

Muddy Water Blues: How the Murky Doctrine of Equitable Apportionment Should Be Refined

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ABSTRACT: The equitable apportionment doctrine is the judicial apportionment remedy for interstate water conflicts. It has undergone refinement in the years since the United States Supreme Court established it in 1907. However, as this Note will argue, the current landscape of the equitable apportionment doctrine proves to be problematic and ill-equipped to manage increasingly technical and party-heavy disputes over water between states. This Note presents a background about the development of the differing water rights regimes in the United States. Additionally, it will explain the equitable apportionment doctrine by examining the pivotal Supreme Court cases from which the doctrine is derived. This Note will also demonstrate how the equitable apportionment doctrine has become problematic in its current state. Finally, this Note will propose a bifurcated litigation process to mitigate the negative consequences of the problematic equitable apportionment doctrine as it currently stands.

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I. INTRODUCTION

“Whiskey is for Drinking, Water is for Fighting!”¹ These words ring just as true today as they did when Mark Twain uttered them over 100 years ago. Water is the essential resource for human survival. Consequently, it is no surprise that water is the topic of much conflict in the United States² and across the globe.³ In the United States, large rivers like the Missouri or the Mississippi have created the metropolitan areas in which we live and the industries upon which communities rely. Rivers like the Colorado have spawned years-long litigation and prolonged conflict between neighboring

1. U.S. Dep’t of the Interior Bureau of Reclamation, “*Whiskey is for Drinking, Water is for Fighting!*,” RECLAMATION, https://www.usbr.gov/lc/phoenix/AZ100/1950/whiskey_drinking_water_fighting.html [https://perma.cc/V975-CVJ7].

2. See Denise D. Fort, *Water and Population in the American West*, in 107 YALE SCH. OF FORESTRY & ENVTL. STUDIES, HUMAN POPULATION AND FRESHWATER RES.: U.S. CASES AND INT’L PERSPECTIVES 17, 17–19 (Karin M. Krchnak ed., 2002) (“Increased water extraction has resulted in the loss of species across the western landscape. Groundwater mining is a looming crisis in the West; however, as an issue it is hidden from public consciousness and typically solved by costly water projects. The movement toward sustainability will require a reorientation of public policies to recognize the need to balance human uses with ecological functions, and to incorporate the true costs of water into decision-making.”). See generally MELISSA S. KEARNEY ET AL., THE HAMILTON PROJECT, IN TIMES OF DROUGHT: NINE ECONOMIC FACTS ABOUT WATER IN THE UNITED STATES (2014), <https://www.brookings.edu/wp-content/uploads/2016/06/nineeconomicfactsaboutuswaterkearneyharris.pdf> [https://perma.cc/LF83-ET7E] (providing a report on current and future projections for drought and its economic, environmental and human consequences in the United States).

3. Adelphi, *Editor’s Pick: 10 Violent Water Conflicts*, RELIEFWEB (Aug. 21, 2017), <https://reliefweb.int/report/world/editor-s-pick-10-violent-water-conflicts> [https://perma.cc/2LTD-Y8BX].

states, which rely on its bounty for agriculture, industry, and life.⁴ In the United States, populations are growing, climatic conditions affecting precipitation are impacting water supply, and the demand for water resources across the country is high and only growing.⁵

The United States has a unique history concerning the development of water rights. Different regimes have developed in the East and the West to govern the acquisition, control and ownership of water. In the East, the riparian rights regime developed as colonists settled and built communities and industries along the wide, plentiful rivers.⁶ In the West, where large rivers were scarce but land was abundant, states developed the prior appropriation doctrine to ensure landowners (with no water on their property) had access to water.⁷ However, within the West, water-right regimes vary even across states, with settlement patterns, economic and industry interests playing pivotal roles in the development of water rights.⁸ The patchwork of water law in the United States creates a unique adjudication issue because water itself crosses state lines and is not confined to one regime. The law has developed a doctrine to manage conflicts between states regarding common waterways: the equitable apportionment doctrine.⁹

The equitable apportionment doctrine is the judicial apportionment remedy for interstate water conflicts. It has undergone refinement in the years since the United States Supreme Court established it in 1907.¹⁰ However, as this Note will argue, the current landscape of the equitable apportionment doctrine proves to be problematic and ill-equipped to manage increasingly technical, party-heavy water disputes between states, which seem to be more frequently going before the Supreme Court.¹¹ Part II of this Note provides a background on the development of water rights in the United States, and it discusses the equitable apportionment doctrine, which the Supreme Court uses to adjudicate interstate water conflicts in the United States. Part III

4. The series of cases between California and Arizona regarding apportionment of the Colorado River began in 1934. The parties argued in front of the Supreme Court of the United States nine times between 1934 and 2000. See generally JACK L. AUGUST, JR., *DIVIDING WESTERN WATERS: MARK WILMER AND ARIZONA V. CALIFORNIA* (2007) (providing an in-depth review and depiction of the ongoing ‘water war’ between California and Arizona over the Colorado River).

5. See KEARNEY ET AL., *supra* note 2, at 1–2, 5–6.

6. See *infra* Section II.A.

7. See *infra* Section II.B.

8. See *infra* Section II.B.

9. See *infra* Section II.C.

10. *Kansas v. Colorado*, 206 U.S. 46, 100 (1907).

11. Jeremy P. Jacobs, *Rising Tide of Interstate Battles Could Swamp Supreme Court*, E&E NEWS: GREENWIRE (Oct. 29, 2015), <https://www.eenews.net/stories/1060027067> [<https://perma.cc/2CL5-7GD5>] (“[*Kansas v. Nebraska*] was emblematic of what some see [as] an alarming trend: the funneling of interstate water fights to the Supreme Court.”); Amanda Reilly, *Justices Wade Into Water Wars Next Week*, E&E NEWS: GREENWIRE (Jan. 5, 2018), <https://www.eenews.net/stories/1060070253> [<https://perma.cc/28WN-4LBT>] (reiterating the trend of interstate water conflicts going before the Supreme Court).

presents the problem with the current equitable apportionment framework, why its application after *Colorado v. New Mexico* has changed, and the challenges the current state of the equitable apportionment doctrine presents for interstate water conflicts moving forward. Part IV presents the proposed solution to the challenges posed by the equitable apportionment doctrine through a bifurcation of the litigation process. Finally, Part V concludes this Note.

II. BACKGROUND

Contemporary water law in the United States developed regionally, as eastern populations expanded westward requiring water to cultivate arid lands and creating livelihoods.¹² Water law is not a precisely defined area of law because “[i]t overlaps other legal fields such as environmental law, natural resources law, real property law, tort law, public land law, and land use law.”¹³ Professor William Goldfarb provides a definition of water law that encompasses the diverse aspects of the legal, regulatory, and management domains of this particular resource:

“Water law” is . . . those aspects of law, including the legal aspects of major water resources management institutions, which are of primary concern to the aggregate of water resource professionals and students . . . (1) [T]he law of water diversion and distribution, (2) the law of water resources development and protection, (3) the law of nontransformational uses, and (4) the law of water treatment and related land use.¹⁴

This Note will primarily discuss water rights in the context of property law, and it will solely focus on surface water, as opposed to groundwater

12. JOHN R. BURCH JR., *WATER RIGHTS AND THE ENVIRONMENT IN THE UNITED STATES* xiii (2015).

13. WILLIAM GOLDFARB, *WATER LAW* xv (1984).

14. *Id.* at xvi.

resources.¹⁵ Water has long been classified as the ultimate public good,¹⁶ and it can be challenging to define a private interest in water, although different water regimes do.¹⁷ Water is a resource that varies depending on the season, many environmental and climactic factors, and its flow between locations. These aspects, coupled with its social and economic necessity, mean that it is difficult to identify ownership of water in the traditional manner of property—like land or an object.¹⁸

Two distinct approaches to property rights with regards to surface water¹⁹ developed in the United States. Eastern states rely on a riparian water rights regime. The riparian rights regime allows the right to use water that runs

15. This is not to say that groundwater issues are not important. Conflicts between existing groundwater users abound—one such example exists between Mississippi and Tennessee. Mississippi is concerned with the City of Memphis' pumping of groundwater close to the Mississippi/Tennessee border. A Special Master has been appointed for the case, which is before the Supreme Court as the Court of original jurisdiction. *Mississippi v. Tennessee*, 136 S. Ct. 499 (2015) (mem.); see also Catherine Janasie, *Mississippi v. Tennessee Case Update*, NAT'L SEA GRANT LAW CTR. (Oct. 19, 2018), <http://nsglc.olemiss.edu/blog/archive/2018/oct/19/index.html> [<https://perma.cc/9NLA-DX7E>] (describing the role of the special master). Currently the parties have a deadline of October 23, 2019 to “provide a joint proposal on [their] positions” regarding procedural questions, scheduling and closing arguments. Order for Joint Proposal on Procedure and Schedule for Closing Arguments at 1–2, *Mississippi v. Tennessee* (2019) (No. 143), available at https://www.ca6.uscourts.gov/sites/ca6/files/documents/special_master/No.%20120%20Order%20for%20Joint%20Proposal%20on%20Procedure%20and%20Schedule%20of%20Closing%20Arguments.pdf [<https://perma.cc/W3LE-9XQW>]; see also Noah D. Hall & Joseph Regalia, *Lines in the Sand: Interstate Groundwater Disputes in the Supreme Court*, SCHOLARLY COMMONS @ UNLV L. 8, 10 (2016), <https://scholars.law.unlv.edu/cgi/viewcontent.cgi?article=2260&context=facpub> [<https://perma.cc/BSM7-JTEF>] (discussing the dispute between Las Vegas and Utah concerning Las Vegas' use of groundwater from “the Snake Valley Aquifer which straddles the Utah-Nevada border”).

