A Preview of Coming Attractions? *Wyoming v. United States* and the Reserved Water Rights Doctrine

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INTRODUCTION

On July 3, 1989, an evenly divided United States Supreme Court[1] upheld a Wyoming Supreme Court decision that awarded the Wind River Indian Reservation reserved water rights totalling over 500,000 acre-feet of water per year for agricultural purposes.[2] The Court's split decision sustained the Wyoming court's use of the practicably irrigable acreage (PIA) doctrine to quantify the Shoshone and Arapahoe Tribes' reserved water right for agricultural purposes.[3]

Although the Supreme Court did not issue a written opinion in the case, the questions asked and the statements made by several Justices during the oral argument reveal not only that several members of the Court are dissatisfied with the PIA measure, but also that the Court may be prepared to review the reserved rights doctrine itself. Given the current Court's willingness to reverse established precedent and prior Court interpretations of congressional action,[4] a dismantling of the entire re-

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1. Wyoming v. United States, 109 S. Ct. 2994, *reh'g denied,* 110 S. Ct. 28 (1989). Justice O'Connor did not participate in the decision, although she attended the oral arguments.

2. *In re* the General Adjudication of All Rights to Use Water in the Big Horn River Sys., 753 P.2d 76 (Wyo. 1988) [hereinafter *Big Horn Adjudication*]. *See* Brief for the Petitioner [State of Wyoming] On Writ of Certiorari at 7, *Wyoming v. United States,* 109 S. Ct. 2994 (1989) (No. 88-309) [hereinafter *Wyoming v. United States*]. An acre-foot of water is approximately 326,000 gallons. It is the amount of water that would cover an acre of land to a depth of one foot. J. SAX & R. ABRAMS, LEGAL CONTROL OF WATER RESOURCES 291 (1986).

3. This was the only issue on which the Supreme Court had granted certiorari. *See infra* text accompanying notes 264-68.

4. *See, e.g.,* Employment Division, Department of Human Resources of Or. v. Smith, 1990 WESTLAW 42783 (a general criminal law not specifically directed at sacramental use of peyote by Native American Church members is not an unconstitutional abridgement of the free exercise clause); Patterson v. McClean Credit Union, 109 S. Ct. 2363, 2372 (1989) (narrowing the Court's previous interpretation of § 1 of the Civil Rights Act of 1866, 42 U.S.C. § 1981 (1982)); Wards Cove Packing Co., Inc. v. Antonio, 109 S. Ct. 2115, 2128 (1989) (raising the standard for proving discrimination in hiring or promotion under Title VII of the Civil Rights Act of 1964, 42 U.S.C. § 2000e-2(a) (1982)); Webster v. Reproductive Health Servs., 109 S. Ct. 3040, 3067 (1989) (Blackmun, J., concurring in part, dissenting in part) ("The

served rights doctrine is possible. Because a number of Indian reserved rights cases are currently in litigation,[5] the Court will have more opportunities to review the use of the PIA doctrine and perhaps to redefine the reserved rights doctrine. An evaluation of the Court's discussion in *Wyoming* may indicate the Court's position in future cases.[6] Moreover, because *Wyoming* creates the possibility of a change in the reserved rights doctrine, it may affect ongoing settlement negotiations between tribes and non-Indian water users.[7] Hopefully, the Court's decisions in these future cases will clarify the issues raised during the oral argument in *Wyoming.*

This Note examines the potential impact of future Court decisions by first reviewing the development and evolution of the reserved rights doctrine and the PIA standard. Part II analyzes the Wyoming Supreme Court's opinion in the Big Horn River adjudication, which quantified the reserved rights of the Shoshone and Arapahoe Tribes. Part III focuses on the proceedings before the United States Supreme Court in an attempt to determine why four members of the Court were prepared to overturn a state court determination of Indian water rights that had taken eleven years to conclude. Part IV speculates on directions the Court might take in future reserved rights cases and evaluates the impacts of these options.

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plurality opinion is filled with winks, and nods, and knowing glances to those who would do away with *Roe* explicitly . . . .").

5. These include adjudications of the Gila River and the Little Colorado River in Arizona, the Snake River in Idaho, and all water sources in Montana. *See* Brief for the United States On Writ of Certiorari at 49 n.46, *Wyoming v. United States.* There are also ten stream adjudications under way in New Mexico involving 18 Indian tribes and 20,000 non-Indian claimants. Brief of the State of New Mexico as Amicus Curiae On Writ of Certiorari at 1-2, *Wyoming v. United States.* For a list of ongoing cases and settlement negotiations, see P. SLY, RESERVED WATER RIGHTS SETTLEMENT MANUAL 194-211 (1988).

6. In two other cases decided this term, the Supreme Court dealt with the sovereign authority of Indian tribes over lands within their reservations. In Brendale v. Confederated Tribes and Bands of Yakima Nation, 109 S. Ct. 2994 (1989), a divided Court held that the Yakima Tribe had the authority to zone fee land within reservation boundaries that was owned by nonmembers and in areas closed to the general public, but not fee land within areas open to the public. Notably, Justices Rehnquist, Scalia, White, and Kennedy denied that the Tribe had authority in either instance, while Justices Blackmun, Brennan, and Marshall argued that the Tribe had the power in both. Justices Stevens and O'Connor were the swing votes.

In Cotton Petroleum Corp. v. New Mexico, 109 S. Ct. 1698 (1989), the Court held that the state can impose severance taxes on oil production by non-Indian leasees of Indian land, even where the tribes are also taxing production. Justice Stevens wrote the majority opinion, which Justices O'Connor, Rehnquist, Scalia, White, and Kennedy joined.

7. *See, e.g.,* Brief of Amicus Curiae Shoshone-Bannock Tribes in Support of Respondents On Writ of Certiorari at 17-19, *Wyoming v. United States,* which argues that rejection of the PIA doctrine will impair the tribes negotiations with the state of Idaho.

I
THE EVOLUTION OF THE RESERVED RIGHTS DOCTRINE

A. Defining the Implied Reserved Right

Like any other proprietor, both the federal government and Indian tribes may claim state law riparian or appropriative surface water rights[8] by satisfying state law requirements.[9] The reserved rights doctrine, however, creates a right to surface water[10] under federal law. The right is predicated on the notion that

> when the federal government withdraws its land from the public domain and reserves it for a federal purpose, the Government, by implication, reserves appurtenant water then unappropriated to the extent needed to accomplish the purpose of the reservation.[11]

Even though the reserved right is a "federal" water right adhering to any "federal" reservation of land, the extent of the right is limited by state law: only unappropriated water can be reserved by implication,[12] and the reserved right assumes its position in the state priority system based on the date of the creation of the reservation.[13] As such, the reserved

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8. State law water rights are property rights based on the divergent doctrines of riparianism and prior appropriation. Under classic riparian doctrine, rights to surface water adhere to the land, are not lost if the water is not used, and can be used on the riparian land to the extent that the use does not unreasonably interfere with the uses of other riparians.

By contrast, under the prior appropriation doctrine, beneficial use of the water, not land ownership, is the basis of the right. Although most state laws require that the water be diverted from the watercourse to constitute a use, there are generally no limitations on where the water may be used. Unlike riparian rights, appropriative rights can be lost by nonuse. Moreover, each appropriative right receives a priority date based on the first beneficial use of the water, and appropriators receive their entire allotted water right in order of their seniority. In times of shortage, where the riparian system allows users to share the burden of declining supplies, the prior appropriation system rejects such pro rata sharing and forces junior appropriators to cease all use if the water is needed to supply senior appropriators. *See generally* J. SAX & R. ABRAMS, *supra* note 2, at 154-58, 278-79. Appropriative uses can also be limited under the public trust doctrine. *See, e.g.*, National Audubon Soc'y v. Superior Court of Alpine County, 33 Cal. 3d 419, 658 P.2d 709, 189 Cal. Rptr. 346, *cert. denied*, 464 U.S. 977 (1983) (state can prevent use of water if the use threatens values protected by the public trust).

9. For a discussion of federal proprietary rights, see *In re* Water of Hallet Creek Stream Sys., 44 Cal. 3d 448, 459-60, 749 P.2d 324, 333-35, 243 Cal. Rptr. 887, 892-94 (1988), *cert. denied*, 109 S. Ct. 71 (1988) (holding that the United States retains riparian rights to water flowing through the Plumas National Forest).

10. The issue of whether reserved rights exist in groundwater remains open to dispute. *See, e.g.*, Tarlock, *One River, Three Sovereigns: Indian and Interstate Water Rights* 22 LAND & WATER L. REV. 631, 647-48 (1987); *infra* note 207.

11. Cappaert v. United States, 426 U.S. 128, 138 (1976). Exactly what constitutes the legal basis for the reserved rights doctrine is unclear. Divergent theories postulate that reserved rights are based on treaty interpretation, federal common law, the supremacy clause, or the property clause. *See* J. SAX & R. ABRAMS, *supra* note 2, at 516-17.

12. If the quantity of unappropriated water needed to satisfy the reservation is unavailable, the federal government can purchase or condemn water rights to supply the reservation. Unlike claiming reserved rights, however, both these methods require the government to compensate owners of vested water rights.

13. *See* Arizona v. California (*Arizona I*), 373 U.S. 546 (1963); *but see* United States v.

right, like any state law appropriative water right, can be preempted by more senior state law rights. However, because most reserved rights have senior priority dates, more often it is state law water users, even senior users, who fear that use of reserved rights will cut off their water supply.

At the same time, reserved rights differ, at least in theory, from state law appropriative rights because reserved rights are not subject to the state law requirement that not using the water results in a forfeiture or abandonment of the right.[14] This immunity from the classic state law "use it or lose it" maxim is the soul of the reserved rights doctrine. Given that the reserved rights can be used at any time without loss of the priority date, other uses may be curtailed when the reserved right is actually exercised. Because the reserved water can be used at any time and because the quantity of water reserved is not clear until the reserved right has been quantified, the existence of reserved rights creates uncertainties for state law water users.

Reserved rights, however, are not the exclusive source of uncertainty in state law systems. For example, when waters are divided by interstate compact or by equitable apportionment, water users in one state use their share of that state's allotment pursuant to the priority system of that state. The result is that water use by junior appropriators in one state may injure senior water users in the second state.[15] Similarly, in some states, perhaps most flagrantly in Wyoming, holders of conditional water rights may attempt to use water rights that have remained dormant for years.[16] These rights, issued by the state when a water project is proposed to assure the developer that water with the permit priority date will be available when the project is completed, are

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Adair, 723 F.2d 1394, 1414 (9th Cir. 1983), *cert. denied sub nom.* Oregon v. United States, 467 U.S. 1252 (1984) (aboriginal water rights for land the Klamath Tribe has occupied for over a thousand years have a priority date of "time immemorial").

14. For example, under applicable Wyoming law, nonuse for a period of five years is evidence of abandonment of a water right. WYO. STAT. § 41-3-401(a) (1977). Under the supremacy clause, however, federal property rights can be extinguished by the operation of state law only where Congress so allows. Although opponents of the reserved rights doctrine decry the nonuse immunity granted reserved rights, many states have not strictly enforced their forfeiture or abandonment provisions. *See, e.g., infra* note 16.

15. *See* Tarlock, *supra* note 10, at 653-54. As the United States Supreme Court has stated in an equitable apportionment case, "[T]he rule of priority should not apply where it 'would work more hardship' on the junior user 'than it would bestow benefits on the senior user.' " Colorado v. New Mexico, 459 U.S. 176, 186 (1982) (citing Nebraska v. Wyoming, 325 U.S. 589, 619 (1945)). The doctrine of equitable apportionment, which is often applied in interstate water disputes, allows the Court to retain the jurisdiction to alter the quantity of the reserved right as circumstances change. *See, e.g.,* Texas v. New Mexico, 462 U.S. 554, 563 (1983); Nebraska v. Wyoming, 325 U.S. 589 (1945).

16. *See generally* Battle, *Paper Clouds Over the Waters: Shelf Filings and Hyperextended Permits in Wyoming,* 22 LAND & WATER L. REV. 673 (1987).

even more problematic than reserved rights because water users generally have no notice that they exist.[17]

Unlike these state law water rights, however, the amount of the implied reserved right is uncertain and must be quantified. The contentious and often highly technical and time consuming quantification process occurs in three stages.[18] First, the court must deduce the intent of the parties creating the reservation in order to determine the purposes for the reservation. Reserved rights are implied only to effectuate those purposes. The court then determines what uses of this water are proper to effectuate these defined purposes and, finally, quantifies the amount of water needed to do so.

At each stage, conflicts arise. In determining the purposes for the reservation, courts must interpret the statue, treaty, agreement, or Executive order that created the reservation. Opponents of reserved rights argue for a strict construction of these enabling actions in an attempt to limit the number and breadth of the purposes for which water is reserved.[19] Proponents, on the other hand, seek to expand the purposes, and in the case of water for Indian reservations, they argue that the reservations were established to create permanent homelands, a concept that encompasses indefinite, but broad purposes.[20]

Because the allowed uses are constrained by the defined purposes, the second step focuses on whether the water can be used for purposes other than those for which it is quantified.[21] Can water reserved for agricultural purposes, for example, be used for industrial purposes, or to maintain instream flows, or, most importantly, can the water be sold, leased, or exchanged?

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17. State law generally requires holders of conditional rights to prove due diligence in building the proposed project to preclude forfeiture of the water rights. *Id.* at 673, 680-81, 688-94. Satisfying this diligence requirement, however, can be perfunctory, as it has been in Wyoming. Moreover, unless the state or other private parties challenge these rights, the holder may attempt to use, trade, or sell these rights at some time. Even if this attempt ultimately is unsuccessful, the need to challenge conditional rights or to buy out the holder of the right can be risky and expensive. *Id.* at 680-82. *See, e.g.,* Green River Dev. Co. v. FMC Corp., 660 P.2d 339 (Wyo. 1983) (invalidating the Wyoming State Engineer's approval of transfer of a conditional water right).

18. For example, the quantification process in the Big Horn adjudication took four years to conclude. *Big Horn Adjudication,* 753 P.2d 76, 85 (Wyo. 1988). Quantification of federal reserved rights occurs only during "general stream adjudications" as defined under the McCarran Amendment, 43 U.S.C. § 666 (1982), a rider to a 1952 Department of Justice appropriations bill that allows the federal government to be joined as a defendant in any suit in state court "for the adjudication of rights to the use of water of a river system or other source . . . where it appears that the United States is the owner of or is in the process of acquiring water rights by appropriation under State law, by purchase, by exchange, or otherwise."

19. *See infra* notes 105-09 and accompanying text.

20. *See infra* notes 110-12 and accompanying text.

21. *See infra* note 110 and accompanying text.

Once the purposes and proper uses are determined, the court must quantify the amount of water needed to effectuate these purposes. Theoretically, this is an objective measure and, again, if a purpose for the reservation is agriculture, the court or the special master applies the practicably irrigable acreage test to quantify the reserved right.[22] However, because reserved rights preempt state law water rights without compensation, this "objective" measure can be very controversial and may be subject to equitable arguments by state law water users. Although equitable factors, such as injury to established state law water users, are precluded from the reserved rights equation,[23] courts remain sensitive, at least implicitly, to the impact of granting reserved rights.[24] Thus, equitable considerations may play a role in determining the purposes of the reservation and in measuring the quantity of the reserved right.[25]

B. Creating the Reserved Right: Winters v. United States

Although reserved rights are implied for all federal reservations,[26] the doctrine originally developed as a "special quirk of Indian water law"[27] in the 1908 case of *Winters v. United States.*[28] In *Winters,* the Court established the reserved rights doctrine and applied it to enjoin non-Indian irrigators on the Milk River in Montana from storing or diverting water to the detriment of downstream Indian farmers who lived on the Fort Belknap Reservation.[29] In the midst of a severe drought,[30] these diversions had dried up the river that defined the northern boundary of the reservation[31] and whose water the tribes were diverting for irrigation through a system capable of irrigating 30,000 acres.[32]

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22. *See, e.g., Arizona I,* 373 U.S. 546, 598, 600-01 (1963).

23. Cappaert v. United States, 426 U.S. 128, 138-39 & n.4 (1976).

24. *See, e.g.,* United States v. New Mexico, 438 U.S. 696, 718 (1970) (Powell, J., dissenting in part) (mentioning the "sensitivity" doctrine). *See also infra* text accompanying notes 232-35.

25. *New Mexico,* 438 U.S. at 705 (the impact on state water users must be weighed in determining congressional intent regarding water reservations).

26. *Cappaert,* 426 U.S. at 138.

27. Trelease, *Federal Reserved Water Rights Since PLLRC,* 54 DEN. L.J. 473, 475 (1977).

28. 207 U.S. 564 (1908).

29. *Id.* at 565. The tribes on the Fort Belknap Reservation were the Gros Ventre and Assiniboine. *Id. See also* Hundley, *The Dark and Bloody Ground of Indian Water Rights: Confusion Elevated to Principle,* 9 W. HIST. Q. 454, 461 (1978).

30. Hundley, *supra* note 29, at 461.

31. Originally, the area had been part of the Great Blackfeet Reservation, created in 1855, and had contained over 17.5 million acres. As white settlers flooded west and the demand for land escalated after the Civil War, the reservation was drastically reduced in size. *See* Hundley, *The Winters Decision and Indian Water Rights: A Mystery Reexamined,* 13 W. HIST. Q. 17, 20 (1978). Henry Winter (no "s") and the other settlers farmed land removed from the reservation by Congress in 1874. *See* Act of April 15, 1874, ch. 96, 18 Stat. 28 (1874).

