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The Law of Equitable Apportionment Revisited, Undated and Restated

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> The water which flows in the river from Colorado into Kansas furnishes the principal and almost the entire supply of water for the underflow of the valley, and at its normal height the underflow is of great and lasting benefit to the bottom lands, both as to those which abut on the river and as to those which do not; and is of great benefit to the people owning and occupying such lands, "for that it furnishes moisture sufficient to grow ordinary farming crops in the absence of rainfall, and furnishes water at a moderate depth below the surface, for domestic use and for the watering of animals. The flow of the water in the riverbed is also of great value to the people in the vicinity by reason of the fact that the evaporation therefrom tends to cool and moisten the surrounding atmosphere, thereby greatly promoting the growth of all vegetation, enhancing the value of the lands in that vicinity, and conducing directly and materially to the public health and making the locality habitable. Owing to the dryness of the climate, the cloudlessness of the sky, the high elevation, and the prevailing winds, evaporation is rapid and great. . . . And the availability and use of said arid lands and the prosperity of the business of cattle feeding thereon depends entirely upon the water, its convenience, depth, and supply, and if the surface flow of water in the bed of said river be wholly cut off from the State of Kansas, then the under flow will gradually diminish and run out, and the valley of the Arkansas River will become as arid and uninhabitable as is the upland and plateau along its course, since without said underflow the valley land will be unfit for cultivation, and the arid lands unavailable for grazing.[1]

I. INTRODUCTION

Supreme Court actions to apportion equitably interstate waters

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1. Kansas v. Colorado, 185 U.S. 125, 128-29 (1902). *See generally* 2 WATERS AND WATER RIGHTS § 132 (R.E. Clark ed. 1967).

have a bad name. While states in both the arid West and the humid East have often invoked the Supreme Court's original jurisdiction to settle interstate water use disputes, courts and commentators have argued that lawsuits are an inferior method of apportioning interstate waters compared to compacts and congressional apportionment. In his classic study of the allocation of the Colorado River, Dean Charles J. Meyers criticized the equitable apportionment process and Supreme Court doctrine as cumbersome and inefficient. He argued that either a compact or congressional apportionment are superior to an equitable apportionment because Supreme Court adjudication is time consuming, the Court lacks the ability to deal with the technical information that is a predicate to a good decision, and federalism considerations prevent the Court from adopting the right standard of apportionment.[2] Judicial deference to the quasi-sovereign states makes it difficult, if not impossible, for the Court to do other than to articulate vague standards of interstate equality rather than firm principles such as economic maximization.

Despite these criticisms and the Supreme Court's endorsement of the interstate compacts as the preferred method of apportioning interstate waters, the Supreme Court continues to hear equitable apportionment cases and to develop the law. In 1982-83, the Court expanded the doctrine to a new range of water management conflicts[3] and casually, as is the Court's current practice, broke a long tradition of not announcing substantive standards but also, for the first time, linked them to the same constitutional policies that underlie the negative commerce clause.[4] Further, at least three members of the Court have expressed a willingness to abandon the Court's historic reluctance to adjudicate interstate rights.[5]

In addition to its application to specific cases, the doctrine of equitable apportionment continues to influence political water allocation debates. Cases such as *Wyoming v. Colorado*,[6] which applied the rule

2. Meyers, *The Colorado River*, 19 STAN. L. REV. 1, 48-50 (1967). *See also* Friedrich, *The Settlement of Disputes Between States Concerning Rights to the Waters of Interstate Streams*, 32 IOWA L. REV. 244, 265-69 (1947); and Scott, Kansas v. Colorado *Revisited*, 52 AM. J. INT'L L. 432 (1958).

3. Idaho *ex rel.* Evans v. Oregon, 103 S. Ct. 2817 (1983) (equitable apportionment applies to anadromous fish). The possible application of equitable apportionment to groundwater is discussed in Note, *Allocating Buried Treasure: Federal Litigation Involving Interstate Ground Water*, 11 LAND & WATER L. REV. 104 (1976).

4. Colorado v. New Mexico, 459 U.S. 176 (1982), *reh'g denied*, 105 S. Ct. 19 (1984). The litigation is discussed *infra* at notes 89-111.

5. Justices O'Connor, Brennan and Stevens dissented in Idaho *ex. rel.* Evans v. Oregon, 103 S. Ct. 2817 (1983), because the special master's refusal to quantify Idaho's entitlement to the anadromous fish of the Columbia represented "a poor use of judicial resources inviting future litigation, rather than settling questions properly presented now." *Id.* at 2826 n.2.

6. 259 U.S. 419 (1922).

of prior appropriation between states, stimulated the adoption of the Colorado River Compact, because the slower developing upper basin states feared that they had no other way to protect their future uses of the Colorado River against California's ever expanding diversions.[7] The influence of Supreme Court doctrine may be less direct but no less important. Many proposed diversions or projects in one state trigger fears in other states that *their* water will be stolen. Threatened states respond with extravagant "ownership" claims to gain political leverage to block or to influence the federal or state debate about the project. For example, a now abandoned proposal by Minnesota to sell Lake Superior water to western states and energy developers has caused other littoral states to begin to assert their respective rights to the lake.[8] At this point the debate is largely political, but it is structured in part by the doctrine of equitable apportionment.

The Supreme Court's renewed interest in original jurisdiction equitable apportionment actions combined with the impact of case law on the political debates surrounding proposed diversions and other water resource activities suggest that a reevaluation of the case against equitable apportionment is timely. This article does not fundamentally challenge the argument that interstate compacts and congressional apportionment remain the fairest and most efficient method of achieving equity among states, but it argues that the equitable apportionment doctrine has more potential for the successful resolution of interstate disputes than has previously been suggested, especially now that the Court has linked it to the policies underlying the dormant or

7. All the Colorado River basin states followed the lawsuit closely. The decision in June of 1922 greatly alarmed the upper basin states. A leading Colorado water lawyer, L. Ward Bannister, argued that the decision meant that prior appropriation would not be applied among states with mixed systems of water law, but the major lesson that the upper basin states drew from the decision was that it would be politic to negotiate a compact. The decision led the upper basin states to close ranks and to propose that the Colorado, as the compact ultimately provides, be allocated between the upper and lower basins rather than among individual states. N. HUNDLEY, WATER AND THE WEST: THE COLORADO RIVER COMPACT AND THE POLITICS OF WATER IN THE AMERICAN WEST 177-87 (1975).

8. Proposals to divert Great Lakes water to non-littoral states and the possible usufructory claims of the littoral states are discussed in Note, *The Great Lakes as a Water Resource: Questions of Ownership and Control*, 59 IND. L.J., 463 (1984) and Note, *Great Lakes Water Diversion: Federal Authority Over Great Lakes Water*, 1983 DET. C.L. REV. 919 (1983).

In February of 1985, the governors and premiers of the Great Lakes States and Canadian Provinces signed The Great Lakes Charter: Principles For the Management of Great Lakes Water Resources "to conserve the levels and flows of the Great Lakes and the tributary and connecting waters . . . ." Principle IV provides that:

> it is the intent of the signatory States and Provinces that no Great Lakes State or Province will approve or permit any major new or increased diversion or consumptive use of the water resources of the Great Lakes Basin without notifying and consulting with and seeking the consent and concurrence of all affected Great Lakes States and Provinces.

This principle applies to new or increased diversions or consumptive uses of over 5,000,000 gallons over a 30 day average, and the Charter creates a consultation process.

negative commerce clause.[9] It argues that the Court has generally struck a sensible balance between local law and transcendent national doctrines and that the Court has been sensitive to the economic impacts of its allocations. Read carefully, the cases can provide substantial guidance to states undertaking major diversion and impoundment activities. In its most recent equitable apportionment cases, the Court has shown some willingness to use the doctrine to force the states to assert their interstate rights through planning and conservation programs.[10] Aside from announcing principles that are more in line with contemporary water policy, such as the duty to conserve,[11] the Court broadly suggests that the doctrine has considerable evolutionary potential.

This article divides the equitable apportionment cases into a prologue and three evolutionary periods. The prologue began in 1789 with the adoption of the Constitution and culminated in 1907 with the application of the Court's original jurisdiction to interstate waters in *Kansas v. Colorado*.[12] During this period, the Court was concerned with the legitimacy of its original jurisdiction in the face of the states' arguments that they had exclusive sovereignty over resources within their borders. Prior to 1907, original jurisdiction cases were primarily confined to boundary disputes, and through these cases, the Court developed the justification for the limitation of state sovereignty over natural resources. The first period of equitable apportionment cases lasted from 1908 to 1945 as the Court struggled with limiting its jurisdiction to ripe controversies and with integrating the two great systems of domestic water law—prior appropriation and the common law of riparian rights—with the federalism-based principle of equality among states with respect to common pool resources. This period ended with the Court's fullest expression of the doctrine of equitable apportionment in *Nebraska v. Wyoming*.[13] The first or formative period was followed by the consolidation of federal power to regulate and allocate resources. The Court was extremely active in the allocation of interstate waters but the times required the Court to strike a new balance with respect to federal-state powers to allocate natural resources, rather than to continue the development of the doctrine of rights among states. Conflicts were resolved by a mix of Supreme Court doctrine, compacts and federal legislation. The high point of

9. Idaho *ex. rel.* Evans v. Oregon, 103 S. Ct. 2817, 2823 (1983).

10. *Id.*

11. Colorado v. New Mexico, 459 U.S. 176 (1982), *reh'g denied*, 105 S. Ct. 19 (1984) discussed *infra* notes 89-111.

12. 206 U.S. 46 (1907).

