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Marketing Interstate Harmony: Interstate Water Markets as an Alternative to Resolving Water Conflicts

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MARKETING INTERSTATE HARMONY: INTERSTATE WATER MARKETS AS AN ALTERNATIVE TO RESOLVING WATER CONFLICTS

*By Brian Singleterry**

As the population of the American West continues to rise, increasing conflicts over water are inevitable. Complicating matters, the existing supplies are often far from demands and are often shared between states. To satisfy future demands, states must learn to transfer and share water. There are currently three methods for resolving water disputes between states: litigation in the Supreme Court, congressional allocation, and Interstate Compacts. All three are costly and take many years to reach a conclusion.

However, most resources, like oil or timber, do not require special allocation methods. Instead, the market efficiently and equitably allocates these resources. While requiring regulation, water markets are also able to match water supply and demand. In recent years, every Western state has increased support of water markets within its borders.

Encouraging water markets between the states would result in more efficient and equitable interstate distribution of water. Additionally, water markets increase water-use efficiency and provide incentives to move water to higher uses. Potential barriers to markets operating between the states are either unconstitutional or insignificant.

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I. INTRODUCTION

North Texas, and its expanding population of more than six million,¹ is running out of water.² By 2060, North Texas will have an unmet demand of 1.4 million acre-feet of water per year—more than 480 billion gallons.³ While Texas lacks a supply of fresh water to meet its demand, Oklahoma watches over 8 million acre-feet of water per year pass through the state and into the Gulf of Mexico.⁴ This past summer, the Supreme Court held that an agreement between these states entitled Oklahoma to that water until it left the state, leaving Texas dry.⁵ The decision cost millions of dollars in legal fees and ended a six-year legal battle.⁶

Water is uniquely allocated between states. Unlike other resources, where private actors direct the supply through the market, states allocate water by agreement or litigation. Neither option is ideal. Entering into agreements is risky because of the difficulty in amending the agreement and in predicting the state's needs decades into the future. Likewise, litigation is reactive, costly, and unpredictable.

At the same time, western states are increasing the use of water markets. While implementing water markets present challenges, regulated markets could reduce many allocation problems. But unlike the market for other goods, political boundaries surround water markets—preventing many water transfers between states.

Interstate water markets are an under-employed alternative to the traditional allocation methods among states. Water markets would efficiently and equitably allocate water between states. States currently rely on water markets to redistribute water within their borders.

1. FREESE AND NICHOLS INC. ET AL., 2011 REGION C WATER PLAN § 2.2 (Texas 2011).

2. *Id.* at ES.6.

3. *Id.*

4. S. C. Gwynne, *The Last Drop*, TEX. MONTHLY, Feb. 2008, 170, 269.

5. See *Tarrant Reg'l Water Dist. v. Herrmann*, 133 S. Ct. 2120, 2129–30 (2013).

6. Joe Wertz, *Texas' Application for Oklahoma Water Still Active Despite Supreme Court Ruling*, ST. IMPACT (Oct. 25, 2013, 8:58 AM), <http://stateimpact.npr.org/oklahoma/2013/10/25/texas-application-for-oklahoma-water-still-active-despite-supreme-court-ruling/>.

However, their use as a water allocation mechanism has not been adequately utilized or discussed. This Comment analyzes the use of water markets to allocate water and to reduce the use of the traditional allocation mechanisms. Section II discusses the background to interstate water conflicts. Section III explains the current mechanisms for dealing with the conflicts, and their defects. Section IV introduces the idea of using water markets to allocate water. And lastly, Section V explores the possible legal constraints on interstate water markets.

II. BACKGROUND

It is ironic that water scarcity is a problem on the blue planet, but in the western United States it is a reality. As the population continues to grow, the demand for water will continue to increase. Unfortunately, the increased demand will not be matched by an increased supply. The developing scarcity will make water more valuable and control over it more contentious.

A. *The Hydrologic Cycle*

Almost all of humanity's water needs are met by a small fraction of the Earth's water. Less than five one-hundredths of one percent of the planet's water is fresh water available for human use.⁷ A typical water molecule starts in the ocean, which contains 97.4% of all water, and evaporates into the sky.⁸ It then condenses with other molecules until it becomes heavy enough to fall to the Earth. On land, either as rain or melting snow, it becomes run-off flowing through streams and other watercourses. Close to two-thirds of these water molecules evaporate before reaching the ocean,⁹ the rest flow through rivers and lakes back into the ocean or seep beneath the surface into an aquifer.¹⁰ Only the run-off water is available for human use.¹¹

Even this small amount of water is unequally distributed on the land. Except for Washington, Oregon, and Northern California, the states west of the 100th meridian (which runs through Texas and the Dakotas) receive less than thirty inches of rain a year, some less than ten inches.¹² In contrast, eastern states receive enough precipitation, some more than fifty inches a year, to sustain all their needs.¹³ Droughts and floods exacerbate water problems west of the 100th meridian. Further adding to the difficulties, many scientists believe that

7. A. DAN TARLOCK, *LAW OF WATER RIGHTS AND RESOURCES*, § 2:3 (2013).

8. *Id.*

9. *Id.*

10. *Id.*

11. Deep underground aquifers are one exception. *Id.*

12. *Id.* § 2:6.

13. *Id.*

these same regions will be especially affected by global climate change.¹⁴

This small amount of water, unevenly distributed across the earth, must meet all human needs. In the western states, the twenty-first century goal of water law will be wisely satisfying as many demands as possible with such a scarce resource.

B. *Overview of Water Law*

The original colonies became their own separate sovereigns at the time of independence; the only powers surrendered were those listed in the Constitution.¹⁵ The Constitution contains no explicit powers over water. By implication, the states retained the power to regulate and manage water resources.¹⁶ New states entering the Union received the same respect and entered the Union on “equal footing” as the existing states.¹⁷ As separate sovereigns, each state is free to create its own law governing water.

The original colonies inherited the doctrine of riparian rights from England, where the landowner acquires water rights to adjacent water.¹⁸ In the West, water scarcity led to the development of a different doctrine of water rights. That doctrine, known as prior appropriation, severs water rights from land rights.¹⁹ Prior appropriation protects the beneficial use of the first person to divert and appropriate water from its natural course.²⁰ Then, the water appropriator has a property right in that water. However, because water is also a public good, the state retains ownership. Satisfying prior appropriation elements gives the holder only a usufructory right, or a right to use the water.²¹

Ground water rules are different.²² The distinction between ground and surface waters is criticized because all water is part of the same cycle; however, the laws of many states treat the two differently.²³ Initially, ground water was treated as the absolute property of the landowner, subject to capture. Any water that landowners “captured” was their personal property, similar to the law of oil and gas.²⁴ This is still the law in some states, including one western state—Texas.²⁵ Today,

14. Noah D. Hall, *Interstate Water Compacts and Climate Change Adaptation*, 5 ENVTL. & ENERGY L. & POL’Y J. 237, 243 (2010).

15. *Idaho v. Coeur d’Alene Tribe of Idaho*, 521 U.S. 261, 283 (1997).

16. *Id.*

17. *Id.*

18. DAVID H. GETCHES, *WATER LAW IN A NUTSHELL* 16–17 (4th ed. 2008).

19. *Id.* at 22–23.

20. *Id.* at 77–78.

21. TARLOCK, *supra* note 7, § 3:3.

22. *See id.* § 2:4.

23. *Id.*

24. *Id.* § 4:6.

25. *See Edwards Aquifer Auth. v. Day*, 369 S.W.3d 814, 831–32 (Tex. 2012).

many states have replaced the rule of capture with the “reasonable use” rule or the “American” rule.²⁶ These rules modify the rule of capture, taking into account the rights of others to use the same water.²⁷ There is little uniformity.²⁸

Today, governments in every western state (except Colorado)²⁹ require a permit for an individual to acquire a right to surface water.³⁰ This regulation protects existing rights. Without regulation, new water diversions could prevent water from reaching downstream individuals, denying them the opportunity to fulfill their existing water rights. Under prior appropriation, the right of existing uses is protected. To protect these existing (senior) rights, agencies provide notice to all right-holders that their rights may be in jeopardy.³¹ Essentially, the agencies apply prior appropriation, but before the appropriation is made.³² This system also gives the state more control over water appropriations because the state now has the opportunity to impose additional requirements.³³

The doctrine of prior appropriation has led to the appropriation of almost all of the water in the western United States.³⁴ However, western water demands continue to increase. This creates political and legal problems.

C. Interstate Water Allocation Problems

John Wesley Powell was the last great explorer of the American West.³⁵ In 1869, he departed on his exploration of the western region and returned with an understanding of western geography and the society it could sustain.³⁶ He realized that the climate of the Western states could not support American culture as it existed in the Eastern United States. Unlike in the East, irrigation would be necessary for farming and cities, making control of water a significant issue.³⁷ The scarcity of water in the West would be a source of conflict.³⁸

26. TARLOCK, *supra* note 7, §§ 4:5–4:18.

27. *Id.* § 4:7.

28. *See* TARLOCK, *supra* note 7, § 4:1.

29. OWEN L. ANDERSON ET AL., 1 WATERS AND WATER RIGHTS § 15.05 (Amy L. Kelley, ed., 3rd ed. 2014) (Colorado’s system operates similarly, only through courts.) [hereinafter ANDERSON ET AL., WATERS AND WATER RIGHTS].

30. TARLOCK, *supra* note 7, § 5:44.

31. *Id.* § 5:48.

32. ANDERSON ET AL., WATERS AND WATER RIGHTS, *supra* note 29, § 15.01.

33. *Id.*

34. *Id.* § 14.01(b)(1).

35. JOHN WESLEY POWELL, SEEING THINGS AS A WHOLE: THE ESSENTIAL JOHN WESLEY POWELL 1 (2004).

36. *Id.* at 2.

37. JOHN WESLEY POWELL, REPORT OF THE ARID REGION OF THE UNITED STATES, WITH A MORE DETAILED ACCOUNT OF THE LANDS OF UTAH 1 (2nd ed. 1879).

