Lanier. The water might be released at some point, to be sure, but there is no guarantee that it would be released at a time when Florida would benefit. Lake Lanier takes a long time to fill because it is a large reservoir fed by a small stream. (It took three years to fill when the dam first closed in 1956.²⁹) Given its vast capacity to store water, the timing of any releases to Florida caused by limiting Metro Atlanta's water use would be difficult to predict. When combined with the extremely limited benefit increased flows would provide, as determined by Florida's own experts, it is highly doubtful that a decree would result in enough water being released at the right time to benefit Florida in any way.

C. It Is Also Highly Speculative that Capping Water Consumption in the Upper Flint or South Georgia Would Result in Florida Getting More Water in a Drought

The same principles apply to a decree limiting water use in the Upper Flint or irrigation in South Georgia. Although such a decree might increase flows in the Flint River and the lower Chattahoochee River *above the State line*, it would have no effect on the Apalachicola River during the driest times, when most of the alleged harms occur. Again, this is due to the manner in which the Corps operates the Chattahoochee River reservoir system. Both the current and

²⁸ Draft ACF EIS Vol. 2, App. B p. 7-12 (describing Buford operations during drought).

²⁹ The dam closed on February 1, 1956 but did not reach full pool (at that time elevation 1070') until May 25, 1959. Draft ACF EIS Vol. 2, App. B p. 3-3.

proposed operating plans provide for water to be released to meet specific flow targets at a specific control point directly below Jim Woodruff Dam in the Apalachicola River. In most droughts the flow target is 5,000 cfs. Because Lake Seminole behind Woodruff Dam has very limited storage capacity, water is typically released from other reservoirs higher in the Chattahoochee to meet this target. The result of this management system is to negate the effect of saving water in the Flint in most instances: if less water were taken from the Flint River, more would flow into Lake Seminole from that source, and less would be released from the Chattahoochee reservoirs. In many cases, therefore, a decree limiting irrigation in South Georgia might not benefit Florida at all. Certainly there is no guarantee that water would be released in sufficient quantities and at the right times to benefit Florida.

Limiting water use in South Georgia could increase flows in the Apalachicola River only in two limited situations, neither of which would produce material benefit to Florida. The first situation is when there is no drought and the Corps is releasing water from Jim Woodruff Dam for purposes other than meeting the minimum flows established to protect threatened and endangered species in the Apalachicola River. Any benefit to Florida during such higher-flow periods would be marginal at best, for several reasons: (1) because less water is taken for irrigation during such relatively wet periods; (2) because river flows also tend to be higher during such periods, further diminishing the effect of any reductions caused by irrigation; and (3) because the benefits of providing additional flow are substantially diminished during periods of relative abundance.

The second situation would be even rarer—and even less likely to benefit Florida materially. This scenario would occur during those rare times when the Corps is operating its reservoir system to meet a minimum flow, but the flow can be met from the Flint River alone,

without releasing water from storage in the Chattahoochee reservoirs. By definition, these conditions only occur when it is raining in the Flint River Basin—precisely when irrigation is not much of a factor, because water is not being used for that purpose.

VI. To the Extent Florida Claims Harm to More Than Oystermen, Its Claims Are Non-Justiciable

To prevail, Florida must prove that Georgia's water use is causing material harm to a "significant interest" of the State. Despite decades of litigation, the specific interest that Florida claims has been harmed has never been clear. To the extent Florida claims that Georgia caused the oyster fishery to collapse, the claim cannot be substantiated, as independent scientists investigating this issue are already beginning to conclude. ³⁰ But to the extent the alleged injury is to other interests, such as alleged harm to the "ecology" or "ecosystems" of the Apalachicola River and Bay, the claim is non-justiciable. No standards exist to guide the Court in determining whether any such impacts caused by Georgia's water use should be deemed unacceptable.

The Supreme Court established six independent tests for the existence of a non-justiciable political question in *Baker v. Carr*:

[1] a textually demonstrable constitutional commitment of the issue to a coordinate political department; or [2] a lack of judicially discoverable and manageable standards for resolving it; or [3] the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or [4] the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or [5] an unusual need for unquestioning adherence to a political decision already made; or [6] the potentiality of embarrassment

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³⁰ See William E. Pine III, et. al., The curious case of the eastern oyster Crassotrea virginica stock status in Apalachicola Bay, Florida, Ecology and Society 20(3): 46, 6 (2015) ("Our results are notable for what they did not find.... We did not find correlations between Apalachicola River discharge measures (average monthly, total annual, total monthly, or coefficient of variation on annual discharge, mean seasonal, or total seasonal) and our estimated relative natural mortality rate (M) or oyster recruitment rates (example Fig. 6). The overall relationships between freshwater flows, drought frequency and severity, oyster recruitment, and harvest dynamics remain unclear") available at http://www.ecologyandsociety.org/vol20/iss3/art46/.