13. 325 U.S. 599 (1945).

the second period was *Arizona v. California*[14] which confirmed a seemingly unlimited congressional authority to apportion interstate waters. The third period may be dated from 1982-83 when the Court returned to pure original jurisdiction cases and indicated a willingness to develop new law.

II. 1787-1907: ORIGINAL JURISDICTION LEGITIMATED AND INITIALLY APPLIED

The Court first announced its power to apportion equitably interstate streams in *Kansas v. Colorado*.[15] This seminal case arose when Kansas sued Colorado to enjoin Colorado diversions on the Arkansas River. The Court rejected both Kansas's argument that Colorado could not use the river and Colorado's argument that territorial sovereignty gave it the right to deplete the entire flow of the stream, in favor of a sharing rule. Kansas, then a dual system state,[16] argued both that priority of settlement and the riparian rule that "the owners of land on the banks are entitled to the continual flow of the stream. . ."[17] gave it the right to relief. In addition to its assertion of territorial sovereignty, Colorado, the originator of pure prior appropriation, asserted the right to the full flow as a riparian making a reasonable use, but further confused the issue by invoking a classic prior appropriation defense. Kansas, it said, was not entitled to any water because its call would be futile; the Arkansas was a dry stream through western Kansas. Colorado prevailed and Kansas's complaint was dismissed without prejudice.[18] Each state, the Court held, had an equal right to use the flow, and Colorado's irrigation withdrawals were reasonable under the common law of riparian rights and did not exceed her rights, whatever they were, under the doctrine of equitable apportionment because Colorado had developed faster than Kansas:

> Official figures taken from the United States census reports . . . tend strongly to show that the withdrawal of the water in Colo-

14. 373 U.S. 546 (1963).

15. 206 U.S. 46 (1907). The Court previously refused to sustain Colorado's demurrer. The Court asserted jurisdiction applying "federal law, state law, and international law, as the exigencies of the particular case may require. . . ." Kansas v. Colorado, 185 U.S. 125, 147 (1902).

16. Clark v. Allaman, 71 Kan. 206, 80 P. 571 (1905). *See* 3 W. HUTCHINS, WATER RIGHTS LAWS IN THE NINETEEN WESTERN STATES 286-97 (1977).

17. Kansas v. Colorado, 185 U.S. 125, 146 (1902).

18. Kansas was subsequently unsuccessful in reopening the decree in light of increased Colorado withdrawals. Colorado v. Kansas, 320 U.S. 383 (1943). In 1948, the two states negotiated a compact, KAN. STAT. ANN. § 82a-520 (1977), but the dispute between the two states is on-going and it is not clear whether the compact provisions or the doctrine of equitable apportionment will control future litigation. *See* Note, *The Parting of the Waters—The Dispute Between Colorado and Kansas Over the Arkansas River*, 24 WASHBURN L.J. 99 (1984).

> rado for purposes of irrigation has not proved a source of serious detriment to the Kansas counties along the Arkansas River. . . .
>
> It cannot be denied in view of all the testimony . . . that the diminution of the flow of water in the river by the irrigation of Colorado has worked some detriment to the southwestern part of Kansas, and yet when we compare the amount of this detriment with the great benefit which has obviously resulted to the counties in Colorado, it would seem that equality of right and equity between the two States forbids any interference with the present withdrawal of water in Colorado for purposes of irrigation.[19]

While *Kansas v. Colorado* established the Court's jurisdiction over interstate water disputes and announced a sharing rule, its precedential value for setting standards for equitable apportionment is less clear. The opinion does not positively identify the source of the legal rules governing interstate resource disputes. When one probes the basis of the decision, a mass of contradictory principles and doctrines emerges. The principal precedent cited was *Elliott v. Fitchburg Railroad Co.*,[20] a Massachusetts case in which the great Chief Justice Shaw said in dictum that the common law did not prevent a riparian proprietor from withdrawing water for irrigation where it "would cause no sensible practical diminution of the benefit, to the prejudice of the lower proprietor."[21] But, Kansas was not such a riparian proprietor because it proved that western Kansas irrigators were injured by Colo-

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19. Kansas v. Colorado, 206 U.S. 46, 113-14 (1907). The Court rejected Kansas' argument that the Arkansas river in Kansas was a separate, subterranean stream as well as Colorado's argument that the Arkansas was two separate rivers in Kansas. With respect to Kansas' argument, the court concluded:

> It is rather to be regarded as merely the accumulation of water which will always be found beneath the bed of any stream whose bottom is not solid rock. Naturally, the more abundant the flow of the surface stream and the wider its channel the more of this subsurface water there will be. If the entire volume of water passing down the surface was taken away the subsurface water would gradually disappear, and in that way the amount of the flow in the surface channel coming from Colorado into Kansas may affect the amount of water beneath the subsurface. As subsurface water, it percolates on either side as well as moves along the course of the river, and the more abundant the subsurface water the further it will reach in its percolations on either side as well as more distinct will be its movement down the course of the stream. The testimony, therefore, given in reference to this subsurface water, its amount and its flow bears only upon the question of the diminution of the flow from Colorado into Kansas caused by the appropriation in the former State of the waters for the purposes of irrigation.

Id. at 114-15.

20. 64 Mass. 191 (1852).

21. *Id.* at 193.

rado irrigators' diversions.[22] To justify its preference for upstream against downstream uses, the Court seems to have applied, as suggested in the previously quoted portion of the opinion, a balancing of the equities test which is a crude cost-benefit analysis, and compared the value of the water in the two states. As a result, the Court confirmed eastern Colorado uses as more efficient, despite Kansas's poetic evocation of its plight quoted as a preface to this article. *Kansas* can also be explained as a straight prior appropriation case, but this would be a harsh rule to apply between states in some situations. A late-developing state has no means of protecting future uses. As the Court indirectly noted in its opinion, western Kansas irrigation fell behind that in eastern Colorado in the last decade of the nineteenth century because of the farm depression that started with the drought of 1887 and caused a reverse migration from the western plains of Kansas, Nebraska, and the Dakotas.[23]

From an historical perspective, *Kansas v. Colorado* seemed to adopt, with a social darwinistic twist, economic maximization as the prevailing rule of equitable apportionment. Kansas was penalized for the ten-year drought in the plains that fueled the Populist movement. Colorado was rewarded for its initiative in organizing irrigation in the arid regions of the state[24] and allowed to authorize appropriations in excess of the dependable flow of the Arkansas. However, at the time one could expect no more from the Court than a confirmation of the status quo except in situations where the state was making a future claim and could argue that it was diligently pursuing the means to make use of its claimed share. *Kansas v. Colorado* stimulated western irrigation leaders to consider alternative means of dividing interstate waters, such as interstate compacts, to allow states to protect their future uses.[25]

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22. Friedrich, *The Settlement of Disputes Between States Concerning Rights to the Waters of Interstate Streams*, 32 IOWA L. REV. 244, 249-50 (1947).

23. J. HICKS, THE POPULIST REVOLT. A HISTORY OF THE FARMER'S ALLIANCE AND THE PEOPLE'S PARTY 30-35 (1961)

24. 206 U.S. at 109. Now that the era of lavish federal funding of water resource projects to stabilize stream flows has ended, it will be interesting to see if Supreme Court doctrine reflects the increased jeopardy of states who have not put "their" interstate waters to full use, something Kansas has never been able to demonstrate. R. DUNBAR, FORGING NEW RIGHTS IN WESTERN WATERS 135-38 (1983).

25. R. DUNBAR, *supra* note 24, at 131-35. Elwood Mead proposed a federal administrative system, but western states turned to compacts instead. *Id.*

III. 1907-1945: BARRIERS TO RELIEF AND THE INTEGRATION OF LOCAL AND FEDERAL COMMON LAW

A. Barriers to Relief: Political Question, the Eleventh Amendment and Lack of Ripeness

To make equitable apportionments, Supreme Court jurisdiction had to be sustained against two challenges. First, states argued that despite the express recognition of original jurisdiction in the Constitution, the issues were non-justiciable because they were political. Second, they argued that the eleventh amendment, which bars suits by citizens of one state against another state, precluded original actions for equitable apportionment simply to protect holders of state-created rights. At the same time that the Court eliminated these two per se barriers to jurisdiction, it imposed a major limitation on original jurisdiction suits. An action may be dismissed for lack of ripeness if there is insufficient proof of injury.[26]

By *Kansas v. Colorado*, the Court could summarily reject the political question argument that exclusive state sovereignty over its resources made the question a political one. Original jurisdiction was first asserted to settle boundary disputes, and these cases developed a rationale for jurisdiction that remains valid. The rationale was that original jurisdiction was the only avenue of constitutionally permissible relief absent a voluntary agreement among states: "Diplomatic powers and the right to make war having been surrendered to the general government," it was to be expected that states would seek original jurisdiction remedies to vindicate their interests.[27] The Court clearly rejected the analogy between states and independent political sovereigns and took the position that the limited powers of the states in the federal system required the federal remedy of federal common law rules.[28]

Eleventh amendment challenges required the Court to determine whether or not the state was acting in a quasi-sovereign or parens patriae capacity. It is the citizens of a state who are the ultimate beneficiaries of any relief granted to a state qua state by the Supreme Court in equitable apportionment actions. Original jurisdiction suits succeed because until relatively recently, the Court was uneasy with the

26. *E.g.*, Colorado v. Kansas, 320 U.S. 383, 398-99 (1943) (proof that irrigable acreage in Kansas foreclosed by Colorado's diversions found to be speculative).

27. Missouri v. Illinois and the Sanitary Dist. of Chicago, 180 U.S. 208, 241 (1901). The fullest articulation of the necessity rationale for judicial intervention is Rhode Island v. Massachusetts, 37 U.S. 657 (1838).

