THE CONSTITUTIONALITY OF INTRASTATE GROUNDWATER MANAGEMENT: ARIZONA—A CASE STUDY[†]

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Introduction

The scarcity of surface water and groundwater supplies has been a perennial problem in the American Southwest. Geographic and climatic conditions have conspired to make securing an adequate supply of water a critical priority for the region's political, policy and business leaders. With a skyrocketing population fueling the continued expansion of the region's population centers, Arizona is at the forefront of the battle to develop and retain sufficient water resources to satisfy the region's multiple development and conservation goals.

In 1980, in tandem with the federal government's construction of the Central Arizona Project (the "CAP"), which transports Colorado River water to Arizona's major metropolitan areas, the Arizona legislature enacted the State's Groundwater Management Code, which was designed to address Arizona's groundwater overdraft problem by creating a comprehensive system of groundwater rights and conservation requirements. As the decades have gone by, the Groundwater Management Code has been amended in a number of ways and new groundwater management measures outside the Groundwater Code have been added to Arizona's arsenal in the State's campaign to eliminate groundwater overdrafting by the year 2025.

As with any scarce resource, the desire to ensure continuing adequate supplies of water sometimes tempts the individual states to enact legislation that

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^{1.} Arizona Groundwater Management Act, 1980 Ariz. Sess. Laws, ch. 1 (codified as amended at ARIZ. REV. STAT. §§ 45-401 to -704 (2006)). "Overdrafting" is the pumping of groundwater from an aquifer at a rate that exceeds the aquifer's annual rate of recharge from rainfall.

runs afoul of the dormant commerce clause of the United States Constitution.² Attempts by the states to hoard their respective natural resources is nothing new, and water supplies, natural gas, and even minnows have historically been the subject of state protectionism.³ Indeed, it is easy to understand why James Madison feared that unfettered state protectionism in the realm of interstate commerce might ultimately "terminate in serious interruptions of the public tranquility."⁴

The purpose of this Article is to examine the constitutionality of Arizona's Groundwater Management Code and other statutes that support Arizona's Groundwater Management in its current form. As described more fully below, the authors of the Article conclude that the groundwater management measures currently codified in Arizona's Statutes are constitutional.⁵

I. THE COMMERCE CLAUSE AND GROUNDWATER MANAGEMENT

In the landmark case *Sporhase v. Nebraska ex rel. Douglas*, the United States Supreme Court ruled that a Nebraska statute that prohibited the export of groundwater pumped from a well located in Nebraska to Colorado was unconstitutional.⁶ In *Sporhase*, a property owner that owned adjoining parcels

- 2. U.S. CONST. art. I, § 8, cl. 3. The constitutional language regarding the regulation of interstate commerce is quite brief and gives Congress the power to "regulate Commerce with foreign Nations and among the several States and with the Indian Tribes." *Id.* Although the language of the constitutional provision relating to Congress's power to regulate commerce among the several states is an affirmative grant of power to regulate such activity, the constitutional clause has also been taken to have a "dormant" aspect in that the constitutional provision giving Congress the power to so regulate commerce among the several states is interpreted to limit the ability of states to regulate such economic activity themselves. Thus, while the "affirmative aspect" of the commerce clause grants Congress preeminent power to regulate commerce, *see* Hughes v. Oklahoma, 441 U.S. 322, 326 n.2 (1979), the "dormant" commerce clause nullifies any laws passed by the States that unduly burden commerce between the states even if no preemptive federal statute applies. *See* H.P. Hood & Sons, Inc. v. Du Mond, 336 U.S. 525, 539 (1949) (noting the "dislocations and reprisals" that would occur if state protectionism were allowed).
- 3. See Sporhase v. Nebraska ex rel. Douglas, 458 U.S. 941 (1982) (groundwater); Hughes, 441 U.S. at 322 (minnows); West v. Kan. Natural Gas Co., 221 U.S. 229 (1911) (natural gas).
 - 4. THE FEDERALIST No. 42, at 257 (James Madison) (Bantam Books 2003).
- 5. The title of this Article might have been more properly identified as "The Constitutionality of Intrastate Groundwater Management—Revisited," in that one of the Authors previously evaluated this issue in another publication shortly after Arizona's Groundwater Management Code was enacted. See Kenneth A. Hodson, The Dormant Commerce Clause and the Constitutionality of Intrastate Groundwater Management Programs, 62 Texas L. Rev. 537 (1983). For another treatment of this issue at the time, see Nancy K. Laney, Case Note, Does Arizona's 1980 Groundwater Management Act Violate the Commerce Clause, 24 Ariz. L. Rev. 1060 (1982). See also Jon L. Kyl, The 1980 Arizona Groundwater Management Act: From Inception to Current Constitutional Challenge, 53 U. Colo. L. Rev. 471 (1982).
- 6. 458 U.S. at 960. Since the *Sporhase* ruling, these issues have also arisen in the context of a state's ability (or lack thereof) to regulate the importation of solid waste

located in Colorado and Nebraska appealed a Nebraska Supreme Court ruling that had upheld Nebraska's prohibition against transporting groundwater for use in an adjoining state that did not grant reciprocal rights "to withdraw and transport groundwater from that state for use in the State of Nebraska." In ruling against the Nebraska statute, the Court concluded that water is an article of commerce and, therefore, subject to congressional regulation.

A. State Statutes Regulating Commerce—Standards of Review

In evaluating the constitutionality of a statute under the commerce clause, courts determine whether the statute serves a legitimate local purpose and whether alternative means could promote that purpose without burdening interstate commerce. Because almost any statute that regulates economic behavior may have some effect on interstate commerce, the Supreme Court applies different standards of review to legislation depending on whether the Court finds that the legislation is facially discriminatory against interstate commerce.

1. Legislation That Is Not Facially Discriminatory—Balancing Benefits and Burdens

If a statute is not facially discriminatory, "it will be upheld unless the burden imposed on [interstate] commerce is clearly excessive in relation to the

from other states. See City of Philadelphia v. New Jersey, 437 U.S. 617, 622 (1978) (finding that solid waste is an article of commerce and that the importation of garbage cannot be prohibited by a state); see also Oregon Waste Sys., Inc. v. Dep't of Envtl. Quality, 511 U.S. 93, 98 (1994); C & A Carbone, Inc. v. Town of Clarkstown, 511 U.S. 383, 390 (1994); Daniel M. Forman, Comment, The Dormant Commerce Clause and the Massachusetts Landfill Moratorium: Are National Market Principles Adequately Served?, 24 B.C. ENVTL. AFF. L. REV. 425 (1997).