32. R. DUNBAR, FORGING NEW RIGHTS IN WESTERN WATERS 195 (1983).

That the implied reserved rights theory was before the Court was fortuitous for the tribes. Initially, the government had planned to seek the injunction on behalf of the Indians on the ground that the Indians were prior appropriators under state law.[33] Fearing, as was actually the case, that the settlers were senior appropriators, U.S. Attorney Carl Rasch based the government's complaint on a number of legal theories.[34] He contended, in part, that because the reservation bordered the Milk River, the tribes as riparian owners were entitled to all the water necessary to carry out the purposes of the reservation.[35] With less conviction, he also argued that depriving the Indians of water violated the 1888 agreement between the tribes and the government, which had created the reservation.[36] In the end, the United States Supreme Court rejected the riparian argument, but created the implied reserved water right.[37]

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33. D. MCCOOL, COMMAND OF THE WATERS: IRON TRIANGLES, FEDERAL WATER DEVELOPMENT AND INDIAN WATER RIGHTS 38 (1987).

34. *Id.* at 38-39. The settlers proved they had perfected their water rights four days prior to the creation of the reservation.

35. *Id.*

36. Hundley, *supra* note 31, at 26; D. MCCOOL, *supra* note 33, at 38-39.

37. Winters v. United States, 207 U.S. 564, 576-77 (1908). Because the Supreme Court decided the case based on its interpretation of the 1888 agreement, it did not discuss the government's argument that under United States v. Rio Grande Dam & Irrigation Co., 174 U.S. 690 (1899), the state could not destroy the riparian rights of the federal government to the Milk River. *Winters*, 207 U.S. at 578. In *Rio Grande*, the Court had relied on Congress' power "over interstate commerce and its natural highways" to hold that the federal government could restrain the construction of a dam across the Rio Grande River. *Rio Grande*, 174 U.S. at 703. In his majority opinion, however, Justice Brewer, the lone dissenter in *Winters*, stated in dictum that:

> [I]n the absence of specific authority from Congress a State cannot by its legislation destroy the right of the United States, as the owner of lands bordering on a stream, to the continued flow of its waters; so far at least as may be necessary for the beneficial uses of government property.

Id.

The Court's refusal to reaffirm this riparian right was at once illogical and defensible. It was illogical because the tribes were unaffected by state appropriative water laws and yet were denied their rights as riparian landowners whose occupancy had begun long before most state water laws were enacted. Moreover, the reserved rights doctrine adopted many of the characteristics of the riparian right, including the inapplicability of forfeiture provisions due to nonuse and the need for the reservation to be riparian to the water course, unless this latter requirement was explicitly removed by Congress. *See* Gila River Pima-Maricopa Indian Community v. United States, 684 F.2d 852 (Ct. Cl.), *aff'd in part*, 695 F.2d 559, 560-61 (9th Cir. 1982). At the same time, the Court's decision was defensible because if riparian rights inhered in the enormous tracts of land in the West still controlled by the federal government, irrigation development might have been slowed. Not until 1935 did the Court hold that the Desert Land Act of 1877, 19 Stat. 377, 43 U.S.C. §§ 321-323 (1982 & Supp. V 1987), had severed all unappropriated water from land in the public domain, California Or. Power Co. v. Beaver Portland Cement Co., 295 U.S. 142, 158 (1935), and thereby relinquished federal riparian rights in states with wholly appropriative state law systems. *In re* Water of Hallet Creek Stream Sys., 44 Cal. 3d 448, 458, 749 P.2d 324, 332-33, 243 Cal. Rptr. 887, 891-92 (1988), *cert. denied*, 109 S. Ct. 71 (1988) (where state law recognizes riparian rights, these rights inhere in federal lands).

In addition to choosing between various water rights theories, the Court also had to contend with two broader and conflicting themes. First, the notion that Indian tribes had "federal" water rights corresponded with the doctrine of tribal sovereignty, which holds Indian tribes immune from state law absent specific congressional action.[38] However, the idea that a federal water right could exist at all conflicted with the deference the federal government had shown to state control of intrastate water sources.[39]

Second, as a matter of social policy, the Court's creation of a nonusufructory water right conflicted with the gospel of the Progressive Era that the efficient *use* of natural resources, the "rationalization" of nature,[40] was a predicate to progress.[41] A reserved right could remain unused until needed. More importantly, even where the tribes intended to use the water, as in the *Winters* case, the feeling of the Progressive Era technocrat was that the Indians would not use it efficiently. As engineer Arthur Powell Davis stated, it was senseless to destroy "several acres well tilled by white men . . . for the benefit of one acre poorly worked by Indians."[42] Although Davis was speaking specifically about the use of water by Indians, his opinion reflected the long-standing view that Indian

38. *See, e.g.,* Worcester v. Georgia, 31 U.S. (6 Pet.) 515, 592-94 (1832). The rationale of the Marshall court was that the Indians were wards of the federal government "in a state of pupilage." Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) 1, 17 (1831); *see also* New Mexico v. Mescalero Apache Tribe, 462 U.S. 324, 332 (1983). The constitutional basis for this immunity is the commerce clause, U.S. CONST. art. 1, § 8, which grants Congress the power "[t]o regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes." Courts have interpreted this to mean that "state laws generally are not applicable to tribal Indians on an Indian reservation except where Congress has expressly provided that state laws shall apply." *See, e.g.,* McClanahan v. State Tax Comm'n of Ariz., 411 U.S. 164, 170-71 (1973).

39. *See, e.g.,* section 8 of the National Reclamation Act, 32 Stat. 390 (1902) ("nothing in this act shall be construed as affecting or intended to affect or to in any way interfere with the laws of any State or Territory relating to the control, appropriation, use, or distribution of water used in irrigation"). Indeed, even as *Winters* wound through the lower courts, the Supreme Court strengthened the right of each state to control the streams within its boundaries, *see, e.g.,* Kansas v. Colorado, 206 U.S. 46 (1907), according to the myriad ways that had developed to deal with water rights. *See* R. DUNBAR, *supra* note 32, at 73-191. In recent years, the Supreme Court has reaffirmed this deference to state control of water resources. *See* California v. United States, 438 U.S. 645 (1978).

As to interstate streams, however, the federal government had already asserted its preemptive power. *See United States v. Rio Grande Dam & Irrigation Co.,* 174 U.S. 690 (1899).

40. *See* D. WORSTER, RIVERS OF EMPIRE: WATER, ARIDITY AND THE GROWTH OF THE AMERICAN WEST 154-55 (1985).

41. *See generally* S. HAYES, CONSERVATION AND THE GOSPEL OF EFFICIENCY (1959); G. PINCHOT, THE FIGHT FOR CONSERVATION (1910); W. SMYTHE, THE CONQUEST OF ARID AMERICA (1900).

42. Gressley, *Arthur Powell Davis, Reclamation and the West,* 42 AGRIC. HIST. 241 (1969). Davis, an engineer, was the grandson of John Wesley Powell and later became commissioner of the Reclamation Service. Engineers in the newly established Reclamation Service openly opposed the reserved rights doctrine. D. MCCOOL, *supra* note 33, at 40.

rights to property could be extinguished indiscriminately because Indians did not use their property wisely.[43]

The *Winters* Court, with Justice McKenna writing for an eight-one majority, ignored these social considerations and framed the issue in simple contract terms. Government policy and the desire of the Indians "to become a pastoral and civilized people" had led to the 1888 agreement in which the tribes had ceded a large portion of the land they had inhabited as a "nomadic and uncivilized people."[44] Noting that the tribe previously "had command of the lands and the waters—command of all their beneficial use, whether kept for hunting, 'and grazing roving herds of stock,' or turned to agriculture and the arts of civilization,"[45] Justice McKenna's opinion rejected the idea that the tribes had "deliberately" relinquished their claims to this water or that the government had "deliberately accepted" relinquishment of the tribes' only "means of irrigation."[46] "Did they give up all this," Justice McKenna asked, "reduce the area of their occupation and give up the waters which made it valuable or adequate?"[47] The Court's answer was no: the waters had been reserved by implication.[48]

It is ironic that *Winters,* a decision hailed as a "Magna Carta for the Indian,"[49] was rendered by a *Lochner*-era Court not known for its sensitivity to the needs of the weaker sectors of society.[50] In creating the

43. The conflict over what constitutes proper use of the land has plagued Anglo-Indian relations in America since the colonial period. For a fascinating discussion of this conflict in colonial New England, see W. CRONON, CHANGES IN THE LAND: INDIANS, COLONISTS AND THE ECOLOGY OF NEW ENGLAND (1983); *see also* Hagan, *Justifying Dispossession of the Indian: The Land Utilization Argument,* in AMERICAN INDIAN ENVIRONMENTS: ECOLOGICAL ISSUES IN NATIVE AMERICAN HISTORY (C. Vecsey & R.W. Venables eds. 1980). In this same vein, Theodore Roosevelt, the consummate progressive, held the opinion that "this great continent could not have been kept as nothing but a game preserve for squalid savages." T. ROOSEVELT, THE WINNING OF THE WEST 90 (1889).

44. Winters v. United States, 207 U.S. 564, 576 (1908).

45. *Id.*

46. *Id.* The Court construed the agreement in the tribes' favor.

47. *Id.*

48. *Id.* The Court stated that construing the agreement to reserve water effectuated its purposes, while finding no reservation would effectively defeat the agreement's entire purpose. *Id.* at 577. The Ninth Circuit also had determined that water had been reserved by implication "at least to an extent reasonably necessary to irrigate their lands." Winters v. United States, 143 F. 740, 745-46, 749 (9th Cir. 1906).

49. Hundley, *supra* note 29, at 463. Although the *Winters* decision was a major victory for Indian tribes, most tribes have not been provided the money to construct the works needed to actually use the reserved water. This inability to obtain funding has been traced to their lack of political power. *See generally* D. MCCOOL, *supra* note 33. Indeed, the irrigation project for the Fort Belknap Reservation, home of the *Winters* doctrine, is still not completed, and the tribes continue to battle Congress for the necessary funding. *Id.* at 256-59.

50. Indeed, Justice Holmes had previously chastised the Court for applying the principles of Social Darwinism to constitutional issues. Lochner v. United States, 198 U.S. 45, 75 (1905) (Holmes, J., dissenting) ("The Fourteenth Amendment does not enact Mr. Herbert Spencer's Social Statics.").

reserved right, the *Winters* Court ultimately, although perhaps unwittingly, placed enormous power in the hands of Indian tribes. At the same time, the Court failed to clarify a number of issues. Two important issues left unresolved were whether water reserved for a specific purpose could be used only for that purpose, and whether the tribes or the government actually had reserved the water.

The proper limit on uses of reserved water continues to be a focal point of the debate over reserved rights. This issue arises both when a court defines the purposes for which water was reserved and when it attempts to limit those uses after the reserved right is quantified. Opponents of the reserved rights doctrine try to limit the purposes for which water was reserved by arguing that Congress solely intended to transform Indians into yeoman farmers, thus limiting the purpose of the reservation to agriculture.[51] Not only is it illogical to define the parameters of water use by tribes today according to a 19th century ideal with a mythology of its own,[52] but the language used in *Winters* also points to a broader standard. The *Winters* Court focused on the tribes' right to irrigation water, but it did so because the government sought to insure water for irrigation.[53] The Court, however, did not explicitly limit the tribes' use of the water to agricultural purposes, nor did it mention other proper uses of the water. Rather, the Court stated that the tribes had not relinquished "command of all their beneficial use" of the waters on the reservation[54] and that under the agreement the water could be used in pursuit of the ambiguous "arts of civilization."[55] This broad language militates against constrained interpretations of the purposes for Indian reserva-

51. For an interesting discussion of the growth of and mythology surrounding the Jeffersonian ideal of the yeoman farmer, see H. SMITH, VIRGIN LAND: THE AMERICAN WEST AS SYMBOL AND MYTH (1950). To trace the roots of this notion of "propertied independence," a term which better describes the Jeffersonian ideal, see Pocock, *Machiavelli, Harrington and English Political Ideologies in the Eighteenth Century,* 22 WM. & MARY Q. 549, 556 (1965). The General Allotment Act of 1887 (The Dawes Act), ch. 119, 24 Stat. 388-91 (codified in scattered sections of 25 U.S.C.), which sought "the gradual extinction of Indian reservations and Indian titles" through the allotment of separate parcels to individual Indians, Draper v. United States, 164 U.S. 240, 246 (1896), exemplifies the relevance of this notion to United States-Indian relations. As one of the era's great irrigation scholars put it, allotting land to the Indians and teaching "the modern methods of irrigation and agriculture, has done more toward their civilization during the last twenty years than was accomplished during all of the time prior to that period." 1 C. KINNEY, A TREATISE ON THE LAW OF IRRIGATION AND WATER RIGHTS 462 (2d ed. 1912). Indeed, individual ownership of land was seen as a means of qualifying tribal members "for the duties and responsibilities of citizenship." United States v. Mitchell, 445 U.S. 535, 544-45 n.5 (1980) (quoting a statement by Representative Perkins, 18 CONG. REC. 191 (1886)).

52. For an extended refutation of the mythological benefits of the irrigated yeoman farm ideal, see D. WORSTER, *supra* note 40, *passim.*

53. Winters v. United States, 207 U.S. 564, 576 (1908).

54. *Id.* at 576.

55. *Id. See also* Veeder, *Water Rights in the Coal Fields of the Yellowstone River Basin,* in AMERICAN INDIANS AND THE LAW 79 (L. Rosen ed. 1976).

tions and the proper uses of the water by tribes. In doing so, it lends credence to the concept of a reservation as a permanent homeland where tribes can use their water in any "beneficial" manner, not limited by the purposes used to quantify the right.[56]

The issue of which party actually reserved the water is esoteric, but significant. The *Winters* Court implied that both the tribes and the government had reserved the water. Justice McKenna's statement that the Indians did not "give up the waters which made [the land] valuable or adequate"[57] followed from his contract analysis and implied a tribal reservation of the water. The statement echoed language he had used in a previous decision that a treaty "was not a grant of rights to the Indians, but a grant of rights from them—a reservation of those not granted."[58] Referring to these waters later in the opinion, however, Justice McKenna stated that "the Government did reserve them."[59] Here he refuted the settlers' contention that Montana's admission as a state in 1889 had repealed any expressed or implied reservation, and he reaffirmed the federal government's power "to reserve the waters and exempt them from appropriation under the state law."[60] Justice McKenna clung to his contract analysis, noting that it would be "extreme to believe" that, in admitting Montana, Congress "destroyed the reservation and took from the Indians the consideration of their grant."[61]

The determination of which party reserved the water is important because it can affect the priority date of the reserved water right.[62] The answer also could constrain the Supreme Court's ability to reinterpret the reserved rights doctrine itself. If an implied reserved right merely reflects congressional intent, the present Court might reject the *Winters*

56. The special master in *Arizona I* stated that reserved rights quantified under the PIA doctrine could be used for purposes other than agriculture. Report of Special Master Simon H. Rifkind at 13a, *Arizona I*, 373 U.S. 546 (1963), *reprinted in* Brief for the United States On Writ of Certiorari, *Wyoming v. United States* [hereinafter *Arizona I* Special Master Report].

57. Winters v. United States, 207 U.S. 564, 577 (1908).

58. United States v. Winans, 198 U.S. 371, 381 (1905).

59. *Winters*, 207 U.S. at 577.

60. *Id.*

61. *Id.*

62. The generally accepted view is that the government reserved the water for the tribes and the date of priority is the date the reservation was created. *Arizona I*, 373 U.S. 546, 600; *see also* Bloom, *Indian "Paramount" Rights to Water Use*, 16 ROCKY MTN. MIN. L. INST. 669-93 (1971). If the Indians reserved the water, however, the right might be "immemorial" and predate any non-Indian use. *See supra* note 13. An attorney for the Justice Department, William Veeder, a proponent of this view, inserted language in the United States' petition to intervene in *Arizona I* that claimed that the rights of the tribes were "prior and superior" to all other parties. After officials from the Western states met with the U.S. Attorney General and objected to the phrase "in no uncertain terms," the government recalled its petition and excised the language. D. MCCOOL, *supra* note 33, at 182-83. Nevertheless, a treaty may explicitly recognize that a tribe's aboriginal water rights have "a priority date of time immemorial." United States v. Adair, 723 F.2d 1394, 1414 (9th Cir. 1983), *cert. denied sub nom.* Oregon v. United States, 467 U.S. 1252 (1984).

Court's interpretation of this intent.[63] If the treaty process is seen as a bilateral meeting of the minds, however, the intent of the tribe is critical and the Court cannot rely solely on its interpretation of congressional intent.

Because *Winters* was ambiguous on a number of issues, later courts have struggled to define the reserved right.[64] In fact, because the quantity of water sought by the government in *Winters* equalled the historic uses of the Fort Belknap tribes, that Court did not even grapple with the difficult problem of quantifying future uses.[65] Indeed, the opinion did not state explicitly that the quantity of water reserved included future as well as present needs.[66] The issue of how to determine the purposes for the creation of the reservation, as well as the allowable uses and the quantity of water required to satisfy those purposes, remains at the core of the dispute over reserved rights.

C. *Quantifying the Reserved Right: The Practicably Irrigable Acreage (PIA) Standard*

1. *Arizona I*

Fifty-five years after *Winters*, the United States Supreme Court strengthened and expanded the reserved rights doctrine in *Arizona v. California* (*Arizona I*).[67] The crux of this monumental case for Indian reserved rights was the Court's holding that the quantity of water re-

63. *See* Official Transcript of Proceedings Before the Supreme Court of the United States at 40, *Wyoming v. United States* [hereinafter Official Transcript of Proceedings] (the *Winters* doctrine is "just what this Court said Congress must have intended").

64. Later Courts have held that the reserved rights doctrine applies to all federal reservations, *see, e.g., Arizona I*, 373 U.S. 546 (1963) (fish and wildlife refuges, national forests); Cappaert v. United States, 426 U.S. 128, 142 (1976) (national monuments created by Executive order), and that the doctrine extends to Indian allottees, *see* United States v. Powers, 305 U.S. 527 (1939), and ratably to their non-Indian assignees and lessees, *see* Colville Confederated Tribes v. Walton, 647 F.2d 42, 50-51 (9th Cir.), *modified*, 752 F.2d 397, *cert. denied*, 454 U.S. 1092 (1981).