28. Justice Holmes' role in the development of equitable apportionment is traced in Scott, Kansas v. Colorado *Revisited*, 52 AM. J. INT'L L. 432 (1958). *See* the discussion of the source of law in Note, *The Original Jurisdiction of the United States Supreme Court*, 11 STAN. L. REV. 665, 680-83 (1959).

breadth of general state sovereign immunity granted by the eleventh amendment and sought to confine it to remedies that would interfere directly with the performance of important, discretionary sovereign functions. The standards for original jurisdiction come from the search to confine eleventh amendment sovereign immunity.[29] In *Ex Parte Young*,[30] the Court found a way to limit the eleventh amendment by the fiction that a suit against an officer was not a suit against the state. Similarly, the Court developed the fiction that original jurisdiction could only be invoked by states suing parens patriae and thus there was no conflict between the prior grant of original jurisdiction and the subsequent eleventh amendment. With his characteristic brevity and insight, Justice Holmes explained the basis of this doctrine in *Georgia v. Tennesee Copper*:[31]

> The case has been argued largely as if it were one between two private parties but it is not. The very elements that would be relied upon in a suit between fellow citizens as a ground for equitable relief are wanting here. The State owns very little of the territory alleged to be affected, and the damage to it capable of estimate in money, possibly at least, is small. This is a suit by a State for an injury to it in its capacity as *quasi*-sovereign. In that capacity the State has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain. It has the last word as to whether its mountains shall be stripped of their forests and its inhabitants shall breathe pure air. It might have to pay individuals before it could utter that word, but with it remains the final power.[32]

Justice Holmes's quasi-sovereign theory is an adequate, although always unstable, fiction to reconcile original jurisdiction suits with the eleventh amendment. Parens patriae works because equitable apportionment suits do not greatly strain the fiction that the state is asserting a sovereign interest separate from the protection of private water rights. Thus, by definition all the citizens of the state are affected by the suit. States, especially in the West, have traditionally asserted not

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29. The eleventh amendment incorporates the common law concept of sovereign immunity. Sovereign immunity never completely immunized the sovereign against the wrongful acts of its employees, it merely controlled the remedies available to those wronged. *See* L. JAFFE, JUDICIAL CONTROL OF ADMINISTRATIVE ACTION 198-213 (1965). The Supreme Court has struggled, with limited success, to articulate a line between suits that require remedies that would curtail important state functions, such as control of the purse, and those that redress violation of individual rights without undue interference with state sovereignty. *See* Pennhurst State School & Hosp. v. Halderman, 104 S. Ct. 900 (1984) (Stevens, J., dissenting).

30. 209 U.S. 123 (1908).

31. 206 U.S. 230 (1907).

32. 206 U.S. at 237.

only the power to set the ground rules for the recognition of private rights, but also the power to deny or to constrain private use choices to further broad community interests in water allocation.[33] Still, the tension between original jurisdiction and eleventh amendment sovereign immunity allows the Court to inquire into the basis of the state's parens patriae claim and to deny jurisdiction where an interest beyond the protection of private rights is not shown.

Subsequent cases distinguished "true" parens patriae suits from ordinary class actions. *North Dakota v. Minnesota* is the leading case finding that the suit was not in fact parens patriae.[34] Minnesota straightened a river, which increased the level of a lake and ultimately caused the lake's outlet, a river in North Dakota, to overflow. North Dakota sued Minnesota for damages, but the Court, not at all impressed with North Dakota's factual proof of damages, characterized the suit as a de facto class action by injured North Dakota property owners. This, of course, is precisely the type of suit barred by the incorporation of common law sovereign immunity in the eleventh amendment.[35] The difference between a suit parens patriae and a class action was most forcefully articulated in *New Jersey v. New York*.[36] Philadelphia attempted to intervene in the Delaware River litigation to represent the interest of its own citizens and those of Eastern Pennsylvania.[37] These citizens probably represented all the Pennsylvanians with a vital interest in the allocation of the Delaware and Philadelphia would seem to be able to represent that class adequately. However, the Court denied the intervention by defining parens patriae literally: "Philadelphia represents only a part of the citizens of Pennsylvania who reside in the watershed area of the Delaware."[38] Were Philadel-

33. With his usual insight, Dean Trelease has justified the *parens patriae* doctrine as the judicial recognition of a limited right of regional self-determination. Trelease, *Arizona v. California: Allocation of Water Resources to People, States and Nation*, 1963 SUP. CT. REV. 158, 166-69. *See also* Note, *The Original Jurisdiction of the Supreme Court*, 11 STAN. L. REV. 665, 671-78 (1959). A federal district court recently relied on the historic power to deny appropriation applications to sustain partially a state statute, N.M. STAT. ANN. § 72-12B-1 (Supp. 1984), that gave the state the power to conserve its waters against a negative commerce clause challenge. City of El Paso v. Reynolds, 597 F. Supp. 694 (D.N.M. 1984).

34. 263 U.S. 365 (1923).

35. 263 U.S. at 375-76.

36. 345 U.S. 369 (1953).

37. *See infra* notes 64-67 and accompanying text.

38. 345 U.S. at 373. New York City was a party to the litigation but the Court found that this was not a reason to admit Philadelphia:

> The presence of New York City in this litigation is urged as a reason for permitting Philadelphia to intervene. But the argument misconstrues New York City's position in the case. New York City was not admitted into this litigation as a matter of discretion at her request. She was forcibly joined as a defendant to the original action since she was the authorized agent for the execution of the sovereign policy which threatened injury to the citizens of New Jersey.

phia allowed into the law suit, a number of other local entities would have to be allowed in and the litigation would degenerate into an ordinary class action.[39]

To try to resolve the tension between exclusive state claims of sovereignty and the correlative rights of other states, it is not surprising that after announcing the principle of equality among states, the Court has tried to accommodate these two inconsistent state interests through extensive use of procedural barriers, including the concept of ripeness. State police power over water resources extends to the protection of future allocation options. A state suing parens patriae is not simply another right holder claiming that the proposed diversion will interfere with the exercise of a prior right. The police power encompasses the power to anticipate the risks to present and future in-state users presented by out-of-state diversions and to try and minimize them before actual harm occurs[40] by asserting that the diversion exceeds the diverter's fair share of the river. The problem with this logic is that if it were carried to its conclusion, downstream states would have a virtual veto over an upstream state's diversions. This would destroy the principle of equality among states announced in *Kansas v. Colorado*. The concept of ripeness, derived from the equity doctrine of imminent irreparable harm, has been used to set high standards of proof of injury and to dismiss many apportionment actions because the initiating state failed to prove sufficient injury.[41] In a series of

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Because of this position as a defendant, subordinate to the parent state as the primary defendant, New York City's position in the case raises no problems under the Eleventh Amendment. *Wisconsin v. Illinois and Sanitary District of Chicago*, 278 U.S. 367 (1929), and 281 U.S. 179 (1930); cf. *Georgia v. Tennessee Copper Co.*, 206 U.S. 230 (1907). New York City's position is not changed by virtue of the fact that she is presently the moving party, so long as the motion for modification of the 1931 decree comes within the scope of the authorization of paragraph 6 of that decree.

345 U.S. 369, 374-75. Justices Jackson and Black dissented. Private Pennsylvania riparians on the Delaware subsequently found themselves unable to recover damages caused by reduced flows as a result of New York City's exercise of its rights. Badgley v. City of New York, 606 F. 2d 358 (2d Cir. 1979), *cert. denied*, 447 U.S. 906 (1980).

39. 345 U.S. at 373. *See also* Hawaii v. Standard Oil Co., 405 U.S. 251 (1972). See the discussion of the modern doctrine in Puerto Rico v. Bramkamp, 654 F.2d 212, 215-17 (2d Cir. 1981), *cert. denied*, 458 U.S. 1121 (1982). *See generally* Note, *State Protection of Its Economy and Environment: Parens Patriae Suits for Damages*, 6 COLUM. J.L. & SOC. PROBS. 411 (1970). State *parens patriae* suits may make it difficult for other groups to intervene in the litigation. *See* Judge Friendly's lucid discussion of the problem in U.S. v. Hooker Chemicals & Plastics Corp., — F.2d—, 21 F.E.R.C. 1961 (2d Cir. 1984) (no right of intervention for environmental group in federal hazardous waste clean-up suit).

40. Idaho *ex rel.* Evans v. Oregon, 103 S. Ct. 2817, 2827-28 (1983) (O'Connor, J., dissenting).

41. Arizona v. California, 283 U.S. 423, 464 (1931). Note, 45 HARV. L. REV. 717 (1932) supports the Court's refusal to grant declaratory judgments in interstate apportionment cases in order to foster compact and legislative solutions. Despite occasional statements in equitable apportionment cases, the issue is not lack of jurisdiction to grant declaratory relief. Two years after Arizona v. California the Court held that an action for a declaratory judgment was a case or controversy, Nashville,

cases beginning in 1906, the Court has developed this concept to screen apportionment actions.

Missouri v. Illinois[42] was the first case to set a high standard of injury as a prerequisite to Supreme Court relief. In an epic environmentally unsound public works project, Illinois reversed the flow of the Chicago River to flush Chicago's sewage into the Illinois River, a tributary of the Mississippi, instead of treating and discharging it into its frontyard—Lake Michigan. Alarmed, Missouri sued to protect the health of residents of St. Louis and other riparian cities. Missouri invoked the common law rule that a riparian had a right to the flow of a stream unimpaired in quality and quantity. To dismiss Missouri's suit, a higher standard of proof than would be applied to a suit for equitable relief between private parties was articulated: "Before this Court ought to intervene the case should be of serious magnitude, clearly and fully proved, and the principle applied should be one which the Court is prepared deliberately to maintain against all considerations on the other side."[43] Relief was not warranted on the facts.