16. Itzhak E. Kornfeld, *Water: A Public Good or a Commodity?*, 106 AM. SOC'Y INT'L L. 49, 50–51 (2012). As early as 529 C.E., Justinian wrote, “[T]he following things are by natural law common to all—the air, running water, the sea, and consequently the seashore.” CAESAR FLAVIUS JUSTINIAN, *THE INSTITUTES OF JUSTINIAN* Book II Title I (J.B. Moyle trans., 5th ed. 1913) (e-Book), available at https://www.gutenberg.org/files/5983/5983-h/5983-h.htm#link2H_4_0029 [<https://perma.cc/JA7E-BUFP>]. Additionally, water fits into John Rawls' definition of a public good which requires that the good have two qualities: indivisibility and publicness. See generally JOHN RAWLS, *A THEORY OF JUSTICE* 234–37 (rev. ed. 1999) (defining public goods as having two qualities and discussing the economic and political tensions at play with public goods).

17. John D. Echeverria, *Water and Takings* (June 4–6, 2014) (unpublished manuscript), available at https://www.americanbar.org/content/dam/aba/events/environment_energy_resources/2014/06/32nd-annual-water-law-conference/conference_materials_portal/6-echeverria_john-paper_authcheckdam.pdf [<https://perma.cc/4KR3-96HN>] (“Even when there is a recognized property right in water, it may have a special, narrow scope. In all or most of the western states, the public owns the water itself (that is, the molecules making up the water), and private parties can only acquire ‘usufructury’ interests in water.”); see *infra* Sections II.A, II.B.

18. Echeverria, *supra* note 17.

19. See generally GOLDFARB, *supra* note 13 (outlining property and water rights doctrines developed for surface water versus groundwater).

through the land one owns.²⁰ The western states generally, from Kansas City westward, rely on an appropriative rights regime, which provides a right to water based on first in time, first in right principles.²¹ This Part will dive into the historical development of these water regimes and the legal nuances that pertain to ownership and/or use of water within these regimes. Section II.A will discuss the development of the riparian water rights regime in the eastern United States, while Section II.B discusses the prior appropriation doctrine that took hold in the West. Section II.C provides a background to interstate water conflicts in the United States, and an explanation of the development and application of the equitable apportionment doctrine by examining the relevant Supreme Court case law.

A. EASTERN STATES: RIPARIAN WATER RIGHTS DOCTRINE

In the eastern part of the United States, water scarcity was not an issue for colonists in the early-1700s due to the climate, which resulted in an abundance of water.²² Consequently, riparian rights in the eastern United States developed directly from the English common law, where owners of land along flowing water also owned the right to use the water.²³

The riparian system derives its name from the meaning of riparian—“of, pertaining to, or situated or dwelling on the bank of a river or other body of water.”²⁴ Thus, a person with riparian rights is “one who owns land on the bank of a natural watercourse,”²⁵ and riparian rights refer to “a bundle of legal rights” by the owner of the land to features of the water source.²⁶ Today, these rights include the right “(i) of access to the water;²⁷ (ii) to build a wharf or

20. See Kenneth S. Gould, *An Introduction to Water Rights in the Twenty-First Century: The Challenges Move East*, 25 U. ARK. LITTLE ROCK L. REV. 3, 4 (2002); see also Joseph W. Dellapenna, *Adapting Riparian Rights to the Twenty-First Century*, 106 W. VA. L. REV. 539, 551–52 (2004); see *infra* Section II.A. Every eastern state except for Mississippi utilizes the riparian rights regime. See GOLDFARB, *supra* note 13, at 7.

21. See Dellapenna, *supra* note 20; see *infra* Section II.B. In states that follow the “California Doctrine,” there are iterations of the prior appropriation regime that co-exist with elements of the riparian regime. GOLDFARB, *supra* note 13, at 7.

22. See Dellapenna, *supra* note 20, at 551, 565 (“To the east of Kansas City, despite occasional serious problems with water quality arising from human activities, water shortages historically were rare and short-lived. Riparian rights evolved in this setting.”); see also BURCH, *supra* note 12, at 23 (“[I]t quickly became obvious that the traditional riparian water allocation system that had functioned so well in the East was not suited for application in the West’s semi-arid and arid lands.”).

23. See BURCH, *supra* note 12, at 8.

24. THE RANDOM HOUSE DICTIONARY OF THE ENGLISH LANGUAGE 1236 (Jess Stein et al. eds., 1967).

25. See GOLDFARB, *supra* note 13, at 7.

26. Joseph W. Dellapenna, *Part II: Riparianism*, in 1 WATERS AND WATER RIGHTS 87 (Robert E. Beck ed., 1991).

27. *Id.* at 89–90 (“Access means the right of ingress to and egress from one’s land by way of the water, or to the water by way of the land. . . . [It is] the means for realizing the advantages of adjacency to water...[t]he riparian owner’s access assures an opportunity to enjoy public uses of

pier into the water; (iii) to use the water without transforming it;²⁸ [and] (iv) to consume the water.”²⁹

The natural flow doctrine underpinned early riparian law in the English common law and the early United States. The natural flow doctrine entitled each riparian-rights owner to “have the water flow across, or lie upon, the land in its natural condition, without alteration by others of the rate of flow or the quantity or quality of the water.”³⁰ Throughout its use in the mid-1700s to early 1800s, the law never fully embodied the consequence of this doctrine because it would have prohibited all consumptive use of the water except for the final downstream riparian owner.³¹

As populations began to grow in the eastern United States in the mid-1800s and landowners utilized water for industrial uses, the natural flow doctrine could not adequately govern because there was more strain on rivers. Consequently, the courts began to see more conflicts between upper- and lower-riparian users. The courts responded and developed the reasonable use doctrine to manage conflicts between upper- and lower-riparian rights owners, which typically involved industrial users (primarily mill owners) and non-industrial water users.³² The courts tended to favor industrial water users because their water use was viewed as more beneficial to communities as compared to agricultural or personal water uses.³³

The reasonable use doctrine has essentially replaced the natural flow doctrine from its inception. The reasonable use doctrine entitles every riparian owner “to use the water for any beneficial purpose if the intended use is reasonable with respect to other riparians, i.e., does not unreasonably interfere with their legitimate uses.”³⁴ Under the contemporary reasonable use doctrine today, the strongest restriction on water use “is that no use is

water . . . from which other members of the general public might . . . be barred if they are without access.”).

28. *Id.* at 115 (“A use is nonconsumptive if it does not alter materially the quantity or quality of the water used.”).

29. *See* GOLDFARB, *supra* note 13, at 7–8; *see also* Dellapenna, *supra* note 26, at 120 (“Consumptive uses are defined as creating permanent interference with competing uses or at least more than the transitory interference of nonconsumptive uses.”).

30. Dellapenna, *supra* note 26, at 233.

31. *Id.* at 233–35 (“Instead of applying the natural flow theory rigorously, courts from the earliest expressions of the theory crafted exceptions that virtually swallowed the rule. . . . Despite the rather self-evident failure of the natural flow theory to mean what it says, courts have continued to reiterate it over the years and to insist occasionally that they are in fact applying the natural flow theory to the facts before them. One of the . . . recent cases in which a court did so was *Dimmock v. City of New London*.”).

32. *Tyler v. Wilkinson*, 24 F. Cas. 472, 473–74 (C.C.D.R.I. 1827) (No. 14,312); *Cary v. Daniels*, 49 Mass. (8 Met.) 466, 476 (1844) (holding that courts prioritized industrial users of water because their activities provided more benefits to local communities compared to other uses).

33. *Cary*, 49 Mass. (8 Met.) at 476.

34. GOLDFARB, *supra* note 13, at 8.

legal if it ‘unreasonably harms’ another riparian user.”³⁵ The water body is thus common property to which all riparian right owners are “co-owners,”³⁶ by virtue of their land ownership, of the “right to use . . . the water with priority given to ‘domestic’ or ‘natural’ wants.”³⁷

B. WESTERN STATES: DOCTRINE OF PRIOR APPROPRIATION

Water rights in the agrarian frontier in the western part of the United States—west of what is today Kansas—developed under entirely different circumstances compared to the eastern region.³⁸ Settlers moved west in the mid-1800s enticed by quick riches and open lands.³⁹ However, due to the nature of the soil and the lack of rainfall, the land was worthless without water to irrigate.⁴⁰ The riparian system did not allow for irrigation, so the West developed the prior appropriation regime to account for the necessity of irrigation. Historically, and today, more than ever, water has continued to be highly valued in western economies,⁴¹ culture,⁴² and nostalgia.⁴³

The riparian system of water rights was ill adapted for the western landscape. It required land ownership along a watercourse in order to claim rights to the water, which was nearly impossible in the West where the vast majority of land was not located along water bodies.⁴⁴ Such a scheme meant

35. Dellapenna, *supra* note 20, at 556.

36. *Id.*

37. Dellapenna, *supra* note 26, at 218.

38. Nicole L. Johnson, *Property Without Possession*, 24 YALE J. ON REG. 205, 210, 219 (2007).

39. Roderick E. Walston, *Western Water Law*, NAT. RESOURCES & ENV'T, Winter 1986, at 6, 6.

40. *Stowell v. Johnson*, 26 P. 290, 291 (Utah 1891) (“If [riparianism] had been recognized and applied in this territory, it would still be a desert . . .”).