38. Mark Twain supposedly once said, “[w]hiskey is for drinking; water is for fighting over,” but this quote has not been verified. *Directory of Mark Twain’s maxims*,

To minimize conflicts, Powell suggested that western states be equal to a single river basin.³⁹ The democratic process would resolve the inevitable water conflicts because every person reliant on a river and its tributaries would be represented by the same state.⁴⁰ Each state would distribute its own water resources without impacting unrepresented people.⁴¹ However, states were shaped without considering water, often using rivers as the dividing line between states. This division has forced states to share water resources, compounding the scarcity problem by adding political and legal difficulties.

As Powell predicted, western states have battled for control of water many times.⁴² As the population of the western states increases, more water is diverted out of the rivers and streams. Agriculture, industry, and urban users remove water from the river and reduce flow to downstream states. This can cause problems for downstream states. Those states rely on an expected volume of water, but instead they watch their river shrink to a stream. Quickly developing downstream states can create problems for upstream states also. As downstream states grow, they acquire water rights before upstream states have a chance to develop. This leaves upstream states to watch their water—and future development—flow out of their state.

Varied development rates between states cause many interstate conflicts. In a “tragedy of the commons” situation, each state views other states as competitors for a finite resource.⁴³ An example is the battle between California and Arizona for Colorado River water. Since the start of the twentieth century, Arizona has viewed California as stealing Arizona’s water and feared for its future development.⁴⁴ The conflict has gone through decades of litigation—even having the state militia called out at one point—before Congress settled the dispute.⁴⁵ Arizona did secure legal rights to the Colorado River, but California has not yet reduced its diversions to the legal limit.⁴⁶

quotations, and various opinions, TWAINQUOTES.COM, <http://www.twainquotes.com/WaterWhiskey.html> (last visited Sept. 27, 2014).

39. Donald Worster, *Watershed Democracy: Recovering the Lost Vision of John Wesley Powell*, 23 J. LAND RESOURCES & ENVTL. L. 57, 58 (2003).

40. *See id.* at 59–60.

41. JOHN WESLEY POWELL, *SEEING THINGS AS A WHOLE: THE ESSENTIAL JOHN WESLEY POWELL* 253–54 (William deBuys, ed., 2001).

42. *See* GEORGE WILLIAM SHERK, *DIVIDING THE WATERS: THE RESOLUTION OF INTERSTATE WATER CONFLICTS IN THE UNITED STATES* 1 (2000) [hereinafter SHERK, *DIVIDING THE WATERS*].

43. *See* Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243, 1243–44 (1968).

44. Margaret Bushman LaBianca, *The Arizona Water Bank and the Law of the River*, 40 ARIZ. L. REV. 659, 659–60 (1998).

45. *Id.* at 665.

46. Robert Jerome Glennon, *Coattails of the Past: Using and Financing the Central Arizona Project*, 27 ARIZ. ST. L.J. 677, 712 (1995); *see also* *Where Does Southern California’s Water Come From?*, AQUAFORNIA (Apr. 29, 2008), <http://>

While not as dramatic, serious water conflicts continue today. Recently, Texas took Oklahoma to the Supreme Court in an effort to supply its rapidly growing population with water.⁴⁷ North Texas is one of the fastest growing areas of the country but is running low on water.⁴⁸ In contrast, Oklahoma watches over 8 million acre-feet of water per year flow out of the state unused.⁴⁹ Texas views this as a wasted economic opportunity,⁵⁰ but Oklahoma sees things differently.⁵¹ Oklahoma sees that water is its future, and it fears that Texas wants to take the water to fuel Texas's economic growth.⁵² The Court ruled in favor of Oklahoma, preventing Texas from obtaining Oklahoma's water.⁵³ While it is too soon to know the consequences, Dallas-Fort Worth's growth may be stalled.⁵⁴

Another consequence of shared water sources is the protection of inefficient uses. Because prior appropriation rewards the first person to use a portion of water, most water in the west is already appropriated.⁵⁵ Irrigation withdraws 31% of all water in the United States⁵⁶ and is the largest consumptive user, meaning the water is not returned directly to its source.⁵⁷ Currently, farmers in the west have little incentive to be more efficient. Some estimates claim redirecting just 7% of irrigation water to urban uses could meet urban uses for several years.⁵⁸ This redirection of water would not necessarily lead to less food production, as the revenue from the transfer could finance projects that grow more food with less water.⁵⁹

web.archive.org/web/20131229205219/http://www.aquaforia.com/index.php/where-does-southern-californias-water-come-from.

47. Tarrant Reg'l Water Dist. v. Herrmann, 133 S. Ct. 2120, 2122 (2013).

48. Sidney F. Ansbacher, *Tarrant Water District: Another Battle in the Texas-Oklahoma Water Wars*, 43 ABA TRENDS 15 (2012). Also, see generally Gwynne, *supra* note 4.

49. Gwynne, *supra* note 4; A. DAN TARLOCK, ET AL., WATER RESOURCE MANAGEMENT: A CASEBOOK IN LAW AND PUBLIC POLICY 6 (2014) (An acre-foot of water is the amount of water needed to cover an acre of land in water a foot deep.).

50. Complaint for Plaintiff, at 5-6, Tarrant Reg'l Water Dist. v. Herrmann, No. CIV-07-0045-HE, 2009 WL 3922803 (W.D. Okla. 2009).

51. ROBERT JEROME GLENNON, UNQUENCHABLE: AMERICA'S WATER CRISIS AND WHAT TO DO ABOUT IT 91-92 (5th ed. 2009).

52. Max B. Baker, *Proposal to Capture Water Has Oklahoma Steaming*, FORT WORTH STAR-TELEGRAM, Jan. 21, 2007, at B6.

53. Tarrant Reg'l Water Dist. v. Herrmann, 133 S. Ct. 2120, 2125 (2013).

54. FREESE AND NICHOLS INC. ET AL., *supra* note 1, at ES. 4-5. Also, in February of 2014, Fort Worth considered making water restrictions permanent. Katy Hirst, *Fort Worth Watering Limits Could Become Permanent*, FORT WORTH STAR-TELEGRAM, Feb. 18, 2014.

55. ANDERSON ET AL., 2-15 WATERS AND WATER RIGHTS, *supra* note 29, § 15.05.

56. U.S. GEOLOGICAL SERV., ESTIMATED USE OF WATER IN THE UNITED STATES IN 2005, 1 (2009).

57. MARC REISNER & SARAH BATES, OVERTAPPED OASIS: REFORM OR REVOLUTION FOR WESTERN WATER 30 (1990).

58. SANDRA POSTEL, LAST OASIS: FACING WATER SCARCITY 171 (1997).

59. *Id.*

These inefficient uses are protected by state boundaries because each state focuses only on its own citizens' concerns. In some cases this has led to the enactment of protectionist laws banning the transfer of water. In every case political boundaries limit the power of states to redistribute water, even if they are willing. This situation creates conflicts over the shared resource.

To resolve the water distribution problem, states need to work together to find solutions to problems arising from water transfers. Because of the increasing value of water, the transfers should increase the efficiency and equity of water use among the states.

III. CURRENT ALLOCATION MECHANISMS

There are three mechanisms used to distribute water between states: court adjudication by equitable apportionment, congressional allocation, and allocation under an interstate compact.⁶⁰ Each method has benefits and drawbacks. Overall, none of the current options will be adequate in the future with growing demand and a rising number of conflicts.⁶¹

A. *Equitable Apportionment*

When states have a conflict over water, the Supreme Court is the arbiter of the dispute. For disputes between states, the Supreme Court has original jurisdiction.⁶² A state may sue a neighboring state to acquire rights to use a portion of a shared water source. In 1907, the Supreme Court heard its first equitable-apportionment case.⁶³

In *Kansas v. Colorado*, Kansas sued Colorado to force it to reduce appropriations and to allow more water into Kansas.⁶⁴ Kansas governed water by a version of common-law riparianism—every landowner has the right to the natural flow of the adjacent river—and Kansas claimed its riparian owners were not receiving the natural flow of the river because of Colorado's use.⁶⁵ Colorado governed water by prior appropriation. It argued that its citizens already had rights to the water and were putting the water to a beneficial use.⁶⁶

To settle these competing claims, the Supreme Court created the doctrine of equitable apportionment. The Court stated that neither

60. GETCHES, *supra* note 18, at 428, 436, 438.

61. Compare George William Sherk, *Equitable Apportionment After Vermejo: The Demise of a Doctrine*, 29 NAT. RESOURCES J. 565, 578 (1989) [hereinafter Sherk, *Equitable Apportionment After Vermejo*], with Brian Nath, *Importing Solutions: How Chinese Water Law Principles Can Plug the Holes in U.S. Interstate Water Conflict Resolution Mechanisms*, 27 TEMP. INT'L & COMP. L.J. 149, 151 (2013).

62. U.S. CONST. art. III, § 2, cl. 1 ("The judicial Power shall extend . . . to Controversies between two or more states . . .").

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

64. *Id.* at 47–48.

65. *Id.* at 102–03.