65. *Winters*, 207 U.S. at 577.

66. The Ninth Circuit issued the first specific statement concerning future water rights in Conrad Inv. Co. v. United States, 161 F. 829 (9th Cir. 1908), where it stated that the tribes were entitled to "whatever water of Birch Creek may be reasonably necessary, not only for present uses, but for future requirements." *Id.* at 832. The court held that the water rights of the Indians were paramount, that Conrad could use only surplus water, and that his decreed right could be modified as tribal needs changed. *Id.* at 834-35. *See also* United States v. Ahtanum Irrigation Dist., 236 F.2d 321, 327 (9th Cir. 1956), *cert. denied*, 352 U.S. 988 (1957) (the Indians' water rights should expand as their needs and requirements for water grow).

67. 373 U.S. 546 (1963). During the intervening 55 years, the Court reaffirmed the *Winters* doctrine in United States v. Power, 305 U.S. 527, 532 (1939), and presaged its *Arizona I* decision in Federal Power Comm'n v. Oregon (*Pelton Dam*), 349 U.S. 435 (1955). In *Pelton Dam*, the Court held that under the Federal Power Act the federal government could issue a license to build a dam on reserved lands without state approval. *Id.* at 447-48. As part of its holding, the Court stated that the Desert Land Act did not apply to reserved lands, *id.*, a determination that dissenting Justice Douglas labelled a threat to state control of nonnavigable waters. *Id.* at 457 (Douglas, J., dissenting). Thus, even though the decision did not involve

served for agricultural purposes equals the quantity of water necessary to "irrigate all the practicably irrigable acreage on the reservations."[68] By adopting this PIA standard in the face of "strong objection," the Court directly confronted the thorny issue of how to quantify "future" rights, at least where the purpose of the reservation is agriculture.[69] The Court explicitly rejected a proposal by the state of Arizona that it adopt a "reasonably foreseeable needs" standard to measure the amount of water reserved, a quantity that would be based on the number of Indians living on the reservation at any one time.[70] Implicitly, the Court also disclaimed the "historic uses" doctrine applied earlier in *United States v. Walker River Irrigation District.*[71]

The *Arizona I* Court also refused to apply the doctrine of equitable apportionment[72] and thereby retain the jurisdiction to alter the quantity of the reserved right if changed circumstances so demanded.[73] The ma-

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water rights directly, it "certainly lit a fire under western water lawyers" who took Douglas' fears to heart. *See* Trelease, *supra* note 27, at 477.

The *Arizona I* Court applied the reserved rights doctrine to non-Indian federal reserves, specifically, the Lake Mead National Recreation Area, the Havasu Lake National Wildlife Refuge, the Imperial National Wildlife Refuge, and the Gila National Forest. 373 U.S. at 595, 601. The Court also held that the creation of the reservation established the priority date of the reserved right. *Id.* at 600.

68. *Arizona I*, 373 U.S. at 600. The PIA measure was suggested by the United States. *Arizona I* Special Master Report, *supra* note 56, at 3a. The trial before the special master in *Arizona I* lasted over two years and involved 340 witnesses and 25,000 pages of transcripts. *Arizona I*, 373 U.S. at 551.

69. *See* Arizona v. California (*Arizona II*), 460 U.S. 605, 609 (1983). The characterization of the *Arizona II* Court—that the PIA standard met "strong objection"—conflicts with the spin put on the proceedings by the state of California and the Metropolitan Water District of Southern California. They argued that the reserved rights issue in general, and the PIA standard in particular, were not adequately discussed in *Arizona I*. They argued in *Wyoming v. United States* that California, in *Arizona I*, chose to concentrate its efforts on challenging the special master's allocation of Colorado River water and left Arizona "to wage a lone battle against the special master's application of the *Winters* doctrine, particularly his decision to measure the Indian rights by PIA." Brief of the Amicus Curiae of the State of California and the Metropolitan Water District of Southern California in Support of Petitioner On Writ of Certiorari at 6, 11, *Wyoming v. United States.* During the oral argument in *Arizona I*, however, Mark Wilmer, for Arizona, asserted that the reserved rights question involved "matters of so much greater importance than this little dam of water." Transcript of Oral Arguments at 141, 142, 145, *Arizona I*, 373 U.S. 546 (1963) (No. 8, Original) (Nov. 13, 1962).

70. *Arizona I*, 373 U.S. at 600, 601. The special master noted that Arizona's position would require the Court to issue an open-ended decree, which would subject other users to uncertainty, or force the Court to create some other means of predicting future uses. *Arizona I* Special Master Report, *supra* note 56, at 11a-12a. The Court also rejected Arizona's oral argument that the Secretary of the Interior should determine the quantity of water the tribes needed. Transcript of Oral Arguments at 141, 142, 145, *Arizona I*, 373 U.S. 546 (1963) (No. 8, Original) (Nov. 13, 1962).

71. 104 F.2d 334 (9th Cir. 1939). In *Walker*, the Ninth Circuit had held that "the area of irrigable land included in the reservation is not necessarily the criterion for measuring the amount of water reserved"; instead, "the extent to which the use of a stream might be necessary could only be demonstrated by experience." *Id.* at 340.

72. *Arizona I*, 373 U.S. at 597.

73. The Court has applied the doctrine of equitable apportionment to resolve water con-

jority refused to equate Indian reservations with states and held that the actions creating the reservations irreversibly established the amount of water reserved.[74] Because the reservations at issue in *Arizona I* had been created or expanded by Executive order, the Court's statement that the "United States did reserve the water," did not clarify the issue remaining after *Winters* as to which party reserves the water when the reservation is created by a bilateral agreement.[75]

Based on the master's determination that there were 135,000 practicably irrigable acres, the Court awarded the five Indian tribes involved in the case reserved rights of nearly 1,000,000 acre-feet of water per year.[76] Because the dispute between Arizona and California over rights to water from the Colorado River[77] consumed most of the Court's attention, the Court adopted the PIA standard with little comment.[78] The Court

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flicts on interstate bodies of water where legislation or an interstate compact does not control the division of the water. *See, e.g.,* Texas v. New Mexico, 462 U.S. 554, 563 (1983); Nebraska v. Wyoming, 325 U.S. 589, 617-18 (1945).

74. *Arizona I,* 373 U.S. at 596, 597. Apparently the Court felt that if it applied the equitable apportionment doctrine it would be intruding on the congressional or executive authority that had established the reservation and thereby reserved the water. This choice to eschew judicial activism was somewhat disingenuous given that the Court itself had created the reserved rights doctrine and had adopted the PIA standard as its measure.

Moreover, if one agrees with Justice Douglas' vigorous dissent, the Court's opinion dealing with the dispute over the water of the Colorado River was bold judicial activism. Angered by the majority's determination that the Boulder Canyon Project Act, Ch. 42, 45 Stat. 1057 (1928), 43 U.S.C. §§ 617-617t (1982 & Supp. V 1987), had legislatively divided the waters of the Colorado River and by the Court's decision to grant the Secretary of the Interior the power to determine the priority of water rights among users within a state, Justice Douglas termed the majority's opinion "the baldest attempt by judges in modern times to spin their own philosophy into the fabric of the law, in derogation of the will of the legislature" and lambasted the Court for granting the federal bureaucracy "a power and command over water rights in the 17 Western states that it never has had, that it always wanted, that it could never persuade Congress to grant, and that this Court up to now has consistently refused to recognize." *Id.* at 628 (Douglas, J., dissenting). Research supports Justice Douglas' contention that the Court misread the intent of Congress. *See* Hundley, *Clio Nods: "Arizona v. California" and the Boulder Canyon Project Act—A Reassessment,* 9 W. HIST. Q. 52 (1978). A more plausible basis to reject equitable apportionment might have been the need for certainty. *See Arizona II,* 460 U.S. 605, 616 (1983).

75. *See Arizona I,* 376 U.S. at 600. The Colorado River Reservation had been created by Congress in 1865 but expanded by later Executive order. *Id.* at 596.

76. *Id.* The final decree is found in Arizona v. California (*Arizona I decree*), 376 U.S. at 344-45. The PIA was established using the technology existing at the time of the trial, and the Court subsequently refused to reopen the decree to consider technological advances. *See Arizona II,* 460 U.S. at 625 n.18.

77. This was the fourth time Arizona had sued California in the Supreme Court concerning the Colorado River. *Arizona I,* 373 U.S. at 550-51 & n.1. For a valuable and thorough analysis of the battle over the river's waters, see N. HUNDLEY, WATER AND THE WEST: THE COLORADO RIVER COMPACT AND THE POLITICS OF WATER IN THE AMERICAN WEST (1975).

78. *Arizona II,* 460 U.S. at 609. The Court's discussion of the reserved rights issue comprised only 6 of the 100 pages in the majority and dissenting opinions and only 100 of the over 2,000 pages of court briefs. *See* Brief of Amicus Curiae of the State of California and the Metropolitan Water District of Southern California in Support of Petitioner On Writ of Certi-

merely agreed with the special master's determination that the PIA standard was "the only feasible and fair way" to measure the amount of water reserved.[79]

Both the peculiar facts of the case and the complexity of the interstate water conflict at issue influenced the Court's decision to accept the PIA measure. As the special master noted in support of the PIA test, "whatever might be possible in a case involving solely the issue of the reserved rights of a single Indian Reservation, it would not be possible to predict future Reservation needs in this litigation."[80] Although courts following *Arizona I* have applied the PIA standard to measure agricultural reserved rights,[81] opponents of the standard continue to try to limit its use to the circumstances of *Arizona I*, where the reservations had been established by the United States for an unknown number of tribes.

2. *Arizona II*

During the 1970's, the Fort Mojave, Chemehuevi, Quechan, Colorado River, and Cocopah Indian Tribes, who had been represented by the United States in the 1964 suit, attempted to persuade the Court to reopen the 1964 decree and grant them additional water for irrigable land not claimed by the United States in the *Arizona I* litigation.[82] Although the special master appointed by the Court accepted the arguments made by the tribes and the United States, the Court rejected their claims.[83] Reiterating that the determination of Indian rights is based on

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orari at 6, *Wyoming v. United States*. One Justice has argued that "*Arizona I* contains virtually no reasoning." Official Transcript of Proceedings, *supra* note 63, at 34.

79. *Arizona I*, 373 U.S. at 601.

80. *Arizona I* Special Master Report, *supra* note 56, at 264.

81. *See, e.g.*, United States v. Adair, 723 F.2d 1394, 1415-16 (9th Cir. 1983), *cert. denied sub nom.* Oregon v. United States, 467 U.S. 1252 (1984); Colville Confederated Tribes v. Walton, 647 F.2d 42, 47-48 (9th Cir.), *modified*, 752 F.2d 397, *cert. denied*, 454 U.S. 1092 (1981).

But see Gila River Pima-Maricopa Indian Community v. United States, 684 F.2d 852 (Ct. Cl. 1982), *aff'd in part*, 695 F.2d 559 (9th Cir. 1982), where tribes with a long history of irrigated farming sued the federal government for damages resulting from the government's failure to secure the water necessary to irrigate the practicably irrigable acreage on the reservation. The court rejected the claim as theoretical, *id.* at 862, 865, and stated that the *Winters* doctrine might not even apply because the "reservation may have been established to preserve what they had, not to change their habits from nomadic to pastoral, and this distinction could conceivably make a legal difference." *Id.* at 864. *Cf.* White Mountain Apache Tribe v. United States, 11 Cl. Ct. 614, 626-27 (1987), where the Claims Court allowed the White Mountain Apache Tribe of Arizona to seek damages against the federal government for wrongfully suppressing the tribe's use of its reserved rights by diverting or permitting the diversion of those reserved waters by non-Indians.

82. *Arizona II*, 460 U.S. 605, 613 (1983). The Court upheld the special master's decision to allow the tribes to intervene in the proceedings as indispensable parties, stating, "[T]he Indians' participation in litigation critical to their welfare should not be discouraged." *Id.* at 615; *but see* Nevada v. United States, 463 U.S. 110, 121 (1983) (tribes are bound by decree when the United States represents them).

83. *Arizona II*, 460 U.S. at 613, 625-26. The Court admitted that because the 1964 decree

"congressional policy rather than judicial equity,"[84] and citing the "compelling need for certainty in the holding and use of water rights,"[85] the Court stressed that it had adopted the PIA standard, in part, because it "would allow a *fixed* present determination of future needs for water."[86] Reopening the decree, Justice White cautioned, would not only disturb the certainty of the decree, but would also provide the states with an opportunity to challenge the PIA doctrine itself based on the Court's post-*Arizona I* holdings in *United States v. New Mexico*[87] and *Washington v. Washington Commercial Passenger Fishing Vessel Association.*[88] Thus, although the *Arizona II* Court did not overturn the PIA doctrine and, in fact, granted the tribes water for the practically irrigable acres added to the reservation by court decree after 1964,[89] the majority opinion intimated that opponents might validly attack the standard in a future case.[90]

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granted it the power to modify the decree, the doctrine of res judicata did not apply per se. *Id.* at 618-19. Yet, the Court relied on the principles of res judicata to hold that this power to modify should be used only if "changed circumstances or unforeseen issues not previously litigated" arose. *Id.* at 619.

84. *Id.* at 616.

85. *Id.* at 620.

86. *Id.* at 623 (emphasis in original).

87. 438 U.S. 696 (1978).

88. 443 U.S. 658 (1979). Justice White wrote that no "defensible line can be drawn between the reasons for reopening the litigation advanced by the tribes and the United States on the one hand and the States on the other," and he likened reopening the decree to opening a "Pandora's Box." *Arizona II,* 460 U.S. 605, 625 (1983).

89. The Court accepted the special master's quantification for these additional "decreed" lands. *Arizona II,* 460 U.S. at 641. However, the Court rejected the special master's grant of water for reservation lands added by order of the Secretary of Interior, *id.* at 636, an action under challenge in federal district court at that time. *Id.* at 638 & n.27. After the district court held that the Secretary lacked power to change the boundaries of the Fort Mojave Reservation, an appellate court on interlocutory appeal remanded the complaint to the district court with directions to dismiss for lack of jurisdiction. Metropolitan Water Dist. of Southern Cal. v. United States, 830 F.2d 139, 140 (9th Cir. 1987). An equally divided Supreme Court, with Justice Marshall not participating, refused to review the appellate decision. California v. United States, 109 S. Ct. 2273 (1989).

Arizona II also held that the 1964 decree precluded relitigation of the reserved rights for lands covered by that decree. *Arizona II,* 460 U.S. at 615-16; *see also* Nevada v. United States, 463 U.S. 110, 130-34, 144 (1983) (a reserved right once quantified and decreed cannot be increased). Following this lead, the Colorado Supreme Court has held that a reserved right cannot be increased "even where prior claims have not been adjudicated or the United States erroneously has omitted certain claims." United States v. Bell, 724 P.2d 631, 643 (Colo. 1986).

90. During oral argument in *Arizona II,* Justice White asked whether use of the PIA standard would "necessarily prevent a different standard from being applied in other proceedings with different parties." Transcript of Oral Argument at 33, *Arizona II,* 460 U.S. 605 (1983) (No. 8, Original) (Dec. 8, 1982). The Justice's "question" seemed to be more statement than question. Likewise, Justice White's statement at oral argument that the PIA standard applies "at least on the lower Colorado River," may be an intimated limitation on the use of the PIA standard. P. SLY, *supra* note 5, at 102 n.17.

The special master in *Arizona II* seemingly concurred with Justice White by stating that the PIA standard is "not necessarily a standard to be used in all cases and when used it may not have the exact meaning it holds in this case." *See* Report of Special Master Elbert P.

Arizona II is also important because the special master's report provides an updated guideline for how to perform the arduous task of measuring PIA and quantifying the water needed to irrigate that acreage. Generally, the special master in *Arizona II* followed the PIA process established by the special master in *Arizona I*.[91] First he measured the arable land on the reservation and determined if the land was irrigable from a purely engineering standpoint.[92] The master then assessed currently available technology to determine if the land could be farmed and rejected as impractical the state's contention that he apply the technology existing at the time the reservation was created.[93] As part of this step, the master had to evaluate issues such as the suitability of growing certain crops on the land,[94] the amount of water required to grow the crops,[95] the projected crop yields on various types of lands,[96] and the feasibility and cost of pumping water from the Colorado River and then irrigating the land by sprinklers—issues over which the parties fought a vigorous acre-by-acre battle.[97]

The final step of the PIA process involved determining the economic feasibility of actually irrigating the land. Here, the special master established "an important precedent" by equating PIA with economic feasibility.[98] Where annual benefits exceed costs, the special master ruled, the land is practicably irrigable.[99] By choosing an economic feasibility standard, the special master refused to consider the ability of the tribes to pay

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Tuttle at 99 n.24, Arizona v. California, 460 U.S. 605 (1982) (No. 8, Original) [hereinafter Report of Special Master Elbert Tuttle]. "The amount reserved in each case," the special master noted, "is the amount required to make each reservation livable." *Id.*

91. Report of Special Master Elbert Tuttle, *supra* note 90, at 94-95.

92. *Id.* at 94.

93. *Id.* at 98. This decision probably increased the amount of the PIA because developments in pump and sprinkler design now allow irrigation of lands up to a 20% slope, while gravity irrigation is feasible only on lands with less than a 5% slope. Brookshire, Merrill & Watts, *Economics and the Determination of Indian Reserved Water Rights*, 23 NAT. RESOURCES J. 749, 756 & n.33 (1983); *see also* C. BORIS & J. KRUTILLA, WATER RIGHTS AND ENERGY DEVELOPMENT IN THE YELLOWSTONE RIVER BASIN 83-84 (1980).