41. See sources cited *supra* note 2 and accompanying text.

42. See generally CHINATOWN (Paramount 1974) (depicting a murder mystery film set in the context of the California Water Wars); THREE WORLD BRAND (William S. Hart Productions 1921) (depicting a story of adjacent ranches in Utah fighting for water rights); RIDERS OF DESTINY (Paul Malvern Productions 1933) (depicting a story of a rancher who is limiting the water supply of a town); KING OF THE PECOS (Republic Pictures (I) 1936) (depicting a gun-for-hire story of a Texas cattle baron who wants to obtain water rights taken by a different rancher); LAW OF THE RANGER (Larry Darmour Productions 1937) (depicting a story of local water company owner who wants to create a reservoir and control the valley’s water); OKLAHOMA FRONTIER (Universal Pictures 1939) (depicting a story of landowners trying to control water in the Cherokee Strip land rush); STAMPEDE (Scott R. Dunlap Productions 1949) (depicting a story set in Arizona where competing ranch owners monopolize the water to the detriment of their neighbors); THE BIG COUNTRY (Anthony Productions 1958) (depicting an easterner who moves west and becomes embroiled in a land and water rights war); EL DORADO (Paramount Pictures 1967) (depicting a local ranching family receiving assistance from the sheriff, an old Indian fighter and others to fight a rival rancher that is trying to steal their water); PALE RIDER (The Malpas Company 1985) (depicting a story of a gold mining camp in California); *Yellowstone* (Paramount Network television broadcast 2018–2019) (depicting a Montana ranch owner in conflict with new land developer who wants access to water for his luxury real estate development).

43. See e.g., Marty Robbins, *Cool Water*, GENIUS, <https://genius.com/Marty-robbins-cool-water-lyrics> [https://perma.cc/SK2K-X8TT].

44. Johnson, *supra* note 38, at 219–20.

that land not located along a water body was nearly worthless in the arid west. Additionally, the riparian regime required users to forfeit some of their water usage in times of scarcity and failed to allow for water storage in case of drought, a more common occurrence in the West than in the East.⁴⁵ In short, a system that required land ownership adjacent to waterways in order to access the water “would be to condemn the non-adjacent parcels as useless.”⁴⁶ In the West, such a system also had the potential to result in mass crop failure, which, for newly arrived settler communities, was far too large a risk.⁴⁷ Unlike in the East where communities developed along rivers, settlers in the West spread out across the vast landscape. Consequently, the “water [rights] allocation [system] they developed did not rely on social norms of cooperation.”⁴⁸

Prior appropriation thus responded to the needs of western settlers, the land, and the water conditions to form the basis of western water rights. Prior appropriation is essentially a first in time, first in right system of ownership.⁴⁹ Landowners, who first applied a beneficial use to the source of water—for example by manipulating its flow to their mine or irrigating crops—obtained a legal right over that water.⁵⁰ Then “each subsequent appropriator had a priority over all who came later.”⁵¹ Unlike in the riparian system, however, the right to water could be “lost when the use [was] discontinued.”⁵² The beneficial use aspect of prior appropriation coupled with the first in time user, are the foundations of the basic prior appropriation doctrine. This doctrine filled the gaps in the western context that riparianism could not, and it embodied principles essential to western expansion: maximizing water resources for the necessity of “settlement and progress; . . . prevention of speculation as a . . . wasteful activity; . . . prevention of monopolistic control over water resources and protection of the small farmer; and recognition that water is fundamentally public in character, belonging to the citizens of the state.”⁵³

“Beneficial use, without waste, is the basis, measure, and limit of a water right.”⁵⁴ Some iteration of these words, or reference to beneficial use, provides

45. *Id.*

46. *Id.* at 220.

47. *Id.* at 219–20.

48. *Id.* at 220.

49. See generally GOLDFARB, *supra* note 13 (providing a description of the legal basis and tenants of the prior appropriation doctrine); DAVID SCHORR, *THE COLORADO DOCTRINE* (2012) (providing a description and history of the prior appropriation as it developed in Colorado and subsequent states).

50. GOLDFARB, *supra* note 13, at 16–18; see also OWEN L. ANDERSON ET AL., *Part III Prior Appropriation*, in 2 *WATERS AND WATER RIGHTS* 92–116 (Robert E. Beck ed., 1991).

51. ANDERSON ET AL., *supra* note 50, at 78.

52. Walston, *supra* note 39, at 6.

53. Johnson, *supra* note 38, at 219–20 (footnotes omitted).

54. Janet C. Neuman, *Beneficial Use, Waste, and Forfeiture: The Inefficient Search for Efficiency in Western Water Use*, 28 *ENVTL. L.* 919, 923–24 (1998).

the bedrock principle and “accepted catechism in western-water law.”⁵⁵ Professor Owen Anderson lays out the tenants of beneficial use nicely:

Four ideas are useful for coming to an understanding of what the beneficial use concept offers: (1) water must be put to use, that is it may not be obtained for speculation or “let run to waste” (reality of use); (2) the end use for the water must be a generally recognized and socially accepted use (abstract benefit); (3) water is not to be used inefficiently (misuse) (method of use, such as flood irrigation, and the method of conveyance, such as a leaky ditch); and (4) water must be put to a reasonable use (on balance against other, uses the result must be acceptable).⁵⁶

Factors that underpin a legally beneficial use include the specific type of water use (irrigation for example) and the amount of water use.⁵⁷ Type of use has developed statutorily and predominantly through courts’ interpretations of beneficial types of uses over time to incorporate contemporary values and changes in scientific knowledge.⁵⁸

The amount-of-use aspect of prior appropriation measures actual, active water use.⁵⁹ The concepts of forfeiture and waste have been incorporated into the amount-of-use aspect of beneficial use.⁶⁰ Under the appropriation doctrine, one’s water right is separate from one’s land right and depends upon “actual beneficial use for its continued validity.”⁶¹ Consequently, one forfeits their water rights with nonuse. Beneficial use ceases when use ceases; however, it can be difficult to determine when use has ceased.⁶² Most western states employ some sort of statutory language that “declare[s] in substance that the unexplained nonuse of an appropriative right over a continuous period of years will terminate the right.”⁶³ “Abandonment” and “forfeiture” are both considered a termination of use. Although their legal implications differ, courts often employ them interchangeably.⁶⁴

Waste is a more straightforward concept. If one has a right to water and uses too much, this is considered waste.⁶⁵ For example, using water for

55. *Id.* at 920; see also ANDERSON ET AL., *supra* note 50, at 106–16.

56. ANDERSON ET AL., *supra* note 50, at 107.

57. Neuman, *supra* note 54, at 926.

58. *Id.* at 927–28.

59. *Id.* at 928.

60. *Id.* at 928–29.

61. Peter Groplerud, *Protection and Termination of the Water Right*, in 2 WATERS AND WATER RIGHTS 436 (Robert E. Beck ed., 1991).

62. *Id.* at 436–38.

63. *Id.* at 437.

64. *Id.* at 440.

65. Neuman, *supra* note 54, at 926.

irrigation may be considered a beneficial use, but using the flood irrigation⁶⁶ method may be viewed by a state as wasteful, and thus, not allowed.⁶⁷ The waste aspect of beneficial use comes down to the amount of water used for the accepted purpose.

Western states did not uniformly adopt the strict doctrine of prior appropriation, which is known as the Colorado Doctrine and is followed “in the eight [most] arid states: Colorado, Arizona, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.”⁶⁸ The most notable variation to the strict prior appropriation doctrine was developed in California, and today is known as the California Doctrine—a combination of both prior appropriation and riparian rights.⁶⁹ The differences between water regimes in the West highlight how, within the prior appropriation water regime, societal, policy, and economic factors have contributed to a patchwork of water doctrines, which makes resolving disputes between states challenging.

C. *EQUITABLE APPORTIONMENT AND INTERSTATE WATER CONFLICT:
HISTORY AND PRECEDENT*

Unique state laws govern intrastate water conflicts. However, the Supreme Court of the United States has jurisdiction to hear claims or controversies between two states⁷⁰—including interstate water issues.⁷¹ There are three methods by which states may solve interstate water disputes: “(1) legislative apportionment,⁷² (2) judicial apportionment,⁷³ and (3) interstate

66. *Flood Irrigation*, TNAU AGRITECH PORTAL, http://agritech.tnau.ac.in/agriculture/agri_irrigationmgt_floodirrigation.html [<https://perma.cc/EW46-UV7G>] (“[W]ater is delivered to the field by ditch, pipe, or [] some other means and simply flows over the ground through the crop. Although flood irrigation is an effective method of irrigation it is certainly not efficient compared with other options. With flood irrigation it is generally assumed that only half of the water applied actually ends up irrigating the crop. The other half is lost to evaporation, runoff, infiltration of uncultivated areas, and transpiration through the leaves of weeds.”).