66. *See id.* at 98.

state could impose its law on the other because the states are equal to each other.⁶⁷ Instead, the Court relied on a higher law—federal common law.⁶⁸ Because neither state’s law would apply, the Court sought to “equitably” allocate the water in the river by balancing each state’s interest.⁶⁹ Under the doctrine, the Court resolves the dispute on a case-by-case basis, “without quibbling over formulas.”⁷⁰

In *Kansas v. Colorado*, the Court held for Colorado because Colorado benefited more from the water than the water loss harmed Kansas.⁷¹ Colorado’s use of the river “transform[ed] thousands of acres into fertile fields . . . when otherwise they would have continued barren and unoccupied.”⁷² Further, the Court did not find that Colorado’s use caused substantial harm to Kansas, even near the border.⁷³ The Court did acknowledge that future appropriations by Colorado could prevent Kansas from receiving an *equitable* amount of water.⁷⁴

In the next equitable-apportionment case, *Wyoming v. Colorado*, prior appropriation governed both states’ water.⁷⁵ Strictly enforcing priorities in both states would not be imposing a foreign policy on either state because each had the same law. The Court looked to water conflicts between citizens of different states for guidance.⁷⁶ In those cases, the person with the oldest, senior right won.⁷⁷ But the Court still did not apply strict appropriation; instead both states were considered as one, and the senior rights in both states were protected.⁷⁸

Future equitable-apportionment cases further developed the doctrine in cases between prior-appropriation states. In *Nebraska v. Wyoming*, the Court stated that priority would be a “guiding principle,” but that there are other factors.⁷⁹ The Court gave an “illustrative and not exhaustive” list of the factors it considers:

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

67. *Id.* at 97.

68. *Id.* at 96–97. For comment on use of federal common law, see Jay Tidmarsh & Brian J. Murray, *A Theory of Federal Common Law*, 100 NW. U. L. REV. 585, 585 (2006) (“Despite *Erie*’s declaration that ‘[t]here is no federal general common law,’ well established and stable pockets of federal common law persist in . . . disputes between the states.”).

69. Sherk, *Equitable Apportionment After Vermejo*, *supra* note 61, at 567.

70. *Colorado v. New Mexico*, 459 U.S. 176, 183 (1982) (internal citations omitted).

71. *Kansas v. Colorado*, 206 U.S. 46, 117–18 (1907).

72. *Id.* at 117.

73. *Id.*

74. *Id.*

75. *Wyoming v. Colorado*, 259 U.S. 419, 467 (1922).

76. *Id.* at 470–71.

77. See, e.g., *Bean v. Morris*, 221 U.S. 485, 486 (1911).

78. *Wyoming*, 259 U.S. at 495–96; see also Sherk, *Equitable Apportionment After Vermejo*, *supra* note 61, at 567.

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

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.⁸⁰

The Court has even displayed a willingness to reduce existing, senior rights if it finds those rights are inefficient and equity calls for it.⁸¹ The evolution of equitable apportionment has placed great discretion in judges in applying the flexible standard.⁸²

So far, the Supreme Court has only applied equitable apportionment to surface waters.⁸³ Nothing prevents the Court from applying the doctrine to ground water. Several cases have implicated ground water.⁸⁴ Extending the doctrine to ground water would be more complex than surface water, but the Court has stated that difficulties in "drafting and enforcing a decree are no justification for [the Court] to refuse to perform the important function entrusted" to the Court.⁸⁵

Equitable-apportionment cases place a high burden on the states. The plaintiff state must show the defendant's water use is causing actual and substantial damage.⁸⁶ The possibility or probability of future harm is not enough. Lack of evidence proving injury causes dismissal of the case.⁸⁷ This makes the doctrine reactive, forcing states to wait until harm has occurred before taking action. To assure adequate evidence, states submit huge quantities of documents. In *Kansas v. Colorado*, the Court received 122 exhibits totaling 8,559 pages and 347 witness testimonies.⁸⁸ The clear and convincing standard of proof adds to the burden.⁸⁹

Despite these difficulties, equitable apportionment has some positive features. First, it is the only method of allocation that has a guaranteed resolution.⁹⁰ Congress has only twice allocated water through legislation⁹¹ and seems unwilling to do so in the future.⁹² Interstate compacts are the result of long, politicized negotiations that can easily

80. *Id.*

81. *Colorado v. New Mexico*, 459 U.S. 176, 187 (1982).

82. Scott T. Anderson et al., *Equitable Apportionment and the Supreme Court: What's so Equitable About Apportionment?*, 7 *HAMLIN L. REV.* 405, 429 (1984).

83. *ANDERSON ET AL.*, 4 *WATERS AND WATER RIGHTS*, *supra* note 29, § 45.01.

84. *See Nebraska v. Wyoming*, 515 U.S. 1, 14 (1995).

85. *Nebraska v. Wyoming*, 325 U.S. 589, 616 (1945).

86. Sherk, *Equitable Apportionment After Vermejo*, *supra* note 61, at 565-66; *Kansas v. Colorado*, 206 U.S. 46, 109 (1907).

87. *See, e.g., Kansas*, 206 U.S. at 117; *Connecticut v. Massachusetts*, 282 U.S. 660 (1931).

88. *Kansas*, 206 U.S. at 105-06.

89. *Colorado v. Kansas*, 320 U.S. 383, 393 (1943); Sherk, *Equitable Apportionment After Vermejo*, *supra* note 61, at 566.

90. Nath, *supra* note 61, at 158.

91. SHERK, *DIVIDING THE WATERS*, *supra* note 42, at 24. Although all scholars agree on these two, scholars debate whether there are other examples of Congressional allocation. *See* Nath, *supra* note 61 at 162.

92. SHERK, *DIVIDING THE WATERS*, *supra* note 42, at 24.

end without an agreement.⁹³ Also, the flexibility of the standard allows the Court to apportion water fairly, even if that means disturbing state property rights.

But each of these benefits has a corresponding negative. The states will only have a guaranteed resolution if the Court decides to hear the case. Heightened burdens may be one way for the Court to limit the number of cases it hears.⁹⁴ Also, the state must suffer substantial harm before it can file the case, making prevention of harms impossible. This also prevents upstream states from bringing equitable-apportionment actions. Because the complexity of the litigation, many years will pass before a resolution, good or bad, occurs.⁹⁵ This causes litigation to be expensive and time consuming.

In addition, the doctrine's flexibility makes the decisions unpredictable and uncertain. The broad standard gives the Court some discretion in applying the law. Issues raised in equitable-apportionment cases are often technical and fact intensive.⁹⁶ The Court's heavy caseload may make understanding the facts and issues more difficult. This added uncertainty makes entering litigation a risk for states, whatever the facts.

B. Congressional Allocation

Allocation of interstate waters by Congress is possible, but rare. The Commerce Clause of the Constitution authorizes Congress to allocate waters that affect interstate commerce.⁹⁷ The Court has stated that congressional approval of interstate compacts is an example of this exercise of the commerce power.⁹⁸ This power is also important in the dormant commerce clause cases.

To date, Congress has apportioned water between states only twice.⁹⁹ In one of the two occurrences, Congress's intent was not clear.¹⁰⁰ In 1963, the Court held, to everyone's surprise, that Congress apportioned the Colorado River in the 1922 act authorizing the creation of the Hoover Dam.¹⁰¹ The Court's holding may have been an attempt to settle the fifty years of conflict over the river. The second congressional apportionment was also the result of prolonged conflict, but congressional intent was clear.¹⁰² California, Nevada, Indian

93. JOSEPH F. ZIMMERMAN, *INTERSTATE WATER COMPACTS: INTERGOVERNMENTAL EFFORTS TO MANAGE AMERICA'S WATER RESOURCES* 29 (2012).

94. Sherk, *Equitable Apportionment After Vermejo*, *supra* note 61, at 579–80.

95. *See id.*

96. John E. Thorson, *Visions of Sustainable Interstate Water Management Agreements*, 43 NAT. RESOURCES J. 347, 366 (2003).

97. *Arizona v. California*, 373 U.S. 546, 597–98 (1963).

98. *Texas v. New Mexico*, 462 U.S. 554, 564 (1983).

99. SHERK, *DIVIDING THE WATERS*, *supra* note 42, at 24. *But, see supra* note 91.

100. TARLOCK, *supra* note 7, § 10:29.

101. LaBianca, *supra* note 44, at 667.

102. *See Sherk, Equitable Apportionment After Vermejo*, *supra* note 61, at 26.

tribes, and others had fought over rights to Pyramid Lake and the Truckee and Carson rivers for years.¹⁰³ With litigation in multiple courts and petitions to the Supreme Court, Congress intervened in 1990 and apportioned the waters.¹⁰⁴

Looking forward, congressional allocation will not be practical. Historically, Congress has deferred to states' management of water resources.¹⁰⁵ While Congress certainly has the power to apportion waters, getting Congress to agree to an allocation will be difficult.¹⁰⁶ The politicized nature of Congress does not lend itself well to such an important and detailed issue as the apportionment of shared waters.

C. *Interstate Compact*

Interstate Compacts are the last method of resolving interstate water conflicts. Compacts are agreements among states, ratified and enforced by the federal government.¹⁰⁷ Compacts serve a variety of purposes: settling boundary disputes, creating advisory commissions, controlling pollution, developing an interstate region, and managing interstate resources, to name a few.¹⁰⁸ Article I of the Constitution grants authority to the states to enter into compacts with congressional consent.¹⁰⁹ Once Congress approves the compact, it becomes federal law, preempting any state law.¹¹⁰ The drafters of the Constitution believed this approach furthered a limited federal government.¹¹¹

Numerous difficulties exist in negotiating a water allocation compact. Quantity is an obvious one. All states sharing water resources want as much as possible to secure future development.¹¹² But there are many other difficulties as well. Delivery, existing uses, administration, and enforcing requirements are a sampling of difficult issues.¹¹³ These difficulties have made new water-allocation compacts rare.¹¹⁴ While twenty-seven compacts are in force, since 1980 states have entered only five.¹¹⁵

103. *Id.*

104. *Id.*

105. *Id.* at 23.

106. Paul Kane, *113th Congress, Going Down in History for its Inaction, As a Critical December To-Do List*, WASH. POST, Dec. 2, 2013, available at 2013 WLNR 30184595.

107. *West Virginia ex rel. Dyer v. Sims*, 341 U.S. 22, 27–28 (1951).

108. ZIMMERMAN, *supra* note 93, at 47–52.

109. U.S. CONST. art. I, § 10, cl. 3.

110. *Texas v. New Mexico*, 462 U.S. 554, 564 (1983).

111. SHERK, *DIVIDING THE WATERS*, *supra* note 42, at 29.

112. *Id.* at 38.