- 7. Sporhase, 458 U.S. at 944 (quoting Neb. Rev. Stat. § 46-613.01 (1978)).
- 8. *Id.* at 954.
- 9. Hughes v. Oklahoma, 441 U.S. 322, 336 (1979); Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970); Dean Milk Co. v. City of Madison, 340 U.S. 349, 354 (1951).
- 10. For example, the Supreme Court has applied the dormant commerce clause to municipal ordinances that restrict door-to-door solicitation. *See, e.g.*, Breard v. City of Alexandria, 341 U.S. 622, 633–41 (1951) (upholding such an ordinance), *abrogated by* Village of Schaumburg v. Citizens for a Better Env't, 444 U.S. 620 (1980); *cf.* Wickard v. Filburn, 317 U.S. 111 (1942) (upholding congressional regulation of farm products consumed on the farm).
- 11. See, e.g., Hughes, 441 U.S. at 336 (noting that the first inquiry is whether the statute is facially discriminatory). A statute is not facially discriminatory against interstate commerce if it "regulates even-handedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental." Pike, 397 U.S. at 142. In Sporhase, the Court treated the first three conditions in the Nebraska statute as not facially discriminatory because, although the statute only applied to interstate shipments of groundwater, "a State that imposes severe withdrawal and use restrictions on its own citizens is not discriminating against interstate commerce when it seeks to prevent the uncontrolled transfer of water out of the State." 458 U.S. at 955–56. The Court treated the reciprocity provision as facially discriminatory because it operated "as an explicit barrier to commerce between the two States." Id. at 957.

putative local benefits." In determining whether the burden on interstate commerce is "clearly excessive" in relation to the benefits conferred, the existence of a legitimate local purpose and the absence of a less restrictive alternative are important considerations for the Court. In South Carolina State Highway Department v. Barnwell Brothers, Inc., the Court upheld a state statute that limited the size of trucks authorized on the state's highways on the basis that the statute was the result of the legislature's concern for highway safety, was effective in addressing the statute's target dangers, did not regulate an issue requiring national uniformity, and was not likely to become overly restrictive through abuse because of the existence of an inner political check. In Sporhase, the Court emphasized the "reasonableness" of certain non-discriminatory conditions in the Nebraska statute, characterizing them as "health and safety" regulations. The Court also has considered other factors, such as the purpose of the legislation, the national scope of the problem, and the availability of alternative means.

2. Legislation that Is Facially Discriminatory—Presumption of Unconstitutionality

If a statute is found by the Court to be facially discriminatory, it is presumed to be unconstitutional.²² To rebut the presumption of unconstitutionality, the Court requires a state to demonstrate that two conditions have been met and

- 12. Pike, 397 U.S. at 142.
- 13. *Id*
- 14. 303 U.S. 177 (1938).
- 15. *Id.* at 193–96. For examples of other dangers from which a legislature may protect its constituents, see *Brotherhood of Locomotive Firemen & Enginemen v. Chicago, Rock Island & Pacific Railroad*, 393 U.S. 129 (1968), dealing with railroad accidents, and *Huron Portland Cement Co. v. City of Detroit*, 362 U.S. 440 (1960), dealing with air pollution. For examples of concerns found not to be genuine, see *City of Philadelphia v. New Jersey*, 437 U.S. 617 (1978), rejecting the argument that banning waste dumping by out-of-state residents was necessary for environmental protection, and *Great Atlantic & Pacific Tea Co. v. Cottrell*, 424 U.S. 366 (1976), invalidating reciprocity clause for milk imports.
- 16. *Barnwell*, 303 U.S. at 196; *see also* Bibb v. Navajo Freight Lines, 359 U.S. 520, 525 (1959) (noting that state requirement that trucks have mudguards was not an effective safety measure); S. Pac. Co. v. Arizona *ex rel*. Sullivan, 325 U.S. 761, 774–76 (1945) (noting that the total effect of the statute was "slight or problematical").
- 17. *Barnwell*, 303 U.S. at 195. The Court has been willing to strike down legislation when national uniformity is necessary. *See, e.g., Bibb*, 359 U.S. 529–30.
- 18. *Barnwell*, 303 U.S. at 187; *see also* Milk Control Bd. v. Eisenberg Farm Prods., 306 U.S. 346, 352–53 (1939) (noting that the burden of regulation would mostly affect in-state residents).
- 19. Sporhase v. Nebraska *ex rel*. Douglas, 458 U.S. 941, 956–57 (1982). The Court held that these conditions were not facially discriminatory. *Id.* at 957.
 - 20. *Id.* at 956
 - 21. LAWRENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW § 6-12 (1978).
- 22. See Hunt v. Wash. State Apple Adver. Comm'n, 432 U.S. 333, 353 (1977) ("When discrimination against commerce . . . is demonstrated, the burden falls on the State to justify it").

examines the state's justifications with the "strictest scrutiny." First, a state must prove that the statute is closely related to a legitimate local purpose. As discussed further below, in *Sporhase* the Court found that the state failed to show a "close fit" between the suspect Nebraska reciprocity provision and its asserted local purpose and invalidated the provision on the ground that it was not "narrowly tailored" to meet the purpose. Second, the state must demonstrate that a non-discriminatory alternative could not address the asserted local purpose. Because the Court is often willing to identify a less restrictive alternative, facially discriminatory statutes may be invalidated on this ground. ²⁶

B. Sporhase—The Limits of Groundwater Regulation

In Sporhase, the Court's finding that water is an article of commerce subject to Congressional regulation did not, of itself, render the Nebraska statute in question unconstitutional, for "the existence of unexercised federal regulatory power does not foreclose state regulation of its water resources, of the uses of water within the State, or indeed, of interstate commerce and water."27 Notwithstanding the Court's conclusion that water is an article of commerce, the Court indicated that in situations where a state statute regulates evenhandedly "to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits."²⁸ Because Nebraska's reciprocity provision was facially discriminatory in that it prohibited the transport of groundwater to another state, the Sporhase court indicated that Nebraska bore the burden of demonstrating "a close fit between the reciprocity requirement and its asserted local purpose."²⁹ The Court indicated that the Nebraska statute failed to clear this initial hurdle because the Court found no evidence that the reciprocity provision was narrowly tailored to Nebraska's conservation and preservation goals.30

- 23. Hughes v. Oklahoma, 441 U.S. 322, 337 (1979).
- 24. *Id.* at 336. *Compare id.* at 337 (finding a legitimate local purpose for a statute that banned the export of minnows), *with Hunt*, 432 U.S. at 353–54 (finding no legitimate local purpose for a statute that banned the use of grades on apple containers other than the federal grade).
- 25. *Sporhase*, 458 U.S. at 958. Similarly, in *Hunt*, the Court found that the North Carolina statute did "little to protect consumers against the problems it was designated to eliminate." 432 U.S. at 353.
- 26. See, e.g., Hunt, 432 U.S. at 337–38, 353; Dean Milk Co. v. City of Madison, 340 U.S. 349, 354–56 (1951).
 - 27. Sporhase, 458 U.S. at 954.
 - 28. *Id.* (quoting Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970)).
- 29. *Id.* at 957. Statutory or regulatory provisions that discriminate against interstate commerce on their face are subject to a "virtually per se rule of invalidity." Wyoming v. Oklahoma, 502 U.S. 437, 455–56 (1992); Bacchus Imports, Ltd. v. Dias, 468 U.S. 263, 270–71 (1984); City of Philadelphia v. New Jersey, 437 U.S. 617, 623–24 (1978).
- 30. Sporhase, 458 U.S. at 958–59. As an example of the lack of the required "fit," the Court noted that even though a particular groundwater well might have abundant or even excessive supplies, and even though the most beneficial use of that water could be in a neighboring state, if that neighboring state did not have a reciprocity agreement with

The Court, therefore, concluded that Nebraska's statute did not survive the "strictest scrutiny" that was reserved for facially discriminatory legislation.