67. Anderson, *supra* note 50, at 107–08.

68. GOLDFARB, *supra* note 13, at 15.

69. *Id.* at 15–16.

70. U.S. CONST. art. III, § 2, cl. 1.

71. *See, e.g.*, *Kansas v. Colorado*, 206 U.S. 46, 85 (1907) (“Clearly this controversy is one of a justiciable nature. The right to the flow of a stream was one recognized at common law, for a trespass upon which a cause of action existed.”).

72. “There are three primary reasons why legislative apportionment is a disfavored methodology: politics, limited information, and a lack of interest.” Dustin S. Stephenson, *The Tri-State Compact: Falling Waters and Fading Opportunities*, 16 J. LAND USE & ENVTL. L. 83, 93–94 (2000) (explaining the pros and cons of legislative apportionment).

73. *Id.* at 94–97 (“[In] judicial apportionment . . . states litigate the issue and the United States Supreme Court issues a ruling allocating water rights between the states.”).

compacts.⁷⁴⁷⁵ States typically do not resort to legislative apportionment because it requires more technical expertise than can be met with a Congressional hearing.⁷⁶ Judicial apportionment requires the Supreme Court to create a solution to an interstate water conflict. Finally, interstate “[w]ater compacts are used to allocate water for future use” between states.⁷⁷ Interstate water compacts are the preferred method of conflict resolution because they allow for flexibility “in that they are tailored to each situation,” they incorporate “water resource management experts” in the negotiation process, and “compacts . . . have a much better enforcement mechanism in the . . . commission . . . [, which] . . . monitor[s] and enforce[s] the compact.”⁷⁸

In judicial apportionment proceedings, the federal common law doctrine of “equitable apportionment” guides the Supreme Court’s decisions.⁷⁹ The equitable apportionment doctrine “favors a fair distribution of water between the disputing states over any existing common law water rights regime, such as prior appropriation and riparianism.”⁸⁰ Ultimately, the unique state water regime does not drive the decision, and “the Court is free to disregard the existing regimes and fashion a more equitable resolution.”⁸¹ Equitable apportionment is a flexible doctrine applied on a case-by-case basis, depending on the facts of each dispute.⁸²

To even get to a point where the Court will equitably apportion an interstate water source, the parties must meet their individual burdens of proof. State A, typically the state seeking apportionment because it is being affected by the other state’s use or proposed use, must demonstrate by clear and convincing evidence that it is “being harmed by the actions of another state It must be highly probably [sic] that the facts alleged by the complaining state are true.”⁸³ “Once [State A] has met this burden of proof, the burden shifts to the defending state(s) [State B] to prove that the diversions complained of should be allowed to continue.”⁸⁴ State B is also held to the clear and convincing evidence standard.⁸⁵ Only after both states have

74. *Id.* at 97–100 (“A compact is essentially a contract in which the disputing states negotiate their own settlement for water allocation with a focus on ‘present appropriation for future use.’” (quoting DAVID H. GETCHES, *WATER LAW IN A NUTSHELL* 406 (2d ed. 1990))).

75. C. Hansell Watt, IV, Comment, *Who Gets the Hooch?: Georgia, Florida, and Alabama Battle for Water from the Apalachicola-Chattahoochee-Flint River Basin*, 55 *MERCER L. REV.* 1453, 1457 (2004).

76. *Id.*

77. *Id.* at 1458.

78. Stephenson, *supra* note 72, at 98–99.

79. *Id.* at 94–97.

80. *Id.* at 94–95.

81. *Id.* at 95.

82. George William Sherk, *Equitable Apportionment After Vermejo: The Demise of a Doctrine*, 29 *NAT. RESOURCES J.* 565, 566, 577 (1989).

83. *Id.* at 576–77.

84. *Id.* at 577.

85. *Id.*; see also *Colorado v. New Mexico*, 467 U.S. 310, 316 (1984).

met this burden will the Court conduct an equitable apportionment analysis and issue a decree regarding the water source.

The role of the Special Master is an additional and critical component in judicial apportionment. Because the Supreme Court has original jurisdiction for conflicts between the states, and its docket is exceptionally heavy, it does not handle the trial level details of an original jurisdiction dispute as a court typically would in a protracted litigation. Instead, the Court delegates some of its authority to a Special Master who handles the details of an original jurisdiction case, like a water conflict case.⁸⁶ The Special Master presides over much of the presentation of discovery, testimony, and the Special Master may also issue subpoenas.⁸⁷ Once the Special Master has heard arguments, he or she prepares a report and presents his or her findings and proposed solution or ruling to the Supreme Court. The Court then has the autonomy to decide along the same lines as the Special Master, to choose a different course, or to remand certain questions or issues to the Special Master for further findings. The Special Master's role is essential to the application of the equitable apportionment doctrine because the Special Master hears and makes a judgment call on many of the technical aspects of the conflict, which the parties do not ultimately present before the Supreme Court—though the Court will make the final decision pertaining to the conflict.

The equitable apportionment doctrine, like many Court created doctrines, did not develop overnight. The Supreme Court has refined the doctrine from its inception.

1. The Mouth of the River: The Development of the Equitable Apportionment Doctrine and Notable Precedential Cases

This Section will trace the development of the equitable apportionment doctrine. It will map the key cases that refined the doctrine and note the changes that the Supreme Court imposed through subsequent case law. Finally, it will demonstrate how the equitable apportionment doctrine has changed in its contemporary application with the seminal conclusions in the *Colorado v. New Mexico* cases in the mid-1980s.

In 1907, *Kansas v. Colorado* established the federal common law practice of applying the equitable apportionment doctrine to interstate water conflicts.⁸⁸ Kansas argued that Colorado's diversion of water for irrigation from the Arkansas River harmed Kansas, and it requested the full natural flow of the river—as it would have a right to under the riparian water regime.⁸⁹ Kansas followed the riparian water rights regime while Colorado followed a

86. Anne-Marie C. Carstens, *Lurking in the Shadows of Judicial Process: Special Masters in the Supreme Court's Original Jurisdiction Cases*, 86 MINN. L. REV. 625, 627–28 (2002).

87. *Id.*

88. See *Kansas v. Colorado*, 206 U.S. 46, 100, 102, 104–05, 114, 117–18 (1907).

89. *Id.* at 98.

strict prior appropriation doctrine, putting the individual state laws in direct conflict. The Supreme Court “concluded that, when state laws and policies were in conflict, equity would control and the interests of the two states would be balanced.”⁹⁰

Three key principles developed in *Kansas v. Colorado* from the foundation of the equitable appropriation doctrine. “First, the principle of ‘equality of right’ places the states on equal footing with regard to internal governance and the privilege of being free from regulation by other states.”⁹¹ Since states are independent sovereigns, they have equal rights to the water that runs through their boundaries, and they are equal before the eyes of the Court—one state does not automatically have a stronger claim to the water than the other. Second, the court “will attempt to balance both the costs and benefits of the states’ uses of the shared resource” in a cost-benefit analysis that takes into account the “‘big picture’ . . . look[ing] beyond technicalities.”⁹² Finally, the complaining state must demonstrate by clear and convincing evidence⁹³ that the harm caused by the other state’s use “is actual, present, and substantial.”⁹⁴

In 1922, the Court applied equitable apportionment for the second time in *Wyoming v. Colorado*.⁹⁵ In *Wyoming v. Colorado* both states were prior appropriation states.⁹⁶ Wyoming argued that its appropriations of the Laramie River were superior to Colorado’s, and asked the court to enjoin Colorado from diverting water from the Laramie River.⁹⁷ The Court looked to *Kansas v. Colorado* for guidance, but it focused the analysis largely on the equality of

90. Sherk, *supra* note 82, at 567. Recall that remedies in equity developed under English law to provide individuals with a redress of wrongs in circumstances where the legal rules did not allow them redress. For remedies in equity, under early English law, the decision-maker had little restriction upon his or her ability to “do justice” in equity. Kevin C. Kennedy, *Equitable Remedies and Principled Discretion: The Michigan Experience*, 74 U. DETROIT MERCY L. REV. 609, 609–12 (1997). Although, in the United States we have moved significantly away from unbounded remedies in equity and the United States Constitution provides boundaries of power between the states and the federal government, it is worth remembering that the foundation of the equitable apportionment doctrine lies in an apportionment under equity (i.e., the decision-maker’s sense of equity) rather than in a ‘legal’ (more objective) apportionment of a water resource. Consequently, as this Note argues, the current equitable apportionment doctrine faces some challenges. See *infra* Part III.

91. Michael D. Tauer, *Evolution of the Doctrine of Equitable Apportionment—Mississippi v. Memphis*, 41 U. MEMPHIS L. REV. 897, 907 (2011).

92. *Id.*

93. The clear and convincing evidence standard for the harm suffered by the petitioning state was definitively put forth as precedent in *Connecticut v. Massachusetts*, 282 U.S. 660, 669 (1931) (“The governing rule is that this Court will not exert its extraordinary power to control the conduct of one State at the suit of another, unless the threatened invasion of rights is of serious magnitude and established by clear and convincing evidence.”).

