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When the River Dries up, the Compact Need Not Wither Away: Amending Interstate Water Compacts to Ensure Long-Term Viability

HILARY T. JACOBS

The nature of water is unlike most other natural resources: it flows. It moves between, around, and under states. Moreover, water is crucial for the survival of all life. In order to address the sharing of this highly coveted and necessary resource, many states have entered into congressionally sanctioned interstate water compacts. Yet despite these efforts, water conflicts persist. With global warming and a growing population, the United States is destined to face increased water shortages, and with that, increased interstate disputes over water.

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3. See Draper, supra note 1, at 377 (“Water sharing conflicts may emerge over the allocation of the shared waters, but now the conflict is between or among the various political jurisdictions that share the water resource. . . . Inevitably, this sharing of a common resource is a breeding ground for conflict.”). One example of a longstanding, current dispute over water, part of which is subject to several interstate compacts, involves the Colorado River. “The labyrinthine rules by which the seven Colorado states share the river’s water are rife with potential points of conflict.” Michael Wines, Colorado River Drought Forces a Painful Reckoning for States, N.Y. TIMES, Jan. 6, 2014, at A1.

4. Kristen Averyt et al., Sectoral Contributions to Surface Water Stress in the Coterminous United States, 8 ENVTL. RES. LETTERS 1, 2 (2013). “[T]here is significant uncertainty in how future water demands may evolve. This uncertainty stems from the impacts of economic factors, social behaviors, technological innovations, legal and policy drivers, demand hardening, and climate change.” Id. (citations omitted).

5. See, e.g., id. at 3–4 (concluding that 193 of 2,103 watersheds studied are stressed or “demands for freshwater resources outstrip natural supplies”). For a specific example of an area plagued with shortages see Wines, supra note 3, at A1 (describing current water shortages plaguing the Colorado River).

6. See, e.g., Carey L. Biron, Water Conflicts Move up on U.S. Security Agenda, INTER PRESS SERV., May 9, 2012, available at http://www.ipsnews.net/2012/05/water-conflicts-move-
Experts have predicted that the frequency of droughts is likely to increase,\(^7\) which may be attributed to surface water quality deterioration,\(^8\) decreasing quantities of groundwater,\(^9\) and increased demands for water.\(^10\) Although recent research indicates that the majority of water shortages are anticipated in western states, eastern states are not immune.\(^11\) Even states with historically bountiful amounts of water, like Maryland,\(^12\) have begun to adopt contingency plans in light of possible future water shortages.\(^13\)

Do existing compacts adequately prepare states for shortages by providing potential solutions and forums for negotiations, or will interstate water battles plague U.S. society for years to come? At the most basic level, interstate compacts are considered contracts.\(^14\) Accordingly, the contract doctrines of impracticability and frustration of purpose apply to compacts, threatening to undermine compacts’ requirements when the going gets tough in the face of inevitable water shortages.\(^15\) This Comment will analyze the applicability of these doctrines to water compacts\(^16\) and then recommend several modifications to compacts to buffer against the undesirable outcome of dissolved compacts.\(^17\)

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7. See DAVID M. ANDERSON ET AL., GLOBAL CLIMATE CHANGE IMPACTS IN THE UNITED STATES 44 (2009) (“Floods and droughts are likely to become more common and more intense as regional and seasonal precipitation patterns change, and rainfall becomes more concentrated into heavy events (with longer, hotter dry periods in between).”).

8. Id. at 46.

9. Id. at 47.

10. Id.

11. See, e.g., Averyt et al., supra note 4, at 4 (“There are also indications of stress in the watersheds around the Great Lakes, along the Mississippi River, and sporadically along the Appalachian Mountains.”).

12. Maryland is currently and historically has been fortunate to have plentiful water supplies. M. GORDON WOLMAN, ADVISORY COMM. ON THE MGMT. AND PROT. OF THE STATE’S WATER RES., FINAL REPORT ES-1, ES-5 (2004). “Although water resource indicators for Maryland suggest that there is an abundance of water to meet present and future needs, in recent years some communities have suffered serious water supply shortages.” Id. The report estimates a 20.1% increase in population accompanied by a 16.5% increase in freshwater use from 2000 to 2030. Id. at ES-3.


14. Texas v. New Mexico (Texas II), 482 U.S. 124, 128 (1987) (“[A] compact when approved by Congress becomes a law of the United States, but a Compact is, after all, a contract. It remains a legal document that must be construed and applied in accordance with its terms.” (citations and internal quotation marks omitted)).

15. See infra Parts II.A–B.

16. See infra Part II.

17. See infra Part II.D.
I. BACKGROUND

Before addressing interstate compacts, it is important to understand some basic principles of water law in the United States. In the United States, states generally follow one of two systems of water law: riparianism or prior appropriation.\(^{18}\) Since control over natural resources is traditionally a power exclusively reserved for states, water law in the United States varies widely by state, with the doctrines of riparianism and prior appropriation providing background principles.\(^{19}\) While states may statutorily address their water resources however they wish, this principle is not limitless: If a state treats its water as an article of commerce, then under the dormant Commerce Clause doctrine, it cannot limit the exportation of its water resources to an extent that would burden interstate commerce.\(^{20}\)

Nevertheless, interstate compacts, which are essentially congressional-ly sanctioned contracts that allocate interstate water resources between states, can insulate restrictive state laws from dormant Commerce Clause scrutiny.\(^{21}\) This means that by concluding an interstate compact, states often can exercise more control over their water resources than they would be able to without a compact due to Commerce Clause restrictions.\(^{22}\) Therefore, preserving interstate water compacts often is in states’—and especially downstream states’—best interests.\(^{23}\) Despite the benefits of preserving compacts, states may panic and attempt to dissolve their compacts when facing severe water shortages based on the mistaken belief that doing so will allow them more water.\(^{24}\) One method of accomplishing such dissolution is through the contract defenses of impracticability and frustration of purpose.\(^{25}\)

A. Two Dominant Systems of Water Law

The power to control one’s own resources has long been considered a traditional power of states in their capacity as sovereign entities.\(^{26}\) Accord-

\(^{18}\) See infra Part I.A.
\(^{19}\) See infra notes 27–29 and accompanying text.
\(^{20}\) See infra Part I.B.
\(^{21}\) See infra Part I.C.
\(^{22}\) See infra Part I.B.2.
\(^{23}\) See infra Part I.B.2.
\(^{25}\) See infra Part I.D.
\(^{26}\) See Martin v. Waddell, 41 U.S. 367, 410 (1842) (“For when the [American Revolution] took place, the people of each state became themselves sovereign; and in that character hold the
ingly, the law governing water as a natural resource varies widely by state.\textsuperscript{27} State laws, however, are typically grounded in one of two historic water law doctrines: the doctrine of riparian rights or of prior appropriation.\textsuperscript{28} Eastern states, including Maryland,\textsuperscript{29} tend to follow the doctrine of riparian rights, whereas western states such as New Mexico and Wyoming follow the doctrine of prior appropriation, and several states utilize a hybrid approach.\textsuperscript{30} The geographic distinction in water law doctrine derives from historic differences in land ownership.\textsuperscript{31} Under the riparian doctrine, land ownership determines water rights;\textsuperscript{32} because the West was settled on lands originally owned by the federal government, claimants were unable to assert their rights over the adjoining waters.\textsuperscript{33} Accordingly, in states formerly

absolute right to all their navigable waters, and the soils under them, for their own common use, subject only to the rights since surrendered by the constitution to the general government.


\textsuperscript{28} See David H. Getches, Water Law in a Nutshell 3 (4th ed. 2008) (“American jurisdictions can be grouped roughly into three systems of water law: riparian, prior appropriation, and hybrid states.”).

\textsuperscript{29} Maryland is a riparian state that expressly follows the reasonable use doctrine for permit requirements, meaning that a water-use permit holder can only use state water in a reasonable manner. Md. Code Regs. 26.17.06.02 (2010). Owners of land along water bodies in riparian states were originally permitted “the right to have water flow past the land undiminished in quantity or quality.” See Getches, supra note 28, at 4. This right has morphed into the right to use water in a way that is reasonable relative to all other users. Id.


\textsuperscript{31} Id. at 6.

\textsuperscript{32} Id.

owned by the federal government, a new usage doctrine called prior appropriation developed. 34 Under the doctrine of prior appropriation, 35 he who first puts a portion of water to “beneficial use” is granted superior title over anyone who uses that water after him. 36

In contrast, the riparian rights doctrine grants property owners with land-bordering waterways the right to make use of the waters adjoining their property. 37 The right to adjacent waters is not boundless, however; riparian owners have the right to use the water only in a way that is reasonable compared to all other uses. 38 “If there is insufficient water to satisfy the reasonable needs of all riparians, all must reduce usage of water in proportion to their rights . . . .” 39 Ten states originally recognized the riparian rights doctrine but later shifted to prior appropriation while keeping intact existing riparian landowners’ rights. 40 These underlying doctrines establish the basic foundation for states’ current water systems and laws governing water use.