II. ARIZONA'S GROUNDWATER MANAGEMENT PROGRAM

A. Introduction

In 1977, the Arizona legislature formed the Groundwater Management Study Commission. As a result of this Commission, the Groundwater Management Act, commonly referred to as the Arizona Groundwater Code, was drafted and enacted in 1980.

The enactment of the Groundwater Code heralded a new era of groundwater management in Arizona. The Groundwater Code created the Arizona Department of Water Resources ("ADWR"), which was charged with administering the Code statewide. Those drafting the Groundwater Code brokered a series of compromises in an effort to satisfy the diverse interests of cities, mining, and agriculture. These compromises were accomplished by enacting several significant provisions.

First, one of the most effective groundwater tools the Groundwater Code created was the Active Management Area ("AMA"). The Code designated AMAs as specific geographical areas in the most densely populated areas in the State, and thus the areas with the greatest amount of groundwater overdraft, in which groundwater would be stringently regulated to prevent overdraft. Second, four types of groundwater rights were created that allow right holders to pump groundwater, subject to the limitation of the Code. Third, the Code required ADWR to adopt and enforce "management plans" within the AMA. These management plans were designed to implement increasingly rigorous conservation requirements for groundwater users in ten year increments until 2025. Fourth, ADWR was given the authority to implement an "assured water supply" program that prohibits new development in the AMAs unless the developer can prove a 100-year supply of water for that new subdivision. Finally, the Groundwater Code prevented any new agricultural irrigation with any type of water within the AMAs. Taken together, the restrictions on the pumping of groundwater associated with (i) the AMA; (ii) groundwater rights; (iii) the management plans and (iv) the assured water supply water restrictions have created a system of quotas that significantly reduces the quantity of a groundwater that is devoted to agriculture and the amount of groundwater that may be pumped pursuant to a grandfather right.

B. Limitations on Groundwater Pumping—Arizona's Quota System

1. The Active Management Area as a Groundwater Management Tool

The Groundwater Code established four initial active management areas where groundwater overdraft was the most severe: Prescott, Phoenix, Pinal, and

Tucson.³¹ The State's AMAs were created in order to provide long-term management and conservation of their limited groundwater supplies. In order to accomplish this, the AMAs administer state laws, explore ways of augmenting water supplies to meet future needs and develop public policy in order to promote efficient use and an equitable allocation of available water supplies.

2. Groundwater Withdrawal Rights as Groundwater Management Tool

In order to control groundwater use and encourage groundwater conservation, the Groundwater Code created four groundwater rights within AMAs. Without one of these four types of groundwater rights, a landowner is generally prohibited from pumping groundwater within an AMA.

- (1) "Grandfathered rights" allow persons who were withdrawing or using groundwater in an AMA before 1980 to continue to do so under certain conditions that limit the quantity and place of use. For example, in conformance with the conservation requirements of each successively more restrictive Management Plan, the amount of groundwater that can be pumped pursuant to a grandfathered right is reduced over time. These rights are generally appurtenant to the land on which the groundwater was historically used, but the rights can be converted into transferable rights under certain conditions. Typically, the conversion results in a right that can be sold or transferred, but the quantity of water that can be used under the converted right is substantially less than that used under the original right.³²
- (2) "Service area rights" are groundwater rights that, with certain restrictions, permit municipalities and water companies to withdraw as much groundwater as needed from within their service areas to serve their customers.³³
- (3) "Groundwater withdrawal permits" are rights that can be obtained for certain new non-irrigation uses, such as industrial or mining purposes.³⁴
- (4) "Exempt withdrawals" are withdrawals for non-irrigation uses, typically domestic uses, from wells with a maximum pump capacity of thirty-five gallons per minute. The well owner must register the well with the state but does not need to obtain a permit.

^{31.} ARIZ. REV. STAT. ANN. § 45-411 (2006). In addition to the AMA, the Groundwater Code also created another groundwater management area, the Irrigation Non-Expansion Area ("INA"). The Code established two INAs: Douglas and Joseph City. In 1982, these areas were designated as INAs because the groundwater basins that serve them contain insufficient groundwater to provide an adequate supply of irrigation at the current rates of withdrawal. *Id.* § 45-432. Within the INAs, the expansion of irrigated agriculture is prohibited, and groundwater use for irrigation must be measured and reported annually. *Id.* § 45-437. The goal of the INAs is to limit irrigation to only lands with a history of cultivation in the five years prior to the designation in order to protect the remaining supply of groundwater. *Id.* § 45-434.

^{32.} *Id.* §§ 45-461 to -483.

^{33.} *Id.* §§ 45-491 to -498.

^{34.} *Id.* §§ 45-511 to -528.

3. Groundwater Management Plans

The Groundwater Code also required the Arizona Department of Water Resources to develop a series of management plans, covering five management periods from 1980 to 2025 for each AMA.³⁵ The management goals for Prescott, Tucson and Phoenix are to eliminate groundwater overdraft in those areas of the State by achieving "safe-yield" by 2025 by implementing increasingly stringent reductions in the amount of groundwater that can be pumped by those holding grandfathered rights, municipalities and other water users.³⁶ Safe-yield is defined as a long-term equilibrium between groundwater withdrawal and natural and artificial recharge. In 1994, the Santa Cruz AMA was created by dividing the Tucson AMA into two parts.³⁷ The management goal for the Santa Cruz AMA is to maintain a safe-yield condition in the active management area and to prevent local water tables from experiencing long term declines.³⁸