The Court was impressed by Illinois's claim "that the great volume of pure water from Lake Michigan which is mixed with the sewage has improved the Illinois River . . . to a notable extent,"[44] and the opinion seems to reflect some doubt about the application of the emerging scientific theory that epidemic diseases were water borne:

> We assume the now prevailing scientific explanation of typhoid fever to be correct. But when we go beyond that assumption everything is involved in doubt. The data upon which an increase in the deaths from typhoid fever in St. Louis is alleged are disputed. The elimination of other causes is denied. The experts differ as to the time and distance within which a stream would purify itself. No case of an epidemic caused by infection at so remote a source is brought forward, and the cases which are produced are controverted.[45]

Equitable apportionment cases are always very fact-sensitive and an alternative explanation for the case is that Missouri lost because its

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Chattanooga & St. Louis Ry. Co. v. Wallace, 288 U.S. 249 (1933), and in 1934, Congress passed the Federal Declaratory Judgment Act, 28 U.S.C. §§ 2201-2202 (1976). However, the Court still retains the discretion to hear declaratory judgment actions and thus to decline jurisdiction if a controversy is not ripe. *E.g.*, Idaho *ex rel.* Evans v. Oregon, 103 S. Ct. 2817 (1983) (lack of proof of injury sufficient to warrant equitable apportionment of fish).

42. 200 U.S. 496 (1906).

43. *Id.* at 521.

44. *Id.* at 522.

45. *Id.* at 523.

allowance of municipal discharges into the river deprived it of clean hands.

In 1931 the Court similarly dismissed Connecticut's attempt to prevent a Massachusetts transbasin diversion to benefit Boston.[46] Connecticut relied on the strict common law rule that all uses outside of the watershed were per se unreasonable,[47] but the Court found at least three reasons to dismiss the action. Connecticut, the lower riparian state, failed to prove any injury[48] and thus the case arguably fell within the more "modern" common law rule that only transwatershed diversions that actually caused injury to downstream riparians were actionable.[49]

Four years later, the Court applied its high standards of injury to a familiar western water law doctrine, and dismissed a suit by Washington against Oregon because the former's call would be futile.[50] Both states had individually adjudicated priorities on the Walla Walla River and its tributaries and only priorities up to 1891 would be protected under the dependable supply of the River. The Court allowed Washington to sue to protect a Washington irrigator with an 1892 priority with no mention of the parens patriae doctrine, but refused to enjoin further Oregon diversions because Washington had failed to meet its burden of establishing injury. In accepting the special master's conclusion that Oregon diversions did not materially lessen the quantity of water available to Washington users because of return flows, the Court reasoned that Washington had not shown, by clear and convincing evidence, that the injury would be of a serious magnitude.[51] Washington's case was further weakened because thirty-eight years had lapsed between the notice of intent to appropriate and the application to beneficial use of the 1892 Washington priority which had been perfected under the Washington law of relation back, and the Court concluded that it was barred by the doctrine of laches from asserting any right against Oregon. Washington's claim of harm was even further weakened by the Court's conclusion that under any circumstance the 1892 priority's call would be futile:

> At present there would be no benefit to Gardena, or none that has been proved, if the waters of the Tum-a-lum were not obstructed by the dam. In all likelihood they would be lost in the deep gravel of the channel and would not reappear beyond un-

46. Connecticut v. Massachusetts, 282 U.S. 660 (1931).
47. Stratton v. Mt. Hermon Boys' School, 216 Mass. 83, 103 N.E. 87 (1913).
48. 282 U.S. at 670.
49. *Id.* at 667-68.
50. Washington v. Oregon, 297 U.S. 517 (1936).
51. 297 U.S. at 524.

> til the shortage season had gone by. So also, there would be no benefit, or none that has been proved, if the use of the Little Walla Walla were less than it has been.[52]

Although the Court has been quite consistent in its reluctance to exercise original jurisdiction where ripeness is not demonstrated, there have been and continue to be dissenters. In his opinion in *Nebraska v. Wyoming*, Justice Douglas took the occasion to articulate his view, over a strong dissent, that if all claims, perfected or not, on a stream exceed the dependable flow, then a conflict exists and injury should be presumed:

> What we have then is a situation where three States assert against a river, whose dependable natural flow during the irrigation season has long been over-appropriated, claims based not only on present uses but on projected additional uses as well. The various statistics with which the record abounds are inconclusive in showing the existence or extent of actual damage to Nebraska. But we know that deprivation of water in arid or semi-arid regions cannot help but be injurious. If this were an equity suit to enjoin threatened injury, the showing made by Nebraska might possibly be insufficient. But *Wyoming v. Colorado* . . . indicates that where the claims to the water of a river exceed the supply a controversy exists appropriate for judicial determination.[53]

B. Standards for Equitable Apportionment

Once the Court accepts original jurisdiction and appoints a master to take the evidence, the issue becomes what law to apply. The Court initially rejected local law as the basis for an apportionment, then accepted it as the basis among states that followed the same law, and finally downgraded local law to a "guiding principle." Fair allocation rather than consistency with locally generated expectations became the touchstone of equitable apportionment. Local law remains, however, central to an equitable apportionment inquiry. Although the Court has never been very precise about the source of the law of equitable apportionment, its early decision makes it clear that the grant of original jurisdiction requires a federal law and a federal law that will not allow one state to use its law to gain an unfair advantage over another.[54] The use of local law as a basis for allocation is thus not

52. *Id.* at 529.

53. 325 U.S. 589, 610 (1945). *See also* Justice Douglas' opinion in Illinois v. Milwaukee, 406 U.S. 91 (1972).

54. Hinderlider v. La Plata River & Cherry Creek Ditch Co., 304 U.S. 92 (1938).

compelled by the constitution. But local law may serve as a source of principles to apply since a federal common law must of necessity examine the most relevant sources of substantive law.[55]

In 1911, in *Bean v. Morris,* Justice Holmes enforced priorities on an interstate stream on the theory that when all states through which it flowed had adopted the same system of water law, they estopped themselves from asserting the power to ignore out-of-state priorities.[56] Holmes's rationale is a classic reciprocity of advantage argument for regulations such as private restrictive convenants and zoning ordinances. He later gave his fullest articulation of this theory in the foundation taking case, *Pennsylvania Coal Co. v. Mahon.*[57] However, the roots of *Pennsylvania Coal* lie in his observation in *Bean* that "Montana cannot be presumed to be intent on suicide, and there are as many if not more cases in which it would lose as there are in which it would gain, if it invoked a trial of strength with its neighbors."[58]

Eleven years later, Wyoming's action against Colorado to protect prior Wyoming irrigators from the upstream state's proposed diversions of the Laramie River produced the Court's first substantive decision and required the Court to begin integrating state water laws into the federal doctrine of equitable apportionment. In the Laramie litigation, Wyoming successfully urged the application of *Bean* to counter Colorado's argument—prophetic in light of subsequent developments in the state—that priority is a rule of the past, not of the future.[59] The Court upheld Wyoming's priority and awarded it, with minor qualifications, 272,000 out of the river's 288,000 acre feet of dependable supply.[60] Colorado's argument that it could put the water to more beneficial use because the site of the proposed trans-watershed diversion, the Cache La Poudre Valley, was more developed was not seriously considered, although it had carried the day for the state in *Kansas v. Colorado.*[61]

While *Wyoming v. Colorado* has been criticized because it freezes

55. "While federal law governs, consideration of state standards may be relevant." Illinois v. City of Milwaukee, 406 U.S. 91, 107 (1972). *See also* Clearfield Trust Co. v. United States, 318 U.S. 363 (1943).

56. 221 U.S. 485 (1911).

57. 260 U.S. 393 (1922). Western state courts reached the same result but on different theories. *See* WATERS AND WATER RIGHTS § 131.3(B) (R.E. Clark ed. 1967).

58. 221 U.S. at 487.

59. Wyoming v. Colorado, 259 U.S. 419 (1922). Legislation to limit groundwater use enacted in 1965 caused the Colorado courts to begin the difficult task of promoting the maximum utilization of water within a framework of vested property rights. *See* Fellhauer v. People, 167 Colo. 320, 447 P.2d 986 (1969).

60. 259 U.S. at 496.

61. 206 U.S. 46 (1907).

existing, and presumably inefficient, uses in place to the detriment of future, presumably more efficient, uses,[62] the Court's reasoning may actually lead to better conservation practices. Undoubtedly, the rigid adherence to prior appropriation throughout a large river basin might produce inefficiencies. However, there is a strong case for reliance on a modified doctrine of prior appropriation, as the Court has done, on smaller streams. First users build up legitimate expectations of security, and subsequent users can not claim surprise when prior uses are protected. Recognition of prior uses need not freeze all existing uses. It operates more to place the burden of water conservation on new users.[63] This is a difficult but not impossible burden to discharge as the Court's most recent equitable apportionment case, *Colorado v. New Mexico*, illustrates. And, as suggested at the end of this article, the burden may be a positive one to society because it encourages greater state planning and regulatory responsibilities to promote the efficient use of water.