113. *Id.*

114. Nath, *supra* note 61, at 160.

115. Joseph W. Dellapenna, *Interstate Struggles Over Rivers: The Southeastern States and the Struggles Over the 'Hooch*, 12 N.Y.U. ENVTL. L.J. 828, 836 (2005); JEROME C. MUYS, GEORGE WILLIAM SHERK & MARILYN C. O'LEARY, *MODEL INTERSTATE WATER COMPACT* 97–499 (2009).

However, interstate compacts are very attractive to states for other reasons. First, interstate compacts give the states an opportunity to allocate resources themselves. Under the other mechanisms, states are told how much water they are to receive. This process is more in the spirit of federalism, allowing the states to manage their resources. Second, interstate compacts may prevent some harms from occurring by resolving some issues before they arise. And last, interpreting compacts is more predictable than forecasting outcomes in equitable-apportionment cases.¹¹⁶

These benefits have made compacts the preferred method for interstate water allocation. The Supreme Court has recognized the superiority of compacts over equitable apportionment or congressional allocation.¹¹⁷ The Court has said that water conflicts are “more likely to be wisely solved by co-operative study and by conference and mutual concession on the part of representatives of the states so vitally interested in it than by proceedings in any court however constituted.”¹¹⁸ For the most part, western states have followed the Court’s advice. Only North Dakota and Washington are not parties to a compact.¹¹⁹

But compacts are not perfect allocation mechanisms either. As discussed, they can be very difficult to negotiate.¹²⁰ Frequently cited studies show that compact negotiations often take between four and nine years.¹²¹ Because the compacts must be passed by states legislatures, political interests can impact the negotiations as well.¹²² Difficult negotiations may create vague, ambiguous, or unworkable compact provisions that are later subject to litigation.¹²³ For instance, the Pecos River Compact spawned forty-three years of litigation resolving measurement and damage provisions.¹²⁴

Also, compacts are much more difficult to change because they become federal law. States cannot unilaterally revoke or amend a compact.¹²⁵ In this way, compacts allow the present state legislature to bind future legislatures.¹²⁶ Not only does the state have to look out

116. Nath, *supra* note 61, at 160.

117. See *Vermont v. New York*, 417 U.S. 270, 276–75 (1974); *Texas v. New Mexico*, 462 U.S. 554, 565 (1983); *Oklahoma v. New Mexico*, 501 U.S. 221 (1991).

118. *New York v. New Jersey*, 256 U.S. 296, 313 (1921).

119. Douglas L. Grant, *Interstate Water Allocation Compacts: When the Virtue of Permanence Becomes the Vice of Inflexibility*, 74 U. COLO. L. REV. 105, 105 (2003).

120. See ZIMMERMAN, *supra* note 93, at 27–32.

121. Grant, *supra* note 119, at 19–21.

122. ZIMMERMAN, *supra* note 93, at 30.

123. SHERK, *DIVIDING THE WATERS*, *supra* note 42, at 51–55 (outlining 15 cases interpreting compact language).

124. *Id.* at 52–53.

125. Jill Elaine Hasday, *Interstate Compacts in a Democratic Society: The Problem of Permanency*, 49 FLA. L. REV. 1, 3 (1997).

126. *Id.* at 2.

for its current needs, but also its future needs. This adds to the pressure and difficulty of compact negotiation.

While interstate compacts are the best means for resolving interstate water disputes, negotiations are difficult and the compacts rarely solve water allocation problems permanently. Recognizing this deficiency, scholars have suggested alternate litigation strategies and negotiation approaches.¹²⁷ As an alternative to these conflict resolution mechanisms, individual, voluntary transfers of water could distribute and allocate water before problems arise. The next Section discusses interstate water markets and their ability to allocate water.

IV. WATER MARKETING

The voluntary buying and selling of water rights is known as water marketing. Water transfers across state borders are a form of interstate water allocation—without conflict. Water markets within states have grown in popularity, but their use in interstate allocation has not been significantly explored.¹²⁸ This Section provides some background information about water marketing and then explains how water markets could play an important role in addressing interstate allocation problems.

A. Background and Policy

The United States is currently in an era of reallocating water rights.¹²⁹ In the West, almost all water has been appropriated, many sources over-appropriated.¹³⁰ Because the West developed when agriculture was considered a public good, and prior appropriation encouraged acquiring water rights, irrigation now represents a huge proportion of water rights.¹³¹ However, growing western cities and increased environmental concerns make reallocation of water necessary to fill these demands.¹³²

Historically, new water supplies were found in the form of constructing dams or tapping aquifers.¹³³ We now know the environmen-

127. Sherk, *Equitable Apportionment After Vermejo*, *supra* note 61, at 580.

128. See generally Olen Paul Matthews & Michael Pease, *The Commerce Clause, Interstate Compacts, and Marketing Water Across State Boundaries*, 46 NAT. RESOURCES J. 601, 601 (2006) (discussing interstate compacts' effect on water marketing); Allen D. Freemyer & Craig M. Bunnell, *Legal Impediments to Interstate Water Marketing: Application to Utah*, 9 J. ENERGY L. & POL'Y 237, 258 (1989); JAMES L. HUFFMAN, *Institutional Constraints on Transboundary Water Marketing*, in WATER MARKETING—THE NEXT GENERATION (Terry L. Anderson & Peter J. Hill, eds., 1997).

129. ANDERSON ET AL., 2-14 WATERS AND WATER RIGHTS, *supra* note 29, § 14.01(b)(1).

130. *Id.* Over appropriated means that there are more rights to water than water.

131. ANDERSON ET AL., 1 WATERS AND WATER RIGHTS, *supra* note 29, § 14.01.

132. *Id.*

133. Robert Glennon, *Water Scarcity, Marketing, and Privatization*, 83 TEX. L. REV. 1873, 1876 (2005).

tal impact of these strategies. Dams radically alter the ecosystem of rivers, flooding beautiful areas and endangering species.¹³⁴ We are also quickly depleting our aquifers, drawing from them much faster than they recharge.¹³⁵

Other methods for increasing our water supply are effluent re-use and conservation.¹³⁶ Effluent re-use, known as “toilet-to-tap” programs, is a safe way of expanding our water supply, and its use will increase in the future.¹³⁷ However, treatment is expensive, and effluent re-use can only marginally contribute in meeting our future demand.¹³⁸ Water conservation is unquestionably necessary, but who will conserve and why will they conserve?¹³⁹ Ultimately, we will have to fill our wants and needs with the water we currently have, reallocating from uses that do not add value to those that do.

The two methods of reallocating any resource are government regulation and private markets.¹⁴⁰ Efficiency should control when reallocating resources because waste is the current problem. In government regulation, government actors distribute the resource based on valuation of water they assign.¹⁴¹ Although these actors are usually experts in their field, they have many inputs and constraints. Political pressure from voters, lobbyists, politicians, and polls all could influence the decision.¹⁴² Political actors are shielded from the effects of their actions, giving them less incentive to distribute efficiently than a private actor has.¹⁴³ Also, government actors would have to compile and understand huge amounts of information to distribute wisely.¹⁴⁴

For these reasons, markets in some form are seen as a better alternative than regulation.¹⁴⁵ The major advantage of markets is efficiency. Owners of property tend to use it more productively.¹⁴⁶ Unlike regulations, markets encourage voluntary transfers between individuals, each person acting in his or her best interest.¹⁴⁷ Individuals seeking their own best interest naturally distribute the water to its

134. *Id.* at 1876–81.

135. TERRY L. ANDERSON ET AL., TAPPING WATER MARKETS 4 (2012) [hereinafter ANDERSON ET AL., TAPPING WATER MARKETS].

136. Glennon, *supra* note 133, at 1882.

137. *Id.* at 1881.

138. *Id.* at 1881–82.

139. *Id.* at 1884.

140. ANDERSON ET AL., 2-14 WATERS AND WATER RIGHTS, *supra* note 29, § 14.01(b)(2)(A).

141. ANDERSON ET AL., TAPPING WATER MARKETS, *supra* note 135, at 12.

142. *Id.*

143. ANDERSON ET AL., 2-14 WATERS AND WATER RIGHTS, *supra* note 29, § 14.01(b)(1); THOMAS SOWELL, BASIC ECONOMICS: A COMMON SENSE GUIDE TO THE ECONOMY 17–18 (2011).

144. Sowell, *supra* note 143, at 17–18.

145. ANDERSON, 2 WATERS AND WATER RIGHTS, *supra* note 29, § 14(2)(a).

146. Glennon, *supra* note 133, at 1887.

147. *Id.* at 1884.

most valued use.¹⁴⁸ This incentivizes transfers from inefficient uses, like irrigation, to high value uses in cities.¹⁴⁹

Markets also encourage conservation. Prices incentivize conservation by encouraging efficiency and creating opportunity costs in not selling excess water.¹⁵⁰ Also, prices will deter the commencement of new inefficient uses.¹⁵¹

But water is not just a normal good, and there are special considerations. Externalities (cost felt by parties not involved in the bargain) are a big concern.¹⁵² Because many transfers will probably come from irrigation and agriculture, farming communities in rural areas could be hurt.¹⁵³ Either through direct losses in the form of jobs, crops, or tourism, or through indirect losses in the form of less business at restaurants or reduced tax base, water transfers could seriously threaten the West's rural heritage. The infamous example, one that every rural community fears, is Owen's Valley, California, where Los Angeles diverted a river from a thriving farming community until it became a ghost town.¹⁵⁴

A second externality concerns aesthetic, recreational, and wildlife uses of water, which are difficult to value.¹⁵⁵ These uses do have economic value, in the tourism and recreation they create, but there is more than a monetary value in these uses.¹⁵⁶ Often, water is essential to a community's identity and is viewed as something that cannot be valued economically.