94. Tauer, *supra* note 91, at 907.

95. *Wyoming v. Colorado*, 259 U.S. 419, 464 (1922).

96. *Id.* at 458–59.

97. *Id.* at 456–57.

right principle instead of the cost-benefit analysis or substantial harm principle because the states involved were two prior appropriation states.⁹⁸ The Court implicitly recognized, without a demonstration from the parties, the need to apportion the water. The Court analyzed the senior rights of the appropriators in Wyoming along the Laramie River and “consider[ed] their relative priorities” against those of the proposed diverters in Colorado.⁹⁹ The Court ultimately held that Colorado was enjoined from diverting more than a set amount of water.¹⁰⁰ Additionally, the Court established a precedent that when conflicts arise between prior appropriation states the established rights are a factor to be taken into consideration against new diversions—though those established rights are not necessarily controlling.¹⁰¹

The Court has resolved conflicts between riparian states differently than those between prior appropriation states. In 1931, in *Connecticut v. Massachusetts* the Court did not consider the states’ riparian doctrine, as the precedent from *Wyoming v. Colorado* might have suggested it should.¹⁰² Rather, the Court examined “the pertinent laws of the contending States, and *all other relevant facts*” to establish an equitable apportionment.¹⁰³ Again in 1931, the Court adopted equitable apportionment in lieu of the principles of riparian rights to solve a lawsuit between riparian states in *New Jersey v. New York*.¹⁰⁴ In holding that New York had to limit its withdrawals from the Delaware River, the Court emphasized “[t]he different traditions and practices in different parts of the country may lead to varying results, but the effort always is to secure an equitable apportionment without quibbling over formulas.”¹⁰⁵ The holding in *New Jersey v. New York* firmly established equitable apportionment as the judicial remedy for interstate water conflicts, irrespective of the internal state water doctrines of the disputing states.

These cases from 1931 solidified two aspects of the equitable apportionment doctrine: the evidentiary standard of harm a state must present, and the relatively weak role that states’ own water regimes would play in equitable apportionment. In ultimately dismissing Connecticut’s claim, the Court emphasized that it would only apportion a water source if “the threatened invasion of rights is of serious magnitude and established by clear

98. *Id.* at 460–64.

99. *Id.* at 489.

100. *Id.*

101. *Id.* at 470 (“In suits between appropriators from the same stream, but in different States recognizing the doctrine of appropriation, the question whether rights under such appropriations should be judged by the rule of priority has been considered . . . and has been uniformly answered in the affirmative.”).

102. *Connecticut v. Massachusetts*, 282 U.S. 660, 670 (1931).

103. *Id.* at 661.

104. *New Jersey v. New York*, 283 U.S. 336, 343 (1931).

105. *Id.* at 343 (citations omitted).

and convincing evidence.”¹⁰⁶ In *Connecticut v. Massachusetts* and *New Jersey v. New York*, the Court improved upon the substantial harm aspect of *Kansas v. Colorado* and gave little determinative weight to the independent state laws.¹⁰⁷

In 1945, the Court applied the newly refined equitable apportionment doctrine for the first time to two prior appropriation states.¹⁰⁸ In *Nebraska v. Wyoming* the parties disputed each other’s use of the North Platte River for irrigation, and the Court emphasized that prior appropriation rights were applicable to the controversy, but “[t]hat does not mean that there must be a literal application of the priority rule.”¹⁰⁹ Instead, the Court weighed “all the factors which create equities in favor of one State or the other” and listed a set of factors to take into consideration for the balancing analysis.¹¹⁰ The balancing factors have continued to be applied in subsequent interstate water conflicts.¹¹¹ Additionally, the Court noted that the conflict was solely about “allocation, through the States, of water rights among appropriators,”¹¹² and generally forewent an in-depth discussion of the clear and convincing evidentiary requirement.¹¹³ *Nebraska v. Wyoming* had two key ramifications for

106. *Connecticut*, 282 U.S. at 669.

107. *Id.* at 672 (“There is nothing in the master’s findings of fact to justify an inference that any real or substantial injury or damage will presently result to Connecticut from the diversions by Massachusetts . . .”); see also Tauer, *supra* note 91, at 910–11.

108. *Nebraska v. Wyoming*, 325 U.S. 589, 618 (1945).

109. *Id.*

110. *Id.* (“Apportionment calls for the exercise of an informed judgment on a consideration of many factors. Priority of appropriation is the guiding principle. But physical and climatic conditions, the consumptive use of water in the several sections of the river, the character and rate of return flows, the extent of established uses, the availability of storage water, the practical effect of wasteful uses on downstream areas, the damage to upstream areas as compared to the benefits to downstream areas if a limitation is imposed on the former—these are all relevant factors. They are merely an illustrative, not an exhaustive catalogue. They indicate the nature of the problem of apportionment and the delicate adjustment of interests which must be made.”).

111. See *Florida v. Georgia*, 138 S. Ct. 2502, 2513–15 (2018); *South Carolina v. North Carolina*, 558 U.S. 256, 266–67 (2010); *Colorado v. New Mexico*, 459 U.S. 176, 183 (1982).

112. *Nebraska*, 325 U.S. at 615.

113. *Id.* at 608–10. The nod the Court gives to the evidentiary requirements is as follows:

The evidence supports the finding of the Special Master that the dependable natural flow of the river during the irrigation season has long been over-appropriated. A genuine controversy exists. The States have not been able to settle their differences by compact. The areas involved are arid or semi-arid. Water in dependable amounts is essential to the maintenance of the vast agricultural enterprises established on the various sections of the river. The dry cycle which has continued over a decade has precipitated a clash of interests which between sovereign powers could be traditionally settled only by diplomacy or war. . . . The Kendrick Project plainly is an existing threat to senior appropriators downstream. As we have noted, it is junior to practically every appropriation on the river between Alcova and the Tri-State Dam. . . .

What we have then is a situation where three States assert against a river, whose dependable natural flow during the irrigation season has long been over-appropriated, claims based not only on present uses but on projected additional uses

the equitable apportionment doctrine. First, it presented multiple factors the Court would consider in the balance of harms analysis. Second, it clearly held that in interstate conflicts when both states had significant use of a common waterway the states did not need to demonstrate clear and convincing harm by the other's use—such harm was evident by both states' existing uses. Up until this point, the case law demonstrated two tracks of water disputes: first, new-use conflicts (like those in *New Jersey v. New York*), where the diversion of water by one state was a new use of the water source and the court required some demonstration of harm by the state with the prior use or claim to the water resource.¹¹⁴ Second, existing use conflicts (like those in *Nebraska v. Wyoming*), where the disputing states both used a water source and thus, did not have to demonstrate a harm because both states had an existing claim to that water.¹¹⁵ The Court applied the same equitable apportionment doctrine to both disputes, but the Court differed in the evidence it required to demonstrate harm.

2. A Fork In the River: *Colorado v. New Mexico* and Its Ramifications for the Equitable Apportionment Doctrine

In 1982, the Court veered away from the articulated application of the equitable apportionment doctrine with *Colorado v. New Mexico*. The case involved a conflict about the Vermejo River, which originated in Colorado, but was entirely appropriated by four downstream users in New Mexico. Colorado had never used the river before even though it originated in that state. Prior to the start of litigation, the State of Colorado issued a conditional water right to a Colorado corporation to divert the Vermejo River.¹¹⁶ The New Mexico appropriators sued Colorado “to enjoin any diversion” of the Vermejo River.¹¹⁷ On its face the case presented similar facts to previous equitable apportionment cases where one state wished to divert water for a new or proposed use, but a second state already had claim to that water.¹¹⁸

as well. The various statistics with which the record abounds are inconclusive in showing the existence or extent of actual damage to Nebraska. But we know that deprivation of water in arid or semi-arid regions cannot help but be injurious.

Id.

114. *New Jersey v. New York*, 283 U.S. 336, 347 (1931).

115. *Nebraska*, 325 U.S. at 617–19.

116. *Colorado*, 459 U.S. at 178.

117. *Id.*

118. See *New Jersey*, 283 U.S. at 342; see also *Connecticut v. Massachusetts*, 282 U.S. 660, 669 (1931). In *New Jersey*, New York proposed a diversion of “a large amount of water from . . . the watershed” to provide water for the City of New York, but there was no indication in the opinion that New Jersey had used all the water from the Delaware River. *New Jersey*, 283 U.S. at 341–43. Similarly, in *Connecticut v. Massachusetts*, Massachusetts wanted to divert water from the Connecticut River watershed to provide water for the City of Boston and Connecticut wanted access to the river “unimpaired”—though again there was no indication in the opinion that Connecticut had full use of the waters at issue. *Connecticut*, 282 U.S. at 669.