B. Water as an Article of Commerce

Because states have historically possessed the power to control their own natural resources, 41 the U.S. Supreme Court has adopted a presumption in favor of a state holding title to its own water resources. 42 This presumption is complicated by the fact that few water sources in the United States exist entirely within one state, as most rivers flow between states. 43 Upstream states tend to enjoy an advantage over downstream states, as they possess the potential to exhaust the river’s resources before those resources

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34. See Getches, supra note 28, at 6–7.
35. Id.
36. Id.
37. Id. at 4.
38. Id. In the past, riparian owners followed a “natural flow” rule, which gave them “the right to have water flow past the land undiminished in quantity or quality.” Id.
39. Id.
40. Id. at 8.
41. See supra text accompanying note 26.
42. See Montana v. United States, 450 U.S. 544, 552 (1981) (“A court deciding a question of title to the bed of a navigable water must . . . begin with a strong presumption against conveyance by the United States . . . .”).
43. See, e.g., Draper, supra note 1, at 377 (noting that “much of the earth’s source water in surface water rivers and groundwater aquifers runs along or through political boundaries”).
even reach their downstream neighbors. \footnote{Id. at 378.}

To address problems posed by interstate water resources, some states have promulgated statutes limiting the exportation of their water resources. \footnote{See, e.g., 82 OKLA. STAT. ANN., Waters and Water Rights, § 105.12 (West 2009) (“Approval of application by Oklahoma Water Resources Board—Use of water outside the state” and prioritizing in-state use over out-of-state use of Oklahoma water sources, thereby limiting the potential for external diversions).}

Such restrictive regulations can conflict with constitutional requirements. The U.S. Supreme Court has held that, in addition to granting Congress power to regulate commerce among states, the Commerce Clause also prohibits states from discriminating against interstate commerce. \footnote{See New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 273 (1988) (“[T]he Commerce Clause not only grants Congress the authority to regulate commerce among the States, but also directly limits the power of the States to discriminate against interstate commerce.”).}

Accordingly, state laws or practices that hamper interstate commerce have been held to violate the Commerce Clause. \footnote{See, e.g., Baldwin v. G.A.F. Seelig, Inc., 294 U.S. 511, 527 (1935) (invalidating a New York law that limited the intrastate sale of milk purchased out-of-state as violative of the Commerce Clause); see also Hughes v. Oklahoma, 441 U.S. 322, 336–38 (1979) (abrogating an Oklahoma law preventing the interstate transportation of minnows obtained from Oklahoma waters); City of Philadelphia v. New Jersey, 437 U.S. 617, 629 (1978) (striking down a New Jersey law prohibiting the importation of out-of-state garbage into the state); H.P. Hood & Sons, Inc. v. Du Mond, 336 U.S. 525, 542–45 (1949) (striking down New York’s denial of a license to operate a milk-distribution center on the grounds that the denial equaled an attempt to benefit New York’s milk producers and consumers at the expense of Massachusetts’s milk producers and consumers).}

Although the Commerce Clause can only limit state regulations on those items that function as articles of interstate commerce, the Court has recognized that water can qualify as an article of commerce. \footnote{Sporhase v. Nebraska ex rel. Douglas, 458 U.S. 941, 953–54 (1982) (holding that Nebraska’s groundwater constituted an article of commerce); City of Altus v. Carr, 255 F. Supp. 828, 839 (W.D. Tex.) (recognizing that groundwater is an article of commerce under Texas law), aff’d, 385 U.S. 35 (1966).}

Accordingly, any state regulations restricting the out-of-state use of water may be subject to the Commerce Clause’s prohibition on discrimination against interstate commerce. \footnote{Sporhase, 458 U.S. at 958–60.}

1. Overview of the Dormant Commerce Clause

The Commerce Clause provides that “Congress shall have Power . . . \footnote{U.S. CONST. art. I, § 8, cl. 3.} to regulate [c]ommerce . . . among the several states . . . .” \footnote{New Energy Co. of Ind., 486 U.S. at 273.} The Commerce Clause not only grants Congress the affirmative power to regulate interstate commerce, but also prohibits states from discriminating against interstate commerce. \footnote{Id. at 378.}

The Commerce Clause’s prohibitions emerged from the Court’s increasing discouragement of economic isolation and protec-
tionism for the purposes of promoting intrastate commerce at the expense of other states’ economies. This bar on economic protectionism is justified by the fact that the country’s economic success “depends on the vigilant maintenance of the principle that our economic unit is the entire nation,” not fifty states “operat[ing] as separate economic units.” The Court has referred to this “negative” aspect of the Commerce Clause as the dormant Commerce Clause.

All regulations geared toward promoting intrastate commerce at the expense of out-of-state competitors are prohibited under the Commerce Clause, including laws that clearly intend to burden interstate commerce and laws that impose more subtle burdens on interstate commerce. Two general types of state regulations are prohibited: (1) laws that facially discriminate against interstate commerce and (2) facially neutral laws that have a discriminatory effect.

The Court considers the first category of laws, those that constitute “simple economic protectionism” to be invalid per se. Any law that clearly intends to burden out-of-state competitors in order to promote intrastate commerce is expressly invalid under the Commerce Clause and receives

52. City of Philadelphia, 437 U.S. at 623–24 (“The opinions of the Court through the years have reflected an alertness to the evils of ‘economic isolation’ and protectionism, while at the same time recognizing that incidental burdens on interstate commerce may be unavoidable when a State legislates to safeguard the health and safety of its people. Thus, where simple economic protectionism is effected by state legislation, a virtually per se rule of invalidity has been erected.”).


54. New Energy Co. of Ind., 486 U.S. at 273–74 (“This ‘negative’ aspect of the Commerce Clause prohibits economic protectionism—that is, regulatory measures designed to benefit in-state economic interests by burdening out-of-state competitors.”).


56. See, e.g., C & A Carbone, Inc. v. Town of Clarkstown, 511 U.S. 383, 402 (1994) (O’Connor, J., concurring) (“Our decisions therefore hold that the dormant Commerce Clause forbids States and their subdivisions to regulate interstate commerce.”).

57. New Energy Co. of Ind., 486 U.S. at 273–75.


59. See City of Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978) (explaining that as to the first category, where state legislation is facially protectionist, it is per se unlawful, and as to the second category, “[t]he crucial inquiry, therefore, must be . . . whether [the state law] is basically a protectionist measure, or whether it can fairly be viewed as a law directed to legitimate local concerns, with effects upon interstate commerce that are only incidental.”).

60. Id.; see, e.g., C & A Carbone, Inc., 511 U.S. at 392 (“Discrimination against interstate commerce in favor of local business or investment is per se invalid . . . .”).

61. See City of Philadelphia, 437 U.S. at 628 (finding that such laws “fall[] squarely within the area that the Commerce Clause puts off limits to state regulation”).
analysis of the strictest scrutiny. Although some laws overtly block the flow of interstate commerce at a state’s borders, other states have also adopted more nuanced forms of economic protectionism. For instance, states have attempted to manipulate the price of out-of-state goods or control out-of-state conduct in order to benefit intrastate commerce.

While facially discriminatory laws are generally deemed per se invalid, they can withstand Commerce Clause challenges if they can survive a two-part test resembling strict scrutiny. Courts first will consider if the law advances a legitimate local purpose. If it does, courts will next consider if that purpose could be sufficiently achieved via reasonable nondiscriminatory alternatives. This test has proven very hard to satisfy; while courts have accepted certain statutory goals as legitimate local purposes, very few facially discriminatory laws have ever been held valid based on a lack of nondiscriminatory alternatives.

63. See City of Philadelphia, 437 U.S. at 624 (describing the economic protectionism as legislation that “overtly blocks the flow of interstate commerce at a State’s borders”).
64. See, e.g., Hunt v. Wash. State Apple Adver. Comm’n, 432 U.S. 333, 335, 352–53 (1977) (abrogating a North Carolina law banning the sale of apples that bear a grading system other than the USDA system); see also Havemann, supra note 58, at 857–58 (citing Exxon Corp. v. Governor of Maryland, 437 U.S. 117 (1978)) (noting that a Maryland statute that prohibited petroleum refiners from operating in the state was upheld by the court despite Maryland’s lack of in-state refiners and the subtle burden on interstate commerce).
65. See, e.g., Chem. Waste Mgmt. Inc. v. Hunt, 504 U.S. 334, 336, 342 (1992) (invalidating an Alabama law imposing an extra fee on imported hazardous waste); see also New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 271, 277–80 (1988) (striking down an Ohio law that offered state credit to fuel dealers who sold ethanol that was either produced in Ohio or in a state that granted reciprocal tax advantages to Ohio consumers).
67. See, e.g., Oregon Waste Syst., Inc., v. Dep’t of Envtl. Quality of the State of Oregon, 511 U.S. 93, 100–01 (1994) (noting that after finding a law facially discriminatory, “the [law] must be invalidated unless . . . it advances a legitimate local purpose that cannot be adequately served by reasonable nondiscriminatory alternatives.” (quoting New Energy Co. of Ind., 486 U.S. at 278 (internal quotation marks omitted))); see also Hughes, 441 U.S. at 337 (“[F]acial discrimination invokes the strictest scrutiny of any purported legitimate local purpose and of the absence of nondiscriminatory alternatives.”).
69. See, e.g., Dean Milk Co. v. Madison, 340 U.S. 349, 354–55 (1951) (recognizing that protecting the community’s health and safety is a legitimate local purpose, but striking down the statute based on the availability of reasonable alternatives). But see, e.g., Maine v. Taylor, 477 U.S. 131, 151–52 (1986) (upholding Maine’s ban on the importation of live baitfish after finding that
Facially neutral laws are subject to a lower standard of review than facially discriminatory laws. First, the Court will determine if the law has a legitimate local purpose, and second, the Court will weigh the law’s local benefits against the burden on interstate commerce. The Court distinguishes between laws that serve legitimate state purposes and those that are designed to cover up true discriminatory intent. Under the second part of the inquiry, the law will be upheld unless the burden imposed is “clearly excessive in relation to the putative local benefits,” or if the law’s legitimate purpose could be served in a less burdensome manner.

Under both the facially discriminatory and facially neutral law tests, the Court has required that the regulation be “narrowly tailored” to its purported goal. For instance, in *City of El Paso v. Reynolds*, the U.S. Dis-
District Court for the District of New Mexico struck down a state statute that completely banned the exportation of state groundwater, concluding that the regulation was “tantamount to economic protectionism.” While recognizing the legitimacy of the purpose of “conserv[ing] and preserv[ing] the state’s internal water supply,” the court concluded that it could only justify “limited, non-discriminatory burdens on interstate commerce” and not “a total ban on interstate transportation of ground water.” Accordingly, even state statutes with valid purposes that limit the exportation of state water must do so in the least burdensome way possible.

2. Commerce Clause Limitations on State Water Laws

Since the Commerce Clause applies only to state resources that constitute articles of commerce under state or federal law, states that limit the out-of-state use of state water are subject to Commerce Clause limitations only if they treat their water resources as an article of commerce. Sporhase v. Nebraska ex rel. Douglas elucidates this principle. Contra-

76. Id. at 390–92.
77. Id. at 388–89. In Reynolds, the district court also noted that the Supreme Court held that a state may discriminate in favor of its citizens only to the extent that water is essential to human survival. Outside of fulfilling human survival needs, water is an economic resource. For purposes of constitutional analysis under the Commerce Clause, it is to be treated the same as other natural resources.