As serious as these concerns are, regulated markets can protect many of these concerns and still offer increased efficiency.¹⁵⁷ The essence of the market approach is harnessing the economic incentives for conservation and reallocation.¹⁵⁸ One way to protect rural economies is by compensating these communities for lost water. New capital can be implemented to build a more efficient water system, allowing rural communities to continue as before the transfer.¹⁵⁹

148. ANDERSON ET AL., TAPPING WATER MARKETS, *supra* note 135, at 15 (2012).

149. *Id.*

150. *Id.* at 13–15.

151. *Id.* at 13–14.

152. NAT'L RES. COUNCIL, WATER TRANSFERS IN THE WEST: EFFICIENCY, EQUITY, AND THE ENVIRONMENT 3 (1992).

153. *Id.* at 45.

154. See generally MARC REISNER, CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER (1993).

155. Sherk, *Equitable Apportionment After Vermejo*, *supra* note 61, at 581 (1989).

156. ANDERSON, 2-14 WATERS AND WATER RIGHTS, *supra* note 29, § 14.01(2)(a).

157. *Id.*

158. Mark Squillace, Comment, *The Water Marketing Solution*, 42 ENVTL. L. REP. NEWS & ANALYSIS 10800–01 (2012).

159. Lawrence J. MacDonnell & Teresa A. Rice, *Moving Agricultural Water to Cities: The Search for Smarter Approaches*, 14 HASTINGS W.-NW. J. ENVTL L. & POL'Y 105, 107 (2008). In Australia, which has a functioning water market, rural communities have used the income from water sells to increase efficiencies. See Henning Bjor-

Governments can protect environmental and cultural concerns by guaranteeing minimal river flows in rivers. These protections, called “instream flows,” ensure that a minimum amount of water will continue to run through rivers and stay in lakes.¹⁶⁰ For instance, Oregon lawmakers have declared that “[i]t is the policy of the State of Oregon that establishment of minimum perennial streamflows is a high priority.”¹⁶¹ Additionally, some states allow groups to purchase water rights for in-stream use.¹⁶² These protections can sustain the environment and culture that give the community its identity.

B. *Current Status of Water Markets*

Transfers of water rights in the West have a long tradition and fit well within the prior appropriation doctrine.¹⁶³ The earliest cases of changes in the place of use,¹⁶⁴ place of diversion,¹⁶⁵ and nature of use¹⁶⁶ all date back over 100 years. The law of prior appropriation can handle marketing; it has shown its flexibility.¹⁶⁷ Part of the flexibility is the large number of transfer types. Besides outright transfers of ownership, there are temporary leases, dry-year options, and conservation transfers.¹⁶⁸

Today, water markets are an important mechanism for reallocating water within states. Beginning in the 1980s, momentum for water markets increased substantially.¹⁶⁹ The period between 1988 and 2008 saw a total of 3,828 water transfers in western states, totaling over 36 million acre-feet of water.¹⁷⁰ Surveys of western states show strong support for water markets.¹⁷¹ In the future, water transfers through markets are likely to become more common.

While support for water markets is strong, there is little discussion on interstate markets. However, it is unlikely that political barriers will continue to prevent transfers. For instance, local communities along the United States borders with both Canada and Mexico have

nlund, *Formal and Informal Water Markets: Drivers of Sustainable Rural Communities?*, 40 WATER RESOURCES RES. W09S07 (2004).

160. NAT'L RES. COUNCIL, *supra* note 152, at 80.

161. OR. REV. STAT. § 536.235 (2013).

162. ANDERSON ET AL., TAPPING WATER MARKETS, *supra* note 135, at 91.

163. NAT'L RES. COUNCIL, *supra* note 152, at 2.

164. *E.g.*, Biggs v. Utah Irrigating Ditch Co., 64 P. 494, 500 (Ariz. 1901).

165. Kidd v. Laird, 15 Cal. 161, 162 (1860).

166. Davis v. Gale, 32 Cal. 26, 33–34 (1867).

167. Steven E. Clyde, *Adapting to the Changing Demand for Water Use Through Continued Refinement of the Prior Appropriation Doctrine: An Alternative Approach to Wholesale Reallocation*, 29 NAT. RESOURCES J. 435, 454–55 (1989).

168. Ronald A. Kaiser, *Texas Water Marketing in the Next Millennium: A Conceptual and Legal Framework*, 27 TEX. TECH L. REV. 181, 196–97 (1996).

169. ANDERSON ET AL., 2-14 WATERS AND WATER RIGHTS, *supra* note 29, § 14.01(b)(2)(A).

170. W. GOVERNORS' ASS'N, WATER TRANSFERS IN THE WEST: PROJECTS, TRENDS AND LEADING PRACTICES IN VOLUNTARY WATER TRADING 8 (2012).

171. *Id.* at 29.

shared water resources for many years.¹⁷² In all these situations, the communities addressed their immediate needs without first awaiting approval. These examples demonstrate that politics cannot block demand permanently.

C. *Relieving Strain on Interstate Allocation Mechanisms*

Allowing private persons to transfer water across state lines would improve the allocation of state waters. Generally, water markets are limited to a single state. This limited market prevents water from finding its most valued user and prevents states from developing. In turn, the unmet demand produces conflicts between the states and results in litigation, congressional apportionment, or negotiation of compacts to settle the conflict. Allowing markets to cross state lines would alleviate the strain off this system.

No special laws are required to create interstate water markets. Combine intrastate markets with free commerce between the states and the result is interstate markets. While some states oppose interstate water transfers, individuals who could profit from the transfer may not.¹⁷³ Opening up water users to competition will at least make them feel the true cost of water.

While interstate markets could exist, the current use of interstate water markets is unknown. Most research has kept within states borders, ignoring interstate transfers.¹⁷⁴ Interstate litigation of water rights once was more common but is rare today.¹⁷⁵ But even in older cases, it was often new diversions that were litigated, not transfers.¹⁷⁶

Markets would reduce water conflicts, and ease tensions between the states. It may be politically difficult for a state ever to negotiate away water. Instead, politicians could strengthen property rights in water, and allow the market's "invisible hand" to make the transfer. Although both are political choices, one is more politically viable. This takes the difficult choice off of the politicians. And, the same private interests who were against interstate transfers may be for markets because they might be the ones profiting from transfers.

172. See Patrick Forest, *A Century of Sharing Water Supplies Between Canadian and American Borderland Communities*, MUNK SCH. BRIEFINGS, at 2 (2010); Gabriel Eckstein, *Rethinking Transboundary Ground Water Resources Management: A Local Approach along the Mexico-U.S. border*, 25 GEO. INT'L ENVTL. L. REV. 95, 96 (2013).

173. Oklahoma prevented the city of Hugo from entering into a contract to sell a Dallas suburb water. *City of Hugo v. Nichols*, 656 F.3d 1251, 1254 (10th Cir. 2011).

174. See NAT'L RES. COUNCIL, *supra* note 152, at 19; W. GOVERNORS' ASS'N, *supra* note 170, at xi.

175. DOUGLAS L. GRANT, 3-48 WATERS AND WATER RIGHTS § 44.01 (Amy L. Kelly et al. eds., 3rd. ed. 2014).

176. See, e.g., *Howell v. Johnson*, 89 F. 556, 557 (Mont. Cir. Ct. 1898); *Conant v. Deep Creek & Curlew Val. Irrigation Co.*, 66 P. 188, 189 (1901); *Willey v. Decker*, 73 P. 210, 201 (1903).

Also, interstate markets would expose inefficient uses to new competition. Irrigators and other inefficient users may not have many potential buyers if they are in a less developed state. However, cities in nearby states may be very interested in buying some of their water. One of the key factors in getting a market to work efficiently is a critical mass of buyers and sellers.¹⁷⁷ Making political borders irrelevant is necessary to maximize the pool of market participants.

While water markets may reduce the strain on traditional interstate water allocation mechanisms, there are legal hurdles that must first be cleared.

V. LEGAL OBSTACLES TO INTERSTATE WATER MARKETS

Water markets are gaining in popularity and are operating in every western state.¹⁷⁸ There are two issues that could block the operation of interstate water markets. First, state laws that discriminate based on state citizenship place an undue burden on interstate markets. The dormant commerce clause should remove this obstacle. Second, interstate compacts could shield protectionist laws from the dormant commerce clause. However, most compacts should not be interpreted to interfere with interstate markets.

A. Protectionist State Laws

Protectionist laws seek to prevent water, or other goods, from leaving the state. The dormant commerce clause of the Constitution prevents states from isolating themselves in this way. States should not be able to place undue burdens on commerce among the states. Economic protectionism concerned our founding fathers and helped generate support for the Constitutional Convention. Also, free commerce is central to American life.

The modern dormant commerce clause has two parts. First, it asks whether the statute discriminates against out-of-state citizens either facially or through application. If the statute does discriminate, then it receives strict judicial scrutiny, meaning there must be no less discriminatory alternative and the discrimination serves a substantial state purpose. Second, if the statute does not discriminate, then the benefits of the statute to the state are weighed against the burdens the statute places on commerce.

The Supreme Court case of *Sporhase v. Nebraska*¹⁷⁹ applied the dormant commerce clause to water. The decision seemed to have removed the threat of protectionist laws from interstate water markets. However, there have been few cases to clarify the scope of the *Sporhase*, leaving many details unknown.

177. Kaiser, *supra* note 168, at 209.

178. W. GOVERNORS' ASS'N, *supra* note 170, at vii.

179. *Sporhase v. Nebraska*, 458 U.S. 941, 941 (1982).

In *Sporhase*, Justice Stevens stated there were three issues to analyze when applying the dormant commerce clause to protectionist water laws. First, is water an article of commerce for dormant commerce clause purposes? This is a threshold question to dormant commerce clause issues. Second, does the protectionist statute violate the dormant commerce clause? And third, even if the statute does violate the dormant commerce clause, is there an exception for the statute?¹⁸⁰

1. Is Water is an Article of Commerce?

Originally, the dormant commerce clause did not apply to water.¹⁸¹ In *Hudson County Water Co. v. McCarter*, New Jersey prevented a water diversion that would be sold to New York City.¹⁸² The Court held that New Jersey owned all the water in the state and was able to regulate it as it decided. This decision prevented unappropriated water from leaving the state. Encouraged by this decision, many states enacted protectionist legislation preventing out-of-state diversions.