from multifarious pronouncements by various departments on one question. 31

In *Vieth v. Jubelirer*, the Court emphasized that these tests are "independent" and "probably listed in descending order of both importance and certainty." 541 U.S. 267, 277-78 (2004). The second and third are at issue here. In *Vieth*, the Court explained that the "judicial power" under Article III "is not whatever judges choose to do . . . but the power to act in the manner traditional for English and American courts." *Id.* at 278 (emphasis in original). "One of the most obvious limitations imposed by that requirement is that judicial action be governed by *standard*, by *rule*." *Id.* (emphasis in original). "[L]aw pronounced by the courts must be principled, rational, and based upon reasoned distinctions." *Id.* Even in those rare cases when the Court has developed federal rules of decision instead of borrowing from state law, it "remains mindful that it does not have the creative power akin to that vested in Congress." *Am. Elec. Power Co.*, 564 at 422.

No manageable standard exists that could possibly be applied to Florida's claims of ecological harm, let alone a standard regarded as generally accepted. To the contrary, the balance between nature and development is a pervasive issue that all states confront. They have resolved it in different ways in different cases. Every major city was once a wilderness, and every so-called wilderness has been changed and affected by humans. How much change is too much and whether any given change should be considered good or bad are policy questions as to which no consensus exists. These are questions that cannot be decided "without an initial policy determination of a kind clearly for nonjudicial discretion." *Baker*, 369 U.S. at 217.

As explained above, Justice O'Connor warned in *Colorado v. New Mexico I* against the type of balancing Florida's claim would require. *See* 459 U.S at 193. Indeed, the difficulties in

³¹ Baker v. Carr, 369 U.S. 186, 217 (1962).

Colorado v. New Mexico pale by comparison to Florida's case. The competing uses were at least of the same basic type in that case. Florida's case, in contrast, pits traditional domestic and agricultural demands in Georgia against the amorphous, unquantified, and poorly understood demands of "ecosystems" and "ecological processes." The demands that Florida asserts are difficult to understand, let alone value. No standards exist that could be used by this Court to balance such different benefits and harms.

In the case of the Apalachicola River and Bay in particular, the one certainty is that neither the River nor Bay is pristine. The flow of the Apalachicola is controlled by five large mainstem reservoirs and many privately-owned hydroelectric projects on the Chattahoochee River. As one component of the comprehensive plan of development that authorized the federal projects, the State of Florida urged and supported the development of "Sikes Cut," a navigation cut through St. George Island that allows salty Gulf waters into the bay. The Apalachicola River has been severely degraded by dredging for navigation and by the scouring effects of hydropower operations at Jim Woodruff Dam. Separately, the native sturgeon population was almost eliminated in the 20th century by the combined effects of severe overfishing (perpetrated by a commercial fishery at the Port of Apalachicola, Florida) and the construction of dams that block access to their historic spawning grounds in the Chattahoochee River. See 2016 BIOP at 62. Meanwhile Tate's Hell Swamp, a major tributary to Apalachicola Bay located entirely within Florida, has been ditched and drained and converted to pine plantations, with massive effects on the hydrology of the bay. The list goes on. The point is not that any of these impacts is unacceptable, but that it would be entirely arbitrary to declare them permissible, while at the same time declaring that the impacts caused by Georgia's activities are not.

A. The Court Should Not Attempt to Set Instream Flow Standards as a Matter of Federal Common Law Because No Recognized Standards Exist

Relatedly, this Court should not attempt to develop instream flow standards as a matter of federal common law, because there are no generally-accepted standards or rules to aid the Court. For example, the State of Alabama has no law to protect instream flows. As explained by an Alabama agency working group exploring options for such a law "[i]nstream flow management approaches vary widely from state to state, and there are few national standardized methods for linking flow quantity and duration to state and local water needs and requirements while considering stream ecology, riparian areas, and floodplain habitats."³² Thus, while recognizing the need to adopt a policy, the Alabama working group ultimately concluded "there is inadequate research" to support adopting any specific policy for that State. *Id.* at 73.

Florida's own experience is also instructive. The Florida Water Resources Act of 1972 directed the State's five water management districts to establish "minimum flow" levels for all waterbodies within their jurisdiction. Minimum flows are defined as "the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area." Fla. Stat. § 373.042. The law provides that consumptive use permits cannot be granted if the proposed withdrawal would cause flows below the minimum flow. This goal is laudable, but the mandate to develop minimum flows has not been implemented. The Northwest Florida Water Management District (which is responsible for the Florida portion of the ACF Basin) has not established a single "minimum flow" for any waterbody within its jurisdiction. 33 Other districts

³² See Alabama Water Agencies Working Group, Mapping the Future of Alabama Water Resources Management: Policy Options and Recommendations: A Report to the Honorable Robert Bentley, Governor of Alabama 71 (Dec. 1, 2013), available at: http://www.adeca.alabama.gov/divisions/owr/awawg/documents/awawg-report-final-2-side-print.pdf.