78. Id. at 389.
79. For example, in Tangier Sound Watermen’s Ass’n v. Douglas, the U.S. District Court for the Eastern District of Virginia concluded that the Commerce Clause did not apply to the right of non-Virginia residents to commercially harvest crabs in Virginia waters since a commercial fisherman’s interest in crossing state lines to harvest crabs falls outside the Commerce Clause’s scope as an article of commerce or the involvement in interstate commerce. 541 F. Supp. 1287, 1303–06 (E.D. Va. 1982). Whether an object constitutes an article of commerce depends on whether that object has been recognized by custom or law as a fit subject for barter or sale, particularly if its manufacture has been made the subject of Federal regulation and taxation . . . . [An article] must . . . be recognized as a legitimate article of commerce although it may to a certain extent be within the police power of the states.

80. See generally Mark S. Davis & Michael Pappas, Escaping the Sporhase Maze: Protecting State Waters Within the Commerce Clause, 73 LA. L. REV. 175, 198–99 (2012) (“Both state characterizations of water resources and state water practice will determine whether waters are articles of commerce and water regulations are subject to Dormant Commerce Clause review.”).

82. Id. at 945–54; see also Davis & Pappas, supra note 80, at 198–206. Under Sporhase, courts must examine whether state law clearly treats water as an object of interstate commerce or
ry to popular understandings based on Sporhase, because each state has its unique water law doctrine, water does not automatically count as an article of commerce in all fifty states.

States that treat water as an article of commerce will be able to limit the exportation of their water resources only to the extent that those limitations do not discriminate against interstate commerce. States that do not treat water as an article of commerce will remain free to limit the exportation of their water resources because those resources are not bound by the Commerce Clause.

Despite Commerce Clause limitations, states can gain more control over their water resources in certain situations. For instance, the Sporhase Court suggested that under drought conditions, states could have more control over their water resources than the dormant Commerce Clause would otherwise permit: “[W]e are reluctant to condemn as unreasonable, measures taken by a State to conserve and preserve for its own citizens this vital resource in times of severe shortage.” The Sporhase Court also stat-

whether the state’s “de facto treatment of water resembles commerce” by looking at written law and state practice. Id. at 200.

83. See, e.g., City of El Paso v. Reynolds, 563 F. Supp. 379, 388–89 (D.N.M. 1983) (mischaracterizing the Sporhase Court’s holding by stating that “water is an article of commerce and that Congress’ long-standing deference to state water law did not demonstrate an intent to permit discrimination against interstate commerce in ground water.”).

84. See supra Part I.A.

85. See Davis & Pappas, supra note 80, at 198–203 (describing a three-part inquiry courts use to determine whether water is treated as an article of commerce in a given state). Professors Davis and Pappas further explained that

[the state-specific nature of these three inquiries [whether states are empowered to characterize water so that it does not enter commerce, whether state law treats water as an article of commerce, and whether state conduct treats water as an article of commerce] illustrates that the Sporhase Doctrine contains no categorical conclusion that all water is necessarily an article of commerce. Rather, all of these cases look at the particulars of state law and practice to determine, on a state-by-state basis, whether water is an article of commerce in a given state.

Id. at 203. As Davis and Pappas point out, the first inquiry was settled in Hudson County Water Co. v. McCarter, 209 U.S. 349, 356–57 (1908). Id. at 200. For an example of a court’s use of the second inquiry, see City of Altus v. Carr, 255 F. Supp 828, 840 (W.D. Tex.), aff’d, 385 U.S. 35 (1966). For an example of a court’s use of the third inquiry, see Sporhase, 458 U.S. at 944, 951–52.

86. See New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 273–74 (1988) (noting that the Commerce Clause “directly limits the power of the States to discriminate against interstate commerce” and that “state statutes that clearly discriminate against interstate commerce” will be struck down).

87. See Davis & Pappas, supra note 80, at 199 (“If [a state does not treat water as an article of commerce], then state water restrictions are immune from Dormant Commerce Clause review.”). However, the wide variety of factors that Sporhase examines to ascertain whether water is an article of commerce means that most states will be subject to dormant Commerce Clause analysis. See supra note 85 and accompanying text.

88. Sporhase, 458 U.S. at 956. The Sporhase court explained:
ed that well-documented water shortages could justify a state limiting the external use of its waters: “A demonstrably arid State conceivably might be able to marshal evidence to establish a close means-end relationship between even a total ban on the exportation of water and a purpose to conserve and preserve water.”89 Thus, despite Commerce Clause requirements, states may be able to legally restrict the exportation of their water resources during a well-documented water shortage.90

Additionally, state waters subject to an interstate compact are seemingly immune from dormant Commerce Clause analysis.91 Many interstate compacts apportion specific discrete amounts of water to specific states, thereby inherently limiting the interstate use of water.92 Because water

Our reluctance stems from the ‘confluence of [several] realities.’ First, a State’s power to regulate the use of water in times and places of shortage for the purpose of protecting the health of its citizens—and not simply the health of its economy—is at the core of its police power. For Commerce Clause purposes, we have long recognized a difference between economic protectionism, on the one hand, and health and safety regulation, on the other. Second, the legal expectation that under certain circumstances each State may restrict water within its borders has been fostered over the years not only by our equitable apportionment decrees, but also by the negotiation and enforcement of interstate compacts. Our law therefore has recognized the relevance of state boundaries in the allocation of scarce water resources. Third, although appellee’s claim to public ownership of Nebraska ground water cannot justify a total denial of federal regulatory power, it may support a limited preference for its own citizens in the utilization of that resource.

Id. (citations omitted).

89. Id. at 958.
90. Id.
91. See id. at 956 (“[T]he legal expectation that under certain circumstances each State may restrict water within its borders has been fostered over the years . . . by the negotiation and enforcement of interstate compacts.” (citation omitted)). This principle only applies, however, to compacts that allocate specific amounts of water between states. In Tarrant Regional Water District v. Herrmann, plaintiff Tarrant, a Texas water district, asserted that Oklahoma statutes limiting the exportation of state water “discriminat[ed] against interstate commerce . . . by erecting barriers to the distribution of water left unallocated under [the Red River] Compact.” 133 S. Ct. 2120, 2136 (2013) (internal quotation marks omitted). Tarrant interpreted the Red River Compact as allocating most, but not all of the water in the river, and asserted that, by favoring in-state water consumers, Oklahoma law prevented that “unallocated” water from being distributed out-of-state and thereby disrupted the interstate trade of water. Id. at 2129–30. The Court rejected Tarrant’s interpretation of the Compact based on drafting history which indicated that, during times of ample flow, each state can use as much water as it wants so long as it does not prevent downstream states from acquiring their apportionment of water. Id. at 2137. Therefore, the Court concluded, “Oklahoma water statutes cannot discriminate against interstate commerce with respect to unallocated waters because the Compact leaves no waters unallocated.” Id. For this reason, the Court found that Tarrant’s Commerce Clause argument failed. Id. It is worth noting, however, that the dormant Commerce Clause’s applicability is unclear for interstate compacts that do not divide up water between states via percentage of flow, specific amounts of water, or both, but merely establish an administrative board to allocate or monitor water use.

92. For example, the Sabine River Compact between Louisiana and Texas provides that “[a]ll free water in [the area between the border and Sabine Lake] shall be divided equally between the two States” and “neither State shall permit or authorize any additional uses which would have the
Compacts are recognized as federal law, making it sense that such limitations on interstate commerce would receive extra deference. Indeed, in *Intake Water Co. v. Yellowstone River Compact Commission*, the U.S. Court of Appeals for the Ninth Circuit noted that because Congress approved the Yellowstone River Compact, “it is federal, not state, law for purposes of Commerce Clause objections; therefore, the Compact cannot, by definition, be a state law impermissibly interfering with commerce but is instead a federal law, immune from [Commerce Clause] attack[s].” Nevertheless, interstate water compacts are only immune to Commerce Clause analysis to the extent that they cover state water sources. For example, in *City of El Paso v. Reynolds* the court held that the Rio Grande Compact did not insulate New Mexico’s prohibition on all groundwater exports from Commerce Clause restrictions because the Compact did not cover groundwater. Even if a compact purports to address an entire river but inadvertently leaves out some of the river, any state regulations restricting the use of that uncovered portion could be subject to Commerce Clause analysis.

Therefore, by entering into an interstate water compact, or during times of drought, states could have a greater ability to isolate their water resources from the thirsty mouths of other states. Because it is unclear just how much control a state might have in times of drought without a compact—in order to ensure they are entitled to at least some portion of an interstate river flowing through a state’s borders—states should seek to ensure that their interstate water compacts remain intact.

Effect of reducing the flow [in the area between the border and Sabine Lake] to less than 36 cubic feet per second. *Tex. Water Code Ann.* § 44.010, arts. V(a)–(b) (West 2008). Accordingly, neither state may sell water to other states to the extent that the sale will reduce the flow of the water within that specified area. *Id.*


94. See *Intake Water Co. v. Yellowstone River Compact Comm’n*, 769 F.2d 568, 570 (9th Cir. 1985) (indicating deference by stating that the compact was a federal law “immune from [Commerce Clause] attack[s]”).

95. 769 F.2d 568 (9th Cir. 1985).  
96. *Id.* at 569–70.  
97. See Tarrant Reg’l Water Dist. v. Herrmann, 133 S. Ct. 2120, 2137 (2013) (holding that Oklahoma statutes limiting the export of state water did not violate the Commerce Clause because the Red River Compact’s provisions covered the water subject to the statutes, thereby rejecting Texas’s argument that there was water “unappropriated” by the Compact that was subject to Commerce Clause limitations).


99. See *supra* notes 91–98 and accompanying text.

100. See *supra* notes 91–9799 and accompanying text.

101. See *infra* Part II.
C. Compacts

To address problems posed by the shared use of interstate water sources, many states have entered into compacts to divide up water sources. Although the Supreme Court and Congress may also apportion interstate waters, compacts are the most frequently used mechanism. Interstate water compacts are essentially congressionally sanctioned con-

102. See GETCHES, supra note 28, at 428, 438. Although compacts are by far the most frequently used mechanism for dividing up interstate water sources, the Supreme Court and Congress also have the authority to equitably apportion interstate waters. See U.S. CONST., art. III, § 2 (granting the Court original jurisdiction for disputes between “two or more States”); see also, id. at art. I, § 8, cl. 3 (granting Congress the power “to regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes”).