New York City's plans to divert water from the Delaware River watershed produced the Court's major equitable apportionment case among riparian states, and although the Court stressed that its primary objective was an equitable apportionment, again the decision was based primarily on local law. The downstream states of New Jersey and Pennsylvania sued to enjoin New York City's diversions urging the common law natural flow rule. The states' claims that navigation and water supply would be impaired were found to be negligible, but the special master found that the proposed withdrawals would decrease substantially the waste assimilative capacity of the stream and increase downstream salinity to the detriment of oyster and shad fisheries. He recommended that New York's diversions be limited to 440 million gallons per day and that a flow protection formula be estab-

62. The great Colorado water lawyer L. Ward Bannister had nothing good to say about the decision. He argued that the recognition of priorities merely perpetuated the accidents of settlement patterns and prevented economic development. Bannister, *Interstate Rights in Interstate Streams in the Arid West*, 36 HARV. L. REV. 960 (1923). Wyoming had to sue Colorado a number of times to enforce the decree. *See, e.g.*, Wyoming v. Colorado, 309 U.S. 572, 581-82 (1940) (Colorado not in contempt of decree for excess diversions because Wyoming water users approved diversions because of return flow benefits to Wyoming).

63. *See* Van Alstyne, *The Justiciability of International River Disputes: A Study in the Case Method*, 1964 DUKE L.J. 307. Professor Van Alstyne argues that international law supports the protection of prior uses when the state, initiating a new use, can reasonably avoid the injury but not when the pre-existing uses are wasteful and the initiating state cannot reasonably avoid the injury. Still, he agrees that prior uses are entitled to considerable weight in deciding what is the best use of the entire river basin, and the burden of adjustment may be placed on the state initiating a new use in some circumstances. *See also* Johnson, *Effect of Existing Uses on the Equitable Apportionment of International Rivers I: The American View*, 1 U. BRIT. COLUMN. L. REV. 389 (1960). *See also* Shapiro-Libai, *Development of International River Basins: Regulation of Riparian Competition*, 45 IND. L.J. 20, 41-43 (1969).

lished. With minor modifications, the Court adopted the master's recommendations.[64] Justice Holmes began by saying, in an oft-quoted phrase, that "[t]he different traditions and practices in different parts of the country may lead to varying results, but the effort is always to secure an equitable apportionment without quibbling over formulas."[65] But he in fact made a riparian apportionment. The opinion expressly states that New York's diversions shall not constitute a prior appropriation and shall not give it superior rights to the downstream states, and the decree recognizes substantial base flow rights in the downstream states. New York was required to maintain a flow of .50 cubic feet per second per square mile at both the New York-New Jersey line and at Trenton further downstream, but in no case was New York required to release more than thirty percent of the average diversion area yield. A riparian right may either decrease or increase over time, and New York took advantage of the flexibility of the right by petitioning the Court for an amended decree in order to construct several new reservoirs in the watershed. The decree has subsequently been modified by Supreme Court decision, interstate compact and negotiation among the states, but riparian principles continue to be the law of the river.[66]

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64. New Jersey v. New York, 283 U.S. 336, 345-48 (1931). New York and New Jersey have continually sued each other in various forms over the discharge of raw or inadequately treated sewage into New York harbor, *e.g.*, New York v. New Jersey and Passaic Valley Sewerage Comm'rs, 256 U.S. 296 (1921) (bill dismissed in part for lack of proof of injury), or over New York's dumping of garbage into the ocean, *e.g.*, New Jersey v. City of New York, 283 U.S. 473 (1931) (New Jersey granted injunction, however, against ocean dumping of garbage). The injunction proved difficult to enforce. *See* New Jersey v. City of New York, 290 U.S. 237 (1933).

65. 283 U.S. at 343. The special master later wrote, "[a]fter a great deal of mental anxiety, I reached the conclusion that the common law principle of riparian rights, as applied between individuals, was not a controlling principle to apply in controversies between states. . . .I determined from the facts to what extent water could be taken from the New York tributaries of the Delaware River without appreciably or sensibly injuring New Jersey. . ." Burch, *Conflicting Interests of States Over Interstate Waters*, 10 TENN. L. REV. 267-78 (1932). In short, the special master allowed New York to make a reasonable riparian use.

66. The special master, in a 1954 decree, had approved a plan that allowed New York City to increase its diversions up to 800 million gallons per day as new reservoirs were constructed. New Jersey v. New York, 347 U.S. 995 (1954). The decree also adopted a new flow release formula that preserved the base flow of the 1931 decree and required "a quantity of water equal to 83 percent of the amount by which the estimated consumption during such year is less than the City's continuous safe yield during such year of all of sources obtainable without pumping." *Id.* at 998. The four Delaware basin states along with the United States entered into an interstate compact in 1961 which required the compact authority to enforce the 1954 decree unless all parties agreed to a modification. In 1966 the flow of the river at the measuring point fell to less than one-half of the required amount and the compact water master ordered New York City to halt all diversions, but New York claimed that it was impossible to meet the release conditions. Finally, a combination of decree modifications, releases from other reservoirs on tributaries to the Delaware, intake modifications, and water use restrictions in New York City averted disaster. J. SAX, WATER LAW, PLANNING & POLICY, CASES AND MATERIALS 151-85 (1968) contains a full account of the history of the Delaware up to 1967. In 1983, the four basin

New Jersey v. New York is a creative adaption of the law of riparian rights to interstate conflicts. Historically, instream uses have been of greater importance compared to consumptive uses in riparian states, and the Court gave full weight to this aspect of riparianism by apportioning the most valuable attribute of the river, its base flow, and it gave full weight to another core riparian concept, preservation of the status quo among similar users. The decree required that the essential benefits of the flow, pollution dilution and salt water intrusion prevention, be preserved as a condition to New York City's withdrawals from the watershed for consumptive uses.[67]

The importance of riparian principles and marginal reductions in base water levels is also illustrated by the litigation over Illinois's reversal of the Chicago River and construction of a channel to link Lake Michigan with the Mississippi. Illinois was able to fend off challenges by downstream states,[68] but was not as successful in defending the necessary diversions from Lake Michigan to flush Chicago's sewage against challenges by the Great Lakes states that the diversions impaired navigation of the lakes. In the first suit, the United States obtained an injunction to protect the navigable capacity of the lakes by restricting the venerable Sanitary District of Chicago to withdrawals necessary for commerce as authorized by the Secretary of War.[69] This suit was followed by an original action brought by all of the other Great Lakes states except Indiana, which charged that the federally authorized diversion infringed on their rights as riparians. The states argued that the diversion was, inter alia, an illegal transwatershed diversion and the withdrawals interfered with navigation because lowered lake levels reduced the amount of Great Lakes commerce on all lakes except Superior.

The Chicago diversion controversy is an early illustration of the interplay between the judge-made law of equitable apportionment and the congressional assertion of federal power over navigable waters. The Court affirmed the special master's conclusion that the withdraw-

states and New York City agreed on a supply augmentation plan that expands four existing reservoirs and abandons plans for a proposed reservoir five miles north of the scenic Delaware Water Gap area. New York Times, Feb. 24, 1983, at 14, col. 1.

67. 347 U.S. at 346.

68. Missouri v. Illinois, 200 U.S. 496 (1906), discussed *supra* notes 42-45.

69. Sanitary Dist. of Chicago v. United States, 266 U.S. 405 (1925). Pursuant to the Rivers and Harbors Act of 1899, 30 Stat. 1121, the Secretary of War had fixed the District's withdrawals at 250,000 cubic feet per minute, but temporary increases were periodically allowed. The District argued that the practice of allowing increases estopped the federal government from complaining when the District increased the withdrawal rate to between 450,000 and 600,000 cubic feet per minute. Mr. Justice Holmes, a great proponent of sovereign immunity, contemptuously concluded "that the attempt to found a defence [sic] on the foregoing licenses is too futile to need reply." 266 U.S. at 431.

als could not be authorized by the Secretary of War under the Rivers and Harbors Act of 1899, which limited federal regulation to navigation protection. The withdrawals were for sewage flushing because Chicago had not constructed adequate treatment facilities. The case was remanded for the entry of a decree that provided for a phased reduction in the District's withdrawals.[70] Two years later the Court approved a plan to cut the District's diversions from 8,500 c.f.s. to 1,500 c.f.s. by 1938 in addition to any withdrawals for domestic uses, and modifications of the decree continue to be sought by Illinois.

Dust bowl conditions in the Great Plains produced the Court's most complex equitable apportionment and statement of current doctrine. To protect the flow of the North Platte River for irrigation purposes, Nebraska sued the upstream state of Wyoming, which impleaded Colorado.[71] Relying on *Wyoming v. Colorado*, Nebraska alleged that the dependable natural flow of the river during irrigation season on a critical reach of the river had long been over-appropriated. The case also involved federal and state claims to water stored in Wyoming reservoirs for the benefit of Wyoming and Nebraska users. Nebraska did benefit substantially from the litigation, but the Court departed from the application of the rule of priority followed in *Wyoming v. Colorado*. Writing for the majority, Justice Douglas concluded that strict adherence to the doctrine of prior appropriation may not be possible if justice and equity are to be done among states, and substituted the following and oft quoted multifactor standard of equitable apportionment:

> So far as possible those established uses should be protected though strict application of the priority rule might jeopardize them. Apportionment calls for the exercise for an informed judgment on a consideration of many factors. Priority of appropriation is the guiding principle. But physical and climatic conditions, the consumptive use of water in the several sections of the river, the character and rate of return flows, the extent of established uses, the availability of storage water, the practical effect of wasteful uses on downstream areas, the damage to upstream areas as compared to the benefits to downstream areas if

70. Wisconsin v. Illinois, 281 U.S. 179 (1929), *aff'd per curiam*, 281 U.S. 696 (1930). The history of the litigation is told from Wisconsin's point of view in Naujoks, *The Chicago Water Diversion Controversy*, 30 MARQ. L. REV. 149, 228 (1946) and from Chicago's in Olis and Sprecher, *Legal Aspects of Lake Diversion*, 51 NW. L. REV. 653 (1957). The history of the sanitary and ship canal is told in Herget, *The Chicago Sanitary and Ship Canal: A Case Study of Law as a Social Vehicle for Managing Our Environment*, 1974 U. ILL. L. F. 285.