However, the momentum soon turned the other way as the Court abandoned the state-ownership theory.¹⁸³ In *City of Altus v. Carr*, the dormant commerce clause voided a Texas statute preventing the transfer of ground water across state lines.¹⁸⁴ However, Texas law was unusual because water became personal property after it was pumped from the ground.¹⁸⁵ A few years later, the Supreme Court got a chance to review the legal fiction of state-ownership as applied to water.

In *Sporhase v. Nebraska*, a Nebraska statute prevented interstate transfers of water without a permit.¹⁸⁶ Nebraska passed the statute on the reasoning in *Hudson County* that state-ownership of the resource allowed the state to protect it.¹⁸⁷ The farmer had a well in Nebraska and used it to water his land that straddled the Colorado–Nebraska border.¹⁸⁸ The farmer never applied for the permit. The use of the water in Colorado was at issue.

Nebraska argued that the dormant commerce clause did not apply to water for two reasons. First, it argued state ownership.¹⁸⁹ It distinguished *City of Altus* because the property interest created after pumping the water was different.¹⁹⁰ In Texas, the water was personal

180. *Id.* at 943.

181. *Hudson Cnty Water Co. v. McCarter*, 209 U.S. 349, 357 (1908).

182. *Id.* at 353.

183. *See Hughes v. Oklahoma*, 441 U.S. 322, 323 (1979).

184. *City of Altus v. Carr*, 255 F. Supp. 828, 840 (W.D. Tex. 1966).

185. *Id.*

186. *Sporhase v. Nebraska*, 458 U.S. 941, 943–44 (1982).

187. GRANT, *supra* note 175, § 48.01.

188. *Sporhase*, 458 U.S. at 944.

189. *Id.* at 948.

190. *Id.* at 950–51.

property once captured. But in Nebraska the water was still subject to state regulation.¹⁹¹ However, the Nebraska water remained subject to sale.¹⁹² Nebraska sanctioned sales of ground water to cities.¹⁹³ This demonstrated that state ownership was a legal fiction and did not exempt water from the dormant commerce clause.

Second, Nebraska argued that water is a unique resource that should be treated differently than other goods.¹⁹⁴ Water is essential for human survival. This gives the state a special interest in regulating and preserving water for its citizens.¹⁹⁵ The Court disagreed.¹⁹⁶ It noted that only a small percentage of water is used for human survival; agriculture and industry use and consume much greater quantities. Allowing Nebraska to protect its water resources would give Nebraska an economic advantage over other states.

Additionally, the Court had policy reasons for holding water as an article of commerce. Congress can only regulate “articles of commerce” under the Commerce Clause of the Constitution. The Court wanted to ensure that water was an “article of commerce” so Congress could regulate water in the future if needed.¹⁹⁷ The dissent argued that the Commerce Clause would probably extend to water without such a broad ruling because water affects interstate commerce.¹⁹⁸

Another question, not raised in *Sporhase* but impacting interstate water marketing, is what happens if the state does not allow any transfers of water. Currently, all western states do allow transfers,¹⁹⁹ but a state could prohibit all transfers as an extreme attempt to protect water.²⁰⁰ If the state did not give the right to transfer water to anyone in the state, it would be difficult to claim that water was an article of commerce.²⁰¹ However, even this contingency may be unsuccessful at protecting water because it would still likely affect interstate commerce and fall under the dormant commerce clause umbrella. This would be an extreme act by the state, and still may not exempt water from markets.

191. *Id.* at 951.

192. *Id.*

193. *Id.*

194. *Id.* at 952.

195. *Id.*

196. *Id.* at 953.

197. *Id.*

198. *Id.* at 961–62.

199. W. GOVERNORS’ ASS’N, *supra* note 170, at 7.

200. Mark S. Davis & Michael Pappas, *Escaping the Sporhase Maze: Protecting State Waters Within the Commerce Clause*, 73 LA. L. REV. 175, 206 (2012) (suggesting that state’s definition of property rights could have an impact on dormant commerce clause cases).

201. See Mark P. Gergen, *The Selfish State and the Market*, 66 TEX. L. REV. 1097, 1147 (1988).

Thus, *Sporhase* held that water is an article of commerce. The only cases interpreting *Sporhase* are two companion cases, known as *El Paso I*²⁰² and *El Paso II*.²⁰³ In *El Paso I*, the court summarily dismissed the claim that water was not an article of commerce.²⁰⁴ While the issue may not always be as simple as *El Paso I* presented it, the dormant commerce clause likely will apply to protectionist state statutes.

2. Does the Statute Place an Undue Burden on Interstate Commerce?

Once the court determines the dormant commerce clause applies, it must decide if the statute discriminates. Discriminatory statutes receive strict scrutiny and almost never survive—while nondiscriminatory statutes face a balancing test. First, this section analyses nondiscriminatory statutes, then discriminatory statutes. And finally, examples of protectionist water statutes are analyzed to determine their constitutionality.

a. Nondiscriminatory Statutes

Statutes that treat citizens and noncitizens alike are subject to the balancing test pronounced in *Pike v. Bruce Church, Inc.*²⁰⁵ Nondiscriminatory statutes that serve a “legitimate local public interest” with only incidental burdens on commerce will be upheld “unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits.”²⁰⁶

The Nebraska statute²⁰⁷ in *Sporhase* had four requirements for issuing a permit.²⁰⁸ The statute stated:

Any person, firm, city, village, municipal corporation or any other entity intending to withdraw ground water from any well or pit located in the State of Nebraska and transport it for use in an adjoining state shall apply to the Department of Water Resources for a permit to do so. If the Director of Water Resources finds that the withdrawal of the ground water requested is reasonable, is not contrary to the conservation and use of ground water, and is not otherwise detrimental to the public welfare, he shall grant the permit if the state in which the water is to be used grants reciprocal rights to

202. *City of El Paso v. Reynolds*, 563 F. Supp. 379, 380 (D.N.M. 1983) [hereinafter *El Paso I*].

203. *City of El Paso v. Reynolds*, 597 F. Supp. 694, 697 (D.N.M. 1984) [hereinafter *El Paso II*].

204. *El Paso I*, 563 F. Supp. at 388.

205. *Pike v. Bruce Church*, 397 U.S. 137, 142 (1970).

206. *Id.*

207. *Sporhase v. Nebraska*, 458 U.S. 941, 944 (1982) (quoting NEB. REV. STAT. § 46-613.01 (1978)).

208. *Id.*

withdraw and transport ground water from that state for use in the State of Nebraska.²⁰⁹

The first three requirements—reasonable, not contrary to the conservation and use of ground water, and not detrimental to the public welfare—were determined to be neutral because similar requirements applied to Nebraska citizens for instate permits.²¹⁰ Also, the requirements did not mention citizenship. This portion of the law was analyzed under the *Pike* balancing test.

In weighing the benefits to Nebraska against the burdens on interstate commerce, the Court first looked at the claimed benefit Nebraska would receive. In *Sporhase*, Nebraska's only stated policy for the statute was conservation of its ground water.²¹¹ The Court acknowledged conservation as a legitimate purpose, but failed to clearly state why. The Court indicated the "confluence of several realities" made the requirements legitimate.²¹² The Court listed four such realities: physical well-being, legal expectations, state-ownership claims, and public policy. All realities revolved around water shortages justifying the purpose.²¹³

The first reason was protecting the physical well-being of the state's citizens, and not just economic benefit.²¹⁴ In *El Paso I*, New Mexico argued that its statute was needed for the health of its citizens, because New Mexico has few water resources.²¹⁵ However, the court interpreted this reason very narrowly, stating that "[o]utside of fulfilling human survival needs, water is an economic resource."²¹⁶ In this context, the physical well-being justification could only apply in extreme circumstances because most droughts—even serious droughts—do not get to the level where people are dying of dehydration. Defined this narrowly, physical well-being will not likely weigh heavily in future cases.

The second reason focused on legal expectations created by the current interstate allocation mechanisms.²¹⁷ As explained earlier, economic consequences are considered in those decisions. In dictum, the Court stated that equitable apportionment might not protect inefficient uses.²¹⁸ Therefore, legal expectations based on equitable appor-

209. *Id.*

210. *See id.* at 955–56.

211. *See id.* at 954.

212. *Id.* at 956.

213. *See id.* at 956–57; *see also* Frank J. Trelease, *Interstate Use of Water—Sporhase v. El Paso, Pike & Vermejo*, 22 *LAND & WATER L. REV.* 315, 321–22 (1987) (arguing that "shortage" in the West is almost meaningless because water is so scarce); GRANT, *supra* note 175, § 48.03(a)(2).

214. *Sporhase*, 458 U.S. at 956.

215. *El Paso II*, 563 F. Supp. 379, 380–81 (D.N.M. 1983).

216. *Id.* at 389–90.

217. *See id.*

218. *Colorado v. New Mexico*, 467 U.S. 310, 323–24 (1984).

tionment may not assist states in protecting water. Because most transfers will be from inefficient uses in one state to high value uses in another, the origin state will not have a legal expectation. Equitable apportionment would not protect inefficient uses. Also, interstate compacts could not create expectations that affect interstate markets. Interstate compacts only apply to unappropriated water. Water transfers only draw from appropriated water because someone must have the right to sell. Thus, legal exceptions cannot contribute to justifying conservation.

Third, the Court stated that the state-ownership fiction may “support a limited preference for its own citizens in the utilization of the resource.”²¹⁹ Apparently, the Court sees state water ownership as more credible than state wild-animal ownership.²²⁰ Similar language—stating water was necessary for the public welfare—was interpreted in *El Paso II*.²²¹ The New Mexico statute allowed the export to be denied if the export was “detrimental to the public welfare of the citizens of New Mexico.”²²² The Court acknowledged that economic interests could be considered in this term, as well as “health, safety, recreational, aesthetic, and environmental interests.”²²³ But if the phrase is used simply as a tool for economic protectionism, it will be unconstitutional.²²⁴ This is the strongest argument for states trying to protect water from export.