4. Assured Water Supply as Groundwater Management Tool

Arizona's assured water supply requirements address the impacts of the state's now explosive population growth. Arizona's assured water supply statutes provide protection for groundwater supplies in order to ensure that a water supply of adequate quality and quantity exists to support existing residents and new development.³⁹ Developers of new residential subdivisions inside AMAs must demonstrate that a 100-year assured water supply is available before the developer can sell any lots.⁴⁰ In order to prove an assured water supply under Arizona Revised Statutes section 45-576, the developer must prove the existence of a sufficient quantity and quality of water to continuously satisfy the water demands of its proposed subdivision for 100 years, as well as the financial ability to operate and maintain delivery and treatment facilities. The developer may also prove the existence of the 100-year water supply by demonstrating that the subdivision will receive water service from a municipality or water company that has an assured water supply, called a "designation of assured water supply."⁴¹

C. The Arizona Water Bank—Supporting Arizona's Groundwater Management^{A2}

Prior to the enactment of the GMA, Arizona continually overdrafted its groundwater supplies while a significant share of the state's Colorado River allocation went unused. In 1996, Arizona created the Arizona Water Banking Authority ("Water Bank") to save unused portions of Arizona's allocation of Colorado River water for future uses and to augment groundwater supplies. The

- 35. *Id.* § 45-463.
- 36. *Id.* § 45-562(A).
- 37. See Act effective Apr. 25, 1994, 1994 Ariz. Sess. Laws, ch. 296.
- 38. ARIZ. REV. STAT. ANN. § 45-562(C).
- 39. *Id.* § 45-576.
- 40. *Id*.
- 41. See id. § 45-576; ARIZ. ADMIN. CODE §§ R12-15-701 to -725 (1995).
- 42. The groundwater banking program described in this section is distinguishable from Arizona's Underground Water Storage Saving and Replenishment Program described *infra* Part II.D.

statutory authority for the Arizona Water Bank specifies that the Water Bank is to use CAP water for the following four purposes: (1) to increase utilization of Arizona's Colorado River entitlement, (2) to store water in Arizona to protect the State's municipal and industrial water users against future water shortages, (3) to store water in Arizona to fulfill the water management objectives of the Arizona Groundwater Code, and (4) to provide the opportunity to store water in Arizona to implement Indian water rights legislation.⁴³

The Water Bank delivers unused Colorado River water through the CAP to recharge and storage facilities operated by municipalities, water companies, and other entities which inject the unused Colorado River water into the ground for long-term storage. Ultimately, the water remains available to be pumped from the ground as needed. Storage credits resulting from the Water Bank's activities can be used to pump groundwater during times of shortage, to implement tribal water rights settlements, or to reduce groundwater consumption by "extinguishing" the credits. The Water Bank may also negotiate and enter into interstate banking agreements with appropriately authorized agencies in California and Nevada, pursuant to certain statutory restrictions. Among its other powers, the Water Bank may agree to store Colorado River water in Arizona so that the stored water may be used in place of Arizona diversions from the Colorado River in years in which the California or Nevada agency request water from the Water Bank. The Water Bank may also contract with the States of Nevada and California to store water in Arizona for later use.

The Arizona Water Banking statutes and the Arizona Groundwater Code have proven to be a successful and innovative tool for managing and reducing the state's reliance of groundwater supplies and for augmenting those supplies through artificial recharge projects.

D. Arizona Underground Water Storage Savings and Replenishment Program

In addition to limiting the amount of groundwater that may be pumped by creating the system of quotas identified above, statutes outside the Groundwater Code created programs designed to increase the supply of groundwater available for use in Arizona by encouraging groundwater recharge.

Arizona's first underground water recharge statutes were enacted in 1986. This series of statutes created a program that allowed the recharge of renewable water supplies such as effluent and Central Arizona Project Water. ⁴⁷ In 1994, however, the initial recharge statutes were repealed and replaced.

The new statute, generally known as the Underground Water Storage, Savings and Replenishment Program ("UWSP"),⁴⁸ has two primary purposes. First, the UWSP promotes the use of renewable water supplies, such as effluent,

- 43. ARIZ. REV. STAT. ANN. § 45-2401(H).
- 44. *See id.* §§ 45-2401(H)(5), -2471 to -2473.
- 45. *Id.* § 45-2471(B).
- 46. *Id.* §§ 45-2401(H).
- 47. *Id.* §§ 45-651 to -655 (repealed 1994).
- 48. Act effective Apr. 25, 1994, 1994 Ariz. Sess. Laws, ch. 291, § 32 (codified at Ariz. Rev. Stat. Ann. §§ 45-801.04 to -898.01).

surface water, and CAP water, by allowing for effective and flexible storage and recovery of those supplies.⁴⁹ Second, the UWSP provides for the efficient use of all water resources by allowing water to be "transported," that is, allowing a party to store a quantity of water in one location and recover the same quantity of water in another.⁵⁰

The main goal of UWSP is to allow water users to store renewable water resources underground so that the water can be used in future. In order to accomplish this, water users may accrue "long-term storage credits." When eligible water is stored underground for more than one year, long-term storage credits may be issued. Long-term storage credits are credits earned in the process of storing water. These credits can be recovered in the future to be used for various reasons, including establishing an assured water supply or fulfilling replenishment obligations. ⁵² Stored water is usually eligible for long-term storage credits when:

- 1. The water cannot reasonably be used directly;⁵³ and
- 2. The water was not recovered on an annual basis; and
- The water would not have been naturally recharged within an AMA.

Stored water always maintains the legal character of the original source water, regardless of where it is recovered or how it is used.⁵⁴ Thus, if CAP water is stored, no matter where recovery occurs, the water is considered to be CAP water when it is recovered and may be used in any way that CAP water could be used.

E. Arizona's Sub-Basin Transfer Restrictions

Groundwater management outside of AMAs is minimal. The primary restrictions on groundwater use outside of AMAs are the restrictions on transportation of groundwater between groundwater sub-basins. In general, groundwater may be transported within groundwater sub-basins without restriction or liability.

In contrast, the transportation of groundwater between sub-basins of an active management area is permitted only in limited circumstances. For example, groundwater transported between sub-basins is subject to limitations on the location of the groundwater use. 55 Further, under certain circumstances,

51. *Id.* § 45-852.01.

^{49.} ARIZ. REV. STAT. ANN. § 45-801.01.

^{50.} *Id*

^{52.} See id. § 45-853.01.

^{53.} *Id.* § 45-852.01(B).

^{54.} *Id.* § 45-832.01(A).