94. These crops included pistachios, almonds, figs, and table grapes. Report of Special Master Elbert Tuttle, *supra* note 90, at 197-239.

95. This amount is typically referred to as the "water duty," "that measure of water which, by careful management and use, without wastage, is reasonably required to be applied to any given tract of land . . . to produce therefrom a maximum amount of such crops as ordinarily are grown thereon." United States v. Alpine Land & Reservoir Co., 697 F.2d 851, 854 (9th Cir.), *cert. denied*, 464 U.S. 863 (1983) (quoting Farmers Highland Canal & Reservoir Co. v. City of Golden, 129 Colo. 575, 584-85, 272 P.2d 629, 634 (1954)).

96. Report of Special Master Elbert Tuttle, *supra* note 90, at 126-60.

97. *Id.* at 172-80.

98. Burness, Cummings, Gorman & Lansford, *Practicably Irrigable Acreage and Economic Feasibility: The Role of Time, Ethics, and Discounting*, 23 NAT. RESOURCES J. 289, 289 (1983) [hereinafter *Practicably Irrigable Acreage*].

99. Report of Special Master Elbert Tuttle, *supra* note 90, at 100.

for the proposed irrigation projects with funds from sources other than the proceeds of farming the land irrigated.[100]

Furthermore, in measuring project benefits, the master refused to consider secondary benefits such as increased income in sectors of the economy related to farming (e.g., farm machinery and fertilizer sales).[101] Although the master's decision to exclude secondary benefits comported with post-1973 federal reclamation policy, indirect benefits had accounted for fully forty percent of the benefits used by the Bureau of Reclamation to support the feasibility of irrigation projects authorized between 1960 and 1973.[102] As one study points out, only six of twenty-eight projects built in the Rocky Mountain and Pick-Sloan (Missouri River basin) regions during that period would have been considered economically feasible if secondary benefits had been excluded.[103] The study concludes that the master's exclusion of secondary benefits should be rejected because it penalizes the tribes for their inability to secure money for projects during the heyday of federal dam building.[104]

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100. *See id.* at 93-94, 100. For a discussion of the distinction between economic feasibility (benefits versus costs) and financial feasibility (ability to pay), see Burness, Cummings, Gorman & Lansford, *The "New" Arizona v. California: Practicably Irrigable Acreage and Economic Feasibility,* 22 NAT. RESOURCES J. 517, 518 (1982) [hereinafter *The "New" Arizona v. California*].

The special master did not include Leavitt Act subsidies, 25 U.S.C. § 386a (1982), in his analysis. Report of Special Master Elbert Tuttle, *supra* note 90, at 96 n.17. The Leavitt Act defers assessment of charges against Indian-owned lands in federal irrigation projects. *Id.* Because feasibility remains a separate issue from repayment, excluding Leavitt Act subsidies is similar to excluding excess power revenues in the feasibility analysis, even though they may be critical to the ability to repay project costs. *See* Burness, Cummings, Gorman & Lansford, *The "New" Arizona v. California, supra,* at 518-21. An analysis of 40 reclamation projects dramatically shows that while an average of 71% of costs are allocated to irrigation, actual repayment from the irrigation sector is only 26%. Burness, Cummings, Gorman & Lansford, *United States Reclamation Policy and Indian Water Rights,* 20 NAT. RESOURCES J. 807, 820 (1980) [hereinafter *Reclamation Policy*]. Under guidelines promulgated by the Water Resources Council in 1973, project proponents must show how reimbursable costs are to be paid and what role power revenues will play in defraying agricultural costs that exceed the ability to pay. *Id.* at 814-16.

In *Arizona I,* Special Master Simon Rifkind also had separated the ability to repay project costs from the determination of economic feasibility. Rifkind relied on the economic analysis offered by the United States, based on guidelines of the Bureau of the Budget's Circular A-47 issued in 1952. This policy was followed because the share of project costs borne by agricultural interests already was based on their ability to pay, not on the benefits they received. *See* Burness, Cummings, Gorman & Lansford, *Reclamation Policy, supra,* at 814.

101. *See* Burness, Cummings, Gorman & Lansford, *The "New" Arizona v. California, supra* note 100, at 519. This decision assumes that a state of full employment exists. *Id.*

102. *Id.* at 519-21. Secondary benefits had been included prior to 1973 when the Water Resources Council amended its guidelines. These guidelines expired in 1982, *id.* at 521, and the Water Resources Council was dissolved by President Reagan in 1981. W. GOLDFARB, WATER LAW 98 (2d ed. 1988).

103. Burness, Cummings, Gorman & Lansford, *The "New" Arizona v. California, supra* note 100, at 519-21.

104. *See generally* Burness, Cummings, Gorman & Lansford, *Practicably Irrigable Acreage, supra* note 98, at 290-91; *but cf.* Brookshire, Merrill & Watts, *supra* note 93, at 755-

3. *Other Standards for Measuring and Limiting Reserved Rights*

As Justice White warned in *Arizona II*,[105] opponents of the PIA standard have challenged the doctrine by using language found in *Cappaert*,[106] as well as the cases White cited in *Arizona II*, *New Mexico*,[107] and *Washington Fishing Vessel*.[108] None of these cases dealt with Indian reserved water rights, and the Supreme Court has never applied them to Indian reserved water rights. Nevertheless, in each case, the Court established a strict standard to quantify the amount of water needed to effectuate the primary purposes of a reservation. As such, the cases can be characterized as quantification cases. At the same time, the Court closely reviewed the purposes for the creation of the reservation in each case. Because reserved rights are implied only to satisfy these purposes of the reservation, fewer purposes generally translates into a smaller reserved right. Accordingly, state law water users have urged the application of these standards to Indian reservations.[109]

Indian advocates, however, contend that because Indian reservations were established to provide tribes with a permanent homeland on which they could develop into self-sufficient citizens, neither *Cappaert*, *New Mexico*, nor *Washington Fishing Vessel* should apply to Indian reservations.[110] They also point out that in each of these cases, the Court actually reaffirmed the validity of the PIA doctrine.[111] Because the Court did not clarify this dispute in *Wyoming*,[112] it remains an issue to be addressed in future cases.

a. *Non-Indian Reserved Rights*

In *Cappaert v. United States*,[113] the Supreme Court upheld an injunction limiting the pumping of groundwater by a rancher with land adjacent to Devil's Hole National Monument. The United States argued that the pumping had lowered the water level of an underground pool

57. These two articles also debate the proper discount rate to use in measuring costs, a debate that carried over into testimony during the Wind River adjudication. *See infra* notes 221-24 and accompanying text.

105. 460 U.S. 605, 616, 625 (1983).

106. Cappaert v. United States, 426 U.S. 128 (1976).

107. United States v. New Mexico, 438 U.S. 696 (1978).

108. Washington v. Washington Commercial Passenger Fishing Vessel Ass'n, 443 U.S. 658 (1979).

109. *See, e.g.*, Brief for the Petitioner On Writ of Certiorari at 36-39, *Wyoming v. United States.*

110. *See* Chino, *Keynote Address*, in INDIAN WATER POLICY IN A CHANGING ENVIRONMENT: PERSPECTIVES ON INDIAN WATER RIGHTS 56-58 (1982) (American Indian Lawyer Training Program, Oakland, CA.).

111. Brief for Tribal Respondents On Writ of Certiorari at 28, 31, *Wyoming v. United States.*

112. Wyoming v. United States, 109 S. Ct 2994, *reh'g denied*, 110 S. Ct. 28 (1989).

113. 426 U.S. 128 (1976).

and thereby threatened the desert pupfish, a species of fish found only in that pool and for whose protection the monument had been established.[114] In upholding the injunction, the Court stated a somewhat self-apparent standard that the amount of water impliedly reserved is "only that amount of water necessary to fulfill the purpose of the reservation, no more."[115] Only water enough to meet the "minimal need" of the reservation, here to protect the pupfish, was reserved.[116] Although even this amount of water might limit uses by state law water users, the *Cappaert* Court rejected the argument that it should balance the interests of competing users with the needs of the reservation in quantifying the reserved right.[117]

Following *Cappaert,* the Supreme Court has continued to strictly review reservation purposes as a means of limiting the actual amount of water reserved.[118] In *United States v. New Mexico,*[119] the Court held that the amount of water reserved depended upon "the specific purposes for which the land was reserved,"[120] and without which "the purposes of the reservation would be entirely defeated."[121] Any water needed for what the Court termed a "secondary use" must be secured under state law "in the same manner as any other public or private appropriator."[122] If this standard applied to Indian reservations, a tribe that needed water for uses other than those determined to be the reservation's "primary purposes" would have to secure that water under state law. If a court ac-

114. *Id.* at 135-35.

115. *Id.* at 141.

116. *Id.*

117. *Id.* at 138-39.

118. *See* Note, *The "Winters" of Our Discontent: Federal Reserved Water Rights in the Western States,* 69 CORNELL L. REV. 1077, 1084-89 (1984).

119. 438 U.S. 696 (1978). *New Mexico* involved claims by the United States Forest Service to reserved water in the Rio Mimbres National Forest. The government sought reserved rights under the Organic Administration Act of 1897, 30 Stat. 34, 16 U.S.C. §§ 473-475 (1988), and the Multiple-Use, Sustained-Yield Act of 1960 (MUSYA), 74 Stat. 215, 16 U.S.C. §§ 528-531 (1988).

120. *New Mexico,* 438 U.S. at 700.

121. *Id.* The Court held that under the Organic Administration Act the primary purposes for establishing the forests were "to preserve the timber or to secure favorable water flows for private and public uses under state law." *Id.* at 718. Water had not been reserved for secondary purposes such as aesthetics, recreation, wildlife preservation, or stock watering. *Id.* at 698. The majority also held that because MUSYA did not expand the purposes for which water was reserved, it did not reserve additional water. *Id.* at 715.

Although the *New Mexico* Court strictly scrutinized the purposes for the reservation, it reaffirmed the power of the federal government to reserve water for non-Indian federal reservations, at least where the land is reserved by withdrawal from the public domain. *Id.* at 698-700. It remains unclear whether the United States can impliedly reserve water under the reserved rights doctrine when it acquires land. Explicit congressional language reserving water upon acquisition of land, however, could act as a non-*Winters* reservation of water. *See* Ranquist, *The Winters Doctrine and How It Grew: Federal Reservation of Rights to the Use of Water,* 1975 B.Y.U. L. REV. 639, 651 (1975).

122. *New Mexico,* 438 U.S. at 702.

cepted the permanent homeland purpose, however, any use of water by a tribe that contributed to the tribe's development would be a "primary purpose" water right. Because *New Mexico* involved non-Indian claims, it has been argued that the test should not apply to Indian reserved rights.[123]

At least two lower courts, however, have applied the *New Mexico* "primary purposes" test to Indian claims. In *Colville Confederated Tribes v. Walton,*[124] the Ninth Circuit found the test to be compatible with the broad concept of a reservation as permanent homeland.[125] Echoing language used by previous courts, the *Colville* court found the permanent homeland idea to be "consistent with the general purpose for the creation of an Indian reservation—providing a homeland for the survival and growth of the Indians and their way of life."[126] Because this general purpose included agriculture, the court used the PIA test to quantify the amount of water reserved to satisfy the agricultural purpose.[127] Once the reserved right was quantified, the court allowed that the tribe could use its reserved water in any manner it deemed fit.[128]

Even though the *Colville* court was able to reconcile *New Mexico* with the permanent homeland concept, the strict language of *New Mexico* equating the quantity of water reserved with the need to protect the purposes of the reservation from being "entirely defeated,"[129] reflects the Supreme Court's concern that federal reserved rights will adversely effect established state law water rights. Opponents of the PIA doctrine have seized upon Justice Rehnquist's "entirely defeated" language to challenge the PIA standard which, they argue, results in reserved rights

123. F. COHEN, HANDBOOK OF FEDERAL INDIAN LAW 583-84 (1982); *see Big Horn Adjudication,* 753 P.2d 76, 96 (Wyo. 1988). As the Montana Supreme Court has stated, "The purposes for which the federal government reserves land are strictly construed," while "the purposes of Indian reserved rights . . . are given broader interpretation in order to further the federal goal of Indian self-sufficiency." Montana v. Confederated Salish and Kootenai Tribes of the Flathead Reservation, 712 P.2d 754, 767-68 (Mont. 1985).

124. 647 F.2d 42 (9th Cir.), *modified,* 752 F.2d 397, *cert. denied,* 454 U.S. 1092 (1981).

125. *Id.* at 47.

126. *Id.* 49; *see, e.g.,* United States v. Shoshone Tribe, 304 U.S. 111, 116 (1938) ("the principal purpose of the treaty was that the Shoshones should have, and permanently dwell in, the defined district of country"); Alaska Pac. Fisheries v. United States, 248 U.S. 78, 89 (1918) ("the purpose of creating the reservation was to encourage, assist and protect the Indians in their effort to train themselves to habits of industry, become self-sustaining and advance to the ways of civilized life"); Montana v. Confederated Salish and Kootenai Tribes of the Flathead Reservation, 712 P.2d 754, 768 (Mont. 1985) (the goals of the reservation system are to further "Indian self-sufficiency").

127. *Colville,* 647 F.2d at 47-49.

128. The court rejected the idea that their decision would cause uncertainty and observed that the uncertainty surrounding reserved water rights is resolved by quantifying the rights not by "limiting their use." *Id.* at 48.

129. United States v. New Mexico, 438 U.S. 696, 700 (1978).

far in excess of the amount of water needed to effectuate the purposes of the reservation under this standard.[130]

Even the dissenting Justices in *New Mexico* echoed Justice Rehnquist's concern that federal reserved rights could injure state law water users. In his dissent, Justice Powell stated that the reserved rights doctrine should be "applied with sensitivity to its impact upon those who have obtained water rights under state law and to Congress' general policy of deference to state water law."[131] Not surprisingly, opponents of the PIA doctrine also have embraced Justice Powell's so-called sensitivity doctrine.[132] They contend that equity demands that reserved rights be measured with "sensitivity" to state law water rights because federal reserved rights result in "a gallon-for-gallon reduction in the amount of water available for water-needy state and private appropriators."[133] This fear of economic disaster is exemplified by the apocalyptic warning of one *amicus* in *Wyoming v. United States* that large awards of reserved rights to Indian tribes "could cause extensive uncompensated losses for existing users, wreak havoc on the regional economy, and preclude future growth."[134]

b. Indian Non-Water Reserved Rights

Language used by the Supreme Court in *Washington v. Washington Commercial Passenger Fishing Vessel Association,*[135] a case involving treaty rights to fish from the Columbia River, has also been cited as a limit on reserved water rights. In *Washington Fishing Vessel,* the Court

130. *See, e.g.,* Brief for the Petitioner On Writ of Certiorari at 18, *Wyoming v. United States.*

131. *New Mexico,* 438 U.S. at 718 (Powell, J., dissenting in part). Powell, joined by Justices Brennan, White, and Marshall, disagreed with the majority's interpretation of the act creating the Gila National Forest and rejected the narrow purposes the majority ascribed to the reservation. *Id.* at 719. However, Powell expressed no view on the effect of MUSYA. *Id.* at 718 n.1; *see supra* notes 119-21 and accompanying text.

In a companion opinion issued the same day and also authored by Justice Rehnquist, the Court struck another blow for federal deference to state water rights by holding that a state has the power to impose conditions on the control, appropriation, use, or distribution of water from federal reclamation projects unless the state action is inconsistent with a clear congressional directive. California v. United States, 438 U.S. 645, 674 (1978).

132. *See, e.g.,* Brief for the Petitioner On Writ of Certiorari at 18, 35-39, *Wyoming v. United States*; Brief of Amicus Curiae Salt River Project Agricultural Improvement and Power District in Support of the State of Wyoming On Writ of Certiorari at 10-11, *Wyoming v. United States*; Brief of the Village of Ruidoso as Amicus Curiae in Support of the State of Wyoming On Writ of Certiorari at 10, *Wyoming v. United States.*

133. *New Mexico,* 438 U.S. at 705.

134. Brief of Amicus Curiae Salt River Project Agricultural Improvement and Power District in Support of the State of Wyoming On Writ of Certiorari at 11, *Wyoming v. United States.* Northcutt Ely, who argued California's case before the Supreme Court in *Arizona I,* characterized the *Winters* doctrine as a " 'sword of Damocles' hanging over every title to water rights to every stream which touches a federal reservation." Trelease, *supra* note 27, at 475. Trelease found these fears to be exaggerated.

135. 443 U.S. 658 (1979).

adopted the lower court's equitable apportionment of the catch of fish from the Columbia River between non-Indian fishermen and the Indian tribes.[136] Under the lower court's plan, the tribes could take a maximum of fifty percent of the overall supply to meet their "present-day subsistence and commercial needs,"[137] and their minimum catch could be modified by the court to reflect changing needs.[138] As Justice Stevens stated in his majority opinion:

> The central principle here must be that Indian treaty rights to a natural resource that once was thoroughly and exclusively exploited by the Indians secures so much as, but no more than, is necessary to provide the Indians with a livelihood—that is to say a moderate living.[139]

State law water users argue that the PIA standard results in reserved water rights in excess of those needed to achieve a "moderate living."[140] This constitutes a "windfall" for the tribes, especially if they are allowed to sell this "excess" water.[141] The argument that tribal sales of water violate the moderate living standard plays on the fears of non-Indians that the tribes will use their senior reserved rights to become western water brokers, selling their valuable "paper" water rights rather than waiting for Congress to appropriate money for necessary irrigation

136. *Id.* at 685.

137. *Id.* at 686. The three dissenters, Justices Powell, Rehnquist, and Stewart, argued that the treaty allowed the tribes access to their traditional fishing spots, but did not guarantee them a specified percentage of the take. *Id.* at 698-99 (Powell, J., dissenting in part).