103. The Court has equitably apportioned interstate water sources on only a few occasions. See, e.g., Wyoming v. Colorado, 259 U.S. 419, 495–96 (1922) (allocating the Laramie River between the two states), vacated, 353 U.S. 953 (1957) (changing the judgment to apportion Colorado’s 49,375 acre-feet of the Laramie River as opposed to the original amount of no more than 15,500 acre-feet); see also Nebraska v. Wyoming, 325 U.S. 589, 646 (1945) (equitably apportioning the North Platte River). For more examples of the Court deciding whether to exercise its powers to equitably apportion interstate waters, see Kansas v. Colorado, 206 U.S. 46, 117–18 (1907) and Colorado v. New Mexico, 459 U.S. 176, 182–83, 190 (1982).

104. See GRANT, supra note 103, at 105 (“States have preferred to make their own apportionments by entering into water allocation compacts.”).
tracts\textsuperscript{105} that govern the use of a source of water among the states in which it flows. Congressional approval furnishes interstate compacts with the status of federal law.\textsuperscript{106}

Today, there are twenty-six congressionally sanctioned compacts addressing water supply in the United States.\textsuperscript{107} Compacts that address water supply generally either allocate discrete amounts of water or establish an administrative board to oversee the management of interstate water supplies.\textsuperscript{108} Compacts that allocate water do so in many ways: by percentage of total flow,\textsuperscript{109} by discrete amounts in acre-feet or cubic feet per second,\textsuperscript{110} based on historical amounts,\textsuperscript{111} based on geography,\textsuperscript{112} or based on season.\textsuperscript{113} Most compacts do not entirely follow one method but rather apply a

\begin{itemize}
\item \textsuperscript{105} The Compact Clause of the Constitution recognizes that states have the power to enter into agreements with each other. U.S. Const., art. I, § 10, cl. 3 (“No State shall, without the Consent of Congress, . . . enter into any Agreement or Compact with another State . . . .”). Compact formation, however, requires congressional approval unless the agreement is so inconsequential that it does not encroach on federal authority. Virginia v. Tennessee, 148 U.S. 503, 518–21 (1893). Congress must authorize the negotiation of the compact and the final agreement. Getches, supra note 28, at 439–40. Congress’s consent determines whether a compact is permissible. Id.; see also Texas v. New Mexico (Texas II), 482 U.S. 124, 128 (1987) (“[A] Compact is, after all, a contract.” (quoting Petty v. Tennessee-Missouri Bridge Comm’n, 359 U.S. 275, 285 (1959) (Frankfurter, J., dissenting))).
\item \textsuperscript{108} See, e.g., Md. Code Ann., Envir. § 5-301 (West 2014) (detailing the Susquehanna River Basin Compact, which that establishes an administrative board to manage interstate water supplies); infra notes 109–113 (discussing various statutes that allocate discrete amounts of water).
\item \textsuperscript{109} See, e.g., Wyo. Stat. Ann. § 41-12-205 (LexisNexis 2013) (detailing that the Belle Fourche River Compact allocates ninety percent of the flow of the river to South Dakota and ten percent of the flow to Wyoming).
\item \textsuperscript{110} See, e.g., Colo. Rev. Stat. Ann. § 37-62-101 (West 2004) (detailing that the Upper Colorado River Compact guarantees Arizona at least 50,000 acre-feet of storage per year, and after that the waters are divided based on percentage).
\item \textsuperscript{111} See, e.g., Tex. Water Code Ann. § 42.010 (West 2008) (detailing that the Pecos River Compact guarantees Texas an amount of water “equivalent to that available to Texas under the 1947 condition”).
\item \textsuperscript{112} See, e.g., id. § 43.006 (detailing that the Canadian River Compact grants New Mexico “free and unrestricted use of all waters originating in the drainage basin of Canadian River above Conchas Dam” and a limited amount of water below the dam, grants Texas “free and unrestricted use of all waters of Canadian River in Texas” within specified limits, and grants Oklahoma “free and unrestricted use of all waters of Canadian River in Oklahoma”).
\item \textsuperscript{113} See, e.g., Colo. Rev. Stat. Ann. § 37-69-101, art. V (West 2004). The Arkansas River Compact apportions amounts based on the conservation storage supply in a reservoir along the river. Id. During the winter months (November 1 to March 31), Colorado can demand up to 100 cubic feet per second from the reservoir; during the summer months (April 1 to October 31), Colo-
variety of approaches. For instance, the Pecos River Compact dictates that “New Mexico shall not deplete by man’s activities the flow of the Pecos River at the New Mexico-Texas state line below an amount which will give to Texas a quantity of water equivalent to that available to Texas under the 1947 condition.” Moreover, the Compact allocates forty-three percent and fifty-seven percent of excess water to Texas and New Mexico, respectively. Apportionments of water via compact are binding upon all citizens of the compacting states, however states choose to allocate that water.

Even in the presence of compacts, disputes over water supplies still arise, largely over compact interpretation and implementation. For instance, in Tarrant Regional Water District v. Herrmann, parties from Texas and Oklahoma argued over the interpretation of the Red River Compact, an interstate compact allocating portions of the Red River between Texas, Oklahoma, Louisiana, and Arkansas. Tarrant, a Texas water district, argued that the Compact left some water “unallocated,” thereby creating “a borderless common in which each of the four signatory States may cross each other’s boundaries to access a shared pool of water.” The Supreme Court rejected Tarrant’s interpretation that the Compact left water “unallocated,” and concluded that there was no dormant Commerce Clause problem. Thus, even though the goal of compacts is to resolve future interstate water disputes, problems inevitably arise.

rado can demand up to 500 cubic feet per second and Kansas can demand 500–750 cubic feet per second. Id. at 2129.

114. TEX. WATER CODE ANN. § 42.010, art. III(a) (West 2008).
115. Id. at art. III(c).
116. See GETCHES, supra note 28, at 441 (“Apportionments of water by compact are binding upon the citizens of the compacting states whether or not individual citizens were parties to the negotiations.”).
118. 133 S. Ct. 2120 (2013).
119. Id. at 2125–30.
120. Id. at 2129.
121. Id. at 2137.
D. Threats to Interstate Compacts

Despite the problems that do and will likely continue to arise based on compact interpretation, interstate water compacts face even more daunting problems. The Supreme Court held that, although congressional approval transforms an interstate compact into U.S. law, compacts are fundamentally contracts. Accordingly, compacts are subject to most of the doctrines that apply to traditional contracts. For example, the Tarrant Court held that courts should interpret compacts according to their specific terms, and if those terms are not clear, a court should look to the parties’ intent, consistent with principles of contract law. While some contract doctrines—rooted in state law—apply to interstate compacts, the ratified provisions of a compact will generally be given deference and certain contract doctrines will be displaced because congressional consent transforms an interstate compact into a federal law. For example, the Court has refused to find that an interstate compact includes an implied duty of good faith and fair dealing because such a holding would render judges “potent lawmakers.”

As contracts, compacts are also subject to the contract defenses of impracticability and frustration of purpose. Unlike the contract doctrines mentioned above, impracticability and frustration of purpose do not change a contract but merely provide justifications for the contract’s nullifica-

122. See Alabama v. North Carolina, 560 U.S. 330, 351 (2010) (noting that “an interstate compact is not just a contract; it is a federal statute enacted by Congress.”).
124. Id.; see, e.g., Texas v. New Mexico (Texas I), 462 U.S. 554, 564 (1983) (applying the contract interpretation principle that prohibits courts from “order[ing] relief inconsistent with [a contract’s] express terms”).
125. Tarrant, 133 S. Ct. at 2130.
126. See Charles L. Knapp, Nathan M. Crystal & Harry G. Prince, Problems in Contract Law: Cases and Materials 390 (7th ed., 2012). “Courts often state that the ‘plain meaning’ of the language of a contract should govern and that extrinsic evidence is admissible only if the court concludes that the contract is ambiguous.” Id.
127. See Texas II, 482 U.S. at 128 (noting that interstate compacts are “legal document[s] that must be construed and applied in accordance with [their] terms”).
128. See Texas I, 462 U.S. at 564 (“One consequence of this metamorphosis is that, unless the compact to which Congress has consented is somehow unconstitutional, no court may order relief inconsistent with its express terms.”).
130. Alabama v. North Carolina, 560 U.S. 330, 351–52 (2010). The Court expressed reluctance “to read absent terms into an interstate compact given the federalism and separation-of-powers concerns that would arise were [the Court] to rewrite an agreement among sovereign States.” Id. at 352.
131. See, e.g., id. at 366 (Breyer, J., concurring) (applying the doctrine of impracticability to an interstate compact).
Impracticability and frustration of purpose excuse parties from performing contractual duties when something occurs that is contrary to a basic assumption on which the contracting parties relied, thereby rendering performance impracticable or meaningless. During times of water scarcity, states may claim impracticability or frustration of purpose in an attempt to void the compact and regain the ability to restrict water exportation.

1. Impracticability

The doctrine of impracticability applies when parties have entered a contract and an unexpected event occurs, rendering performance of the contract impracticable. The event must be so unexpected that its nonoccurrence was a basic assumption on which the contract was made; therefore parties are excused from performing their contractual duties. Events that trigger the impracticability defense include the death or incapacity of a person necessary for performance, the prevention of action by government regulation, and the destruction or deterioration of something necessary for contract performance. There are four elements required to satisfy a defense of impracticability: (1) an event occurs after contract formation that renders performance impracticable; (2) the event is contrary to a basic assumption on which the contract was made; (3) the event occurs without fault of either party; and (4) the event was unforeseeable at the time of contract formation. In certain circumstances, claims of impracticability could result in voided interstate water compacts.

2. Frustration of Purpose

The frustration of purpose doctrine applies when parties enter a contract and an unexpected event occurs that renders a contract pointless—that
is, substantially frustrates the contract’s purpose—thereby discharging the
parties of their duties to perform the contract. \textsuperscript{142} A successful claim of frus-
tration of purpose requires that (1) an event occurs that frustrates a principal
purpose of the contract, (2) the event substantially frustrates the contract’s
purpose, (3) the non-occurrence of this event was a basic assumption on
which the contract was made, and (4) neither party was at fault. \textsuperscript{143}

II. ANALYSIS

With water shortages on the rise due to global warming, \textsuperscript{144} specific al-
location schemes required by interstate compacts may become increasingly
difficult to fulfill. Moreover, droughts are likely to affect more states, in-
cluding states like Maryland that are historically devoid of water conflicts
due to an abundance of water. \textsuperscript{145} Despite its historic bounty of water re-
sources, \textsuperscript{146} Maryland has already begun preparing for potential shortages. \textsuperscript{147}
Yet, as they now stand, many water compacts remain susceptible to the
possibility of one state claiming a defense of impracticability or frustration

\textsuperscript{142} \textit{Id. \textsuperscript{265}}.