The last justification for finding conservation a legitimate purpose was the state furthers good public policy when it preserves publicly owned resources in times of shortage.²²⁵ The Court cited to *Reeves, Inc. v. Stake*²²⁶ when describing the justification.²²⁷ *Reeves* is an example of an exception to the dormant commerce clause: the market participant doctrine.

The “confluence” of these realities is then weighed against the burdens on commerce. In weighing the burdens on interstate commerce, the facts are important. In *Sporhase*, the Court held that Nebraska’s benefits were greater than the burden on interstate commerce.²²⁸ The measures included in the statute—reasonable withdrawals, conservation of ground water, and preserving the public interest—were “legiti-

219. *Sporhase*, 458 U.S. at 956.

220. Compare *Greer v. Connecticut*, 161 U.S. 519, 519 (1896) (holding state ownership of wild animals), with *Hughes v. Oklahoma*, 441 U.S. 322, 322 (1979) (overruling *Greer* and holding that the state ownership in wild animals is an unenforceable legal fiction).

221. *El Paso II*, 597 F. Supp. at 700.

222. *Id.* at 697.

223. *Id.* at 700.

224. *Id.* at 701.

225. *Sporhase v. Nebraska*, 458 U.S. 941, 957 (1982).

226. *Reeves, Inc. v. Stake*, 447 U.S. 429 (1980).

227. *Sporhase*, 458 U.S. at 957.

228. *Id.* at 956.

mate reasons” for denying interstate transfers if violated.²²⁹ Equally important, Nebraska also imposed similar conditions on groundwater use in the state.²³⁰ *Sporhase* also involved very little burden on commerce (one farmer irrigating his fields), making the weighing easier.

In future cases, this balancing may be difficult. Cities and urban uses are likely candidates to receive interstate transfers, and denying the transfer would place a significant burden on commerce. There is no precedent for this situation. Ultimately, the application of the law will likely determine how the Court would rule on the situation. If the statute is applied in a nondiscriminatory way, it would probably be upheld.

b. Discriminatory Statutes

However, the law may not be neutral, but instead discriminatory. A law can be discriminatory because of its purpose or impact. In *Philadelphia v. New Jersey*, the state of New Jersey prevented states from importing trash into its borders because it was preserving the land for its own waste.²³¹ The state impermissibly discriminated by treating the request differently because of its state of origin.

Likewise, the Court held the fourth requirement in the Nebraska statute—granting a permit only if the receiving state reciprocated—discriminated against interstate commerce.²³² The requirement only allowed water exports to states that allowed water imports to Nebraska.²³³ This requirement was an “explicit barrier to commerce between the two states.”²³⁴ Similarly, the New Mexico statute imposing a two-year moratorium on all water exports was deemed to have a discriminatory purpose.²³⁵ Both these requirements are distinguished from the nondiscriminatory criteria because of the additional burden on out-of-state citizens.

Discriminatory statutes face a more demanding test.²³⁶ There is a presumption that discriminatory laws are unconstitutional.²³⁷ To overcome the presumption, the purpose of the law must be legitimate and not merely economic protection.²³⁸ Also, there must not be a less discriminatory way of achieving that purpose.²³⁹

229. *Id.* at 955.

230. *See id.* at 956.

231. *Philadelphia v. New Jersey*, 437 U.S. 617, 617 (1978).

232. *Sporhase*, 458 U.S. at 957.

233. *Id.* at 958.

234. *Id.* at 957.

235. *See El Paso II*, 597 F. Supp. at 707.

236. *Maine v. Taylor*, 477 U.S. 131, 138 (1986).

237. ERWIN CHEMERINSKY, CONSTITUTIONAL LAW: PRINCIPLES AND POLICIES § 5.3.6 (2011).

238. *Maine*, 477 U.S. at 148.

239. *Sporhase*, 458 U.S. at 954; *Maine*, 477 U.S. at 138.

In *Sporhase*, Nebraska only gave one justification for the reciprocity requirement: to conserve ground water.²⁴⁰ While the Court recognized this as a legitimate interest, it said that the “close fit between the reciprocity requirement and its asserted local purpose” was utterly lacking.²⁴¹ The statute could block exports to a drought-stricken state even if Nebraska was flooded with water.

However, the Court noted that it was conceivable that a state could produce this evidence.²⁴² This leaves open the possibility that even a total ban could be valid if the state were so dry that a total ban was the least discriminatory alternative. This small hope will be difficult to prove, as economic needs are not considered.²⁴³ The severity of the situation must be along the health, environment, and recreational grounds outlined above. While possible, the Court will hold most discriminatory statutes unconstitutional.

c. *Sample Protectionist Statutes*

Overall, the dormant commerce clause protects water marketing between states. Below, various types of statutes employed to restrict water exports will be analyzed under *Sporhase* to determine whether the statutes violate the Constitution.

Public Welfare or Public Interest Criteria. In the wake of *Sporhase*, *El Paso I*, and *El Paso II*, many states updated their water export statutes to comply with the decisions. Learning from these cases, several states use public welfare criteria to determine if the export will be allowed.²⁴⁴ Although there are differences between the individual statutes, all share the same basic form.

The public welfare criteria are facially neutral but could be applied discriminatorily. Assuming every proposed transfer (both instate transfers and exports) is judged equally under this standard, most decisions would be upheld. Transfers would likely be from inefficient, low value uses. Even if the water is leaving the state, it may be difficult to argue that the transfer is not in the public interest because of the reduction of waste. However, the state may be able to deny the permit if the transfer harms in-stream flows or other cultural and environmental uses. The important consideration is that the transferee's state of citizenship not be a factor.

240. *Sporhase*, 458 U.S. at 954.

241. *Id.* at 957.

242. *Id.* at 958.

243. See Davis & Pappas, *supra* note 200, at 210–15.

244. E.g., ARIZ. REV. STAT. ANN. § 45-292 (2012); COLO. REV. STAT. § 37-81-101(3) (2013); IDAHO CODE ANN. §§ 42-203A(5), -222(1), -401 (2003 & Supp. 2013); MONT. CODE ANN. § 85-2-402(6) (2013); NEB. REV. STAT. ANN. § 46-613.01 (LexisNexis 2012); NEV. REV. STAT. ANN. § 533.520 (LexisNexis 2012); N.M. STAT. ANN. § 72-12B-1 (1997); and UTAH CODE ANN. § 73-3a-108(1)(b)(i)(C) (LexisNexis 2012).

Legislative Approval. Six states require legislative approval of water exports.²⁴⁵ While the details vary between the statutes, these appear to facially discriminate against interstate commerce. These statutes only apply this requirement to out-of-state water transfers; therefore, there must be a legitimate purpose for this requirement and no less discriminatory means. Certainly, the requirement cannot be said to have a purpose other than to discourage such transfers. It would be politically unpopular to allow these transfers, which seems to be the purpose. Also, the normal administrative process would handle these transfers less discriminatorily and more efficiently. These laws are likely to be found unconstitutional if they were to be challenged.

Common-Law Requirements. The common-law appropriation doctrine, which many states codified, required parties to satisfy several elements to transfer water. For instance, most state-transfer laws contained a beneficial-use element—ensuring the water would not be wasted.²⁴⁶

The most significant element is the no-injury rule. If interstate transfers become more common, then it may block exports of water. Under the no-injury rule, a water transfer must not injure any other appropriators from the same body of water.²⁴⁷ This rule protects third parties to the transaction.²⁴⁸ However, application of the rule could prevent interstate transfers.

These rules should be facially neutral. The beneficial use rule essentially protects against waste, and makes no mention of the transferee's state citizenship. Similarly the no-injury rule assesses objective criteria. Since the rules are facially neutral, the benefits of the rule must outweigh the burdens on interstate commerce. The beneficial use rule helps protect against waste. The no-injury rule is necessary to protect the property rights of others in water.²⁴⁹ Protection of rights itself is a legitimate goal, but it is also necessary to ensure a functioning market.²⁵⁰ Therefore, as long as the rules are applied without re-

245. IDAHO CODE ANN. § 42-108 (2003); MONT. CODE ANN. §§ 85-2-402(5)-(6) (2013); OKLA. STAT. tit. 82, §§ 105.12A(D), 1085.2(2) (2013); OR. REV. STAT. § 537.810 - .870 (2011); S.D. CODIFIED LAWS § 46-5-20.1 (2004); and WYO. STAT. ANN. § 41-3-115 (2013).

246. *See Santa Fe Trail Ranches Prop. Owners Ass'n v. Simpson*, 990 P.2d 46, 56 (Colo. 1999).

247. For an early expression of the rule, *see, e.g., Butte T. M. Co. v. Morgan*, 19 Cal. 609, 616 (1862) (the rule is that a “change must not injuriously affect the rights of others”). For a current example, *see, e.g., TEX. WATER CODE ANN. § 11.134* (West 2008).

248. George A. Gould, *Conversion of Agricultural Water Rights to Industrial Use*, 27 B. ROCKY MTN. MIN. L. INST. 1791, 1820–21 (1982).

249. TERRY L. ANDERSON ET AL., TAPPING WATER MARKETS, *supra* note 135, at 59–60.

250. *See id.*

gard to citizenship, a denial of the right to transfer water out of state is constitutional because of the no-injury rule.

Area-of-Origin Protection. Some statutes restrict exports to protect the originating basin or watershed.²⁵¹ The statutes aim to protect the basin's current and future water needs. The needs include protecting the ecosystem, economy, and culture.²⁵² These types of statutes do not facially discriminate because they apply to all transfers of water that remove water from the basin, regardless of the water's destination. However, judges should look closely to make sure there statute is applied neutrally. Interstate and intrastate transfers should be assessed the same way. States cannot use this statute as a disguise to protect its water.