71. Nebraska v. Wyoming, 325 U.S. 589 (1945). *See* Wehrli, *Decrees in Interstate Water Suits*, 1 WYO. L.J. 13 (1946).

a limitation is imposed on the former—these are all relevant factors.[72]

Nebraska v. Wyoming is usually cited for the proposition that equality among states does not permit adherence to local law even among states that have basically the same water law, although the doctrine formally originated in the earlier case of *Connecticut v. Massachusetts*.[73] However, read carefully, *Nebraska v. Wyoming* represents a sensitive effort to fashion a law of equitable apportionment that gives great but not controlling weight to local water law. The Court's function is not to depart from local law and divide the waters by judicial fiat but rather to rub off its rough edges in situations where substantial prejudice to another state would result from the application of a local law, even if both states follow the same rule. The doctrine seems to contain the root principle that "a State may not preserve solely for its own inhabitants natural resources located within its borders."[74] The following examination of some of the exact deviations

72. 325 U.S. at 618. In the Matter of the Rules and Regulations Governing the Use, Control, and Protection of Water Rights for Both Surface and Underground Water Located in the Rio Grande and Conejos River Basins and Their Tributaries, 674 P.2d 914 (Colo. 1983), is an interesting example of the application of the principle. Article III of the Rio Grande Compact, 53 Stat. 785 (1939), establishes separate delivery schedules for the two stems of the Rio Grande arising in the upstream state, Colorado. To fulfill its compact obligations to the two downstream states of New Mexico and Texas, as well as to Mexico, Colorado adhered to the separate delivery schedules, and users in the basin of one stem, the Conejos, objected to this because this decision yielded less water to the more senior right holders on the Conejos compared to a unitary administration of the two stems. The court upheld the separate administration as consistent with both Nebraska v. Wyoming and the function of the doctrine of prior appropriation to protect "settled expectations arising out of the pattern of development of a water source":

> To hold, as suggested by the Conejos District, that the compact obligation has the effect of resorting settled water rights on both streams into a single system of priorities based solely on dates of appropriation would reshuffle the economies of the valley according to a chronology of events unrelated to settled expectations derived from historical patterns of use and reflected in the independent priority systems. That this result is not compelled by the doctrine of prior appropriation was recognized by the General Assembly in section 37-80-104, C.R.S. which mandates that compacts which are deficient in provision for intrastate administration be implemented so as to "restore lawful use conditions as they were before the effective date of the compact insofar as possible." We agree with the statutory implication that a compact obligation should not be viewed as a senior water right which upsets historical development and reshuffles rights according to a chronological formula. Under the doctrine of prior appropriation, streams which have been independently appropriated remain independent. If the water of those streams becomes subject to equitable apportionment by compact, the streams must be administered as mandated by the compact, or if the compact is deficient in providing for administration, according to section 37-80-104. The separate delivery rules, therefore, are not inconsistent with constitutional and statutory provisions for priority administration of water rights.

674 P.2d at 923.

73. 282 U.S. 660 (1931).

74. In Idaho *ex rel.* Evans v. Oregon, 103 S. Ct. 2817 (1983), the Court for the first time linked the doctrine of equitable apportionment to the dormant or negative commerce clause, which contains the same root principle as equitable apportionment. Two foundation cases held that state ownership of

from classic prior appropriation in *Nebraska v. Wyoming* confirms this analysis.

Colorado was the principal beneficiary of the Court's deviation from prior appropriation. The decree essentially froze existing uses in Colorado at their present level but did not subordinate Colorado priorities to the senior rights of Nebraska users perfected with the construction of the Pathfinder Reservoir. The Court gave more weight to protecting Colorado's established economy along the North Platte than to the protection of downstream priorities, which is a departure from the strict appropriation doctrine.[75] However, a close reading of the opinion suggests that the Court concluded that any Nebraska calls would be futile.[76] Nebraska had not originally joined Colorado because it did not think that reductions in Colorado's use would benefit her. She objected to the protection of Colorado juniors only because it did not provide senior Nebraska users an adequate margin of safety, but the Court concluded that the margin allowed was not unjust under all the circumstances.[77] This was a situation where two state system sets of priorities could be simultaneously protected with minimal risk to both, an example of rubbing the edges off local law. Likewise the decree's restrictions on irrigated acreage and reservoir storage in Wyoming left present uses above Whelan, Wyoming largely unaffected.

The Court's allocation of the critical part of the North Platte also illustrates that departures from local law will be made only to the extent necessary to prevent substantial prejudice to one state. The critical reach is between Whelan, Wyoming and the Tri-State Dam, one mile east of the Nebraska border, because the greatest demand is concentrated in this compact area. If the river were allocated for total irrigated acreage, total requirements of a combination of the acreage and requirements of senior and junior appropriators, it would be split roughly 75%-25% between Nebraska and Wyoming.[78] If priorities

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resources in trust immunized state conservation regulations from commerce clause scrutiny. Geer v. Connecticut, 161 U.S. 519 (1896)(wild game), and Hudson County Water Co. v. McCarter, 209 U.S. 349 (1908) (water). *Geer* was overruled in Hughes v. Oklahoma, 441 U.S. 322 (1979), and *Hudson County* was overruled in Sporhase v. Nebraska, 458 U.S. 941 (1982). The theory that states owned the resource in trust for the public and were thus immune from the Commerce Clause was faulty from the start. State ownership in trust is nothing more than the assertion of the police power. *See* Hellerstein, Hughes v. Oklahoma: *The Court, the Commerce Clause, and State Control of Natural Resources*, 1979 SUP. CT. REV. 51; Tarlock, *So Its Not Ours* (sic) - *Why Can't We Still Keep It?: A First Look At Sporhase v. Nebraska*, 18 LAND & WATER L. REV. 137 (1983), and Barnett, *Mixing Water and the Commerce Clause: The Problems of Precedent, Policy and Practice in* Sporhase v. Nebraska, 24 NAT. RES. J. 161 (1984).

75. 325 U.S. at 622.

76. *Id.* at 619.

77. *Id.* at 621 n.14.

78. *Id.* at 641.

were strictly observed, Wyoming would get 100% of the flow when it fell below 103 second feet (a real possibility in light of the low flows in the first one-half of the 1930s), but Nebraska would get 90% of the next 924 second feet. Above 1,027 second feet, the division quickly approached and stayed near 75%-25% Nebraska-Wyoming. Nebraska asked for a strict priority schedule, arguing that fluctuations in the right to water were inherent in a system of priorities. The Court, however, approved the special master's 75%-25% split between Nebraska and Wyoming as the most equitable apportionment under the circumstances.[79] *Nebraska v. Wyoming* was the last of the major equitable apportionments. After this case, the law of interstate allocation shifted to the resolution of federal-state conflicts caused by the federal governments increasing involvement in water resource management.

IV. From Federal Supremacy and Back

The 1940s, '50s and '60s can be characterized as the era of the big federal flood control and reclamation projects. Before this era, the power of the federal government over interstate waters was thought to be limited to navigation protection.[80] The historic standard of navigability limited the classes of waters subject to federal control. For example, starting with *Kansas v. Colorado*,[81] the federal government intervened in equitable apportionments to assert a federal interest to fulfill its duties under the Reclamation Act of 1902,[82] but the Court consistently held that state law controlled the distribution of project water and that the federal government lacked the power to allocate non-navigable rivers.[83]

Federal responsibility for interstate water development produced a law of commensurate federal powers, and centered the apportionment dispute on challenges to these powers. In 1940 the Supreme Court began to free federal jurisdiction from the historic limited navigability standard[84] and ultimately equated federal power with the full reach of the commerce clause. Federal power to allocate interstate waters by congressional legislation was finally confirmed in *Arizona v.*

79. *Id.* at 646.

80. *See Report of the President's Water Resources Policy Commission*, Vol. 3 Water Resources Law 12-19 (1950).

81. 206 U.S. 46, 85-95 (1907).

82. Reclamation Act of 1902, Ch. 1093, 32 Stat. 388 (current version codified in scattered sections of 43 U.S.C. (1976)).

83. *See* Nebraska v. Wyoming, 325 U.S. 589, 611-16 (1945).

84. United States v. Appalachian Power Co., 311 U.S. 377 (1940), *reh'g denied*, 312 U.S. 712 (1941). *See also* Oklahoma v. Atkinson, 313 U.S. 508 (1941).

California,[85] although there is substantial doubt that Congress in fact exercised the power in the Boulder Canyon Project Act of 1928.[86] This development made federal discretion the major factor in the allocation of many streams and shifted the focus from equitable apportionment actions to litigation challenging federal power.

The Court has returned to the rule that state law controls the distribution of federal reclamation project water unless Congress specifically dictates otherwise[87] and has showed renewed interest in equitable apportionment. The era of federal construction of large-scale projects, many of which were marginal at best, is now over. New federal interests such as environmental protection will allow the federal government to play a major continuing role in interstate apportionment, but as the states are forced to assume more direct responsibility for water resource development, equitable apportionment actions may become important in the future.[88]

V. 1982-: NEW DIRECTIONS FOR EQUITABLE APPORTIONMENT

An interstate dispute between a small group of older diversions in New Mexico, and a proposed new industrial diversion in Colorado, provided the opportunity for the Court in 1982 to return to the doctrine of equitable apportionment, and to break a great deal of new

85. 373 U.S. 546 (1963). *See also* Texas v. New Mexico, 103 S. Ct. 2558 (1983) (congressional ratification of compact is exercise of federal power to apportion interstate waters and thus the Court cannot exercise equitable jurisdiction to reform the compact). *Cf.* Intake Water Co. v. Yellowstone River Compact Comm., 590 F. Supp. 292 (D. Mont. 1983), (congressional approval of compact express immunization of compact from negative commerce clause review). *See generally* Frankfurter and Landis, *The Compact Clause of the Constitution—A Study in Interstate Adjustments*, 34 YALE L.J. 685 (1925).