\textsuperscript{143} \textit{Id.}

\textsuperscript{144} See \textit{Anderson et al., supra note 7, at 44 (predicting a higher incidence rate and greater
intensity of future droughts); see also Intergovernmental Panel on Climate Change,
Climate Change 2007: Impacts, Adaptation and Vulnerability, 186–88 (Martin Parry et
al. eds., 2007) (“A warmer climate, with its increased climate variability, will increase the risk of
both floods and droughts.”). For information on drought conditions in the United States, see Clima-

\textsuperscript{145} See, e.g., \textit{Wolman, supra note 12, at ES-1 (“Although water resource indicators for
Maryland suggest that there is an abundance of water to meet present and future needs, in recent
years some communities have suffered serious water supply shortages. The 2002 drought experi-
enced throughout Maryland ignited widespread concern for the adequacy of the State’s water re-
sources to meet the future demand. There was an alarming realization that unless and until ade-
quate measures are taken, Maryland will have great difficulties in the future in meeting its
growing water demand, which could lead to a water crisis of significant proportions.”).

\textsuperscript{146} \textit{Id. at ES-5}.

\textsuperscript{147} \textit{Wolman, supra note 13, at 3–4. The Advisory Committee on the Management and Pro-
tection of the State’s Water resources gave the following recommendations:

[T]he Committee recommends that Maryland move as quickly as possible to: Prepare
Statewide and regional long-term plans with federal, State and local government agen-
cies and utilities working collaboratively; [e]stablish a broader and more reliable net-
work of monitoring stations; [f]ully fund two major hydrologic studies: the Coastal
Plain Aquifer and Fractured Rock Water Supply Studies; [i]mprove the analytical tools
for assessing the impacts of proposed new water uses; [i]ntegrate those new tools into
allocation and permitting decisions; [d]evelop comprehensive guidance and incentives
to increase water conservation in all sectors; [p]rovide all interested parties with ready
access to all the water resources data; [s]trengthen enforcement programs for permit re-
quirements to ensure that the interests of all water users are protected; and [e]stablish
adequate funding for the water supply program to properly manage water resources for
future generations.

\textit{Id.}}
of purpose when water levels decrease, as a means of escaping its compact
duties. The contract doctrines of impracticability and frustration of purpose
have not yet been applied in the context of interstate water compacts.\textsuperscript{148} A
close analysis of the requirements of impracticability and frustration of pur-
pose under circumstances other than water shortages suggests that such
claims could succeed in certain drought situations.\textsuperscript{149} This Comment will
analyze these doctrines’ viability in the context of interstate compacts,\textsuperscript{150}
and then suggest potential drafting strategies in order to protect compacts
from future dissolution as a result of these doctrines.\textsuperscript{151}

\textbf{A. Impracticability}

As discussed in Part I.D.1, the contract defense of impracticability
consists of four elements which this Section will discuss in turn.

\textit{1. After Contract Formation, an Event Renders Performance
Impracticable}

A successful claim of impracticability requires that after contract for-
formation, an event occurs, rendering performance impracticable.\textsuperscript{152} “A mere
change in the degree of difficulty or expense . . . does not amount to im-
practicability since it is this sort of risk that a fixed-price contract is intend-
ed to cover.”\textsuperscript{153} A “severe shortage of raw materials or of supplies due to
war, embargo, local crop failure, unforeseen shutdown of major sources of
supply, or the like, which either causes a marked increase in cost or pre-
vents performance altogether” may suffice, however.\textsuperscript{154}

Whether a water shortage renders performance of a compact impracti-
cable depends on the compact’s specific allocation provisions and the cur-
tently existing compacts that allocate water supplies; each use a slightly dif-
ferent method of allocation.\textsuperscript{155} Generally, however, interstate water

\textsuperscript{148} But see supra note 131 (applying the doctrine of impracticability to an interstate waste
management compact).

\textsuperscript{149} See infra Parts II.A–B.

\textsuperscript{150} See infra Parts II.A–C.

\textsuperscript{151} See infra Part II.D.

\textsuperscript{152} \textit{Restatement (Second) of Contracts} § 261 (1981).

\textsuperscript{153} Id. § 261 cmt. d; see also Karl Wendt Farm Equip. Co. v. Int’l Harvester Co., 931 F.2d
1112, 1116–18 (6th Cir. 1991) (explaining that mere unprofitability does not excuse nonper-
formance).

\textsuperscript{154} Karl Wendt Farm Equip. Co., 931 F.2d at 1117 (quoting \textit{Restatement (Second) of
Contracts} § 261 cmt. d (1981)).

\textsuperscript{155} See supra notes 107–113 and accompanying text.
compacts that allocate water largely utilize two methods of allocation: percentage of total flow and specific amounts of water.\textsuperscript{156}

The vast majority of compacts allocate water in specific portions using the units of acre-feet or cubic feet per second. For example, the Canadian River Compact ("CRC") allocates discrete amounts of water to the three states it governs.\textsuperscript{157} The CRC allot 200,000 acre-feet of water to New Mexico, the most upstream state,\textsuperscript{158} 500,000 acre-feet of water to Texas,\textsuperscript{159} and grants Oklahoma, the most downstream state, "free and unrestricted use" of the river within its boundaries.\textsuperscript{160} Would a drought that reduces the Canadian River's water level such that one or all states are unable to obtain their apportionments render compact performance impracticable?

If a drought reduced the river's level to provide only 300,000 acre-feet to New Mexico, New Mexico could appropriate its full 200,000 acre-feet of water, leaving Texas with 100,000 acre-feet and Oklahoma with nothing.\textsuperscript{161}

\begin{itemize}
\item \textsuperscript{157} \textit{Tex. Water Code Ann.} § 43.006, art. IV–VI (West 2008).
\item \textsuperscript{158} \textit{See id. at art. IV(b) ("New Mexico shall have free and unrestricted use of all waters originating in the drainage basin of Canadian River in New Mexico below Conchas Dam, provided that the amount of conservation storage in New Mexico available for impounding these waters which originate in the drainage basin of Canadian River below Conchas Dam shall be limited to an aggregate of two hundred thousand (200,000) acre-feet.").
\item \textsuperscript{159} \textit{Id. at art. V. However, the Compact is slightly more complex than described above: Until more than three hundred thousand (300,000) acre-feet of conservation storage shall be provided in Oklahoma . . . the right of Texas to retain water in conservation storage . . . shall be limited to five hundred thousand (500,000) acre-feet; thereafter the right of Texas to impound and retain such waters in storage shall be limited to an aggregate quantity equal to two hundred thousand (200,000) acre-feet . . . . \textit{Id. at art. V(b).}
\item \textsuperscript{160} \textit{Id. at art. VI.}
\item \textsuperscript{161} \textit{See supra notes 157–160 and accompanying text. If the river ran dry completely, it seems likely that the Compact would be rendered meaningless: states would not be concerned
\end{itemize}
In this situation, could Texas and Oklahoma argue that CRC performance is impracticable? Dissolving the CRC would be in Texas’s and Oklahoma’s best interests, as it would enable them to have stronger claims to the dwindling water supply by rendering the dormant Commerce Clause applicable to New Mexico law. However, the CRC merely caps Texas’s uses of the river at 500,000 acre-feet of water; it does not guarantee Texas that much. Nor does the CRC obligate each state to take the specified amounts of water. In light of the permissiveness of these allocations, a claim of impracticability might not succeed. Considering the CRC’s purpose of “promot[ing] interstate comity,” however, Texas and Oklahoma could argue that the parties’ ability to specifically “promote interstate comity” is destroyed by the drought, thereby rendering the compact impracticable. Examining the CRC holistically, and taking all relevant provisions into consideration, would give the states a very strong claim that compact performance has been rendered impracticable.

Compacts that allocate water with percentages, on the other hand, are less likely to be subject to a valid impracticability defense. As long as there is some water present, that water can be divided up by percentage. For instance, the Belle Fourche River Compact allocates ninety percent of the Belle Fourche River to South Dakota and the remaining ten percent to Wyoming. Even if the river were reduced to a meager flow, ninety percent of that flow could still be apportioned to South Dakota and ten percent to Wyoming. Unless a river completely dries up, it is unlikely that, for compacts that distribute water based on percentages, the first element of an event rendering compact performance impracticable would ever be satisfied.

2. The Event Is Contrary to a Basic Assumption on Which the Contract Was Made

The second element in an impracticability defense is the occurrence of an event so contrary to a basic assumption on which the contract was made that it renders performance impracticable. For example, when entering

with vindicating their rights under the Compact, but rather with obtaining alternate sources of water. Accordingly, the doctrine of impracticability would most likely be inapplicable in such circumstances.