^{55.} See id. §§ 45-542. "Groundwater which is withdrawn pursuant to an irrigation grandfathered right may be transported between sub-basins of an active management area or away from an active management area subject to the limitations on location of use in [section 45-472,]" which describes the restrictions on where irrigation grandfathered rights may be used. *Id.* § 45-542(A). Under the following subsection, "[g]roundwater which is withdrawn pursuant to a type 1 non-irrigation grandfathered right may be transported between sub-basins of an active management area or away from an

groundwater transported between sub-basins of an AMA may be subject to payment of damages. ⁵⁶ Groundwater, however, which is withdrawn by a city, town or private water company may be transported pursuant to a delivery contract authorized by the Groundwater Code, but such transportation is subject to the payment of damages unless the groundwater is withdrawn pursuant to a type 1 non-irrigation grandfathered right. ⁵⁷

III. THE CONSTITUTIONALITY OF ARIZONA'S GROUNDWATER MANAGEMENT PROGRAM

Two aspects of the Arizona system are subject to dormant commerce clause scrutiny. First, the system of quotas⁵⁸ is designed to reduce the quantity of groundwater that is devoted to agriculture and thus will reduce the amount of farm products sold in interstate commerce.⁵⁹ Second, the recharge activities associated

active management area, subject to the limitations on location of use [of type 1 rights]" with two additional exceptions. *Id.* § 45-542(B). First, a type 1 non-irrigation grandfathered right acquired under section 45-463 and appurtenant to land in the Tucson AMA may be transported away if the groundwater is used for extraction or processing or minerals in an adjacent active management area or groundwater basin. Second, section 45-469(I) provides that cities or towns in an initial active management area that held an irrigation grandfathered right for land acquired prior to January 1, 1989 in another initial active management area have the right to retire the land and withdraw water for future non-irrigation use or for transportation to another active management area to demonstrate and provide an assured water supply so long as appropriate development plans were filed with ADWR and that withdrawals from wells comply with rules to prevent unreasonably increasing damage to surrounding wells or land.

- 56. For example, party transporting groundwater from one sub-basin of an AMA to another sub-basin of an AMA may be subject to a claim for damage if the groundwater is withdrawn
 - 1. Pursuant to a Type 2 non-irrigation grandfathered right
 - 2. By a city, town or private water company within its service area and transported within its service area
 - By an irrigation district within its service area and transported within its service area.
 - 4. Pursuant to a groundwater withdrawal permit.
 - 5. From an exempt well.
- Id. § 45-543(A). Exemptions 1 and 2 do not permit groundwater to be transported away from the Pinal AMA, Id.
- 57. See id. § 45-543(B). In an action to recover damages contemplated in section 45-543, neither injury to nor impairment of the water supply of any landowner is to be presumed from the fact that water has been transported and must be proven to the court. *Id.* § 45-545(A). The court will, however, consider the following mitigating factors:
 - 1. Retirement of land from irrigation.
 - 2. Discontinuance of other preexisting uses of groundwater.
 - 3. Water conservation techniques.
 - Procurement of additional sources of water which benefit the AMA, sub-basin or landowners within the AMA or sub-basin.
- *Id.* § 45-545(B). Additionally, "The court may award reasonable attorneys fees, expert witness expenses and fees and court costs to the prevailing party." *Id.* § 45-545(C).
 - 58. *See supra* notes 31–41 accompanying text.
 - 59. See supra Part II.A.

with Arizona's water banking program⁶⁰ and the UWSP⁶¹ might be said to reduce the amount of water immediately available for agricultural and other uses by "banking" it beneath the ground for future use, therefore acting as a current burden on interstate commerce.

A. Arizona's Quota System

Because the Arizona quota system is not facially discriminatory, ⁶² it will be upheld unless the burden imposed on interstate commerce is "clearly excessive" when compared to the benefits conferred by the system. ⁶³ The Arizona quota system is a response to genuine health and safety concerns, ⁶⁴ which include the state's desire to secure an adequate drinking supply for its residents. Although the stated statutory policy of the Groundwater Code is to respond to concerns about the "general economy and welfare of Arizona," ⁶⁵ such a motive is not likely to be fatal because the Supreme Court has shown a willingness to overlook economic motivations when genuine health and safety concerns are present. ⁶⁶ Thus, the central question is whether the benefits of the Arizona quota system justify the burdens imposed on interstate commerce.

One issue discussed in the case law is the effectiveness of the legislation. Although the Supreme Court has stated that it is not for the courts to determine whether a state's conservation efforts will be effective, ⁶⁷ the U.S. Supreme Court has invalidated counterproductive statutes. ⁶⁸ An early study of the likely rate of groundwater depletions under strict controls indicated that such controls would reduce the amount of water earmarked for agricultural use by millions of acre-feet per year and that total depletions in Arizona would decrease under such a

- 60. ARIZ. REV. STAT. ANN. § 45-2421 to -2427.
- 61. ARIZ. REV. STAT. ANN. § 45-801.01 to -851.01.
- 62. See supra notes 12–21 and accompanying text. The Arizona quota system is evenhanded because it does not draw a distinction between withdrawals of groundwater for use in Arizona and withdrawals of groundwater for use in other states. The effect of the Arizona quota system on interstate commerce is much less apparent than that of the reciprocity provision in the Nebraska statute, which the Supreme Court treated as facially discriminatory. See id.
 - 63. Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).
 - 64. ARIZ. REV. STAT. ANN. § 45-401.
 - 65. *Id.*
 - 66. Professor Tribe explains the point:

State regulations seemingly aimed at furthering public health or safety ... are less likely to be perceived as "undue burdens on interstate commerce" than are state regulations evidently seeking to maximize the profits of local businesses [O]ne would have to say that regulations seemingly focused on preserving local *employment* as such rather than on maintaining local *profits* have received treatment almost as favorable as regulations concerned with health or other non-financial aspects of well-being.

TRIBE, *supra* note 21, § 6-12.

- 67. See Cities Serv. Gas Co. v. Peerless Oil & Gas Co., 340 U.S. 179, 188 (1950).
- 68. *See e.g.*, Bibb v. Navajo Freight Lines, Inc., 359 U.S. 520, 529–30 (1959); S. Pac. Co. v. Arizona *ex rel*. Sullivan, 325 U.S. 761, 783–84 (1945).

regimen, ⁶⁹ bringing yearly water consumption close to the state's annual level of dependable supply. ⁷⁰ Thus, it appears that Arizona's strict controls should provide an effective response to the state's groundwater problems. ⁷¹

A second issue emphasized in the case law is the existence of a need for national uniformity. National uniformity is not necessary in the groundwater management context because one state's intrastate quota system will not adversely affect another state's groundwater policies in ways that cannot be handled through negotiation. Further, state administration of groundwater management is preferable to federal control. For example, state governments are wealthy enough to provide the resources necessary for effective groundwater management and distant enough to resist local pressure against conservation. They are also close enough to the people of a region that they can respond to those citizen's needs better than an agency in Washington, D.C., can.

A third issue emphasized in the case law is the existence of an inner political check.⁷⁵ Unlike Nebraska's reciprocity provision, Arizona's quota system affects *in-state residents*.⁷⁶ The fact that Arizona's groundwater quota system restricts in-state groundwater use⁷⁷ provides a powerful inner political check that should prevent the abusive application of the Arizona quota system. The substantial burden that the Arizona quota system places on in-state residents also

^{69.} See ARIZ. DEP'T OF WATER RES., ADWR THIRD MANAGEMENT PLAN 2000—2010 (1999), available at http://www.water.az.gov/dwr/Content/Publications/files/ThirdMgmtPlan/tmp_final/default.htm (follow hyperlinks to Phoenix, Pinal, Tucson, Santa Cruz, and Prescott plans).