138. *Id.* at 686-87. The Court had rejected use of equitable apportionment for Indian water rights in *Arizona I*, 373 U.S. 546, 597 (1963), but the equitable adjustment outlined in *Washington Fishing Vessel* actually mirrors implementation of the *Arizona I* decree. *See Arizona II*, 460 U.S. 605, 617 (1983). Under rules promulgated by the Department of Interior pursuant to the decree in *Arizona I*, prior to each calendar year the Commissioner of Indian Affairs is required to determine and report to the Regional Director of the Bureau of Reclamation the "estimated amount of water to be diverted for use on each Indian Reservation" along the Colorado River. 43 C.F.R. § 417.5 (1988). The decree states that the tribes are to receive either the diversions specified or the consumptive use of water necessary to serve the acres found irrigable, whichever amount is less. *Arizona I Decree*, 376 U.S. 340, 344 (1963). Although the res judicata holding in *Arizona II* precludes the tribes from relitigating and increasing their earlier award, *Arizona II*, 460 U.S. at 625-26, under this decree the yearly requirements of the tribes can be adjusted downward. These rules also appear to preclude nonconsumptive use of the water, such as marketing, by speaking of "diversions" for "use on each Indian Reservation." As the special master's recommended decree in *Arizona II* stated, if the tribes did not consume the water, "it remains in the River for others to use." Report of Special Master Elbert Tuttle, *supra* note 90, at 91 n.5.

139. *Washington Fishing Vessel*, 443 U.S. at 686.

140. Brief of Amicus Curiae Salt River Project Agricultural Improvement and Power District in Support of the State of Wyoming On Writ of Certiorari at 10, *Wyoming v. United States*; *but see* Brief for Tribal Respondents On Writ of Certiorari at 32 n.44, *Wyoming v. United States*.

141. *See, e.g.*, Brief for the Petitioner On Writ of Certiorari at 15, 31-35, *Wyoming v. United States*; Brief of Amicus Curiae of the State of California and the Metropolitan Water District of Southern California in Support of Petitioner On Writ of Certiorari at 19, *Wyoming v. United States*. *But see* Brief for Tribal Respondents On Writ of Certiorari at 32 n.44, *Wyoming v. United States*.

projects.[142] The tribes counter that even a large agricultural reserved water right may not assure a tribe a "moderate living,"[143] and they argue that the sale of some of this water may be necessary to achieve this standard before the irrigation projects necessary to use the water are complete—and perhaps afterwards.[144] The irony of the PIA opponents' argument is that if the Court applies the moderate living standard to reserved water rights, it will be treating water like any other natural resource. It follows that if the quantity of the reserved water right is to be determined using a test applied to fish or other natural resources, the tribes should be able to market the water as they could any other natural resource.[145]

It remains for the Supreme Court to clarify if and how the *New Mexico* "entirely defeated" language, the *Cappaert* "minimal need" test, or the *Washington Fishing Vessel* "moderate living" standard apply to Indian reserved rights, especially those created by bilateral agreement. The Court also needs to reconcile the sensitivity doctrine with its admonishment in *Cappaert* that competing interests should not be balanced in determining the quantity of water reserved. The oral arguments in *Big Horn* imply that the Court may be ready to clarify these issues and thereby establish a single standard for all federal reservations.

II

THE STATE ADJUDICATION OF THE BIG HORN RIVER

A. The Treaties Creating the Wind River Reservation

The Wind River Indian Reservation is the nation's third largest reservation, encompassing approximately 2.5 million acres in west central Wyoming, with a 1980 population of 4,550 Indians.[146] Consisting

142. This fear is evident in the oral arguments in *Wyoming v. United States*. *See infra* notes 318-24 and accompanying text.

143. *See* Brief for Tribal Respondents On Writ of Certiorari at 32 n.44, *Wyoming v. United States*; *see also* United States v. Adair, 723 F.2d 1394, 1415 (9th Cir. 1983), *cert. denied sub nom.* Oregon v. United States, 467 U.S. 1252 (1984) (tribes are not entitled to pretreaty exclusive use of a natural resource unless "no lesser level will supply them with a moderate living").

144. *See* Brief for Tribal Respondents On Writ of Certiorari at 32 n.44, *Wyoming v. United States*.

145. For a discussion of the commodity and community values of water, see F. BROWN & H. INGRAM, WATER AND POVERTY IN THE SOUTHWEST 14-45 (1987). Economist Maurice Kelso has argued against the "water-is-different" syndrome and proposes that water, like other resources, should be controlled by ordinary market mechanisms. *Id.* at 32 (citing Kelso's speech to the American Water Resources Association entitled "The Water is Different Syndrome, or What is Wrong with the Water Industry?").

A number of articles published recently deal with the issue of off-reservation sales or leases of water. *See, e.g.*, Getches, *Management and Marketing of Indian Water: From Conflict to Pragmatism*, 58 U. COLO. L. REV. 515 (1988); Comment, *Leasing Indian Water Off the Reservation: A Use Consistent With the Reservation's Purpose*, 76 CALIF. L. REV. 179 (1988).

146. Brief for Tribal Respondents On Writ of Certiorari at 45 & n.64, *Wyoming v. United States*.

mainly of high desert, the elevation of the reservation ranges from 4,500 feet on the plains to 12,500 feet in the Wind River Mountains.[147] The reservation is bisected by the Wind River, which drains the mountains on the west and joins the Popo Agie River to form the Big Horn River. The Big Horn River then flows north along the eastern boundary of the reservation.[148]

The Wind River Reservation was established by the Second Treaty of Fort Bridger in 1868.[149] Pressured to provide more land for settlement, the federal government and its military ally the Shoshone Tribe, described as "full blood blanket Indians, unable to read, write, or speak English,"[150] entered into an agreement whereby the tribe relinquished its claims to over 44 million acres of land located in present-day Wyoming, Colorado, Utah, and Idaho and retained control of approximately 3,050,000 acres.[151] This retained area, which the agreement stated would be the tribe's "permanent home,"[152] contained deposits of gold, gypsum, oil, and coal, as well as "more than 400,000 acres of timber, extensive well-grassed bench lands and fertile river valleys conveniently irrigable."[153] Under the treaty, agricultural plots could be allotted to individual Indians,[154] and, to "insure the civilization of the tribes,"[155] the treaty

147. *Big Horn Adjudication,* 753 P.2d 76, 83 (Wyo. 1988).

148. *Id.* at 118.

149. Second Treaty of Fort Bridger, United States-Shoshonees-Bannacks, art. II, 15 Stat. 673, 674 (July 3, 1868) [hereinafter Second Treaty of Fort Bridger]. The treaty was entered into by the Shoshone and Bannock tribes, but the Bannocks, pursuant to article II of the treaty, chose to settle on the Fort Hall Reservation in Idaho. Brief for the United States in Opposition on Petition and Cross-Petitions For A Writ of Certiorari at 3 n.5, *Wyoming v. United States* (Petition); City of Riverton, Wyo. v. United States, 109 S. Ct. 3265 (1989) (No. 88-553) (certiorari denied) (Cross-Petition) [hereinafter Brief for the United States in Opposition].

150. United States v. Shoshone Tribe, 304 U.S. 111, 114 (1937).

151. *Id.* at 113. In 1863, the First Treaty of Fort Bridger, 18 Stat. 685 (1863), set aside 44,672,000 acres for the tribe, *id.*, a vast tract of land that suited the tribe's nomadic nature and allowed them to hunt and fish freely. *See* Brief for Tribal Respondents On Writ of Certiorari at 2, *Wyoming v. United States.*

152. Second Treaty of Fort Bridger, *supra* note 149, art. IV; *Shoshone Tribe,* 304 U.S. at 113.

153. *Shoshone Tribe,* 304 U.S. at 114. In 1878, the government settled the Northern Arapaho Tribe on the reservation without the consent of the Shoshones. *Id.* at 114-15. Subsequently, the courts held that this government action constituted a "taking" of the Shoshones' rights to timber and minerals on that portion of the reservation and awarded the tribe $4,408,444.23 in compensation. *Id.* at 112, 118. The Arapahoes currently comprise 63.4% of the population on the reservation. Executive Summary of Final Report, Wind River Indian Needs Determination Survey (WINDS) (Aug. 1988), *reprinted in* Brief for Tribal Respondents On Writ of Certiorari at 25a, *Wyoming v. United States.* This survey was jointly funded by the State of Wyoming, the tribes, and the Bureau of Indian Affairs. *Id.* at 24a.

154. Second Treaty of Fort Bridger, *supra* note 149, art. VI (providing that any head of the family wanting to farm could select and be allotted a 320-acre plot of land, while any other tribal member was entitled to 80 acres).

155. *Id.* art. VII.

provided for the education of those Indians "as are or may be settled on said agricultural reservations."[156]

The tribe's early attempts to farm on the reservation failed, however, and by 1895 the tribe had become "totally dependent on the United States for food, clothing and shelter."[157] In 1896, the tribe was forced to sell a portion of its land back to the United States to raise cash.[158] Nine years later, in the 1905 Second McLaughlin Agreement,[159] the tribe ceded another 1,480,000 acres to the United States[160] which, as trustee, agreed to sell the land under existing land laws and to use the proceeds to help develop the remaining "diminished" reservation lands.[161] As part of this development strategy, the government agreed to acquire state water permits under the agreement's so-called water proviso and to construct necessary irrigation works.[162] By 1915, the federal government had acquired state water rights to irrigate approximately 145,000 acres. Over seventy percent of the land that was ultimately granted reserved rights also had state law water rights.[163] Although the tribes and the federal government filed these state water rights claims, post-*Winters* courts upheld the tribes' rights to reserved water.[164]

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156. *Id.*

157. Brief for Tribal Respondants On Writ of Certiorari at 4, *Wyoming v. United States.* This description of the tribes' condition conflicts with reports that the tribes were so successful at irrigated farming in the 1890's that they supplied their own needs and exported 800,000 lbs. of hay, 760,000 lbs. of oats, and 585,000 lbs. of wheat to Fort Washakie, the federal Indian agency and school. *See* Ambler, *A Tale of Two Districts,* High Country News, Oct. 27, 1986, at 23, col. 4 (citing testimony by historian Peter Iverson).

158. Brief for Tribal Respondents On Writ of Certiorari at 4, *Wyoming v. United States.*

159. Second McLaughlin Agreement, Apr. 21, 1904, United States-Shoshone-Arapahoe Tribes, 33 Stat. 1016 (Mar. 3, 1905). James McLaughlin was the United States Indian Inspector. *Id.*

160. *Big Horn Adjudication,* 753 P.2d 76, 84 (Wyo. 1988).

161. *Id.* at 84.

162. The Agreement provided that $85,000 of the proceeds from the sales would be used to pay each Indian $50, with the balance of this sum to be used for "platting, making of maps, payment of the fees, and the performance of such acts as are required by the statutes of the State of Wyoming in securing water rights from said State." Second McLaughlin Agreement, *supra* note 159, art. III. If any money remained, up to $150,000 of the proceeds of the sales could be used "for the construction and extension of an irrigation system." *Id.* art. IV. The idea of selling land to raise money to build irrigation projects was the same strategy underlying the 1902 National Reclamation Act, 32 Stat. 390, 43 U.S.C. §§ 372-373, 383 (1982). *See* D. WORSTER, *supra* note 40, at 160.

163. Brief for Petitioner On Writ of Certiorari at 5, *Wyoming v. United States*; Brief for Tribal Respondents On Writ of Certiorari at 5, *Wyoming v. United States.*

164. United States v. Parkins, 18 F.2d 642, 643 (D. Wyo. 1926). *See also* Brief for Tribal Respondents On Writ of Certiorari at 6 n.7, *Wyoming v. United States* (citing language used by the United States in its Bill of Complaint to assert reserved rights for the reservation in United States v. Hampleman, No. 753 (D. Wyo 1913)). Other federal agencies, including the National Park Service and the Forest Service, have also taken this two-step approach, especially when the reservation contains large tracts of acquired lands that might not have appurtenant reserved rights. *See* United States v. New Mexico, 438 U.S. 696, 702-03, 703 nn.6-7 (1978).

In the period following these early land cessions, the government restored some of the land to the tribes, and the tribes or individual members purchased other lands.[165] At the time of the Big Horn adjudication all of the unsold lands ceded in 1905 had been returned to the tribes.[166] However, within the boundaries of the reservation, non-Indian grantees own approximately 42,000 acres originally allotted to individual Indians, while other non-Indians live on lands in the ceded area patented under various land disposal laws or on lands withdrawn for the Riverton Reclamation Project.[167] Still other non-Indians lease land from individual Indians. Although there are presently over 54,000 acres of historically irrigated Indian lands on the reservation,[168] non-Indians irrigate 120,000 acres within the boundaries of the reservation,[169] including almost 73,000 acres in the Riverton Reclamation Project.[170]

The current economic condition of the tribes on the reservation is appalling. Although the reservation is considered rich in mineral wealth, by the mid-1970's declining yields from oil and gas wells had reduced the tribes' largest source of revenue.[171] Most of the farming operations on the reservation are non-Indian, mainly due to the inability of the tribes to secure adequate capital to develop and upgrade their own water projects.[172] A 1976 plan for economic development on the reservation suggested that increasing irrigated agriculture, mining gypsum and uranium, or developing a recreation and tourism industry centered around the blue-ribbon trout fishing along the Wind River might provide a needed economic stimulus.[173]

A recent survey funded by the state of Wyoming, the Bureau of Indian Affairs, and the tribes, however, found that the average family income on the reservation was only $6,277, with fully forty-six percent of the households having no income.[174] Even though the survey was con-

165. A series of restoration orders, *see, e.g.,* Act of June 18, 1938, 48 Stat. 984; Act of July 27, 1939, 53 Stat. 1128 (1939) (pt. 2), have restored all the unsold ceded land to the tribes, and many of the parcels that had passed into non-Indian ownership have been reacquired on behalf of the tribes. *See* Brief for the United States in Opposition, *supra* note 149; Brief for Tribal Respondents On Writ of Certiorari at 4 & n.3, *Wyoming v. United States.*

166. Brief for the United States in Opposition, *supra* note 149, at 4 n.3.

167. The federal government also withdrew 336,000 acres of the ceded land for the Riverton Irrigation Project. Brief for the Petitioner On Writ of Certiorari at 4-5, *Wyoming v. United States.*

168. Brief for Tribal Respondents On Writ of Certiorari at 39, *Wyoming v. United States.*

169. *Id.* at 45 n.65.

170. *Id.* at 6-7.

171. C. BORIS & J. KRUTILLA, *supra* note 93, at 83 (citing information from the joint tribes' Wind River Economic Development Planning Program, Overall Economic Development Program (1976)).

172. *Id.*

173. *Id.* at 83-84.

174. Executive Summary of Final Report, Wind River Indian Needs Determination Survey (WINDS) (Aug. 1988), *reprinted in* Brief for Tribal Respondents On Writ of Certiorari at 25a, *Wyoming v. United States.*

ducted during prime employment months, the overall unemployment rate stood at seventy-one percent,[175] a frightening figure that the report properly described as "an astounding [sic] high rate of unemployment."[176] As is common on many reservations, the lack of basic transportation, garbage services, adequate housing, medical care, and supervised recreation for children remain serious problems.[177]

Given problems of these tragic proportions, the tribes' battle to quantify their reserved rights takes on a special sense of urgency. Because water is the key to economic development, securing the tribes' rightful share of water is imperative for survival of the reservation itself.

At the same time, non-Indian users who could be adversely affected by the tribes' use of their reserved rights also feel threatened.[178] Non-Indians contend that they relied on government promises to provide them with water through federal reclamation projects and that the government cannot now give water used by non-Indians to the tribes.[179] Underlying this position is the argument that the government, not non-Indian water users, should pay for solving the serious problems on the reservation. Although the Court is not supposed to balance equities in determining the quantity of water reserved, these real life issues make it difficult for the Court to follow that standard strictly.

B. The Proceedings in the Wyoming State Courts

In January 1977, two days after the state legislature passed the requisite legislation, the State of Wyoming filed a complaint in state court to begin an adjudication of water rights on the Big Horn River system.[180] Named as a defendant, the United States removed the case to federal court only to have the federal district court remand the action to state court on the grounds that state jurisdiction was proper under the McCarran Amendment.[181] After the Shoshone and Arapaho Tribes intervened in state court—alleging that the United States could not ade-

175. *Id.* at 27a.

176. *Id.* at 32a.

177. *Id.* at 26a-31a.

178. Some non-Indians, specifically non-Indian successors to Indian lands, could be awarded an 1868 priority date for water used by their Indian predecessors or which the successors began using within a reasonable time after purchasing the land. *Big Horn Adjudication,* 753 P.2d 76, 113-14 (Wyo. 1988). In this case, their interests are aligned with those of the tribes.

179. *Id.* at 89-90.

180. *Id.* at 84. The pertinent legislation was WYO. STAT. § 1-37-106 (1977).

181. *Big Horn Adjudication,* 753 P.2d at 84. In Colorado River Water Conservation Dist. v. United States, 424 U.S. 800 (1976), Justice Brennan, writing for the majority, held that by passing the McCarran Amendment, 43 U.S.C. § 666 (1982), Congress intended federal reserved rights to be determined in state court proceedings to avoid piecemeal adjudication. *Colorado River Water Conservation Dist.*, at 817-20. Addressing the fears of Indian tribes that state courts would not treat their claims fairly, the Court noted that the tribes' rights would be safeguarded from inequitable state action because any determination would be subject to

quately represent their interests[182]—the parties agreed to the appointment of special master Teono Roncalio.[183] Given the complexity of the proceedings, the special master divided the adjudication into three phases and began the Phase I hearings on Indian reserved rights.[184] After "four years of conferences and hearings, involving more than 100 attorneys, transcripts of more than 15,000 pages and over 2,300 exhibits," the special master filed his 451-page report in December 1982.[185]

Supreme Court review. *Id.* at 811-13.