³³ See Northwest Florida Water Management District, *Minimum Flows and Levels* (http://www.nwfwater.com/Water-Resources/Minimum-Flows-Levels). Each district is required to develop and

have done better; but statewide only a small handful (26) of Florida's thousands of waterbodies have been protected.³⁴

The exception that proves the rule is the Apalachicola River. After initially proposing to create a science-based minimum flow for the Apalachicola River, the Northwest Florida Water Management District short-circuited this process in 2006—in the midst of litigation with Georgia—by "reserving" the entire flow of the river for the protection of fish and wildlife. Fla. Admin. Code 40A-2.223. This was possible (1) because only two users relied on the Apalachicola River for water supply at the time, with the rest being served by groundwater from the Floridan Aquifer; and (2) those two users were both exempted from the reservation.

B. The Endangered Species Act Already Protects Threatened and Endangered Species

Florida has cited its alleged interest in protecting rare species in the Apalachicola River and Bay, but that is an unpersuasive justification for judicial intervention: these species are already fully protected by the federal Endangered Species Act, 16 U.S.C. §§ 1531 et seq. Indeed, as noted above, the United States Fish and Wildlife Service recently released a biological opinion declaring that these species are protected by the existing Corps operating plan and that the known impacts to these species can all be attributed, not to water consumption in Georgia, but to the Corps' reservoir operations.³⁵ Furthermore, the protections of the Endangered Species Act extend far beyond threatened and endangered species themselves. It also protects their habitats, and thus the entire web of life that supports them. For example, the protected mussel

maintain a priority list for the establishment of minimum flows and levels for their areas. Fla. Stat. § 373.042. The District's schedule calls for the first 11 minimum flows and levels to be adopted between 2020 and 2028.

³⁴ The mandate was essentially ignored until 1993 when a citizens group sued one of Florida's Water Management Districts to enforce the statute. See Concerned Citizens of Putnam Cnty., 622 So. 2d 520, 522 (1993). The mandate was revised and strengthened in 1997. Ch. 97-160 §§ 3-4, 1997 Fla. Laws 3007-12 (amending Fla. Stat. §§ 373.036; 373.0361 (1996)). Compliance is still aspirational, however.

³⁵ 2016 BiOp at 187. The U.S. Fish and Wildlife Service "attribute[d] all differences [in river flows] to the USACE's discretionary operations."

species that spend their adult lives on the banks of the Apalachicola River begin life as parasites on the gills of certain species of fish that spawn in floodplain. To protect the mussels, the Fish and Wildlife has imposed mandates in its Biological Opinion to protect not only the host fish, but also the floodplain habitats that support them.

Moreover, fish and wildlife species that are not threatened or endangered also receive the benefit of the federal Fish and Wildlife Coordination Act, 16 U.S.C. §§ 661 *et. seq.*, which requires extensive coordination between the Fish and Wildlife Service and the Corps to determine how ecological impacts to the river and bay can be avoided or mitigated. These protections are all guaranteed to be provided without any action from this Court.

VII. The "Ecosystem Services" Concept Has Not Been Tested

Finally Florida has alleged injury to "ecosystem services," and Professor J.B. Ruhl has filed an amicus brief expounding upon this theory as a basis for equitable apportionment. The Court, however, should not adopt this novel theory because there is little precedent for doing so in any practical context. As Professor Ruhl himself confessed less than six months ago ...

Fortunately for me, I did not predict how long it would take the ecosystem services framework to permeate environmental law. I confess I thought it would be swift—maybe a decade. Coming up now on two decades, it is fair to say that the ecosystem services concept . . . has made few inroads into "law to apply" status through legislation and agency regulation.³⁶

Whatever the future may hold for this theory, so far it has proved difficult to operationalize.³⁷ At this point in time, therefore, it would be "at least premature" for the Court to use this untested concept as the basis for an equitable decree "irrevocable by any power except that of [the Court] to reverse its own decision." *Missouri v. Illinois*, 200 U.S. 496, 520 (1906).

³⁶ See J.B. Ruhl, A New Federal Policy for Ecosystem Services, Nat. Res. & Envt. (30:4), 1 (Spring 2016).

³⁷ See A. Arlington et al., *Preserving Biological and Ecosystem Services of Rivers: New Challenges and Research Opportunities*, 55 Freshwater Biology 1, 3 (2010) ("it remains a challenge to translate this [the] natural flow regime paradigm into qualitative environmental flow prescriptions for individual river reaches from source to sea.").

Respectfully submitted this 21st day of October, 2016

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CERTIFICATE OF SERVICE

This is to certify that the AMICUS BRIEF OF THE ATLANTA REGIONAL

COMMISSION IN SUPPORT OF THE STATE OF GEORGIA has been served on this 21st day

of October, 2016, in the manner specified below.

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