86. Act of December 21, 1928, 43 U.S.C. §§ 617-617(a-u) (1976). *See* N. HUNDLEY, *supra* note 7, at 305.

87. California v. United States, 438 U.S. 645 (1978), *remanded*, 509 F. Supp. 867 (E.D. Cal. 1981), *aff'd in part and rev'd in part*, 694 F.2d 1171 (9th Cir. 1982). For an excellent case study of the litigation, see B. ANDREWS AND M. SANSONE, WHO RUNS THE RIVERS? DAMS AND DECISIONS IN THE NEW WEST (1983).

88. *See* B. ANDREWS AND M. SANSONE, *supra* note 87 at 114-33; and Tarlock, *The Endangered Species Act and Western Water Rights*, 20 LAND & WATER L. REV. 1 (1985). In Texas v. New Mexico, 103 S. Ct. 2558 (1983), Justice Brennan indicated that entry into a compact does not foreclose an equitable apportionment:

> Texas' right to invoke the original jurisdiction of this Court was an important part of the context in which the Compact was framed; indeed, the threat of such litigation undoubtedly contributed to New Mexico's willingness to enter into a compact. It is difficult to conceive that Texas would trade away its right to seek an equitable apportionment of the river in return for a promise that New Mexico could, for all practical purposes, avoid at will. In the absence of an explicit provision or other clear indications that a bargain to that effect was made, we shall not construe a compact to preclude a State from seeking judicial relief when the compact does not provide an equivalent method of vindicating the State's rights.

103 S. Ct. at 2568.

doctrinal ground. While *Colorado v. New Mexico*[89] may confuse the existing standards for equitable apportionment, it provides the basis for the development of new standards better adapted to the kind of regional water conflicts that some forecast for the rest of this century.

The facts of the case are relatively simple. The Vermejo River arises high in Colorado but until the litigation all withdrawals were in New Mexico. New Mexico's major users were ranchers, industrial and mining water rights holders and a small reclamation project. In 1975 the Colorado Fuel and Iron and Steel Corporation (C.F. & I.) obtained a Colorado conditional decree to appropriate 75 cubic feet per second of the Vermejo River for industrial development.[90] The four major New Mexico users successfully brought suit in the New Mexico Federal District Court to enjoin any diversion by C.F. & I. that would impair senior rights because the river was fully appropriated.[91] The district court in effect applied *Bean v. Morris* and *Wyoming v. Colorado*, and enjoined C.F. & I. from interfering with senior New Mexico water rights.[92] Before an appeal in the Tenth Circuit could be heard, Colorado took up C.F. & I.'s battle by filing an original jurisdiction action.[93]

The Supreme Court appointed a special master, who rejected strict application of the appropriation doctrine. Under the law of prior appropriation, any diversion by Colorado would be subject to call by senior right holders in New Mexico. Nevertheless, the special master made an equitable apportionment that allowed a 4,000 acre-foot diversion in Colorado, about one-half of the average annual flow arising in the source state. He found that the only New Mexico appropriator that might be injured was the Vermejo Conservancy District, but that the equities favored Colorado because the district was economically marginal.

Before the Supreme Court, New Mexico challenged the special master's conclusions and argued that *Wyoming v. Colorado* should be

89. 459 U.S. 176 (1982).

90. *In re* Application of Water Rights of C.F. & I. Corp., No. W-3961 (Dist. Ct., W. Div. No. 2, June 20, 1975). The withdrawal would be a transmountain diversion but this poses no problems because that is what the law of prior appropriation is all about.

91. A brief description of the history of the district can be found in City of Raton v. Vermejo Conservancy District, 101 N.M. 95, 678 P.2d 1170, 1173-74 (1984).

92. *Id.* Kaiser Steel Corp. v. C.F. & I. Corp., No. W-3961 (D.N.M. 1978).

93. This would seem to be an occasion to find that Colorado was not suing *parens patriae*, but the Court accepted jurisdiction because "Colorado surely has a sovereign interest in the beneficial effects of the diversion on the general prosperity of the state." 459 U.S. at 182 n.9. *Nebraska v. Wyoming* was cited as an example where the court departed from prior appropriation because the injury to the junior right holders exceeded the benefits to the senior right holders, but the Court did not recognize how narrow the departure was or how consistent it was with the law of prior appropriation. *See supra* notes 102-04.

followed, but the Court took the occasion to restate the law of equitable apportionment to downgrade substantially the rule of priority between prior appropriation jurisdictions. Justice Marshall read the prior cases very broadly for two propositions that have limited precedent in prior law. First, it is proper for the Court to consider whether reasonable conservation measures in the downstream state might offset any injuries suffered by the upstream diversion.[94] His formulation of the standard is significant in light of the Court's subsequent disposition of the case:

> We recognize that the equities supporting the protection of existing economics will usually be compelling. The harm that may result from disrupting established uses is typically certain and immediate, whereas the potential benefits from a proposed diversion may be speculative and remote. Under some circumstances, however, the countervailing equities supporting a diversion for future use in one state may justify the detriment to existing users in another state. This may be the case, for example, where the state seeking a diversion demonstrates by clear and convincing evidence that the benefits of the diversion substantially outweigh the harm that might result. In the determination of whether the state proposing the diversion has carried this burden, an important consideration is whether the existing users could offset the diversion by reasonable conservation measures to prevent waste. This approach comports with our emphasis on flexibility in equitable apportionment and also accords sufficient protection to existing uses.[95]

Under this standard, New Mexico bore (and satisfied) the initial burden of showing that the proposed diversion threatened injury. Once New Mexico, as the downstream state, proved that less water would reach its water-right holders, the burden shifted to Colorado to show that the diversion should be permitted under the law of equitable apportionment.[96] Second, Justice Marshall harked back to the tentative opinion of *Kansas v. Colorado* for the bold proposition that "it is proper to weigh the harms and benefits to competing states." The case was remanded to the master for five specific findings to allow the Court to apply the standard.[97]

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94. 459 U.S. at 187.

95. 459 U.S. at 187-88.

96. 459 U.S. at 188 n.13.

97. (1) the existing uses of water from the Vermejo River, and the extent to which present levels of use reflect current or historical water shortages or the failure of existing users to develop their uses diligently;

(2) the available supply of water from the Vermejo River, accounting for factors such as

Colorado v. New Mexico is the first time that the Court imposed a duty to conserve on water users as a condition to a successful claim to a fair share of an interstate river. Justice Marshall drew on scattered dicta in earlier opinions,[98] but the cases never refused to recognize a water right because the method of exercise was inefficient. Discussion of the duty seems to have arisen in *Wyoming v. Colorado* where the Court based the calculation of the dependable flow of the Laramie, in part, on Wyoming's reservoir capacity to equalize the flow.[99] Justice Van Devanter did say that each state had a duty to conserve a common supply, but he found that Wyoming had fulfilled its duty.[100] In *Washington v. Oregon*,[101] Justice Cardozo improvised on Justice Holmes's statement that a river is a treasure to say that "[t]here must be no waste in arid lands of the 'treasure' of a river," but he found no waste by the defendant irrigators. Finally, wasteful practices are among the laundry list of factors to be considered under Justice Douglas's formulation of the equitable apportionment standard in *Nebraska v. Wyoming*,[102] but no party was penalized for waste. In fact, in previous cases parties who might have been wasteful have often been able to continue their diversions by invoking the futile call doctrine.[103] It is more accurate to read Justice Marshall's opinion as adopting the argument, being advanced by many current critics of prior appropriation, that courts ought to read stringent, new conservation duties into the beneficial use requirement.[104]

Four justices concurred in two separate opinions and the second is especially significant because it was applied on remand. Justices

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variations in streamflow, the needs of current users for a continuous supply, the possibilities of equalizing and enhancing the water supply through water storage and conservation, and the availability of substitute sources of water to relieve the demand for water from the Vermejo River;

(3) the extent to which reasonable conservation measures in both States might eliminate waste and inefficiency in the use of water from the Vermejo River;

(4) the precise nature of the proposed interim and ultimate use in Colorado of water from the Vermejo River, and the benefits that would result from a diversion to Colorado;

(5) the injury, if any, that New Mexico would likely suffer as a result of any such diversion, taking into account the extent to which reasonable conservation measures could offset the diversion.

459 U.S. at 189-90.

98. 459 U.S. at 184.

99. 259 U.S. 419, 484 (1922).

100. *Id.* at 484-85.

101. 297 U.S. 517, 527 (1935).

102. 325 U.S. at 589, 618 (1945).

103. *See generally* Washington v. Oregon, 297 U.S. 517 (1936), discussed *supra* at notes 50-52.

104. *See, e.g.*, Shupe, *Waste in Western Water Law: A Blueprint for Change*, 61 OR. L. REV. 483 (1982). Grant, *The Future of Interstate Allocation of Water*, 29 ROCKY MT. MIN. L. INST. 977, 983-89 (1983) is a careful analysis of Justice Marshall's view of the doctrine of equitable apportionment and conservation duties.