Following *Colorado River Water Conservation,* the Court held that state court jurisdiction is proper even if a tribe sues on its own behalf, unless the state court adjudication is not sufficiently comprehensive. Arizona v. San Carlos Apache Tribe of Ariz., 463 U.S. 545, 570, *reh'g denied,* 464 U.S. 874 (1983); *see In re* Adjudication of the Snake River Basin Water Sys., 764 P.2d 78 (Idaho 1988), *rev. denied,* 109 S. Ct. 1639 (1989) (jurisdiction pursuant to McCarran Amendment applies only if all claimants to water from the Snake River and its tributaries are included in the adjudication); *see also* Pacheco, *How Big is Big? The Scope of Water Rights Suits Under the McCarran Amendment,* 15 ECOLOGY L.Q. 627, 631-35 (1988). Justice Brennan's majority opinion in *San Carlos* reiterated that appeals of any state court decision could "expect to receive a particularized and exacting scrutiny." 463 U.S. at 570-71.

It has been argued, persuasively, that Congress did not intend the 1952 McCarran Amendment to apply to reserved rights but only to federal rights acquired under state law. The argument is based on the fact that the expansion of the reserved rights doctrine in *Arizona I* to non-Indian federal reservations had not occurred in 1952. *See* Wallace, *The Supreme Court and Indian Water Rights,* in AMERICAN INDIAN POLICY IN THE TWENTIETH CENTURY 209-11 (V. Deloria ed. 1985); *see also* Upite, *Resolving Indian Reserved Water Rights in the Wake of San Carlos Apache Tribe,* 15 ENVTL. L. 181, 192-93 (1984). Indeed, to arrive at the conclusion that the McCarran Amendment requires state court jurisdiction over Indian reserved rights, the ambiguous language in the Amendment, which subjects water rights of the United States acquired by appropriation, purchase exchange, or "otherwise" to state court jurisdiction, must be interpreted as broadly referring to reserved rights because reserved rights are not specifically listed. Because "statutes are to be construed liberally in favor of the Indian, with ambiguous provisions interpreted to their benefit," Montana v. Blackfeet Tribe of Indians, 471 U.S. 759, 766 (1985), Justice Stevens' argument in *San Carlos* that the Court has simply read more into the Amendment than Congress intended rings true. *San Carlos,* 463 U.S. at 575 (Stevens, J., dissenting).

182. *Big Horn Adjudication,* 753 P.2d at 84.

183. *Id.* Both the tribes and the United States opposed the state court's referral of the adjudication to the Wyoming State Board of Control as provided by Wyoming law and moved for the appointment of a special master. *Id.* Mr. Roncalio is a former member of the United States House of Representatives from Wyoming. *Id.* at 85.

184. *Id.* at 85. The Phase III proceedings involving the adjudication of water rights evidenced by a state permit or certificate were not completed when the Wyoming Supreme Court's decision was issued. *Id.* Phase II, involving non-Indian federal reserved rights, has been settled by agreement of the parties, and the court has issued a partial decree. Comment, *Wyoming's Experience With Federal Non-Indian Reserved Rights: The Big Horn Adjudication,* 21 LAND & WATER L. REV. 433, 452 (1986). In Phase II, the United States sought reserved rights to water in Yellowstone National Park and the Bighorn and Shoshone National Forests, as well as for springs and waterholes on public domain land and stock driveways through private land. *Id.* at 446-50. As the Comment author argued, Wyoming's concern about federal claims amounted to "much ado about nothing," and he found the state's expenditure of nearly eight million dollars on the overall adjudication to be "inordinately high" given the "extremely limited returns." *Id.* at 452-53.

185. *Big Horn Adjudication,* 753 P.2d at 85. The special master also filed a 95-page supplemental report in 1984 recommending that successors in interest to Indian allottees and owners of land once a part of the reservation but obtained under public land acts be awarded

The Wyoming district court approved the master's grant of reserved water rights based on the reservation's practicably irrigable acreage.[186] Implicit in the lower court's approval was the conclusion that the Wind River Reservation had been established exclusively for agricultural purposes. The court rejected the master's contention that the reservation had been established to provide a permanent homeland for the Indians, which would have entitled the tribes to additional water for stock watering, fisheries, wildlife, aesthetics, mineral, industrial, domestic, commercial, and municipal uses.[187] The district court's amended decree, on which the appeal to the Wyoming Supreme Court was based,[188] also eliminated the master's recommendation that upstream storage be provided to protect current water users as a condition to the tribes actually using their reserved rights.[189]

In a three-two decision issued in February 1988, the Wyoming Supreme Court agreed that in the 1868 treaty Congress had intended to reserve water for the reservation.[190] Neither the water proviso of the 1905 Second McLaughlin Agreement,[191] nor the government's decision to secure state water rights, was evidence that Congress intended to relinquish these reserved rights.[192] Noting that the Second McLaughlin

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state permit priority dates. *Id.* at 86. The court held that the first group had 1868 priority dates on land irrigated by allottees or by the successor within a reasonable time thereafter. *Id.* at 113-14.

186. *Id.* at 86. The Wyoming Supreme Court, citing a rule of state civil procedure, found that the applicable standard of review was a "clearly erroneous" standard. *Id.* at 88.

187. *Id.* at 85-86.

188. *Id.* at 86.

189. *Id.* at 112. Judge Alan B. Johnson, who replaced retiring Judge Harold Joffe and issued the Amended Judgment and Decree, eliminated the storage requirement contained in Judge Joffe's Findings of Fact, Conclusions of Law and Judgment. *See* Brief for Petitioner On Writ of Certiorari at 8, 36 n.50, *Wyoming v. United States.* The state claimed that Johnson's action had been inexplicable and not based on any additional findings. *Id.* at 36 n.50. Judge Joffe had based the requirement on his finding that the government was estopped from claiming a reserved right for the tribes that might injure settlers on public lands. Official Transcript of Proceedings, *supra* note 63, at 12-13. Judge Johnson rejected the equitable estoppel theory, as did the Wyoming Supreme Court, on the grounds that there had been no affirmative misconduct by the United States. *Id.* at 12-13; *Big Horn Adjudication,* 753 P.2d at 89-90.

190. *Big Horn Adjudication,* 753 P.2d at 91. The Wyoming Supreme Court also affirmed that state court jurisdiction was proper, holding that the disclaimer provision of the Wyoming Constitution, WYO. CONST. art. XXI, § 26, bars state jurisdiction over Indian water rights only when federal law also bars jurisdiction. *Big Horn Adjudication,* 753 P.2d at 88. Because the McCarran Amendment authorized state jurisdiction, no federal bar existed. *See* Arizona v. San Carlos Apache Tribe of Ariz., 463 U.S. 545, 561-65, *reh'g denied,* 464 U.S. 874 (1983); *see also* United States v. Superior Court In and For Maricopa County, 144 Ariz. 265, 276, 697 P.2d 658, 669 (1985) (one of the objectives of federal law and policy is that Indian claims be adjudicated in state courts).

As had the *Winters* Court in 1908, *see* 207 U.S. 564, 577 (1908), the Wyoming Supreme Court also held that the equal footing doctrine did not preclude the existence of reserved rights. *Big Horn Adjudication,* 753 P.2d at 92.

191. *See supra* note 162 and accompanying text.

192. *Big Horn Adjudication,* 753 P.2d at 92-94. The Wyoming court found that the

Agreement had been enacted prior to *Winters*, the court stated that it would not abrogate treaty rights in the absence of "explicit statutory language."[193] The court also rejected the suggestion that the sensitivity doctrine[194] applied to the question of congressional intent to reserve water, but found that the special master and the district court had been "sensitive to existing water rights" in determining that reserved rights existed.[195]

1. The Purposes of the Reservation

The majority held that the sole purpose for the reservation was to create an agricultural community.[196] Although the court admitted that the "permanent homeland" idea could be a valid purpose for establishing a reservation in some cases, it found no such intent in the Second Treaty of Bridger and refused to "improperly" construe the treaty in favor of the tribes.[197] The court reasoned that because the treaty did not "encourage any occupation or pursuit"[198] other than agriculture, the words "permanent homeland" in the treaty did not "define the purpose of the reservation," but merely "permanently set aside lands for the Indians."[199]

To support its narrow reading of the treaty's purpose, the court relied on language used by the Supreme Court in *United States v. Shoshone Tribe*.[200] There the Supreme Court characterized the treaty provisions dealing with education and medicinal and mechanical services as evidence of "purpose on the part of the United States to help create an

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United States, by refusing in 1910 to apply to the state for an extension of time to secure state water rights under the 1905 McLaughlin Agreement, asserted its reserved rights as defined in 1908 by *Winters*. The court also cited United States v. Parkins, 18 F.2d 642 (D. Wyo. 1926), where a federal district court had affirmed that the Wind River Reservation had reserved rights by treaty. *Id.* at 93.

193. *Big Horn Adjudication*, 753 P.2d at 93 (citing Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n, 443 U.S. 658, 690 (1979)). On the power of Congress to abrogate treaty rights under article VI of the Constitution, see generally Wilkinson & Volkman, *Judicial Review of Indian Treaty Abrogation: "As Long as Water Flows, or Grass Grows Upon the Earth"—How Long a Time is That?*, 63 CALIF. L. REV. 601, 623-45 (1975).

194. *See supra* notes 132-33 and accompanying text.

195. *Big Horn Adjudication*, 753 P.2d at 94.

196. *Id.* at 96-99.

197. *Id.* at 96-97. The Wyoming court distinguished the holding in Colville Confederated Tribes v. Walton, 647 F.2d 42, 47 (9th Cir.), *modified*, 752 F.2d 397, *cert. denied*, 454 U.S. 1092 (1981), which recognized the permanent homeland concept, by stating that the *Colville* court's use of the *New Mexico* primary purposes test, *see* United States v. New Mexico, 438 U.S. 696, 702 (1978), may have been invalid because the test does not apply to Indian reservations. *Big Horn Adjudication*, 753 P.2d at 96. Ironically, the rationale for not applying the *New Mexico* test to Indian reservations is that the test is too stringent. *See supra* note 123 and accompanying text. The Wyoming court's decision, then, appears illogical in that it questioned the *Colville* court's broad interpretation of a treaty because that court had applied too stringent a test.

198. *Big Horn Adjudication*, 753 P.2d at 97.

199. *Id.*

200. 304 U.S. 111 (1938).

independent permanent farming community upon the reservation."[201] The Wyoming court, however, ignored more expansive language in *Shoshone Tribe* which stated that the "Indians agreed that they would make the reservation their permanent home"[202] and that the "principal purpose of the treaty was that the Shoshones should have, and permanently dwell in, the defined district of country."[203] Although the two dissenting judges in the Big Horn adjudication did not cite this language either, they both argued that the homeland concept should apply because it better reflected an intent that the reservation system evolve over time.[204]

Given the majority's limited reading of the purposes for the reservation, the Wyoming court denied the tribes reserved water for fisheries, mineral and industrial uses, and wildlife and aesthetics.[205] Municipal, domestic, livestock, and commercial uses, the court held, were subsumed under agricultural uses and required no additional water.[206] The court also unanimously reaffirmed the lower court's ruling that the reserved rights doctrine does not extend to groundwater[207] and, by a four-one margin, refused to overturn the lower court's ban on the export of re-

201. *Big Horn Adjudication,* 753 P.2d at 97 (citing *Shoshone Tribe,* 304 U.S. at 118).

202. *Shoshone Tribe,* 304 U.S. at 113.

203. *Id.* at 116.

204. *Big Horn Adjudication,* 753 P.2d at 119 (Thomas, J., dissenting). See *infra* notes 238-44 and accompanying text for a discussion of the dissenting opinions.

205. *Big Horn Adjudication,* 753 P.2d at 98-99.

206. *Id.* The court did not define what it meant by commercial uses, but its language implies that the commercial use must be related to agriculture. *See id.*

207. *Id.* at 100. In so doing, the court narrowly read the language of Cappaert v. United States, 426 U.S. 128 (1976). Although the *Cappaert* Court affirmed the Ninth Circuit's holding that the reservation doctrine applied to groundwater, *id.* at 137, Chief Justice Burger's majority opinion never explicitly stated that groundwater could be reserved. Burger never described the underground pool at issue as groundwater, but only referred to the surface level of the underground pool. *See id.* at 133, 135. The opinion clearly held, however, that the United States could protect its reserved rights from injury due to groundwater diversions unless the diversions were senior to the reserved right. *Id.* at 143.

No matter how *Cappaert* is read, it can be argued that Indian tribes retain reserved rights to groundwater as part of their fee simple absolute just as they retain rights to other resources such as oil, gas, or other minerals. *See* Meyers, *Federal Groundwater Rights: A Note on "Cappaert v. United States",* 13 LAND & WATER L. REV. 377, 388 (1978). Although the Supreme Court has never explicitly applied the reserved rights doctrine to groundwater, a federal district court has held that the Navy is not required to obtain a state permit to pump groundwater from a military reservation that had always been federal land. *See* Nevada *ex rel.* Shamberger v. United States, 165 F. Supp. 600 (D. Nev. 1958), *aff'd on other grounds,* 279 F.2d 699 (9th Cir. 1960) (because the original suit was not a McCarran Amendment general adjudication, the United States had not waived its sovereign immunity and thus state jurisdiction was improper). Moreover, the special master's report in *Arizona II* acknowledged that a tribe's access to well water from aquifers hydrologically linked to the Colorado River would be considered reserved water and mainstream water. *See* Report of Special Master Elbert Tuttle, *supra* note 90, at 184-87. Likewise, the trial court adjudicating rights on the Gila River system in Arizona has ruled that, under *Cappaert,* the federal reserved rights doctrine applies to groundwater and must be considered in the adjudication. 21 Water Law Newsletter No. 2, at 6 (1988).

served water off the reservation.[208] On this latter issue, only Judge Hanscum dissented. Based on his support of the permanent homeland purpose, Judge Hanscum argued that the export of water should be permitted if "such marketing contributed to the progress and development of the Indian homeland."[209]

2. *PIA of Undeveloped Lands*

As to the issue that ultimately brought the case before the United States Supreme Court, the Wyoming court upheld the special master's use of the PIA standard to quantify the water reserved for both historically irrigated and potentially irrigable lands.[210] During pretrial proceedings, the state took the position that the amount of water reserved should equal the quantity necessary to prevent the agricultural purposes of the reservation from being "entirely defeated," to meet the tribes' "minimal needs," and to assure them a "moderate standard of living."[211] Before the district court, however, Wyoming argued that the sole purpose for the reservation was agriculture and that the PIA standard should be used to quantify all reserved rights, but that reservation lands owned by non-Indians should not be awarded a reserved right priority date.[212] Subsequently, the parties agreed to apply the PIA standard and to define "practicably irrigable land" as land arable and feasibly irrigable from an engineering standpoint at a "reasonable cost."[213] Based on this definition, the state asserted that the tribes were entitled to 323,176 acre-feet of water per year to irrigate approximately 102,000 practicably irrigable acres.[214] The United States claimed 640,000 acre-feet per year for the tribes, including 570,304 acre-feet per year for present and future agricultural needs.[215] Concluding that the claims made by the United

208. *Big Horn Adjudication,* 753 P.2d at 100. The court noted that the tribes had not sought permission to export the water. *Id.*

209. *Id.* at 135 (Hanscum, J., dissenting).

210. *Id.* at 101.

211. Brief for Petitioner On Writ of Certiorari at 7, *Wyoming v. United States*; *see also* M. White, Indian Water Rights and the Wyoming Big Horn Adjudication: New Complications for Traditional Doctrines (reprint of speech presented at the Workshop on Water Law: Recent Developments and New Strategies, at San Diego, CA (Feb. 1-3, 1989)).

212. Wyoming's Brief in Support of Its Response to the Claims for Water Rights of the United States and the Shoshone and Arapaho Tribes, *In re* The General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources, State of Wyoming (No. 4993), *reprinted in* Brief for Tribal Respondents On Writ of Certiorari at 18a-19a, *Wyoming v. United States.*

213. *Big Horn Adjudication,* 753 P.2d at 101. As the tribes noted, Wyoming argued in its pretrial papers and before the master that the PIA standard "must govern this case." Brief for Tribal Respondents at 30 n.40, *Wyoming v. United States.* The state's strategy apparently was to stop the court from awarding the tribes water for nonagricultural purposes.

214. *See* Brief for the United States On Writ of Certiorari at 6, *Wyoming v. United States*; Official Transcript of Proceedings, *supra* note 63, at 6-7.

215. Brief for the United States On Writ of Certiorari at 6, *Wyoming v. United States.*

States were inadequate, the tribes sought an additional 1,103,000 acre-feet per year for irrigation.[216]

The special master faced the task of reconciling these various claims. In applying the PIA test to currently undeveloped lands, the special master first classified these lands into six levels of arability ranging from high quality arable lands to those not meeting minimal standards.[217] Then, relying principally on testimony given by the United States' expert witness, the master determined the engineering feasibility of irrigating these land.[218] The court held that the master had not abused his discretion by adopting a project efficiency measure of thirty-five percent rather than fifty percent and noted that the master actually employed a water duty measure more restrictive than the average water duty in the area.[219] The court, however, reversed the master's decision to reduce the total irrigable acreage of the five future projects by ten percent to compensate for potential errors in his estimate of arable acres, and it ordered that reserved rights be awarded for those lands.[220]

The state also challenged the master's method of determining economic feasibility, which involved balancing the costs and benefits of irrigating these lands.[221] On one key issue, the court rejected the state's argument that the master should have applied a 7-1/8% discount rate to measure the actual costs of irrigation projects instead of the four percent rate he chose.[222] The higher rate, the state argued, had been used in

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216. Brief for the Petitioner On Writ of Certiorari at 6, *Wyoming v. United States.*

217. *Id.* at 7. Wyoming objected to these classifications claiming they were not sufficiently specific and did not take into account economic factors. *Id.* at 6. For example, Wyoming claimed that 60% of the land the master had found to be arable did not meet Bureau of Reclamation standards for depth to barrier, maximum slope, hydraulic conductivity, barrier definition, and maximum drain spacing. *Big Horn Adjudication,* 753 P.2d at 102. The state court, however, found that the United States had presented substantial evidence to support the master's conclusion as to arability and upheld the special master's conclusion that 76,027 acres of these lands were arable. *Id.* at 101-02.