^{70.} Under the earlier study, groundwater depletions were projected to near zero overdraft by the year 2000. The goal of the Act is to reach zero overdraft at least by the year 2025. *See supra* note 36 and accompanying text.

^{71.} It is possible that budget reductions will slow the implementation of the Arizona system. Such difficulties would not be a constitutional infirmity, however, because the Court has stated that it will not invalidate a statute merely because its application is suboptimal. *See, e.g., Cities Serv. Gas Co.*, 340 U.S. at 188.

^{72.} *Cf.* Sporhase v. Nebraska *ex rel.* Douglas, 458 U.S. 941, 956 (1982) ("[T]he legal expectation that under certain circumstances each State may restrict water within its borders has been fostered over the years . . . by the negotiation and enforcement of interstate compacts."). Although the *Sporhase* Court noted that the multistate nature of some aquifers "confirms the view that there is a significant federal interest in conservation as well as in fair allocation" of shrinking groundwater supplies, *id.* at 953, it could be argued that the proper federal role is that of an arbitrator rather than manager, with the federal government becoming involved only when one state unconstitutionally attempts to prevent another from receiving its fair share of groundwater. Such a position is consistent with *Cities Service Gas Co.*, where the Court approved Oklahoma's natural gas regulations and noted that, with regard to conservation, state and national interests "coincide." 340 U.S. at 188.

^{73.} *See* Kyl, *supra* note 5, at 483.

^{74.} See id.

^{75.} See generally Mark Tushnet, Rethinking the Dormant Commerce Clause, 1979 Wis. L. Rev. 125, 132–40 (analyzing commerce clause cases according to the relative burdens placed on in-state and out-of-state residents).

^{76.} *See* Kyl, *supra* note 5, at 500–01.

^{77.} See id. at 477.

indicates that its passage was not an attempt by Arizona to enrich itself at the expense of other states.⁷⁸

A final factor emphasized in the case law is the existence of less restrictive alternatives. The Groundwater Code restricts the DWR's jurisdiction to regions with acute overdraft problems and constrains groundwater consumption in those areas only to the degree that is necessary to assure the state's long-term economic health. Furthermore, because the program is being implemented over a span of decades, tis disruptive effect on interstate commerce will be minimized. Foes of the quota system, however, might argue that the free market should be allowed to solve the state's groundwater difficulties and that any public sector intervention is unwarranted. Nevertheless, because there is considerable disagreement about the free market's capacity to alter the state's level of groundwater consumption in an equitable manner, to alter the state's level of groundwater down Arizona's quota system on this basis. To do so would cast doubt on the ability of state governments to intervene in the economy when legislatures disagree about the merits of such intervention.

Thus, the Arizona quota system probably would be upheld under traditional dormant commerce clause analysis. The treatment in *Sporhase* of the provisions in the Nebraska statute that were found not to be facially discriminatory supports this conclusion. The Court noted that, "in the absence of a contrary view expressed by Congress," it is "reluctant to condemn as unreasonable measures taken by a State to conserve and preserve [groundwater] for its own citizens . . . in times of severe shortage." The Court listed four "realities" that made it reluctant to interfere with the state's program. First, "a State's power to regulate the use of water in times and places of shortage for the purpose of protecting the health of its citizens—and not simply the health of its economy—is at the core of its police power." Second, the Court noted that it has "recognized the relevance of state boundaries in the allocation of scarce water resources" through apportionment decrees and the enforcement of interstate compacts. Third, the Court stated that Nebraska's claim to public ownership of groundwater could "support a limited"

^{78.} See generally TRIBE, supra note 21, § 6-5 (discussing the Supreme Court's disapproval of state statutes that impose "special or distinct burdens on out-of-state interests unrepresented in the state's political process").

^{79.} See supra notes 31–61 and accompanying text.

^{80.} See supra notes 35–38 and accompanying text.

^{81.} See Kyl, supra note 5, at 499. Noting that low-value agricultural uses of the resource already were diminishing as pumping costs soared, id., these opponents would contend that groundwater conservation could have come about without enactment of the Groundwater Management Act and its policy of phasing out a sector of the Arizona economy that contributes heavily to interstate trade.

^{82.} See id. at 500.

^{83.} *See* TRIBE, *supra* note 21, §§ 8-1 to -7 (discussing the rise and fall of judicial interference with legislative economic decisions).

^{84.} Sporhase v. Nebraska ex rel. Douglas, 458 U.S. 941, 956 (1982).

^{85.} *Id.* (quoting Hicklin v. Orbeck, 437 U.S. 518, 534 (1978)).

^{86.} *Id.* ("[W]e have long recognized a difference between economic protectionism . . . and health and safety regulation").

^{87.} *Id*.

preference for its own citizens in the utilization of the resource."88 Finally, because Nebraska's conservation efforts enhanced the availability of groundwater, the Court found that "the natural resource has some indicia of a good publicly produced and owned in which a State may favor its own citizens in times of shortage."89 Because all four of these "realities" are applicable to the Arizona quota system, 90 it is almost certainly constitutional.

B. Arizona Water Banking Authority

As with all regulatory provisions with commerce clause implications, if challenged, the Arizona Water Banking Authority legislation would undergo scrutiny to determine if it is a facially discriminatory statute. The declared "Policy and Purpose" of the Arizona Water Bank was to protect Arizona from possible shortages on the Colorado River, which were perceived as a "threat to the general economy and welfare of this state and its citizens." The legislature found that the future water needs of California and Nevada could exceed those states' Colorado River entitlements and thus could affect the general welfare and economy of Arizona because of Arizona's close economic ties with those states.

As discussed above, in *Sporhase*, the Supreme Court set forth four "realities" that should be considered in determining whether a state's legislation to protect its own resources from use by other states is facially discriminatory. First, the Court held that the core of a state's police power is the power to regulate the use of water in times and places of shortage for the purpose of protecting the health of its citizens. He Court also held that federal case law has repeatedly recognized that a state may restrict water use within its boundaries, thereby recognizing the relevance of state boundaries in the allocation of scarce water resources. Third, the Court held that a state's regulation of its water may support a limited preference for its own citizens it the utilization of the resource. Finally, the Court stated that examining the state's efforts at conservation was also deserving of consideration: "[T]he natural resource has some indicia of a good publicly produced and owned in which a State may favor its own citizens in times

^{88.} *Id.* (noting also, however, that Nebraska's claim to public ownership "cannot justify a total denial of federal regulatory power").