162. See supra note 159 and accompanying text.
163. See supra notes 157–160 and accompanying text. The Compact merely gives each state the right, not the obligation, to take its allotted amount of water.
164. TEX. WATER CODE ANN. § 43.006, art. I (West 2008).
165. See supra note 109 and accompanying text.
into a contract to sell wheat, parties are assuming that the field of wheat will not be destroyed by fire or flood.\textsuperscript{167}

The existence of a body of water with a certain level of flow constitutes a basic assumption on which every interstate water compact is made; the river is essential for the compact’s performance.\textsuperscript{168} Although it seems unlikely that a drought would reduce a river to a mere dry riverbed, water shortages could reduce the quantity of water flowing through a river such that sharing that river’s resources becomes nearly impossible.\textsuperscript{169}

3. \textit{Neither Party Is Responsible for the Event’s Occurrence}

To satisfy the third element, the event must occur without fault by either party. If one party is at fault, nonperformance will constitute a breach of contract.\textsuperscript{170} Within the water compact context, a naturally occurring event, such as a drought, is not the fault of any state. One could argue, however, that certain state actions contributed to global warming, which in turn induced the drought.\textsuperscript{171} This connection, however, would likely be too tenuous to merit a successful breach claim. One could also argue that, by using the river, states contributed to the drought.\textsuperscript{172} This argument could be difficult to prove, but not impossible, especially in light of the fact that some compacts require states to monitor water levels.\textsuperscript{173}

4. \textit{Unforeseeability}

Finally, the event rendering the contract impracticable must be unforeseeable, meaning that neither party assumed the risk of this event occurring.\textsuperscript{174} By entering into an interstate compact, states may implicitly acknowledge that a risk of water shortages may exist in the future, regardless of whether or not they expressly address the potential for droughts.

\begin{itemize}
\item \textsuperscript{167} \textit{Id.} at cmt. d.
\item \textsuperscript{168} \textit{Id.} at cmt. b.
\item \textsuperscript{169} See, e.g., Wines, supra note 3, at A1 (describing the Colorado River, “once broad and blue,” as having “dwindled to a murky trickle”).
\item \textsuperscript{170} RESTATEMENT (SECOND) OF CONTRACTS § 261, cmt. d (1981).
\item \textsuperscript{171} See, e.g., Complaint at 3–4, Blades v. California, No. CGC 11-510725 (S.F. Super. Ct. May 4, 2011) (arguing that California has failed to protect its atmosphere from greenhouse gas pollution); see also Ari Phillips, \textit{College Student Sues Alaska over Climate Change}, CLIMATEPROGRESS (October 4, 2013), http://thinkprogress.org/climate/2013/10/04/2726421/student-sue-alaska-climate-change/.
\item \textsuperscript{172} While states have sued each other over failures to comply with compact requirements during times of drought, thereby exacerbating their own water shortages, the author is unaware of any suits where one state accused another of causing a drought.
\item \textsuperscript{173} See, e.g., Tex. Water Code Ann. § 42.010, art. VI (West 2008).
\item \textsuperscript{174} See RESTATEMENT (SECOND) OF CONTRACTS § 261, cmt. b (1981) (“The fact that the event was foreseeable, or even foreseen, does not necessarily compel a conclusion that its non-occurrence was not a basic assumption.”).
\end{itemize}
Some states explicitly address the possibility of water shortages by including express contingencies for how to allocate water during times of drought. By acknowledging a risk’s existence and taking steps to mitigate that risk, states essentially admit that the risk was foreseeable. Accordingly, states that expressly address contingencies for times of drought may eliminate the contract defense of impracticability. Without expressing clear steps to take in times of water shortages, interstate compacts are in a grey zone: If the compact fails to mention droughts at all, then any drought could be considered an unforeseen risk. If the compact does mention droughts, parties may have only foreseen typical droughts at the time of drafting, not the potentially extreme droughts caused by climate change. Therefore, climate-change-induced droughts could be considered an unforeseen risk.

B. Frustration of Purpose

For a successful claim of frustration of purpose, the purpose that is frustrated must be “the basis of the contract that, as both parties understand, without it the transaction would make little sense.” Every interstate water compact describes the principle purpose of the compact at the beginning of the document. Most, if not all, interstate water compacts that allocate water describe the following purposes: to promote interstate comity, to remove all causes of present and future controversy between states, and to provide for an equitable apportionment of the source of water. Many others also include the goal of facilitating development within and between

175. See, e.g., Bear River Compact, Pub. L. No. 96-189, 94 Stat. 4, art. IV(A) (1980) (“When there is a water emergency, as hereinafter defined for each division, water shall be distributed therein as provided below.”).

176. See supra Part II.A.4 (describing the fourth element of the impracticability defense as unforeseeability).

177. See generally Daniel Yergin, The History of Climate Change: From Glaciers to Global Warming (Jan. 14, 2014, 12:20 AM), http://danielyergin.com/history-of-climate-change/ (describing the history of climate change science and the relatively recent acceptance of climate change as a phenomenon); see also Anderson et al., supra note 7, at 44.


179. See, e.g., La Plata River Compact, Colo. Rev. Stat. Ann. § 37-63-101 (West 2004) (“The State of Colorado and the State of New Mexico, desiring to provide for the equitable distribution of the waters of the La Plata River and to remove all causes of present and future controversy between them with respect thereto, and being moved by considerations of interstate comity ... have resolved to conclude a compact for these purposes ... ”); Rio Grande Compact, Tex. Water Code Ann. § 41.009 (West 2008) (“The State of Colorado, the State of New Mexico, and the State of Texas, desiring to remove all causes of present and future controversy among these States and between citizens of one of these States and citizens of another State ... and being moved by considerations of interstate comity, and for the purpose of effecting an equitable apportionment of such waters, have resolved to conclude a Compact for the attainment of these purposes ... ”); South Platte River Compact, Colo. Rev. Stat. Ann. § 37-65-101 (West 2004) (same).

180. See supra note 179.
Returning to the CRC scenario, if a drought reduced the river water level so that only 300,000 acre-feet of water flowed through New Mexico, enabling New Mexico to obtain its full 200,000 acre-feet apportionment, but left Texas and Oklahoma with less water than provided for in the CRC, equitable apportionment would be thwarted. Allowing New Mexico 200,000 acre-feet of water and Texas 100,000 could arguably be considered equitable, but leaving nothing for Oklahoma is inherently inequitable. Moreover, such a scenario would likely cause disputes between the parties, thereby destroying interstate comity and initiating controversy.

As for the second element, the Restatement (Second) of Contracts states that the frustration must be substantial: “It is not enough that the transaction has become less profitable for the affected party or even that he will sustain a loss. The frustration must be so severe that it is not fairly to be regarded as within the risks that he assumed under the contract.” In their present form, most compacts do not provide for contingencies in case of drought-like scenarios. Accordingly, left with little flexibility, such a drought as described above would substantially frustrate the compact’s main purposes, thus satisfying this element.

The remaining elements of the frustration of purpose doctrine—without the fault of either party and contrary to a basic assumption on which the contract was made—are the same as the elements of impracticability previously described.

C. Viability of the Doctrines

In a severe drought, a frustration of purpose claim is more likely to succeed in court than impracticability. In the rare case that a body of water is completely depleted, states likely would not pursue an attempt to dis-

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181. See, e.g., Sabine River Compact, TEX. WATER CODE ANN. § 44.010 (West 2008). The Compact states:

The major purposes of this Compact are to provide for an equitable apportionment between the States of Louisiana and Texas of the waters of the Sabine River and its tributaries... to encourage the development, conservation and utilization of the water resources of the Sabine River and its tributaries; and to establish a basis for cooperative planning and action by the States for the construction, operation and maintenance of projects for water conservation and utilization purposes on that reach of the Sabine River touching both States, and for apportionment of the benefits therefrom.

Id.


183. Id. §§ 261, 265; see also supra Parts II.A.2–3.

184. Cf. Schiff, supra note 140, at 148–52 (detailing the impracticability and frustration doctrines and noting the difficulty of applying the impracticability doctrine in water rights issues at a time of drought because “impracticability requires more than the failure of a basic assumption (or changed circumstances); the failure must not have been reasonably foreseeable at the time of contracting” but reasoning that frustration of purpose provides a “good argument”).
solve an interstate compact; instead, they likely would focus on finding alternative sources of water in what would be a very serious emergency. If states did attempt to dissolve the compact, however, it is likely that either doctrine would succeed. In the more probable instance of a river’s water levels being diminished but not eliminated, a frustration of purpose defense would most likely succeed, given the broad purposes the majority of compacts have and the frustration of those purposes caused by a diminished water supply. The doctrine of impracticability, however, may work under more limited circumstances, such as if the compact allocated discrete amounts of water rather than percentages, provided, of course, that loss of those discrete amounts was unforeseeable.

D. Recommendations

A successful claim of impracticability or frustration of purpose brought in the wake of a drought would most likely result in dissolution of the compact in its entirety. Compacts are complex agreements, filled with many obligations; they do not merely allocate water resources. However, every provision in a compact relates in some way to the usage of water. For example, many compacts facilitate the development of and collaboration on river-related projects. If flow were diminished significantly, these purposes might be thwarted and rendered impracticable in addition to rendering the allocation scheme impracticable. Accordingly, with a severe enough drought, striking down the entire compact might be necessary. In other cases, where only those provisions or purposes addressing

185. Cf. id. (noting that “[t]he value . . . of a perpetual treaty purporting to divide fairly the waters of shared streams is nil when the treaty proves to be an unequal allocator”).

186. See supra note 184.

187. Cf. Schiff, supra note 140, at 148 (explaining that a “party’s performance is made impracticable without his fault by the occurrence of an event the non-occurrence of which was a basic assumption on which the contract was made” (quoting RESTATEMENT (SECOND) OF CONTRACTS § 261 (1979))).

188. A claim of impracticability or frustration of purpose would be more likely in a scenario where some but not all of the water is reduced in a water body, so it would be worth the states’ efforts to attempt to obtain control over the remaining water.

189. See, e.g., Klamath River Basin Compact, OR. REV. STAT. ANN. § 542.620, art. VII (West 2013) (providing for pollution control in addition to managing the river’s use).

190. See, e.g., id.


192. Cf. State ex rel. Douglas v. Sporhase, 329 N.W.2d 855, 856–57 (Neb. 1983) (severing “a portion of a statutory scheme for conservation and preservation of ground water[]” from the remainder of the statute upon performing the following test: “(1) Whether, when absent the invalid portions, a workable plan remains. (2) Whether the valid portions of an act can be enforced inde-
equitable division are rendered impracticable or frustrated, it seems more likely that specific portions of the compact would be struck down while others would remain. 193

Whether the whole or only part of a compact is struck down, the water allocated would most likely revert to its precompact legal status. Thus, any state laws that remained after dissolution of the compact would be subject to dormant Commerce Clause limitations per Sporhase. 194 The Sporhase Court’s note that shortages could justify acts that would otherwise be prohibited by the Commerce Clause, however, implies otherwise 195—that in times of drought, for example, each state could limit distribution of its water sources to the detriment of other states. Therefore, it would be in the best interests of downstream states to preserve the compact’s allocation schemes in order to ensure they are entitled to some water. Otherwise, they would risk being guaranteed no water at all.