218. *Bighorn Adjudication,* 753 P.2d at 102. The court noted that the special master had praised the United States' expert for being credible and "detached from any preconceived estimates of what should be the result," and the court agreed that the climatological data he used to estimate water requirements on five future projects was reliable. *Id.*

219. *Id.* at 102-03. The court agreed with the master that present standards of technology should be applied to measure irrigation efficiency and noted that the state expert's estimates of efficiency excluded application, distribution, and conveyance efficiency factors. *Id.* at 103. On water duty, see *supra* note 95.

220. *Big Horn Adjudication,* 753 P.2d at 105-06. The court found that Wyoming had presented no independent evidence to support the master's reduction, and that the master's determination that the tribes and the United States had established their case by a preponderance of the evidence was dispositive of the issue. *Id.* The master had determined that there were 48,520 future irrigable acres resulting in a reserved right of 188,937 acre-feet per year. *Id.* at 103.

The court also rejected the argument that reinstating the eliminated lands violated the sensitivity doctrine. *Id.* at 112.

221. *Id.* at 103-04.

222. *Id.* at 103.

determining the feasibility of federal projects in 1979.[223] As the court noted, however, not even the state's own expert had used the 7-1/8% rate in his calculations.[224] The court also sustained the master's finding that costs of farming the land would be lowered because cooperative Indian management would maximize the use of farm equipment and the large supply of unemployed Indians would lower labor costs.[225] On the benefits side, the court found adequate evidence that farms in the area used progressive farming techniques and accepted the master's decision to determine crop yields based on the use of such techniques.[226]

3. *PIA of Historically Irrigated Lands*

The court accepted the master's presumption that historically irrigated lands having an uncancelled state water permit or a certificate of adjudication to appropriate water constituted prima facie evidence of irrigability and placed the burden of proving nonirrigability on the state.[227] The burden shifted to the United States and the tribes to prove irrigability on lands previously irrigated, but now idle or retired, and on lands without state permits, even if those lands were being irrigated at the time of trial.[228] Lands determined to be per se nonirrigable (Class 6 lands), too marginal or in too small a parcel, were not awarded reserved rights.[229] In addition, the master rejected claims for 3,943 acres of nonirrigated Indian fee land because the tribe had failed to do an economic

223. *Id.* at 103-04; *see* Burness, Cummings, Gorman & Lansford, *Practicably Irrigable Acreage, supra* note 98, at 303, (discussing the various rationales for choosing an appropriate discount rate and concluding that the range of choice should be between 0-5%). Burness' coauthor, R.G. Cummings, testified for the tribes in the Big Horn adjudication. Their position has been challenged by Brookshire, Merrill & Watts, *supra* note 93, at 760, who argue that the range should be between 4-11%. Although Mr. Brookshire also testified before the special master in the Big Horn adjudication, the master rejected his testimony "because Brookshire improperly excluded the household rate and relied on the average, rather than the marginal, rate." *Big Horn Adjudication,* 753 P.2d at 104 (1988).

224. *Big Horn Adjudication,* 753 P.2d at 103.

225. *Id.* at 104-05. Brookshire, Merrill & Watts, *supra* note 93, at 761-62, argue that accepting a very low opportunity cost for labor over the life of an irrigation project "biases economic analysis toward economic feasibility, resulting in larger quantified reserved water rights on Indian reservations." They also contend that this assumption is rather cynical in its implication that "no efforts will be made by individual, tribal, state, or federal groups to improve employment opportunities," and that "generations of Indians not yet born will be unable to find employment in pursuits not related to irrigated agriculture." *Id.* at 762. Although it is unclear from the court's discussion of economic feasibility if the special master included secondary or off-reservation benefits or costs in his calculus, he clearly did not assume a state of full employment. On this point, see *supra* notes 100-03 and accompanying text.

226. *Big Horn Adjudication,* 753 P.2d at 104.

227. *Id.* at 107. As the court noted, when the state of Wyoming argued on behalf of private appropriators it claimed that an uncancelled permit was prima facie evidence of a state right and that the burden was on the party contesting the permittees' right to the water. *Id.* The state did rebut the presumption as to 5,017.1 acres on the reservation. *Id.* at 108.

228. *Id.* at 108-09.

229. *Id.*

analysis on the land.[230] The court also upheld the master's decision to apply a forty percent overall water efficiency in measuring the reserved rights of historically irrigated lands.[231]

4. *The Sensitivity Doctrine, Storage, and Priority Dates*

Although the Wyoming Supreme Court expressed doubts that the sensitivity doctrine even applies to Indian reserved rights,[232] it found that the district court's deletion of the requirement that upstream storage be provided to ameliorate the effect of the tribes' use of their reserved rights did not "manifest insensitivity" to state law water users nor violate the sensitivity doctrine.[233] As the court put it, requiring the tribes to construct storage dams before they could use their water would "fl[y] in the face of the object of the reserved right—a prior entitlement to the water."[234] The court also found no indication that removing the storage requirement would result in a "a gallon for gallon reduction in the water available for other users."[235]

Finally, the court affirmed that land in the diminished reservation, all Indian fee lands, and ceded lands reacquired by individual Indians or the tribe, had water rights with an 1868 priority date.[236] Indian successors to allottees also retained this priority date, but non-Indian grantees took this priority date only for land irrigated by their Indian predecessors or land that the grantees irrigated within a reasonable time after taking possession, up to the PIA limit.[237]

5. *The Dissenting Opinions*

The two dissenting judges embraced the homeland concept but rejected the court's approval of the PIA standard.[238] As Justice Thomas

230. *Id.* at 110. The tribe argued that no economic analysis should have been required because, in most cases, extending a ditch or a lateral was all that was necessary to irrigate the land. *Id.*

231. *Id.* at 110-11. The court did not clearly state what the master's rationale was for requiring historic acres (40% efficiency) to be watered more efficiently then future acres (35% efficiency). *Id.* Indeed, the court twice rejected the testimony of the state's expert that a 50% efficiency rate was possible for future or historic lands. *Id.* at 111. Whatever the reason, the decision seems arbitrary and illogical because it is often easier to build a new project to meet stringent efficiency requirements than it is to upgrade existing works.

232. *Id.* at 111.

233. *Id.* at 112.

234. *Id.*

235. *Id.*

236. *Id.* at 112, 114.

237. *Id.* at 112-14. The court also affirmed that the Wyoming State Engineer had the authority to monitor the decree for compliance by state users and the tribes, *id.* at 114-15, and it required the United States to pay one-half of the special master's fees and expenses. *Id.* at 116.

238. *Id.* at 119 (Thomas, J., dissenting). District Judge Hanscum joined Justice Thomas and also issued his own dissent which argued that the tribes should be free to export the water. *Id.* at 135 (Hanscum, D.J., dissenting).

argued, the permanent homeland concept correctly assumes that the reservation "will not be a static place frozen in an instant of time . . . but will evolve and will be used in different ways as Indian society develops."[239] At the same time, he called for a more "pragmatic" approach to quantifying reserved rights for agriculture, asserting that he would "be appalled, as most other concerned citizens should be," if money were to be expended to irrigate "these Wyoming lands when far more fertile lands in the midwestern states now are being removed from production due to poor market conditions."[240] Such lands may be irrigable "academically," he contended, but not "as a matter of practicality."[241]

Justice Thomas also maintained that under the permanent homeland concept, Indian lands, once ceded, lost their reserved status and, even if returned to Indian ownership, these lands should be excluded from the PIA equation.[242] Here, he argued, the sale of lands pursuant to the Second McLaughlin Agreement of 1905 was evidence that Congress had concluded that the ceded lands were not needed to furnish the tribes a homeland, thus eliminating the purpose for which the water originally had been reserved.[243] Justice Thomas, however, failed to address two key points. First, he ignored the bilateral nature of the agreements at issue by not mentioning the intent of the Shoshone and Arapaho Tribes. He also failed to analyze the language of the savings clause in the 1905 agreement which states that the tribes shall not be deprived of "any benefits to which they are entitled under existing treaties or agreements, not inconsistent with this agreement."[244] The language of this clause appears to refute the notion that the cession of the land destroyed the reserved water rights that inhered in the land in 1868 without an explicit provision to that effect in the agreement.

Even though the Shoshone and Arapaho Tribes did not receive the quantity of reserved rights they claimed, the decision of the Wyoming Supreme Court to award reserved rights of 500,717 acre-feet of water was a significant victory for them.[245] Indeed, the size of the award alone may temper the fears of other tribes that they will not receive a fair hearing in state courts. In addition, the size of the award and the court's reaffirmation of the PIA doctrine could strengthen the bargaining position of other tribes involved in state adjudications or settlement negotia-

239. *Id.* at 119.
240. *Id.*
241. *Id.*
242. *Id.* at 119-20.
243. *Id.* at 120.
244. Second McLaughlin Agreement, ch. 1452, art. X, 33 Stat. 1016, 1018 (1905).
245. Brief for Tribal Respondents at 10 n.16, *Wyoming v. United States.* On April 22, 1988, the Wyoming Supreme Court denied petitions to rehear the case. M. White, *supra* note 211, at xiii.

tions.[246] Moreover, even where the Wyoming court rejected specific claims made by the tribes, such as the "permanent homeland" purpose, reserved rights for nonagricultural uses, and reserved rights for groundwater, it did so by only a three-two majority.[247] The most significant disappointment for the tribes was the opposition of the majority to the export of water off the reservation. None of these results are surprising, however, given that the United States Supreme Court has never spoken directly on the permanent homeland concept and that the export of reserved water is a politically sensitive issue.

C. *Events in Response to the Wyoming Court Decision*

Three months after the Wyoming court's decision, the tribes asserted their senior water rights by closing and locking the headgates of thirty-three non-Indian irrigators on the Crowheart Irrigation Unit of the reservation's Wind River Project.[248] The action, which disrupted water deliveries for three weeks in the midst of a drought, exacerbated tensions and confirmed the worst fears of non-Indian irrigators in the area.[249] The tribes defended their action by arguing that the dispute arose because non-Indian irrigators "had taken more than their fair share of the water . . . at the beginning of the summer."[250]

The dispute was resolved by a one-year agreement signed in February 1989 by the tribes and the Governor of Wyoming.[251] Under this agreement, Indian irrigators agreed to share any water shortages or surpluses equally with other water users based pro rata on the total amount of land irrigated on each tract rather than on priority date.[252] In return, the state promised to contribute $2 million to compensate Indian irrigators injured by this provision, with any excess funds to be used by the tribes as they see fit.[253] The state also agreed to spend $1.3 million to rehabilitate and expand existing water works serving the reservation and to study potential water storage sites.[254] In addition, the state promised

246. *See, e.g.,* Brief of Amicus Curiae Shoshone-Bannock Tribes in Support of Respondents On Writ of Certiorari at 1-2, *Wyoming v. United States,* (arguing that replacing the PIA standard "will cast long shadows over on-going negotiations between the Shoshone-Bannock Tribes and the State of Idaho, which are on the verge of quantifying the tribes' federally-reserved 1868 Treaty water rights within the Snake River Basin").

247. *See Big Horn Adjudication,* 753 P.2d 76 (Wyo. 1988).

248. High Country News, Mar. 13, 1989, at 5, col. 1; Brief for the Petitioner On Writ of Certiorari at 9, *Wyoming v. United States*; Brief for Tribal Respondents On Writ of Certiorari at 19 n.25, *Wyoming v. United States.*

249. High Country News, Mar. 13, 1989, at 5, col. 1.

250. Brief for Tribal Respondents On Writ of Certiorari at 19 n.25, *Wyoming v. United States.*

251. *Id.*; High Country News, Mar. 13, 1989, at 5, col. 1.

252. Brief for Tribal Respondents On Writ of Certiorari at 10a, *Wyoming v. United States.*

253. *Id.* at 11a.

254. *Id.*

to seek legislative reduction of the state's severance tax on oil and gas production while allowing the tribes to increase their severance tax.[255] Finally, the agreement granted the tribes a larger role in managing on-reservation water uses with the state and the Bureau of Indian Affairs.[256]

Prior to signing this interim agreement, the tribes also had blocked access to Bull Lake Reservoir Dam, which is located on the reservation. This action was undertaken to protest the destruction of fisheries caused by the low water levels in the lake and by low flows in Bull Lake Creek below the dam during the filling of the reservoir.[257] A special United States Senate investigative committee heard testimony that demand for irrigation water during the summer drought of 1988 had caused the Bureau of Reclamation to decrease storage 100,000 acre-feet below the minimum storage recommended by the United States Fish and Wildlife Service.[258] The low lake level forced closure of the lake to fishing.[259]

The Bureau's action reflected the general problem of reconciling irrigation needs with instream flow requirements. Indeed, years of dewatering streams on the reservation to provide irrigation water for both non-Indians and Indians had resulted in the "almost total devastation of game fish populations"[260] and constituted another blow to the reservation's already shattered economy.[261] Although the *Big Horn* court had refused to grant the tribes reserved rights for fisheries, the action of the tribes underscored their resolve to use some of their newfound power to alleviate the problem, possibly by using their agricultural water rights to maintain instream flows.[262]

In the midst of these events, the state of Wyoming filed its petition for a writ of certiorari to the United States Supreme Court. It is ironic that the state, after eleven years of proceedings in its own courts, sought to challenge the decision in federal court by relying on a review procedure designed to safeguard tribes from unfair treatment by hostile state courts.[263] The state's petition asked the Court to review: (1) whether reserved rights existed in light of the 1905 agreement, (2) if so, whether

255. *Id.* at 10a. The agreement has been attacked by county officials in the area who claim the governor was "sandbagged" by the tribes. Casper Star-Tribune, Aug. 8, 1989, at B1, col. 1.

256. Brief for Tribal Respondents On Writ of Certiorari at 10a, *Wyoming v. United States*; *see* Casper Star-Tribune, Mar. 19, 1989, at B1, col. 1.

257. Casper Star-Tribune, May 17, 1989, at A1, col. 1. As John Washakie, chairman of the reservation's joint business council noted, the tribes' attempt three years earlier to bring the problem before Congress had fallen on deaf ears. *Id.*

258. *Id.*

259. *Id.*

260. *Id.*

261. *See supra* text accompanying notes 171-77.

262. *See* Brief for the Petitioner On Writ of Certiorari at 9 n.5, *Wyoming v. United States.*

263. *See, e.g.,* Arizona v. San Carlos Apache Tribe of Ariz., 463 U.S. 545, 570-71, *reh'g denied,* 464 U.S. 874 (1983) (appeals by tribes of any state court decision could "expect to receive a particularized and exacting scrutiny").

the PIA standard should be used to measure these rights, and (3) what priority date should be accorded ceded lands restored to the reservation.[264]

On cross-petition, the tribes sought review of the Wyoming court's decision as to: (1) the validity of the "permanent homeland" purpose, (2) reserved rights to groundwater, (3) the ban on the export of reserved water, (4) the burden of proof for establishing reserved rights on historic lands, (5) the use of the forty percent efficiency rate for historically irrigated lands, and (6) the priority date for non-Indians claiming reserved rights.[265] The same day that the tribes filed their cross-petition, a group including the City of Riverton, local irrigation districts, and individual ranchers and farmers, filed their own cross-petition seeking review of the sensitivity doctrine, the Wyoming court's choice of discount rate, and its rejection of the estoppel argument.[266] On January 23, 1989, the Supreme Court granted Wyoming a writ of certiorari as to the PIA question only.[267] Subsequently, the Court denied the writs sought by the cross-petitioners.[268]

III

THE UNITED STATES SUPREME COURT PROCEEDINGS

A. The Appellate Arguments

1. Wyoming's Position

In its appellate brief, the state of Wyoming urged the Supreme Court to replace the PIA measure with a need-based standard.[269] Apply-

264. Petition For A Writ of Certiorari at i, *Wyoming v. United States* (State of Wyoming, Petitioner).

265. Cross-Petition For A Writ of Certiorari To the Supreme Court of Wyoming at i, Shoshone Tribe and Northern Arapaho Tribe of the Wind River Indian Reservation v. Wyoming, 109 S. Ct. 3265 (1989) (No. 88-492) (certiorari denied). Although the United States did not file a cross-petition, it did file a brief in opposition to the state's petition and to the cross-petition of the City of Riverton. Brief for the United States in Opposition, *supra* note 149.

266. Cross-Petition For a Writ of Certiorari to the Supreme Court of Wyoming at i, City of Riverton, Wyo. v. United States, 109 S. Ct. 3265 (1989) (No. 88-553) (certiorari denied). *See* Brief of Cross-Petitioners Shoshone and Northern Arapaho Tribes, Cross-Petition For A Writ of Certiorari at ii, Shoshone Tribe and Northern Arapaho Tribe of the Wind River Indian Reservation v. Wyoming, 109 S. Ct. 3265 (1989) (No. 88-492) (certiorari denied).

267. Wyoming v. United States, 109 S. Ct. 2994, *reh'g denied,* 110 S. Ct. 28 (1989). The text of the question read:

> In the absence of any demonstrated necessity for additional water to fulfill reservation purposes and in the presence of substantial state water rights long in use on the Reservation, may a reserved water right be implied for all practicably irrigable lands within a Reservation set aside for a specific tribe?