If the statute is applied neutrally, the *Pike* balancing test should be applied to determine if the benefit to the state outweighs the burdens on interstate commerce. The facts of the transfer will be critical, so generalities are hard to state. The basin's needs are broader than criteria that the *Sporhase* court outlined as relevant factors in determining how beneficial the statute is to the state.²⁵³ These statutes are not designed to prevent water exports, but to protect the water basin. The benefits that the basin receives would be significant and important.

However, this type of statute would be a heavy burden on commerce, both intrastate and interstate.²⁵⁴ These restrictions go beyond considering just water rights, and seek to preserve the status quo.²⁵⁵ This system benefits inefficient water uses. By removing restrictions, efficiency will increase—both in the basin and out of it. After efficiency increases are accounted for, the basin's water needs may still be met, and the transferred water would be put to a higher valued use.²⁵⁶

The constitutionality of this type of statute is the most difficult to predict because the facts will be so important. For states that want to protect their water resources from leaving the state, it is also their best bet. However, states cannot have it both ways. This statute will be most effective if all transfers out of the originating basin are carefully scrutinized. But this scrutiny will make transfers within the state more difficult as well. Thus, states that attempt this measure will not be able to capture all the efficiency gains that water markets offer.

251. *E.g.*, ALASKA STAT. § 46.15.035 (2012); KAN. STAT. ANN. § 82a-1501, -1502 (Supp. 2011); OKLA. STAT. tit. 82, § 105.12(A)(4) (2013); TEX. WATER CODE ANN. § 11.085(1) (West Supp. 2013).

252. ALASKA STAT. § 46.15.035 (2012).

253. These needs are from the "confluence of several realities," including protection of the state's citizens well-being, the state's legal expectations, state limited preference for its own citizens, and good public policy. *Sporhase v. Nebraska*, 458 U.S. 941, 956–57 (1982).

254. *See* TERRY L. ANDERSON ET AL., TAPPING WATER MARKETS, *supra* note 135, at 60.

255. *See id.*

256. *See id.*

3. Do Any Exceptions Apply?

The third question the Court asked in *Sporhase* was whether Congress had given Nebraska permission to burden interstate commerce?²⁵⁷ Two exceptions to the dormant commerce clause are recognized.²⁵⁸ First, the market-participant doctrine allows states to discriminate when they are not regulators, but simply participants in the market. Second, Congress can preempt the dormant commerce clause and allow states to discriminate. Regarding water markets, this issue will most likely emerge because of interstate water compacts. Ultimately, neither exception is likely to prevent water marketing.

a. Market Participant

The market-participant exception allows a state to discriminate when it is operating within the market and is not regulating it.²⁵⁹ The key case is *Reeves, Inc. v. Stake*, where a state-owned cement plant gave preference to its own citizens.²⁶⁰ The dormant commerce clause was not intended to “limit the ability of the states themselves to operate freely in the free market.”²⁶¹

Some states have grasped at this idea as a method of preventing water exports. While the state may not be able to prevent exports through statute, they may be able to appropriate water rights themselves, and then sell to in-state residents only. Idaho,²⁶² Montana,²⁶³ and New Mexico²⁶⁴ all have statutes applying this approach. These statutes have no effect on water appropriated by private persons. The only effect may be that the state acts as another competitor in the market, buying rights from its citizens instead of out-of-state citizens. As long as it competes fairly, the state should not be prevented from buying rights.

But even this limited application of the exception may have a fault. It is unclear if natural resources, like water, are applicable to the market participant exception.²⁶⁵ In *Reeves*, the Court distinguished a state’s resource hoarding from the sale of cement, reasoning that “cement is not a natural resource, like coal, timber, wild game, or minerals.”²⁶⁶ Distinguishing between natural resources and products that are of human creation makes the applicability of water to the excep-

257. *Sporhase*, 458 U.S. at 943.

258. CHEMERINSKY, *supra* note 237, § 5.3.7.

259. *Hughes v. Alexandria Scrap Corp.*, 426 U.S. 794, 810 (1976).

260. *Reeves, Inc. v. Stake*, 447 U.S. 432–33 (1980).

261. *Id.* at 437.

262. IDAHO CODE ANN. § 42-1501 (2003).

263. MONT. CODE ANN. §§ 85-2-301(2), -141(10) (2013).

264. N.M. STAT. ANN. §§ 72-14-43, -44 (1997).

265. Stephanie Landry, Comment, *State Immunity from the Dormant Commerce Clause: Extension of the Market-Participant Doctrine from State Purchase and Sale of Goods and Services to Natural Resources*, 25 NAT. RESOURCES J. 515 (1985).

266. *Reeves, Inc. v. Stake*, 447 U.S. 429, 443–44 (1980).

tion questionable. However, even if the exception does apply, marketing would likely be little affected because private rights are still protected.

b. Congressionally Approved Restrictions

The last exception to the dormant commerce clause is Congressional approval of the export restriction.²⁶⁷ To protect the statute, Congress's consent must be "expressly stated."²⁶⁸ One case demonstrates how high this burden is. In *South-Central Timber Development, Inc. v. Wunnicke*, a state law imposing conditions on timber exports mirrored federal policy.²⁶⁹ The Court held that agreement of policies alone was not enough to demonstrate congressional intent; approval of the restriction must be "unmistakably clear."²⁷⁰

In *Sporhase*, Nebraska argued that Congress had approved its export restrictions.²⁷¹ It claimed thirty-seven federal statutes and several interstate compacts showed deference to state water laws.²⁷² The Court held congressional intent was not present.²⁷³ However, interstate water compacts could hamper water marketing. In *Sporhase*, the water being exported was not included in any compact. The next section will discuss the impact of interstate compacts on water marketing.

B. Interstate Compacts

A second potential obstacle to interstate water marketing is interstate compacts. States enter into compacts between themselves to solve a variety of problems, including water allocation. Interstate compacts must be approved by Congress to become effective; once approved, they have the status of federal law. As federal law, compacts would preempt any state law. To prevent any interstate transfers of water, Congress must have "expressly stated" its intent in "unmistakably clear" language.²⁷⁴

However, most compacts are completely silent on transfers.²⁷⁵ With no clear language in the compact, normal state transfer laws should apply.²⁷⁶ Some compacts go further, expressly stating that normal state water laws apply where the compact is silent.²⁷⁷ Also, some

267. *Ne. Bancorp, Inc. v. Bd. of Governors of Fed. Reserve Sys.*, 472 U.S. 159 (1985).

268. *Sporhase v. Nebraska*, 458 U.S. 941, 960.

269. *S.-Cent. Timber Dev. v. Wunnicke*, 467 U.S. 82, 92-93 (1984).

270. *Id.* at 91.

271. *See Sporhase*, 458 U.S. at 958.

272. *Id.*

273. *Id.* at 959-60.

274. *Wunnicke*, 467 U.S. at 91.

275. Matthews & Pease, *supra* note 128, at 627-28.

276. *Id.* at 628.

277. *See, e.g., Red River Compact*, Pub. L. 96-564, 94 Stat 3305, art. II, § 2.01 (1980) (codified as amended at TEX. WATER CODE ANN. § 46.013 (West 1979)).

compacts have language protecting existing water rights.²⁷⁸ In the West, water rights include the right to transfer.²⁷⁹ A compact that took rights away from their holder could run into unconstitutional-taking problems.²⁸⁰

There are a few compacts that may contain language that restricts water markets. For example, the Yellowstone River Compact states, “no water shall be diverted from the Yellowstone River Basin without the unanimous consent of all signatory states.”²⁸¹ In *Intake Water Co. v. Yellowstone River Compact Commission*, the Ninth Circuit Court of Appeals interpreted this language as congressional approval of restrictions on interstate commerce.²⁸² Unlike the water in *Sporhase*, the transferred water was included in the compact.²⁸³ In this way, the Yellowstone River Compact is exceptional.

Also, language allocating water in perpetuity, or something similar, may restrict marketing. Some compacts use language that is similar to perpetuity. For example, “free and unrestricted use” to water within the state.²⁸⁴ This language should not be seen as congressional consent to restricting transfers. Instead, it should be interpreted as allowing state law to control water. The normal water transfer laws of the state should apply. Even the Colorado River Compact, which expressly states the allocation is permanent, is being interpreted this way.²⁸⁵

Overall, compacts should not restrict water markets. When compacts do have language restricting transfers, the compact controls, but those compacts are rare.²⁸⁶ Private markets and interstate compacts should be able to coexist, with state laws controlling transfers.

VI. CONCLUSION

More widespread use of interstate water markets would create a more equitable and efficient allocation of water than currently exists. Also, increased use of interstate water markets could reduce interstate conflicts. Current water conflicts end up in expensive and lengthy resolution mechanisms that often do not provide solutions. Markets are flexible, existing mechanisms for avoiding these conflicts.

278. See, e.g., Yellowstone River Compact, Pub. L. 82-231, 65 Stat. 663, art. V(d) (1951) (codified as amended at W.S. 1977 § 41-12-601).

279. TARLOCK, *supra* note 7, § 5:72.

280. Matthews & Pease, *supra* note 128, at 635–36.

281. Yellowstone River Compact, Pub. L. 82-231, 65 Stat. 663, art. X (1951).

282. *Intake Water Co. v. Yellowstone River Compact Comm’n*, 769 F.2d 568, 569–70.

283. *Id.* at 569.

284. See, e.g., Red River Compact, art. IV, §§ 4.02(b), 4.03(b), art. VI, § 6.04(b), art. VII, § 7.02(b).

285. Matthews & Pease, *supra* note 128, at 628–30.

286. *Id.* at 627–28.

Intrastate water markets are growing in use and have a successful record of reallocating water. As the use of water markets increases, interstate transfers will become more common. Eventually, protectionist statutes will either be found unconstitutional or be interpreted to allow interstate transfers. When the obstacles do fall, there should be less conflict between the states and more efficient use of this essential resource.