The Court appointed a Special Master who “recommended permitting Colorado a trans-mountain diversion of 4,000 acre-feet of water per year from the headwaters of the Vermejo River” based on the traditional equitable apportionment factors and weighing the harms to the New Mexico users and benefits to Colorado.¹¹⁹ The Special Master recommended the diversion because it “would not materially affect the appropriations granted by New Mexico for users downstream[,] . . . the injury to New Mexico, if any, [would] be more than offset by the benefit to Colorado.”¹²⁰ Additionally, the Special Master noted that “conservation measures” could also reduce New Mexico’s use of water, therefore freeing some water for Colorado’s use.¹²¹ The Court remanded the case to the Special Master for further factual findings “1) that the [diversion by] Colorado would not materially affect New Mexico because water conservation measures were available, and 2) that the benefit to Colorado would outweigh the harm to New Mexico.”¹²²

The case came before the Court again two years later in 1984.¹²³ This time the question was not one of equitable apportionment. Rather, the issue was “the standard by which [the Court would] judge proof in actions for equitable apportionment” because the Court’s “inquiry turn[ed] on the evidentiary material [that] Colorado . . . offer[ed].”¹²⁴ Ultimately, the Court required Colorado to demonstrate via clear and convincing evidence that its proposed use was in fact beneficial. The requirement of beneficial use demonstrated by clear and convincing evidence was entirely new in *Colorado v. New Mexico* (1984). In past cases, the complaining state had the burden of proving *harm* from the other state’s water use.¹²⁵ The Court stated:

[it] is necessary to appropriately balance the unique interests involved in water rights disputes between sovereigns. The standard reflects this Court’s long-held view that a proposed diverter should bear most, though not all, of the risks of erroneous decision: “The harm that may result from disrupting established uses is typically

119. *Colorado*, 459 U.S. at 180 (footnote omitted).

120. *Id.* (citing the Report of the Special Master at 23).

121. *Id.* at 181 (footnote omitted).

122. Sherk, *supra* note 82, at 574–75.

123. *Colorado v. New Mexico*, 467 U.S. 310, 312 (1984).

124. *Id.* at 315.

125. See *New Jersey v. New York*, 283 U.S. 336, 345 (1931) (“The Master finds that the taking of 600 millions of gallons daily from the tributaries will not materially affect the River or its sanitary condition, or as a source of municipal water supply, or for industrial uses, or for agriculture, or for the fisheries for shad. The effect upon the use for recreation and upon its reputation in that regard will be somewhat more serious, as will be the effect of increased salinity of the River upon the oyster fisheries. The total is found to be greater than New Jersey ought to bear . . .”); *Connecticut v. Massachusetts*, 282 U.S. 660, 667 (1931) (“Connecticut failed to establish that the taking of flood waters will be materially injurious to the shad run or that the diversion will perceptibly increase the pollution of the river.”).

certain and immediate, whereas the potential benefits from a proposed diversion may be speculative and remote.”¹²⁶

The Court then analyzed Colorado’s proposed diversion and determined that it had not met the clear and convincing evidentiary burden to demonstrate its proposed diversion was a beneficial use. Contrary to the Special Master’s recommendation and Justice Steven’s strong dissent, the Court refrained from apportioning the Vermejo River and forbid Colorado from diverting any water for the proposed new use.¹²⁷

The Court’s analysis in *Colorado v. New Mexico* demonstrates a shift in how it approaches equitable apportionment cases. First, the Court signaled that it would not accept that a diversion or new use of water is necessarily beneficial. Rather, it put forth a higher demonstration standard that the proposed user of a water source must meet—clear and convincing evidence of a benefit. Additionally, the Court specifically noted that:

New Mexico submitted substantial evidence that the District [at issue] is in the middle of reclamation project efficiencies and that . . . [it] has taken considerable independent steps . . . to improve the efficiency of its future water use. . . . The Master did not find to the contrary . . . Nevertheless, he accepted Colorado’s general assertion that the District[’s project] was not as efficient as other reclamation projects and concluded that New Mexico’s inefficient use should not be charged to Colorado.¹²⁸

The record seemed to firmly establish the finding of New Mexico’s waste. Additionally, both the Special Master and the Court seemed to accept that finding. Under the traditional equitable apportionment doctrine, it seems that the Court would proceed to balance the disputing states’ interests and consider the factors it put forth in *Nebraska v. Wyoming*. Considering the demonstration of waste and benefit had been made on both sides, the Court’s role was to try to find a way to give both states access to their shared water resource—an equitable apportionment that took into consideration both states’ sovereign interests.

However, the Court pivoted in its analysis regarding Colorado’s proposed diversion. The Court stated, “But Colorado has not identified any ‘financially and physically feasible’ means by which the District can further eliminate or reduce inefficiency and, contrary to the Master’s suggestion, we believe that the burden is on Colorado to do so.”¹²⁹ This pivot suggests that the Court was demanding more from Colorado than a demonstration of the waste and clear

126. *Colorado*, 467 U.S. at 316 (quoting *Colorado*, 459 U.S. at 187).

127. *Colorado*, 459 U.S. at 182–83.

128. *Colorado*, 467 U.S. at 319–20 (citations omitted).

129. *Id.* at 320 (quoting *Colorado*, 459 U.S. at 192; and *Wyoming v. Colorado*, 259 U.S. 419, 484 (1922)).

and convincing demonstration of the benefit from the proposed use, as the equitable apportionment precedent up until this point would require. Rather, the Court's analysis suggests Colorado was burdened to actually locate the additional water in New Mexico that it proposed to use even though the evidence demonstrated that (1) New Mexico's use was inefficient and therefore water was available, and (2) Colorado's use would provide an identifiable benefit. By the Court's analysis, the onus actually appeared to be on Colorado (1) to demonstrate New Mexico's waste; (2) to demonstrate by clear and convincing evidence the benefit of its proposed use; and (3) upon a demonstration of the waste, to demonstrate how the wasting user could reclaim water in the most efficient and financially feasible manner to free up water for Colorado's proposed use.

The Court's clear and convincing requirement for a demonstration of benefit coupled with the Court's analytical pivot illustrate a great shift in how the Court approaches apportionment cases in the contemporary period. On the one hand, the Court's evidentiary requirement to demonstrate a benefit makes sense—putting an entirely new strain on a water source, as Colorado sought to do, should be met with critical analysis. However, on the other hand, from the perspective of potential disputing states, the Court's shift decidedly muddies the equitable apportionment doctrine because it is unclear *how* it will apply the doctrine in the next situation or *what* it will in fact apply. Although the equitable apportionment doctrine is inherently flexible, *Colorado v. New Mexico* demonstrates how, when the Court does not provide consistency with its structural application of the doctrine, its analysis loses transparency and lacks targeted analytical markers for subsequent parties, attorneys, or policy makers to latch onto.

III. THE EQUITABLE APPORTIONMENT DOCTRINE HAS BROKEN THROUGH ITS BANKS: PROBLEMS WITH THE COURT'S CURRENT APPLICATION OF THE EQUITABLE APPORTIONMENT DOCTRINE

The discrete problems presented by the current state of the equitable apportionment doctrine since the Court's analysis in *Colorado v. New Mexico* are twofold. First, the Court has not provided objective guidance about how it will find that a use is beneficial or a waste. Second, the case precedent demonstrates the trend that the Court changes its equitable apportionment analysis and structure depending upon the factual circumstances of the water conflict before it. Although the equitable apportionment "test" is a doctrine rooted in discretion and flexibility, the Court has rejected applying the flexible standard in an objective, consistent manner. Such indeterminate guidance from the Court, specifically within a doctrine that is shaped solely by the justices and has long ranging ramifications for a waning resource, is deeply problematic for the future of the doctrine.

This Part expands upon the two problems posed by the current equitable apportionment doctrine. Section III.A discusses the challenges of defining a

beneficial use and a wasteful use. Section III.B discusses the trend of subjectivity in the Court's equitable apportionment analyses and demonstrate the difficulty with the Court's lack of objectivity in applying the doctrine. Finally, Section III.C explains why these problems together pose great challenges to the future of adjudication in interstate water conflicts in the United States and for parties to an interstate water conflict.

A. *MUDDY WATERS: WHAT IS A BENEFIT? WHAT IS A WASTE?*

Colorado v. New Mexico highlights two challenges posed by the equitable apportionment doctrine in its contemporary application. First, problems with how the Court defines or understands a beneficial use, and second, issues with how the Court understands and determines what is a wasteful use of a water resource. These questions are interconnected because determining a beneficial use or a wasteful use of water is in the eye of the beholder. For example, as I noted earlier, in an arid western state, irrigation is clearly a beneficial use because it is essential to make the land agriculturally and economically viable.¹³⁰ However, one could argue that flood irrigation is a wasteful use of water because much of the water is lost to evaporation when compared to drip irrigation. In this example, flood irrigation could be termed a wasteful use of water even though it is under the greater beneficial-use umbrella of irrigation.

Additional layers further complicate the objective determination of a use as beneficial or wasteful. First, individual states may have their own internal definitions of what constitutes a waste of a water resource, and those definitions may differ between disputing states. Secondly, the Special Master imposes a judgment call about what is a beneficial use or a wasteful use in his or her report to the Supreme Court. Such a judgment call occurred in *Colorado v. New Mexico* with the Special Master's determination "that New Mexico could compensate for some or all the Colorado diversion through reasonable water conservation measures."¹³¹ Justice Stevens noted in his dissent that the proposed conservation effort that New Mexico could have adopted was for the adoption of "a closed stock and domestic water system."¹³² However, what would it actually mean for New Mexico to impose such a system? Additionally, the Special Master's finding that such a change was "reasonable" begs the question: To whom is such a change reasonable?