^{89.} *Id.* at 957. The Court relied on *Reeves, Inc. v. Stake*, 447 U.S. 429 (1980), which upheld preferential treatment of in-state residents when the state was acting as a market participant. *See also* Hughes v. Alexandria Scrap Corp., 426 U.S. 794 (1976) (upholding a state's right to enter the market as the buyer of a potential article of interstate commerce).

^{90.} The first, second, and fourth "realities" would apply to any state. The third "reality" (a claim to public ownership) exists under the Arizona Groundwater Management Code. See Town of Chino Valley v. City of Prescott, 638 P.2d 1324, 1326–27 (1981), appeal dismissed, 457 U.S. 1102 (1982).

^{91.} ARIZ. REV. STAT. ANN. § 45-2401(A) (2006).

^{92.} *Id.* § 45-2401(C).

^{93.} See supra Part III.A.

^{94.} See Sporhase, 458 U.S. at 956.

^{95.} See id. (citing H.P. Hood & Sons v. DuMond, 336 U.S. 525, 533 (1949); Wyoming v. Colorado, 353 U.S. 953 (1949)).

^{96.} *Id*.

of shortage." Based on these factors, an examination of the legislatively defined uses for AWBA water does not indicate that they impermissibly burden interstate commerce.

The "public policy and general purposes" stated in the Water Bank statutes are all aimed at protecting Arizona's economy and welfare. Specifically, the Water Bank is charged with storing central Arizona project water in order to protect municipal and industrial water users within the central Arizona project from future Colorado River shortages and possible disruptions in the operation of the central Arizona project. ⁹⁸ In addition, the Water Bank is also responsible for water in order fulfill the management plan goals set forth in the Arizona Groundwater Code, as well as making stored water available for the settlement of water rights claims by Indian communities in Arizona.

The storage agreements referred to in Arizona Revised Statutes section 45-2401 are "water banking services agreements," which are defined as agreements "entered into between the authority and a person or Indian community in [Arizona] which the authority will provide water banking services to that person or Indian community." "Water banking services" are defined by section 45-2402(6) as

[s]ervices provided by the authority to persons and Indian communities in this state to facilitate for those persons and Indian communities storage of water and stored water lending arrangements. Water banking services include only arrangements by which water will be made available for use in this state. Water banking services do not include interstate water banking undertaken by the authority pursuant to article 4 of this chapter. Water banking services may include:

- (1) Storage of water.
- (2) Obtaining water storage permits.
- Accruing, exchanging and assigning long-term storage credits.
- (4) Lending and obtaining repayment of long-term storage credits. ¹⁰¹

As is made clear by the Water Bank's mandate that it will only engage in water banking services in which "water will be made available for use in this state," the main purpose of the Water Bank is to safeguard Arizona's Colorado River allocation and to keep as much of it in Arizona as possible. While the measures enacted by the Arizona Water Banking legislation are protectionist, they

^{97.} See id. at 957.

^{98.} *Id.* § 45-2401(H)(2).

^{99.} *Id.* § 45-2401(H)(3)–(4).

^{100.} See id. § 45-2402(7).

^{101.} *Id.* § 45-2402(6) (emphasis added).

most likely would not be deemed facially discriminatory under *Sporhase* and its progeny.

Thus, the Water Bank statutes are readily distinguishable from the Arizona Game and Fish regulations challenged in *Conservation Force v. Manning*. ¹⁰² In *Manning*, the Ninth Circuit held that Arizona's 10% cap on nonresident hunting was subject to the dormant commerce clause analysis and remanded the case to determine whether Arizona could demonstrate that there were no less discriminatory means to advance its legitimate interests in providing priority hunting to its own citizens. ¹⁰³ In its decision, the Ninth Circuit contrasted the limited number of big game available for hunting and Arizona's water resources, noting that water is a "vital resource" and the water regulations directly serve the "purpose of protecting the health of its citizens." ¹⁰⁴ Such a purpose is "unquestioningly legitimate and highly important" and the other aspects of Arizona's regulatory scheme demonstrate that such goals are genuine. ¹⁰⁵ When the Water Bank statutes are compared against the Arizona Game and Fish hunting regulations, it appears that the most recent analysis of the dormant commerce clause would render these statutes constitutional.

If the Water Bank statutes pass the initial scrutiny of whether they are facially non-discriminatory, they must then be evaluated to determine whether or not they place a burden on interstate commerce that "clearly exceeds the benefits of the restrictions." Here, Arizona has developed a statutory scheme that balances the local benefits of water storage and conservation to Arizona water users against any potential burdens on interstate commerce by providing significant opportunities for interstate water storage to its neighboring states of Nevada and California. This regulatory scheme allows Arizona's aquifers to benefit by storing the water, while at the same time allowing Nevada and California to avail themselves of additional Colorado River supplies in the future. As such, if the Water Bank was challenged under a dormant commerce clause analysis, such a challenge would most likely fail.

C. Arizona's Underground Water Storage, Savings and Replenishment Program

Arizona's UWSP should be considered facially nondiscriminatory, and therefore constitutional, under Sporhase and its progeny. 107

The UWSP should be analyzed favorably under *Sporhase*. First, the UWSP has proven to be effective legislation in supporting the long-term sustenance of Arizona's aquifers because the entire goal of the program is to encourage recharging aquifers through renewable water supplies. Such a proactive water recharge program has the purpose of replenishing the aquifers in order to address Arizona's overdraft problem. As such, Arizona's UWSP program provides an effective tool for water conservation and future management.

^{102. 301} F.3d 985 (9th Cir. 2002).

^{103.} *Id.* at 995.

^{104.} Id. at 996.

^{105.} *Id.* (citing Sporhase v. Nebraska *ex rel*. Douglas, 458 U.S. 941, 945 (1982)).

^{106.} Sporhase, 458 U.S. at 960.

^{107.} See Ariz. Rev. Stat. Ann. §§ 45-801.01 to -851.01.

An analysis of whether there is a need for national uniformity in underground water storage programs is not applicable to Arizona's underground water storage system. Water systems in the western United States, particularly the southwestern United States, are unique. Arizona's diverse geography and topography has created an intricate and interwoven water system dependent on groundwater, surface water, and effluent, to meet its growing water demands. Because the water systems in other states vary so drastically from Arizona's, it would be impossible to implement such an underground water storage program on a national level.

Likewise, the existence of an "inner political check" and the existence of less restrictive alternatives are also not applicable to the UWSP. The UWSP is a voluntary program: Water users are not required to participate. Because the UWSP is voluntary, there can be no concern for an abusive or overreaching application of the UWSP statute. As such, there appear to be no grounds to challenge the constitutionality of Arizona's underground water storage program.