If states want to prevent the voiding of water allocation provisions and preserve compacts, they must amend compacts in order to take into account the possibility of extreme drought scenarios. 196 In order to preserve compacts in the face of severe water shortages, states should draft compact provisions in order to undermine claims of impracticability and frustration of purpose in times of water shortages 197 by amending compacts to allocate water based on percentages, 198 defining the purposes of compacts more narrowly, 199 and including emergency provisions. 200 Additionally, states could benefit from a complete overhaul of their compacts in order to reflect current data on river levels, water consumption demands, and increased flexibility. 201

193. Id.
194. See supra Part I.B.
196. See Tarrant Reg’l Water Dist. v. Herrmann, 133 S. Ct. 2120, 2130 (2013) (explaining that parties can account for many conditions that may occur under the compact, and courts will give deference to the express intentions of the parties: “[A]s with any contract, we begin by examining the express terms of the Compact as the best indication of the intent of the parties.”).
197. See infra Part II.D.1.
198. See infra Part II.D.1.
199. See infra Part II.D.2.
200. See infra Part II.D.3.
201. See infra Part II.D.4; see also Jenny Huang, Note, Finding Flow: The Need for a Dynamic Approach to Water Allocation, 81 N.Y.U. L. REV. 734, 765 (2006) (emphasizing the im-
1. Percentage Allocations

States should amend compacts to allocate water in terms of percentages, rather than in specific amounts. As discussed earlier, compacts that allocate specific amounts of water in terms of percentages are more likely to withstand claims of impracticability. Percentage allocations ensure that an impracticability or frustration of purpose claim can never succeed: as long as the river has some water remaining, a percentage of that water can be delivered to each state.

2. Define Compacts’ Purposes with More Precision

As discussed above, successful claims of frustration of purpose require the frustration of a fundamental purpose of the compact—so fundamental that, without that purpose, the compact’s transaction is nonsensical. Most water compacts define their main purposes quite generally, aiming to: promote interstate comity, remove sources of controversy between states, and provide for an equitable apportionment of the source of water. As documented in regions around the world, water scarcity can foster conflict. Accordingly, the purpose of preserving interstate comity could be easily frustrated by a water shortage.

If the compacts’ purposes were defined with more precision than merely preventing controversy, a water shortage would be less likely to bring the entire compact to its knees. Narrowing the purpose of compacts would enable the preservation of certain compact provisions; only those purposes threatened by a water shortage would be vulnerable. For instance, the La Plata River Compact’s purpose is “to provide for the equitable distribution of the waters of the La Plata River and to remove all causes of present and future controversy between” New Mexico and Colorado. Because this purpose is so broad, many events could be said to frustrate the La Plata River Compact’s purpose.

The solution to this problem depends, of course, on each compact’s contents. If the compact primarily aims to equitably apportion waters, the importance of flexibility in interstate water compacts); Grant, supra note 103, at 109–20 (2003) (describing several instances where fixed compact terms rendered compacts unworkable).

203. See supra Part II.A.1.
205. See supra notes 179–181 and accompanying text.
207. See supra note 180 and accompanying text (showing examples of compacts that include or emphasize the purpose of promoting interstate comity).
208. La Plata River Compact, COLO. REV. STAT. ANN. § 37-63-101 (West 2004).
compact’s purpose language should be drafted so that conflicts between the states will not have the potential of voiding the compact. Conversely, if a compact contains various provisions that equitably apportion the river’s waters, manage hydrologic projects such as dams, and control flooding, the compact could be redrafted with several separate purposes; or parties could effectively create several mini-compacts within the larger compact. The Klamath River Basin Compact is a good prototype because it divides the compact’s purposes into two groups:

A. To facilitate and promote the orderly, integrated and comprehensive development, use, conservation and control thereof for various purposes, including, among others: The use of water for domestic purposes; the development of lands by irrigation and other means; the protection and enhancement of fish, wildlife and recreational resources; the use of water for industrial purposes and hydroelectric power production; and the use of water for navigation and flood prevention.

B. To further intergovernmental cooperation and comity with respect to these resources and programs for their use and development and to remove causes of present and future controversies by providing (1) for equitable distribution and use of water among the two states and the Federal Government, (2) for preferential rights to the use of water after the effective date of this compact for the anticipated ultimate requirements for domestic and irrigation purposes in the Upper Klamath River Basin in Oregon and California.

This compact is drafted with each purpose served by specific portions of the compact. Accordingly, if a water shortage frustrated purposes under Section B of the Klamath River Basin Compact, those provisions could be struck down while the others would be preserved.


To avoid threats to interstate water compacts during droughts, states should amend their compacts to include emergency provisions. In general, emergency provisions set out procedures for what to do in extreme drought situations. Such provisions are crucial for the preservation of compacts. Some existing compacts include provisions that, although not formally

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210. Id. at arts. III–IX. Article III of the Compact governs the general distribution and use of water; Article IV governs hydroelectric power; Article V governs interstate diversion and storage rights; Article VI governs acquisition of property for storage and diversion; Article VII governs pollution control; and Article IX governs administration of the Compact’s provisions. Id.
called emergency provisions, describe steps to take in drought situations.\textsuperscript{212} Some compacts empower state engineers\textsuperscript{213} or a compact’s administrative body to determine that a water emergency exists and decide on the appropriate actions.\textsuperscript{214} For instance, the Susquehanna River Basin Compact empowers the Susquehanna River Basin Compact Commission\textsuperscript{215} to declare a drought emergency in a specific area and “direct increases or decreases in allocations, diversions, or releases previously granted or required, for a limited time to meet the emergency condition.”\textsuperscript{216}

The Bear River Compact, which divides the river into geographic regions for allocation purposes,\textsuperscript{217} goes even further. In addition to granting the administrative body the authority to declare that a water emergency exists, the compact defines specific conditions in each region that constitute a water emergency.\textsuperscript{218} Moreover, the compact sets out precise actions to be taken in each region to best manage that water emergency.\textsuperscript{219} Additionally, the Bear River Compact enables water users to petition the Bear River Compact Commission to find that a water emergency exists based on depri-

\textsuperscript{212} Id.

\textsuperscript{213} See, e.g., La Plata River Compact, COLO. REV. STAT. ANN. § 37-63-101, art. III (West 2004) (“The State Engineers of the States by agreement, from time to time, may formulate rules and regulations for carrying out the provisions of this compact, which, when signed and promulgated by them, shall be binding until amended by agreement between them or until terminated by written notice from one to the other.”).

\textsuperscript{214} See, e.g., Arkansas River Compact, COLO. REV. STAT. ANN. § 37-69-101, art. V(F) (West 2004) (permitting the compact administrators to take steps to conserve water if the water in the conservation pool “will be or is liable to be exhausted”); Bear River Compact, Pub. L. 96-189, 94 Stat. 4, art. IV.B (1980) (“The Commission shall have authority upon its own motion (1) to declare a water emergency in any or all river divisions based upon its determination that there are diversions which violate this Compact and which encroach upon water rights in a lower State, (2) to make appropriate orders to prevent such encroachments, and (3) to enforce such orders by action before State administrative officials or by court proceedings.”).

\textsuperscript{215} The Susquehanna River Basin Compact Commission is responsible with carrying out the compact. Susquehanna River Basin Compact, MD. CODE. ANN. ENVIR., § 5-301, art. 3 (West 2013).

\textsuperscript{216} Id. at art. 11.4(a). The Code states: In the event of a drought which may cause an actual and immediate shortage of available water supply within the basin . . . the commission after public hearing, upon due notice given, may determine and delineate the area of the shortage and by unanimous vote declare a drought emergency therein. For the duration of the drought emergency as determined by the commission, it thereupon may direct increases or decreases in any allocations, diversions, or releases previously granted or required, for a limited time to meet the emergency condition.


\textsuperscript{218} See, e.g., id. at art. IV (noting that the “Upper Division” of the river is in a state of emergency when the “divertible flow . . . for the upper division is less than 1,250 second-feet”).

\textsuperscript{219} Id. For instance, the Compact dictates specific allocations for tributaries in the Upper Division of the river. Id.
vations of water to which that user is “justly entitled” and request remedial water supplies. Upon determining if such an emergency does in fact exist, the Commission will establish water delivery schedules. The Bear River Compact wisely provides several ways for a water emergency to be recognized and addressed, ensuring that all interested parties have a voice and minimizing the potential for disputes. By establishing very specific procedures, the Compact also limits disputes over how to best manage a water emergency.

The Kansas-Oklahoma Arkansas River Basin Compact takes a broader approach, giving the administrative body more discretion in dealing with water emergencies:

Recognizing the present limited uses of the available water supplies of the Arkansas River Basin in the two states and the uncertainties of their ultimate water needs, the States of Kansas and Oklahoma deem it imprudent and inadvisable to attempt at this time to make final allocations of the new conservation storage capacity which may ultimately be required in either state . . . . Accordingly, after the expiration of 25 years following the effective date of this Compact, [the Arkansas River Commission] may review any provisions of the Compact for the purpose of amending or supplementing the same . . . .

The Kansas-Oklahoma Arkansas River Basin Compact explicitly deems none of the allocations made therein final, thereby ensuring flexibility in the future. However, the requirement that twenty-five years pass before any amendments are made could be problematic if drought conditions arise before those years have passed.

Drafting more specific water emergency provisions would lessen the probability that a state would threaten to use the compact’s termination clause. Most interstate water compacts include termination clauses, which permit the states to agree to dissolve the compact, sometimes preserving select obligations. While termination clauses can be helpful, they also have

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220. See id. (“When the flow of water in an interstate tributary across a State boundary line is insufficient to satisfy water rights on such tributary in a lower State, any water user may file a petition with the Commission alleging that by reason of diversions in an upstream State he is being deprived of water to which he is justly entitled and that by reason thereof a water emergency exists, and requesting distribution of water under the direction of the Commission.”).
221. Id.
222. See supra notes 217–221 and accompanying text.
223. See supra notes 217–221 and accompanying text.
224. OKLA. STAT. ANN. Waters and Water Rights, § 1401, art. XII (West 2013).
225. Id.
226. See, e.g., South Platte River Compact, COLO. REV. STAT. ANN. § 37-65-101, art. X (West 2004). The South Platte River Compact states:
the potential to produce additional controversy if both states do not agree to terminate the compact, especially if one state is claiming impracticability or frustration of purpose in a time of drought. The majority of termination clauses permit for the termination of a compact by the agreement of both signatory states.227 Other compacts, such as the Big Blue River Compact, are more specific by preserving some obligations while terminating others: “In the event of amendment or termination of the compact, the water-resource developments made in compliance with, and reliant upon, this compact shall continue unimpaired.”228

Compacts should adopt emergency provisions similar to those included in the Bear River Compact or the Arkansas River Compact previously discussed. Although the Arkansas River Compact method is sound, the Bear River Compact method is preferable: adopting extremely specific contingencies eliminates ambiguity and room for interpretation, thereby undermining any potential claims of impracticability and frustration of purpose in times of shortages.229 In fact, general precision throughout the entire compact, not just in emergency provisions, is superior in order to best

This compact may be modified or terminated at any time by mutual consent of the signatory States, but, if so terminated and Nebraska or its citizens shall seek to enforce any claims of vested rights in the waters of the South Platte River, the statutes of limitation shall not run in favor of Colorado or its citizens with reference to claims of the Western Irrigation District to the water of the South Platte River from the sixteenth day of April, 1916, and as to all other present claims from the date of the approval of this compact to the date of such termination, and the State of Colorado and its citizens who may be made defendants in any action brought for such purpose shall not be permitted to plead the statutes of limitation for such period of time.