Finally, the Court is free to adopt the Special Master's judgment or impose its own understanding of a beneficial use or a wasteful use. Consequently, the determination of waste in a conflict between two different states demands that the Court or the Special Master impose some sort of judgment about whose use *when compared to the other state's use* is beneficial or

130. See *supra* notes 65–67 and accompanying text.

131. *Colorado*, 467 U.S. at 325.

132. *Id.* at 327 (Stevens, J., dissenting).

wasteful. This judgment call ultimately overrides the individual state's definition of a beneficial or wasteful use, which is acceptable, but the Court should provide consistency in how it goes about making that judgment. The Court has not adopted a definition of waste or beneficial use to apply in equitable apportionment cases because the very determination of such a use depends on the circumstances of the dispute. Consequently, each equitable apportionment analysis seems to try to find a way to define waste or benefit in that specific context. There is not an objective, law driven analysis to determine a beneficial use or a wasteful use in the equitable apportionment context.

In *Colorado v. New Mexico* the Court ultimately found that Colorado had not met its evidentiary burden to demonstrate how the New Mexico users could "further eliminate or reduce inefficiency" in their water use to free up water for Colorado's use.¹³³ The Court put forth its analysis for this finding, and Justice O'Connor suggested that the Court adopt that same test as the test to define a wasteful use of water in equitable apportionment cases.¹³⁴ Under the test, if waste is alleged, it is proved by showing the availability of "[f]inancially and physically feasible conservation efforts" that are not being undertaken.¹³⁵ There must be "specific evidence about how existing uses might be improved, or . . . clear evidence that a project is far less efficient than most other projects."¹³⁶ A test such as this one, Justice O'Connor emphasized, could provide significant clarity to the equitable apportionment doctrine. Under this test, both litigants and the Special Master would have objective markers upon which to base their arguments or proposing ruling based upon what the Court actually uses to define waste rather than the current case-by-case examination in which the Court defines 'waste' for that particular factual scenario.

In the *Colorado v. New Mexico* cases, the Court was tasked with managing a dispute between two states in which *only one* of the states had a use of and claim to the common waterway.¹³⁷ That conflict was akin to the type of conflict at issue in *New Jersey v. New York*¹³⁸ or *Connecticut v. Massachusetts*¹³⁹ in which New York and Massachusetts petitioned the Court to divert water from a river from which they had not used water before. *Colorado v. New Mexico* is a unique case because in the present day, the likelihood that a state has not used a surface water resource running through its topography at all (like Colorado)—and therefore a 'new' use will actually be a first use—is quite rare; particularly now when water resources are strained by a myriad of users.

133. *Id.* at 320.

134. *Id.*

135. *Id.*

136. *Id.*

137. *Id.* at 310; *Colorado v. New Mexico*, 459 U.S. 176, 177 (1982).

138. *New Jersey v. New York*, 283 U.S. 336, 341-42 (1931).

139. *Connecticut v. Massachusetts*, 282 U.S. 660, 662-64 (1931).

Rather, the situation that is more realistic is one in which states that already have use of a surface water resource want to either do something different with that water, which may require more of the resource, or do something in addition to the use they already have. Both of these situation types emphasize the need for a law driven test to define waste—especially as more strain on water sources will mean that every drop really does count.

B. RED FISH, BLUE FISH: THE TREND OF SUBJECTIVITY IN APPLYING THE EQUITABLE APPORTIONMENT DOCTRINE

By its very nature, equitable apportionment is a doctrine that is applied to unique circumstances that demand flexibility and creativity. The Court's discretion in applying the doctrine reflects the nature of the conflict to which the doctrine responds. Consequently, the Court's shift in applying the doctrine over time reflects the need for the doctrine to be accountable to nuanced factual circumstances and changing natural resource needs. However, the Court has taken on a more subjective application of the doctrine in its recent equitable apportionment analyses. This approach suggests the Court is moving away from using the doctrine as a strong remedial framework and moving toward the use of the doctrine as a façade from behind which the Court makes choices as ostensibly 'discretionary,' but which are not actually guided by the doctrine.

Additionally, the Court typically gives Special Masters great deference in interstate water conflicts. However, the Court has moved away from that deference with *Colorado v. New Mexico*¹⁴⁰ and most recently, with *Florida v. Georgia*.¹⁴¹ The factual circumstances, large body of documentation, evidence, testimony and technical components involved in interstate water conflicts warrant deference to the Special Master because the Court itself cannot preside over extended technical hearings along with its already packed docket. Deference to the Special Master is not mandated, of course, but in the past, the Court's decision not to follow the Special Master's recommendation was made with a clear explanation in the Court's opinion as to *why* the majority disagreed with the Master's evaluation of the situation. In *Colorado v. New Mexico*, although, the Court did give deference to the Master's findings, which demonstrated how Colorado's new use would be beneficial and how New Mexico's old users were actually wasting water, it pivoted the analysis away from that which the Special Master had conducted and demanded that Colorado show more.¹⁴² In *Florida v. Georgia*, the Court remanded specific questions to the Special Master.¹⁴³ The Special Master already provided technical answers to these questions, but in the Court's opinion these answers

140. *Colorado*, 467 U.S. at 310.

141. *Florida v. Georgia*, 138 S. Ct. 2502, 2511–18 (2018).

142. *Colorado*, 459 U.S. at 188–90.

143. *Florida*, 138 S. Ct. at 2508.

were not enough.¹⁴⁴ It therefore seemed like the Court punted the issue back to the Special Master to put off making a ruling.¹⁴⁵ Choosing not to defer to the Special Master alone or in unique cases is not inherently problematic, but the Court seems to be developing a trend in which it disregards the Special Master's suggestion without a transparent indication as to why.

The complexity of interstate water conflicts, due to the many parties who manage, regulate, and oversee water body use (including, in many cases, the federal government through the Army Corps of Engineers¹⁴⁶) coupled with the plethora of users (industrial, agricultural and citizen) may be to blame for the Court's irregular application of the equitable apportionment doctrine. Perhaps the scope and scale of interstate water conflicts have surpassed the framework with which the current traditional application of the equitable apportionment doctrine allows. Consequently, the consistent application of precedent in equitable apportionment cases has become notably difficult because much of the decisive precedent itself is based upon unique state-water regimes and relatively "easy" disputes due to fewer waterway users and interested or invested parties.

As a result, the equitable apportionment precedent provides the basis for a doctrine that tackles problems whose scope is no longer sufficient for the current time. The equitable apportionment precedent the Court relies upon requires the Court to make many judgment calls in its analysis. Such discretion would not be problematic if the doctrine provided a stable foundation to guide the Court's choice, but as it stands now, the equitable apportionment doctrine simply does not. There are too many variables, which the Court has left up to its "discretion" to weigh, but which do not actually guide its analysis. The Court lacks continuity in its equitable apportionment analysis, which has resulted in its subjective application of the equitable apportionment doctrine in the contemporary period.

C. FUTURE CHALLENGES TO INTERSTATE WATER CONFLICT

On its own, the lack of clarity in the doctrine's application may not pose a great challenge for parties to an interstate water conflict or practitioners. However, when combined with the murky analytical structures the Court uses to find a wasteful or beneficial use (two of the foundational aspects of the equitable apportionment doctrine), the increasing strain on interstate water resources, and the frequency with which interstate water disputes are coming before the Court¹⁴⁷ the equitable apportionment doctrine poses grave

144. *Id.* at 2527.

145. *See id.* at 2535-38 (Thomas, J., dissenting).

146. *Mission Overview*, U.S. ARMY CORPS OF ENGINEERS, <https://www.usace.army.mil/Missions> [<https://perma.cc/XQ5K-UHGU>].

147. *See Jacobs, supra* note 11; *Reilly, supra* note 11.

challenges for interstate water conflicts in the United States of the twenty-first century.

States and policymakers have little guidance about how the Court may approach an interstate water conflict based on the patchy precedent; what will qualify as a demonstration of waste or benefit; or just how subjective the Court will be in its application of the equitable apportionment doctrine. All of these questions uniquely arise *after* the parties present their information to the Special Master, whose own report and suggested solution the Court may choose to ignore. Of course, no party or attorney knows exactly how a court will respond to a particular factual circumstance or line of argument, but courts, and especially the Supreme Court, ought to give an indication through their precedent about the direction and the application of the law. However, the Court's inconsistent application of the equitable apportionment doctrine provides parties with little in terms of guidance for how they should present an argument to the Special Master in a way the Court will recognize and respond to.

Such frustration may have the effect of burdening the Court with prolonged litigation or make judicial apportionment as a remedy insufficient to account for states' needs. As the current and prolonged litigation between Florida and Georgia over the water of the Apalachicola-Chattahoochee-Flint River basin demonstrates,¹⁴⁸ the Court is critical to mediating disputes between states over water because other methods like interstate compacts are simply not working. Additionally, growing populations and burdens on already-strained water sources means that conflicts are guaranteed to arise in the future.¹⁴⁹ Water is essential for life, and states must be sure they have a relatively predictable avenue through which to make their claims. With the state of the equitable apportionment doctrine today, the path for litigation in this realm is simply too disjointed to provide meaningful guidance for potential litigants.