Burger and Stevens emphatically emphasized that no state has priority over another.[105] Justice O'Connor, by contrast, expressed concern that the Court was departing from its past reliance on priority among the western states and veering towards an erroneous efficiency-based balancing:

> Colorado would have the Court assess the Conservancy District's "waste" and "inefficiency" by a new yardstick—i.e., not by comparing the economic gains to the District with the costs of achieving greater efficiency, but by comparing the "inefficiency" of New Mexico's uses with the relative benefits to Colorado of a new use. The special master has succumbed to this suggestion. His recommendation that Colorado be permitted a diversion embodies the judgment that, because Colorado can, in some unidentified sense, make "better" use of the waters of the Vermejo, New Mexico may be forced to change her present uses.
>
> Today the Court has also gone dangerously far toward accepting that suggestion. The Court holds . . . that it is appropriate in equitable apportionment litigation to weigh the harms and benefits to the competing States. It does so notwithstanding its recognition . . . that the potential benefits from a proposed diversion are likely to be speculative and remote, and therefore difficult to balance against any threatened harms, and its concession . . . that the equities supporting protection of an existing economy will usually be compelling.[106]

New Mexico ultimately prevailed, as the Court imposed a high standard of proof on Colorado, the state seeking to circumvent local law. On remand (*Colorado II*), Justice O'Connor writing for the majority held that Colorado had not demonstrated by clear and convincing evidence that the diversion should be permitted.[107] The Court explained that the clear-and-convincing evidence standard was a high one and unique to equitable apportionment. The diverting state bears the burden of showing that actual inefficiencies in present uses or that future benefits from the proposed use are highly probable because:

> The standard reflects this court's long-held view that a proposed diverter should bear most, though not all, of the risks of erroneous decision: "The harm that may result from dis-

105. 459 U.S. at 191-93 (Burger, C.J., and Stevens, J., concurring). *See* Note, *Equitable Apportionment and the Supreme Court: What's So Equitable About Apportionment?*, 7 HAMLINE L. REV. 405 (1984).

106. 459 U.S. at 192-93 (O'Connor and Powell, J.J., concurring).

107. 104 S. Ct. 2433 (1984).

> rupting established uses is typically certain and immediate, whereas the potential benefits from a proposed diversion may be speculative and remote. . . ." In addition, the clear-and-convincing-evidence standard accommodates society's competing interests in increasing the stability of property rights and in putting resources to their most efficient uses.[108]

In applying this standard, the Court made an independent review of the record and concluded that Colorado had not identified specific conservation measures that would in fact "preserve any of the Vermejo River water supply."[109] Colorado's proposed solution of more rigorous New Mexico water administration was dismissed as too general. Colorado had proved that the Vermejo Conservancy District was less efficient than other districts in the state. But, impressed with a district program to increase delivery efficiencies, the Court concluded that Colorado failed to demonstrate both a financially and physically feasible method of increasing the district's efficiency.[110]

Although *Colorado v. New Mexico* is, in terms of result, a replay of *Wyoming v. Colorado*, the two opinions suggest that the Court is tightening the standards that a state must meet to retain waters put to historic beneficial use. Colorado seems to have lost because neither the state nor the actual diverter, C.F. & I., proved that the diversion would maximize the value of water. *Colorado I* reaffirmed and applied Justice Douglas's formulation of the equitable apportionment standard in *Nebraska v. Wyoming*. Despite this standard, *Colorado II* ultimately refused to allow a junior diversion to jeopardize senior uses, but not simply because Colorado's proposed use was junior. C.F. & I. had not settled on a construction plan or prepared an economic analysis of its proposed diversion. Colorado has the most decentralized water rights administration scheme of any of the western states and this came back to haunt the state: "Colorado has not committed itself to any long-term use for which future benefits can be studied and predicted. . . . All Colorado has established is that a steel corporation wants to take water for some identified use in the future."[111] The Court went further and imposed long-range planning obligations on both states and found that New Mexico, which had spent some money on economic studies to prop up the value of existing uses had better discharged the duty. "Long-range planning and analysis will, we believe, reduce the uncertainties with which equitable apportionment

108. *Id.* at 2438 (citations omitted).

109. *Id.* at 2439.

110. *Id.* at 2440.

111. *Id.* at 2441.

judgments are made. If New Mexico can develop evidence to prove that its existing economy is efficiently using water, we see no reason why Colorado cannot take similar steps to prove that its future economy could do better."[112]

Justice Stevens's dissent presented a detailed analysis of the evidence, and argued that the majority gave insufficient deference to the findings of the special master.[113] His dissent stressed that a closed stock and domestic water delivery system would save 2,000 acre feet per year for the Vermejo Conservancy District, that the district was very inefficient, that New Mexico had failed to administer the exercise of water rights in the district to prevent waste, that Colorado had adequately proved that the proposed diversion would be valuable because it would supplement supplies in the over-appropriated Purgatoire River system, and that all proposed Colorado uses had higher efficiencies.

Colorado I and *II* give some indication that the Court is moving to impose greater conservation responsibilities on states when historic use patterns on interstate waters become inefficient judged by contemporary demands on the stream. Both to preserve supplies for internal uses and to assert fair share claims against another state, states must demonstrate that they have an adequate process to attempt to maximize the use of available waters. Through legislation and the judicial imposition of public trust duties,[114] states are moving toward planning and evaluation processes that ask harder questions about the need to develop new or reallocate existing supplies than have been asked in the past.[115] *Colorado I* and *II* send the same message to the states that the Court's important, although barely coherent, opinion in *Sporhase v. Nebraska*[116] sends: states must generate hard evidence, not just pious

112. *Id.*

113. 104 S. Ct. at 2442-50 (Stevens, J., dissenting).

114. *See* United Plainsmen Ass'n v. North Dakota, 247 N.W.2d 457 (N.D. 1976); and National Audubon Soc'y v. Superior Court of Alpine County, 33 Cal. 3d 419, 658 P.2d 709, 189 Cal. Rptr. 346 (1983).

115. Western states are beginning to absorb this message. An especially significant example of the new, more clear-headed attitude toward interstate waters is Report of the Select Committee On Water Marketing: 49th Legislature State of Montana (Jan. 1985). The report advises state water users that "[a] state water plan is important in . . . proving, by clear and convincing evidence, that its diversion should be allowed to continue." *Id.* at III-11.

116. 458 U.S. 941 (1982). The standards that the Court will ultimately apply to allow states to refuse to share are unclear. In addition to sources cited *supra* in note 74, see Note, *Sporhase v. Nebraska: The Muddying of Commerce Clause Waters*, 11 ECOLOGY L. Q. 215 (1983); Note, *The Dormant Commerce Clause and the Constitutionality of Interstate Groundwater Management*, 62 TEX. L. REV. 537 (1983); and Note, Sporhase v. Nebraska, *A Call For New Approaches to Water Resource Management*, 11 HAST. CONST. L. Q. 283 (1984). For a cogent argument that *Sporhase* should not apply to waters not yet allocated under state law see Trelease, *State Water and State Lines: Commerce in Water Resources*, 56 U. COLO. L. REV. 301 (1985).

assumptions, to support the need for the use of water to which other states have a legitimate claim under the doctrine of equitable apportionment.

VI. CONCLUSION

Five broad principles emerge from an examination of the equitable apportionment decisions, in addition to the usual statements about the Court's standards and qualifications on its exercise of original jurisdiction:

1. In appropriation states, the doctrine of prior appropriation will be presumptively applied across state lines in small river basins.
2. The doctrine of prior appropriation will also be presumptively applied in large river basins, but the presumption is weaker on large compared to small river basins. The Court will be more willing to temper the doctrine in the name of equality among states to remove some of the safety margins it offers to prior users.
3. In riparian states, the common law of riparian rights will be presumptively applied on both large and small river basins. As with the doctrine of prior appropriation, the Court will temper the common law. However, the Court will seek to preserve the essential feature of the common law that riparian states are entitled to a substantial quantity of the base flow or lake level left in place to support a wide variety of nonconsumptive uses.
4. In both prior appropriation and riparian jurisdictions, the Court retains the power to displace existing uses but this power will be exercised sparingly. On small streams, the inference that can be drawn from *Colorado II* is that market reallocations will first be given a chance to operate. On large streams, the state that wishes to initiate a new use has the burden to demonstrate that existing uses are wasteful, and the proposed use will promote a more efficient allocation of the resource.
5. State planning to conserve existing supplies will assume a larger role in state efforts to avoid sharing duties or to impose sharing duties on other states.

Negotiation compromise among states is still the best apportionment vehicle, but in many cases the product of negotiation—interstate compacts—merely postpones the exercise of original jurisdiction. A compact is usually negotiated as a substitute for a Supreme Court eq-

uitable apportionment. But, when it becomes necessary to litigate the meaning of a compact term or concept, a court will turn to the law of equitable apportionment to ascertain the intent of the drafters. When states cannot agree among themselves over the sharing of interstate waters, the Supreme Court has often shown itself capable of striking sensible accommodation among competing demands.

Equitable apportionment actions require the Court to strike a balance, between the protection of existing uses and the initiation of new uses, that tends to maximize the value of the resource. Protection of existing uses is the starting point of an equitable apportionment because it is often fair and efficient to do so. It is fair to honor the settled expectations that arise from patterns of local water resource development. Existing uses may not be the most efficient use of the water, but it does not follow that an equitable apportionment is necessary to promote efficiency; the market is the best method of determining efficiency. States have long resisted subjecting water allocation to the harsh discipline of the market, but they are being forced to make hard choices about water. The era of federal reclamation projects and subsidies has ended, population growth will dictate substantial reallocations, and Supreme Court decisions such as *Sporhase* will spur the removal of market barriers as beneficial use evolves toward the concept of economic efficiency. Thus, once the Court makes an equitable apportionment, further reallocations may be possible to an extent that would have been unthinkable in the past.