D. Arizona's Sub-Basin Transfer Restrictions

Unlike the quota system, an argument might be made that Arizona's subbasin transfer restrictions are facially discriminatory. Such restrictions may hamper the movement of groundwater in commerce to some degree by making a transferor liable to neighboring landowners for damages (as discussed above). 108 Although the statute does not distinguish between in-state and out-of-state transfers, the Supreme Court has treated similar statutes as facially discriminatory. ¹⁰⁹ In Dean Milk Co. v. City of Madison, 110 for example, the Court invalidated a municipal ordinance that barred the sale of milk that was not processed within a specified radius of the city. The Court, recognizing that the "practical effect" of the ordinance was to exclude out-of-state milk from the local market, treated the statute as facially discriminatory even though it affected some instate producers.¹¹¹ The Arizona statute, which restricts the transportation of groundwater out of a subbasin, and therefore out of the state, is the converse of the ordinance in *Dean Milk*, which restricted the transportation of milk into a city. Thus, a court could find that the Arizona statute is facially discriminatory if its "practical effect" is to keep Arizona groundwater out of interstate commerce. 112

^{108.} See supra note 56 and accompanying text; see also Laney, supra note 5, at 1069–70 ("[T]he threat of damages for [interstate] transfers burdens interstate commerce.").

^{109.} But see Laney, supra note 5, at 1070 ("The transportation rules do not differentiate between in-state and out-of-state transfers of groundwater. Therefore, the Arizona regulations are not facially discriminatory").

^{110. 340} U.S. 349 (1951).

^{111.} *Id.* at 354 & n.4; *see also* Baldwin v. G.A.F. Seelig, Inc., 294 U.S. 499 (1935) (invalidating a New York statute that prohibited the sale of milk produced in other states unless it was purchased at a price that would be legal in New York).

^{112.} In *Hunt v. Washington State Apple Advertising Commission*, 432 U.S. 333 (1977), the Court found that a North Carolina statute that barred the use of nonfederal grades on apple containers sold or shipped into North Carolina violated the dormant commerce clause. Although the statute did not distinguish between in-state and out-of-state

If the courts treat the Arizona sub-basin transfer restrictions as facially discriminatory, then Arizona would need to prove that the restrictions are closely related to a legitimate local purpose and that reasonable alternative means are unavailable. While a legitimate local purpose could be shown, Arizona probably could not demonstrate a "close fit" between the sub-basin transfer restrictions and that purpose. The restrictions apply equally in areas that have severe groundwater shortages and areas that do not have shortages at all. Therefore, the Arizona statute is not "narrowly tailored" to meet legitimate needs of the state. Moreover, the overly restrictive nature of the sub-basin transfer restrictions virtually assures that the Court would find reasonable alternative means to replace the restrictions. Thus, it appears that the Arizona statute would be invalidated if the sub-basin transfer restrictions were treated as facially discriminatory.

Some case law, however, supports the position that the sub-basin transfer restrictions are not facially discriminatory. In *Sporhase*, for example, the first three provisions of the Nebraska statute were not treated as facially discriminatory even though they applied only to interstate transfers of groundwater. The Arizona statute applies even-handedly to both interstate and intrastate transfers and, therefore, seems less extreme than the Nebraska provisions. Similarly, the Supreme Court does not treat as facially discriminatory state statutes that regulate the length, width, and safety devices of trucks. Because the impact of such statutes on interstate commerce is far more apparent than the impact of the Arizona sub-basin transfer restrictions, the proponents of the Arizona statute could use these cases as support for the constitutionality of the sub-basin transfer restrictions.

apples, the Court found that it was facially discriminatory. *Id.* at 350–53 (citing Dean Milk Co. v. City of Madison, 340 U.S. 349 (1951)).

An important consideration in determining whether the sub-basin transfer restrictions are considered a de facto embargo is whether they pose, as a practical matter, a serious obstacle to interstate trade. If the specter of liability deters major transfers out of the state that would otherwise have been made, then the courts are more likely to find that the restrictions are a de facto embargo.

- 113. See supra note 24–26 and accompanying text.
- 114. See supra note 24 and accompanying text.
- 115. ARIZ. REV. STAT. ANN. §§ 45-544, -547, -552 to -555 (2006).
- 116. In finding that the Nebraska statute was not "narrowly tailored," the Sporhase Court noted:

Even though the supply of water in a particular well may be abundant, or perhaps even excessive, and even though the most beneficial use of that water might be in another State, such water may not be shipped into a neighboring State that does not permit its water to be used in Nebraska.

Sporhase v. Nebraska ex rel. Douglas, 458 U.S. 941, 958 (1982).

- 117. See supra note 26 and accompanying text. Examples of such alternatives include user fees and quotas.
 - 118. *See supra* note 19.
- 119. See Kassel v. Consol. Freightways Corp., 450 U.S. 662 (1981); Raymond Motor Transp. Inc. v. Rice, 434 U.S. 429, 444 n.18 (1978); Bibb v. Navajo Freight Lines, 359 U.S. 520 (1959); South Carolina Highway Dep't v. Barnwell Bros., Inc., 303 U.S. 177 (1938).

If the courts find that the Arizona sub-basin transfer restrictions are not facially discriminatory, the opponents of the statute must show that the burden on interstate commerce clearly exceeds the benefits of the restrictions. ¹²⁰ Unlike the impact of the quota system, ¹²¹ the effectiveness of the sub-basin transfer restrictions is questionable. Furthermore, it is possible that less restrictive alternatives are available. However, the other two factors discussed in the case law, the existence of an inner political check and the need for national uniformity, ¹²² support the constitutionality of the sub-basin transfer restrictions to the same extent that they support the constitutionality of the quota system.

Thus, a traditional dormant commerce clause analysis produces inconclusive results. In light of the strong language contained in *Sporhase*, ¹²³ however, it seems likely that the courts would apply the analysis pertinent to statutes that are not facially discriminatory and would therefore uphold the constitutionality of the sub-basin transfer restrictions.

IV. CONCLUSION

In Sporhase, the Supreme Court outlined the limits to which a state can go in conserving the state's groundwater resources and made it clear that facially discriminatory statutes that prohibit the sale or transfer of water from one state to out-of-state users will almost always be found to have violated the dormant commerce clause of the United States Constitution. As the discussion above indicates, however, Sporhase recognized that even legitimate groundwater conservation efforts by the states may have some indirect impact on interstate commerce that, under certain circumstances, will be tolerated by the Court. Arizona's narrowly tailored system of groundwater quotas and the groundwater replenishment provisions of Arizona's Water Banking Authority and the State's groundwater storage, savings, and replenishment program would probably pass constitutional muster as genuine conservation efforts rather than protectionism.

^{120.} See supra note 106 and accompanying text.

^{121.} See supra notes 62–90 and accompanying text.

^{122.} See supra notes 17–18 and accompanying text.

^{123.} See supra notes 84–89 and accompanying text.