IV. BIFURCATING INTERSTATE WATER CONFLICT LITIGATION: A NEW ORGANIZATION FOR LITIGATION OF INTERSTATE WATER CONFLICTS

The problem this Note seeks to solve is how to make the equitable apportionment doctrine applicable in the current period to solve tough interstate water challenges, while maintaining the roots of the doctrine as the Court has established it. Based upon the afore presented issues with the doctrine, which have ultimately created the challenge to adjudication of interstate water conflicts, this Note proposes a bifurcated litigation process for interstate water conflicts and the adoption of Justice O'Connor's proposed

148. See generally Alyssa S. Lathrop, *A Tale of Three States: Equitable Apportionment of the Apalachicola-Chattahoochee-Flint River Basin*, 36 FLA. ST. U. L. REV. 865 (2009) (providing an in-depth review of the years' long litigation at multiple court levels involving Georgia, Florida and Alabama over a span of 26 years and counting).

149. See *supra* notes 2–5 and accompanying text.

waste test. Water litigation would be bifurcated into distinct parts and importantly, distinct questions.

The junctions at each point in the litigation process would first provide an organizational structure to manage what is typically very lengthy, technical litigation. Additionally, the bifurcation of issues would provide parties with the opportunity to manage discrete issues at play in large-scale conflicts. For example, parties may find some aspects of the conflict amenable to interstate compact or some aspects more amenable to judicial apportionment. Finally, the bifurcated system would provide the Court with opportunities to apply different standards and different balance of harms analyses depending upon the unique factual circumstances of the conflict. Overall, the bifurcation system would create smaller pieces for the Court to bite off rather than forcing it to tackle all the components of a water issue at once in order to prevent the creation of confusing precedent. This system would have the added bonus of providing clarity about each unique case before the Court rather than lumping all interstate water conflicts together as one conflict type.

The proceedings in this proposed solution would be broken into two components. The first part of the bifurcated litigation would demand parties demonstrate which type of interstate water conflict the dispute is about. The conflict-type question would require the parties to establish the conflict was either (a) a prior-use conflict type, where both states already used a common water source or (b) a new-use conflict type, where one state used a common water source and the second state wanted access (like that in *Colorado v. New Mexico*). In addition, the conflict-type part of the litigation would provide parties with the opportunity to illustrate for the Special Master and the Court the technical components of the water-use involved in the conflict as part of the demonstration of the conflict type. The parties would present their arguments to the appointed Special Master, who would in turn, present his or her recommendation to the Court, at which point the Court would confirm the conflict type. Additionally, at this point in the litigation process the Court could certify to the parties particular questions or elements of fact pertaining to the nuanced technical elements of the case that it could anticipate requiring at the second stage of the litigation.

In part two of the litigation process, the parties would present the balance of harms argument to the Special Master who would in turn submit his or her recommendation to the Court. The balance of harms argument would invariably include arguments pertaining to the waste and beneficial use of the water. At this juncture, the Court would adopt Justice O'Connor's waste test in order to provide sufficient structural guidance for parties to build their arguments. Additionally, the adoption of Justice O'Connor's test would give the Court more objective, law driven factors with which to make their determinations. At this point in the litigation, the Court would have the opportunity to post additional requests or questions for findings of fact to the Special Master. The parties would present their responses to the Special

Master, who would submit a final report to the Court at which point the Court would hand down the final order regarding the equitable apportionment of the common waterway.

In concert with the conflict-type determination would be the determination of the evidentiary bar the Court would require from parties at the balance of harms stage of the litigation. For example, if the conflict was determined to be a new-use conflict, then the *Colorado v. New Mexico* requirement of a clear and convincing demonstration of the proposed-use benefit would guide the parties in their argument and the Court in its decision. Alternatively, if the Court determined the conflict was a prior-use conflict, the emphasis would be on the balance of harms and factors to demonstrate how the change to the prior use would affect the water source and both users.

When a state desires to divert water from an interstate stream from which it has not used water before, but from which a neighboring state does withdraw water, the rigorous evidentiary standard for demonstrating a benefit rises to meet the tough balance of harms equation the Court must produce in creating an equitable apportionment. As the Court noted in the second *Colorado v. New Mexico* case, “a proposed diverter should bear most, though not all, of the risks” because a new diversion could cause serious problems for senior users.¹⁵⁰ This statement rings true because the new diverter is adding a completely new strain on the water system and should bear the burden of proof that such a strain more greatly benefits it than the previous users in the neighboring state. Similarly, in a prior-use conflict the need for such a strong showing of benefit is not as critical because the parties have already been using the common water source, and the change to the status quo will not be as striking as adding a new user to a water system.

The conflict-type determination has the dual benefit of (a) streamlining the focus and technicalities of the litigation and (b) eliminating the confusion regarding the evidentiary demonstration. Clarifying the *type* of water conflict prior to the balance of harms analysis has two major benefits to the parties and two benefits to the Court. For the parties, it provides the evidentiary bar they must maintain, and it narrows the focus of the final part of the litigation to the heart of the equitable apportionment doctrine: the balance of harms analysis. For the Court, determining the water conflict type provides them with a first instance to understand the context, technicalities and general issues of the interstate water conflict. The conflict-type litigation allows the Court to gain a sense of the case prior to making the balance of harms decision. Because interstate water conflicts are technical and involved, the first look at the issue is an opportunity for the Court to get acquainted with the nuances of the case. Secondly, clarifying the conflict type guides the

150. *Colorado v. New Mexico*, 467 U.S. 310, 316 (1984).

Court's decision regarding the evidentiary bar it will require in the second part of the litigation.

In the second part of the bifurcated proceedings the Court would turn its focus to the balance of harms analysis, which is the core of the equitable apportionment doctrine. Currently, the Court uses the elements listed in *Nebraska v. Wyoming* and balances the harms against the benefits. This long entrenched analytical framework would not be altered by this proposed solution. Rather, the focused setting of the balance of harms litigation juncture would provide the Court the opportunity to solely focus on balancing the harms and benefits of waterways, and it would allow a stronger discussion about the balancing analysis by eliminating confusing technicalities and streamlining the focus of the litigation.

In addition to the traditional *Nebraska* factors, which emphasize the negative effects to both parties from a change to the waterway use, the Court should consider a final component to the balance of harms analysis. This component would be a same-variable balancing equation that broke variables into factor-buckets including: (1) economic harms and benefits; (2) environmental harms and benefits; and (3) human harms and benefits. In each bucket the advantages and disadvantages for each party would be analyzed equally from both perspectives of the dispute. The equation would compare the benefits of the status quo to the benefits of the proposed change, and the status quo harms with the harms resulting from the change to the status quo. Currently, in order to assess how the change to the stream will positively and negatively affect the conflicting states, the Court balances the benefits of the diversion for the diverting state against the harms of the diversion to the non-diverting state. Although this analysis is in line with the equitable apportionment precedent and the Court's historical system of analyses in balancing factor tests, in contemporary water conflicts, this balancing equation alone fails to take into account many specifics of how critical a certain amount of water may be to either state. By rounding out the equation with a same-variable balancing test, the Court would ensure that the same factors are properly weighed against one another in making, what could be, an acute change to the distribution of a common waterway.

For example, had the Court applied the proposed same-variable balancing test in *New Jersey v. New York* it would have compared the benefit for New Jersey of maintaining the status quo (i.e., New Jersey would not have to alter any of its use because it would have access to the same amount of water) to the benefit for New York in having access to this water (i.e., drinking water for the city and people of New York). Then it would have compared the harm to New Jersey by altering the status quo (i.e., less water for New Jersey citizens and likely an alteration in New Jersey regarding its water use) against the harm to New York of not changing the status quo (i.e., lack of drinking water for the city and people of New York). The court could have also included the pollution component as a weighted factor in the environmental factor-bucket.

The same-variable test would be done in conjunction with the balance of harms analysis to understand more fully the benefits of the proposed water-use change. It would create a more nuanced balancing test that takes into account the myriad of interests at play in interstate water conflicts. Populations are growing, climatic conditions are changing, and water resources are becoming increasingly critical for maintenance and continued development of urban and rural areas, so an articulation of balancing factors that takes into account as many perspectives as possible is essential to adequately account for the various interests at stake in an interstate water conflict.

V. CONCLUSION

By bifurcating the proceedings to allow argument regarding (1) conflict type and (2) the harms and benefits, adopting Justice O'Connor's waste test, and expanding the balance of harms equation to include a same-variable balance with distinct variable buckets, the Court will have a deeper understanding of the critical issues at play in interstate water conflicts and be able to provide a more equitable solution. The equitable apportionment doctrine strives to find a remedy to interstate water conflicts through the judicial process that adequately serves the sovereign interests of states party to a conflict. This proposed bifurcation solution more readily allows the strong tenants of the doctrine to effectively do their job by providing the Court with the opportunity to mitigate the information overload that has come to muddy the current equitable apportionment doctrine.

Water conflicts are here to stay, and to ensure truly equitable apportionment of this finite and necessary resource, the Court must re-examine the equitable apportionment doctrine. Consequently, the Court should adopt a bifurcated litigation process for interstate water conflicts. A bifurcated process would eliminate the challenges created by the *Colorado v. New Mexico* case holdings, which modified the Court's application of the equitable apportionment doctrine. Additionally, such a process would provide clarity for potential litigants and allow the Court to more easily manage and analyze interstate water conflicts.