Id.  


229. For example, to render the Bear River Compact impracticable in a drought situation, an event would have to occur that prevented the administrative body from being able to declare the existence of a water emergency and prevent each region from undertaking the prescribed actions to mitigate the emergency. See supra notes 217–221 and accompanying text. If a compact has specific contingencies in place for times of shortages in lieu of a standard termination clause (that is—one that permits the dissolution of the compact), the compact will be much harder to nullify. States would have to argue that the emergency provisions are impracticable or frustrated, as opposed to merely agreeing to dissolve the compact.
preserve compacts: Specificity in contracting is more easily upheld in court.

If a compact is silent on an issue or if the compact’s language is ambiguous, courts will follow the well-accepted rules of contract interpretation: Interstate compacts remain “legal document[s] that must be construed and applied in accordance with [their] terms.” Courts will look first to the compact’s specific terms, and then examine the parties’ intent and expectations to the extent that the compact’s express terms are ambiguous. Courts will only follow such interpretation schemes to the extent that they do not read absent terms into a compact. Accordingly, adopting extremely specific provisions leaves less room for interpretation and disagreement among the parties and within the courts. Adopting specific emergency provisions preserves compacts when disputes over compact interpretation are most likely, and when compact preservation is most needed.

4. Amend Compacts in Light of Changed Circumstances

Aside from the inability to withstand periods of water scarcity, critics have noted many general problems with compacts, namely their inherent inflexibility. There are three main criticisms of compacts.

First, because some compacts were drafted over ninety years ago, they are outdated and no longer rely on accurate data. The passage of time, depletion of water sources, plus the increasing uncertainty of climate change’s impacts on water supplies renders many aspects of interstate com-

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230. See, e.g., Henry W. Humble, Certainty in Contracts, 20 Ky. L.J. 120, 121, 127 (1931) (“Though an agreement may be void at the outset by reason of some element of uncertainty in it, the agreement may become binding when the uncertain element has been rendered certain.”).
233. See Alabama v. North Carolina, 560 U.S. 330, 352 (2010) (expressing reluctance “to read absent terms into an interstate compact” as this would raise federalism and separation of powers concerns). Applying the same rationale, the Court has refused to hold that an interstate compact includes an implied duty of good faith and fair dealing as such a holding would render judges “potent lawmakers.” Id.
234. See Huang, supra note 201, at 747 (noting that “existing water allocation solutions fail to account for changed circumstances, rely on inadequate ex post dispute resolution mechanisms, and create institutions with minimal flexibility and authority”). Furthermore, “reliance on fixed allocation formulas is misplaced, and depending on dispute resolution mechanisms to enforce or adjust these fixed allocations is an ineffective alternative.” Id. at 765.
pacts outmoded. Moreover, no matter how specific a water compact’s provisions are, a drafter can never account for all possible circumstances that may arise.

Second, many critics have noted that compacts are too specific, putting “too much emphasis on one-time allocations despite warnings that imposing hard and fast rules unnecessarily burdens the ability to adapt to future changes in water conditions.” Compacts are “limited in scope and oriented to specific problems rather than holistic water management of the basin’s water.”

Finally, many critics have noted that compacts’ dispute resolution mechanisms are inadequate due to a lack of technical expertise and the fact that the permanence of a compact implies a lack of ability to adapt to new circumstances.

These drafting limitations, combined with inadequate administrative machinery and dispute resolution mechanisms, have imprisoned compacts.

237. See, e.g., id. at 806–07 (noting the many changes that have occurred since most interstate water compacts were drafted).

238. See Huang, supra note 201, at 748 (noting that it is difficult to draft compacts “comprehensively to predict future conditions”); see also Grant, supra note 103, at 108 (“Even if the measures fulfill demands for a time, they may fail after decades of further changes, some now foreseeable and others surely not. And even in the shorter term, the social, political, and economic costs of coping with outdated compact allocations may become inordinate from any perspective other than that of a state advantaged by an old compact.”).

239. Huang, supra note 201, at 734–35; see also, Ernest A. Engelbert, Federalism and Water Resources Development, 22 LAW & CONTEMP. PROBS. 325, 341 (1957) (“The chief weakness of [interstate] compacts has been that they have negotiated agreements too precisely and in too much detail, without sufficient information and study of the problems involved.”).

240. Draper, supra note 1, at 377.

241. See Engelbert, supra note 239, at 341 (“Moreover, compacts have not provided the proper kind of administrative machinery to deal with the evolving problems of a basin.”).

242. Huang, supra note 201, at 751.

243. See id. at 752. (“The second reason that dispute and litigation mechanisms are flawed stems from the fact that interstate compacts and international treaties are essentially contracts, and the role of any adjudicator is to enforce the promises made by the parties to the contract. In situations where the parties could not predict the consequences of their agreement, unaware of future developments in water resources, enforcement of these agreements is an imperfect solution.”); see also Girardot, supra note 103, at 159–60 (attributing a compact’s disputes to a failure “to foresee that an issue where [the signatory states] could not reach agreement would arise”); Grant, supra note 103, at 108–09 (“At the root of the inquiry is the widely held view that interstate compacts—not only water allocation compacts but compacts in general—are characterized by their permanence. According to the conventional wisdom, a signatory state to a compact cannot unilaterally modify its obligations or withdraw from the compact unless the compact expressly so provides. No western water allocation compact expressly provides for that. When western states negotiated their compacts, they sought permanent water allocations to encourage the private and governmental investments needed to put water to use for economic development within their borders. Some compacts even declare that termination requires unanimous agreement of the signatory states and that all rights established under the compact will continue unimpaired upon termination, though established rights probably would continue without such language.”).
in outmoded provisions and rendered them inflexible and unable to withstand the test of time. Accordingly, compacts could benefit from a complete redrafting that would take into account changed and changing circumstances. Several solutions have been proposed by interstate compact analysts, including adaptive management, joint management institutions, and completely withdrawing from compacts. Regardless of the specific solution chosen, compacts should be redrafted in a manner that shifts the focus from allocation formulas that assume a static water supply to creating procedures that allow for ongoing development of changing water resources. Moreover, the science behind apportionments should be reevaluated to take into account current water use trends as well as predicted future water supplies. Building flexibility into compacts is crucial for

244. See supra notes 235–238 and accompanying text.
245. See Hoffman & Zellmer, supra note 236, at 828 (defining adaptive management concepts). Adaptive management is “the idea of using experimentation and monitoring to inform management actions . . . [or] strategic learning-by-doing or quasi-experimental approach to the management of natural resources encouraged by institutional flexibility.” Id. (internal quotation marks omitted). However, adaptive management of interstate compacts poses its own challenges: If adaptive, integrated management of surface and groundwater resources is indeed a way forward in managing complex water resource systems, can water resource institutions embrace flexibility and adaptation while maintaining the stability associated with existing legal frameworks and investment-backed expectations? Such a balance will require resource managers to identify and understand the problems faced by the social-ecologically linked system and to calibrate their strategies to address those problems, while ensuring accountability and enforceability, promoting focused learning that seeks and takes advantage of feedback loops, and securing sufficient funding for present future actions.

246. Huang, supra note 201, at 754. The author proposes replacing compact administration bodies with joint management institutions that provide expert administration over these issues and describes two requirements for any joint management institution to provide a dynamic approach to water allocation:

First, a joint management institution must have the authority to make allocation decisions that are responsive to changing circumstances and emergent knowledge about water conditions, unlike existing water commissions that are not given any power to alter original allocations. Second, joint management institutions must be structured to manage any water projects that have the potential to harm the water system as a whole, rather than being limited to water issues that physically cross borders.

247. Grant, supra note 103, at 179–80 (explaining that a state that is dissatisfied with an old water allocation compact can revoke its ratification of the compact and seek a better allocation by showing, “first, that the reserved powers doctrine applies to water allocation compacts and, second, that a state’s power under this doctrine to revoke its ratification is unaffected by either the ‘law of the case’ doctrine or the ‘law of the Union’ doctrine.”).
248. Huang, supra note 201, at 765.
their long-term viability and ability to survive disputes and changing conditions.249

III. CONCLUSION

Congressional approval of interstate water compacts essentially eliminates any Commerce Clause restrictions on water exportation limits, thereby increasing states’ opportunities to obtain more water than they would otherwise be able to obtain without the interstate compact.250 Accordingly, states should work to preserve, not nullify, their interstate water compacts in order to maximize their future water supplies.251 Although interstate compacts are not perfect and often lead to disputes, in the case of a serious deprivation of water, states would be best served by ensuring their citizens have adequate access to water. In order to buffer compacts against potential threats, such as the contract doctrines of impracticability and frustration of purpose, states should modify their compacts. To ensure the viability of compacts for the future, states should amend their agreements to allocate water by percentages rather than specific amounts,252 define the purposes of interstate compacts with more precision,253 adopt detailed emergency provisions,254 and amend compacts in light of new data to reflect current conditions.255

249. See, e.g., Hoffman & Zellmer, supra note 236, at 806 (“Institutions that embrace flexibility, as well as the ability to cope with change, will be essential in managing the water resource challenges that face our country.”).
250. See supra Part I.B.2.
251. See supra Part II.
252. See supra Part II.D.1.
253. See supra Part II.D.2.
254. See supra Part II.D.3.
255. See supra Part II.D.4.