Petition For A Writ of Certiorari at i, *Wyoming v. United States* (State of Wyoming, Petitioner).

268. Shoshone Tribe v. Wyoming, *cert. denied,* 109 S. Ct. 3265 (1989); City of Riverton, Wyo. v. United States, *cert. denied,* 109 S. Ct. 3265 (1989).

269. Brief of Petitioner On Writ of Certiorari at 17-21, *Wyoming v. United States.*

ing the PIA standard with "brittle judicial adherence,"[270] the state argued, resulted in reserved rights awards in excess of the reservation's "minimal needs,"[271] violated the sensitivity doctrine,[272] and inequitably shifted "the burden of providing reservation water from the public treasury to private water users."[273] The PIA measure provided the tribes with "an unanticipated windfall."[274]

To support its contention that the tribes had received a "windfall," the state noted that the tribes were seeking to overturn the Wyoming court's bar on water exports, and it alerted the Court to the interim agreement between the state and the tribes.[275] The state characterized the agreement as a payment of money by the state to the tribes and an example of how the tribes might "convert their water rights to money."[276]

The state suggested three alternatives that the Court could use to stop these "windfalls." First, the state argued, the Court should limit application of the PIA standard to the "peculiar circumstances" of *Arizona I*.[277] Where a reservation has had "ample opportunity" to develop its irrigable lands, as the state argued was the case with the Wind River Reservation, reserved rights should not exceed the amount of water necessary to water historically irrigated lands.[278] Moreover, if state law permits exist for reserved lands, these lands should not be awarded reserved rights.[279] Second, if the PIA standard applied, it should only award enough water "to meet agricultural minimal needs

270. *Id.* at 39.

271. *Id.* at 14-15.

272. *Id.* at 35-39.

273. *Id.* at 49. The state argued that using the PIA standard only exacerbated the dislocations caused by the reserved rights doctrine generally, *id.* at 35-39, which it termed a "financial doctrine." *Id.* at 49.

274. *Id.* at 32.

275. *Id.* at 32-35.

276. *Id.* at 35. By citing the agreement, the state was citing evidence outside the record of the case. *Id.* See *supra* notes 248-56 and accompanying text for a discussion of the agreement.

277. Brief of Petitioner on Writ of Certiorari at 24-26, *Wyoming v. United States.* The state first attempted to distinguish the reservations at issue in *Arizona I* by arguing that the Wind River Reservation was not "of the desert kind—hot, scorching sands," but comprises "the best-watered portion of Wyoming." *Id.* at 24-25 (quoting United States v. Shoshone Tribe, 304 U.S. 111, 114 (1937)). In addition to these geographic differences, the state pointed out that, unlike the Wind River Reservation, the reservations in *Arizona I* had been set aside for an undetermined number of tribes. The state's first distinction rings hollow, even if the Wind River Reservation is not sandy desert, because the federal government has expended large sums of money to construct the irrigation works necessary to farm in the Wind River area. The second distinction, however, does have some merit given that the Court and the special master in *Arizona I* defended use of the PIA standard on the grounds that it was the most feasible way to quantify the rights on the five reservations involved in the case. *Arizona I*, 373 U.S. 546, 601 (1963).

278. The state principally relied on United States v. Walker River Irrigation Dist., 104 F.2d 334 (9th Cir. 1939).

279. Brief for the Petitioner On Writ of Certiorari at 31, 32, *Wyoming v. United States.*

and to insure that the primary agricultural purpose is not entirely defeated."[280] Finally, the Court could limit the PIA standard through the application of specific factors that would require trial courts to "fairly and equitably tailor the reserved right doctrine to the needs of the reservation."[281] These factors would include: (1) the extent of historic irrigation and the presence of state law water rights, (2) the amount of land not yet irrigated but "reasonably foreseen to be irrigated" at the time of the creation of the reservation, (3) nonirrigation agricultural needs, and (4) the impact of the reserved rights on non-Indian water rights.[282]

2. *The Tribes' Response*

The tribes responded that the state had exaggerated the effect reserved rights would have on non-Indian users, and they blasted the state's characterization of the 1989 interim agreement.[283] Rather than an example of Indian/non-Indian conflict or evidence that the tribes' reserved rights were a windfall, the tribes portrayed the agreement as a significant step forward in the evolution of state-tribal relations, which actually would increase water supplies for all users.[284]

The tribes also denounced the state's proposal that reserved rights be based on historic uses and that lands with state law permits not be granted reserved rights.[285] Legal precedent, they pointed out, supported use of the PIA standard, and in *Cappaert, New Mexico,* and *Washington Fishing Vessel,* the Court had reaffirmed the holding in *Arizona I.*[286] Moreover, by limiting the tribes' vested water rights based on their past political impotence, a historic use standard effectively would subject the tribes to the "use it or lose it" maxim and would sanction the discrimination Indians had faced in securing money for irrigation projects.[287] Under these standards, treaty rights would no longer be defined by the intent of the parties to the treaty, but by the ability of the tribes to secure funding for irrigation projects.[288]

Likewise, the tribes rejected the "minimal needs" and "entirely defeated" standards as inapplicable to Indian reservations.[289] Arguing that there are "powerful arguments militating against a restrictive approach to the quantification of Indian reserved rights," the tribes distinguished

280. *Id.*
281. *Id.* at 11-12, 47-49.
282. *Id.* at 15-16.
283. Brief for Tribal Respondents On Writ of Certiorari at 17-21, *Wyoming v. United States.*
284. *Id.* at 18-21.
285. *Id.* at 34-43.
286. *Id.* at 28-32.
287. *Id.* at 35, 38-40.
288. *See id.* at 41-42.
289. *Id.* at 28-32.

Indian reservations from other federal reservations: Indian reservations are created by bilateral treaty not unilateral federal action, are not subject to state regulation, and involve the broad purpose of creating a self-sufficient homeland.[290]

3. *The Positions of* Amici

The briefs supporting Wyoming's position joined the state's attack on the PIA standard for its failure to measure the actual needs of the tribes. The *amici* variously characterized the PIA standard as a "mechanical formula"[291] that misapplied cost/benefit analysis to justify "an idealized project" and to "maximize the potential entitlement to water."[292] Rather than promoting agriculture, an activity "contrary to modern needs and realities,"[293] one *amicus* pressed the courts to engage in a "Solomonic balancing of a myriad of factors" when quantifying reserved rights.[294] These factors could include the purpose for creation of the reservation, its population and resources, the cultural values and traditions of the tribes, the optimal manner of creating jobs and income for the tribes, the most efficient use of the water, and the impact of this water use on existing users.[295] Like Wyoming, the *amici* argued that when congressional action, such as the water proviso of the Second McLaughlin Agreement, provided water for the tribes under state law, these rights replaced the tribes' reserved rights and became subject to state law.[296]

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290. *Id.* at 30 & n.41.

291. Brief of the State of New Mexico as Amicus Curiae On Writ of Certiorari at 6, *Wyoming v. United States; see also* Brief of Amicus Curiae Salt River Project Agricultural Improvement and Power District in Support of the State of Wyoming On Writ of Certiorari at 19, *Wyoming v. United States.*

292. Amici Curiae Brief of the County of Chaves, the City of Roswell, the Village of Ruidoso Downs, and the Twenty-two Community Acequias, all within the State of New Mexico On Writ of Certiorari at 7, *Wyoming v. United States*; *see also* Brief of the Village of Ruidoso as Amicus Curiae in Support of the State of Wyoming On Writ of Certiorari at 7-13, *Wyoming v. United States.*

293. Brief of Amicus Curiae Salt River Project Agricultural Improvement and Power District in Support of the State of Wyoming On Writ of Certiorari at 19, *Wyoming v. United States.*

294. *Id.* at 18.

295. *Id.* at 7, 9.

296. Brief of the City of Phoenix as Amicus Curiae In Support of the State of Wyoming On Writ of Certiorari at 4-6, *Wyoming v. United States* (the 1905 Second McLaughlin Agreement is proof that Congress intended the state law "use it or lose it" system, not PIA, to be the measure of the tribes' reserved rights); Brief of Amicus Curiae Salt River Project Agricultural Improvement and Power District in Support of the State of Wyoming On Writ of Certiorari at 15 & n.23, *Wyoming v. United States.* Both the City of Phoenix and the Salt River Project are involved in the adjudication of the Gila River in Arizona, and they would like to see Central Arizona Project water allocations and other state law water rights subtracted from any reserved right award. *See* Brief of the City of Phoenix as Amicus Curiae In Support of the State of Wyoming On Writ of Certiorari, *supra*, at 3-7; Brief of Amicus Curiae Salt River Project Agricultural Improvement and Power District in Support of the State of Wyoming On Writ of Certiorari, *supra*, at 17-18 & n.26.

By contrast, the *amicus* brief of the Native American Rights Fund, joined by a number of individual tribes, defended the PIA doctrine as a realistic method of measuring reserved rights that facilitated the settlement of Indian claims and promoted Indian self-sufficiency.[297] Non-Indian interests, they argued, were protected by state court review of the PIA evidence and by the gradual process of approving and constructing the projects needed to actually use the water.[298]

The briefs established the respective and polar positions of the parties. The tribes took the position that the PIA standard should be used to measure reserved rights for agriculture and that, as vested property rights, reserved waters should be used by the tribes as they see fit. The state countered that the PIA standard results in excessive awards and should be replaced by a "minimal need" or "moderate living" measure.

As the discussion below indicates, the Supreme Court focused on the interaction of reserved rights with state law water rights. Specifically, the Court questioned the right of the tribes to sell reserved water they cannot consumptively use on the reservation and the extent to which the tribes can retain rights to water that they do not use.

B. The Oral Argument

Because the United States Supreme Court affirmed the decision of the Wyoming Supreme Court without issuing a written opinion,[299] the oral argument before the Court provides only a glimpse at the Justices' current positions on reserved rights and constitutes the only record from which to discern why four Justices voted to overturn a state court decision that had taken eleven years to conclude. Although in oral argument Justices often play devil's advocate and raise and defend positions that they would not countenance in a final written opinion, statements made at oral argument may reveal the visceral feelings of the Justices and provide clues as to how the Court might treat similar issues in the future. As the oral arguments in *Wyoming* reveal, the road ahead for reserved water rights may be rocky.[300]

1. The State's Oral Argument

In presenting the argument of the state of Wyoming, Michael Douglas White, a private attorney appearing as a Special Assistant At-

297. Brief of the Native American Rights Fund On Writ of Certiorari at 16-21, 22, 24-26, *Wyoming v. United States.*

298. *Id.* at 21-24.

299. *Wyoming v. United States,* 109 S. Ct. 2994, *reh'g denied,* 110 S. Ct. 28 (1989).

300. Although the official transcripts of the oral arguments do not list the name of the Justice asking the question, it is often possible to determine the questioner either from the answer or from other sources. For this Note, I have used an article from the Casper-Star Tribune, Apr. 26, 1989, at 1, col. 1, and a telephone interview with a correspondent from that paper who attended the hearing, to help determine who asked the questions.

torney General, spoke to a generally approving audience. Indeed, Mr. White proceeded for long intervals with no interrupting questions and, when questions were asked, they sought clarification of a point rather than confrontation. The state's argument focused on four issues: (1) the purposes for the creation of the Wind River reservation, (2) the effect of the 1905 water proviso on the water rights implied in the 1868 treaty, (3) the desirability of using a need-based standard to measure the quantity of water reserved, and (4) the lack of "sensitivity" shown by the Wyoming court to state law water users.[301]

As to the first issue, the state contended that 40,000 acres of land restored to the reservation in 1944 had been restored for grazing purposes rather than agricultural purposes as determined by the state court.[302] By including this land, the state argued, the Wyoming court had inflated the PIA figure.[303] This argument rang hollow, however, because the state had stipulated in the lower court that 102,000 acres of the reservation were practicably irrigable.[304] Although Mr. White pointed out that the state had used the 102,000 acre figure "with a different quantification rate and a different priority date,"[305] this did not explain the state's charge that the PIA figure itself was wrong. Rather, it demonstrated the state's disagreement on the issue of water duty per acre and the effect of existing state law water rights on the priority date of water rights for lands now claiming reserved rights under the 1868 treaty.

On the second issue, Mr. White reiterated that the water proviso of the Second McLaughlin Act,[306] the subsequent failure of Congress to legislate a reserved right for the Wind River Reservation,[307] and the federal government's construction of "substantial irrigation projects on the reservation,"[308] evidenced the intent of Congress that state law water rights

301. Official Transcript of Proceedings, *supra* note 63, at 4-8, 10-16.

302. *Id.* at 13-14.

303. Interestingly, this argument merited only passing mention in the state's United States Supreme Court brief and had not been discussed at all in the Wyoming court's opinion. Brief for the Petitioner On Writ of Certiorari at 41, *Wyoming v. United States.*

304. Official Transcript of Proceedings, *supra* note 63, at 5-6. Justice O'Connor elicited this admission by pointing out that the final PIA figure of 108,000 acres was reasonable given that the federal government had sought state law water rights under the 1905 water proviso for 145,000 acres. *Id.*

305. *Id.* at 6-7.

306. Second McLaughlin Agreement, ch. 1452, art. X, 33 Stat. 1016 (1905).

307. Official Transcript of Proceedings, *supra* note 63, at 7-8. White also noted that in 1905 Congress expressly created a reserved right for the Fort Hall Reservation in Idaho, the Wind River's sister reservation.

McCool, *supra* note 33, at 54-57, discusses attempts by Congress to statutorily recognize the reserved rights doctrine. He found that even after *Winters,* most congressmen were unaware of the decision or misconstrued the scope of the doctrine. "For the most part," he writes, "the decision appears to have been regarded as only marginally important." *Id.* at 56. The refusal of Congress to legislate a reserved right is another example of Congress deferring a politically thorny problem to the courts.

308. Official Transcript of Proceedings, *supra* note 63, at 7-9. As the tribes' attorney

with a priority date of 1905 or later satisfy the needs of the tribes.[309] Stating that Congress does this "all the time," Mr. White argued that the 1905 act abrogated any 1868 treaty water rights and replaced them with state law water rights.[310] None of the Justices even challenged this point.

Mr. White also reiterated that the government's voluntary relinquishment of the state law water rights it had secured for the tribes demonstrated that the water was not needed for irrigation.[311] Because need should be the measure of the reserved right, reserved rights should not replace the relinquished state rights.[312] Moreover, the existence of uncancelled state law water rights for 87,000 acres obviated the need for reserved rights with a senior priority date.[313]

Finally, Mr. White argued that the decision of the Wyoming court to remove the storage requirement violated the sensitivity doctrine and ignored the state's estoppel argument.[314] Mr. White failed to mention, however, that the Wyoming court had determined that removing the storage requirement would not injure non-Indian users.[315]

2. *The Argument of the United States*

The tenor of the arguments altered perceptibly during the presentation of Jeffrey Minear, Assistant to the Solicitor of the United States. The interchanges became considerably more heated as certain Justices levied a direct attack on the fundamental principles of the reserved rights doctrine.

The debate began when Mr. Minear characterized the PIA doctrine as a "natural measure" of the reserved right.[316] This assertion was challenged by Justice Scalia, who asked why it was such a "natural measure" when it assumed that the reserved land would be irrigated not "as well as

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pointed out, over $70 million had been spent by the federal government on irrigation projects that benefitted primarily non-Indians on the Wind River Reservation, while only $4.4 million had been spent on Indian irrigation projects. *Id.* at 48. Part of the reason Indian projects historically have received less money than non-Indian projects is that Indian projects are administered by and funded through the Bureau of Indian Affairs, not by the Bureau of Reclamation—a much more politically astute and successful agency. *See* D. McCOOL, *supra* note 33, *passim.*

309. Official Transcript of Proceedings, *supra* note 63, at 9.

310. *Id.* at 20-21.

311. *Id.* at 9-10.

312. *Id.* at 9-10, 15.

313. *Id.* at 17, 19-21.

314. *Id.* at 12-14.

315. The Wyoming court found that the quantification had been done with sensitivity. *Big Horn Adjudication,* 753 P.2d 76, 111-12 (Wyo. 1988). However, the Wyoming court rejected the argument that the sensitivity doctrine even applies to the question of intent to reserve water. *Id.* at 94.

316. Official Transcript of Proceedings, *supra* note 63, at 23. Mr. Minear also called it a "sensible and correct" approach "essential to insure an orderly, efficient, and certain resolution of . . . Indian water rights disputes." *Id.* at 22.

anything in the area is irrigated," but rather "irrigated 100 percent even if everything around it has to go dry."[317] At this point, an unidentified Justice asked whether the tribes were selling water, apparently referring to the incidents surrounding the interim settlement agreement between the tribes and the state of Wyoming.[318] Flustered, Mr. Minear attempted to defer the question to the tribes' counsel, but the Justice pressed him: "Are they using all the water that's been allocated in this proceeding?"[319] "[H]ave they attempted to obstruct the flow on down the stream?"[320] "Didn't they receive a payment from the state not to assert those rights?"[321] Mr. Minear could only respond that the tribal-state agreement had been comprehensive in nature and that, being outside the record, the accuracy of the state's description of the agreement was questionable.[322]

The questions revealed that some Justices were concerned that the tribes might sell their reserved water, perhaps even to preempted state law water users. Indeed, one Justice asked later if the PIA calculus depended on "whether the tribes intend to farm it themselves or intend to sell off the rights they obtain?"[323] Mr. Minear admitted that the premise underlying the PIA standard was and should be "[t]hat the tribes themselves would operate these farms."[324]

One Justice also questioned whether determining PIA based on the availability of current farming technology reflected the intent of the parties to the 1868 treaty, venturing that it would be "hard to think that these projects would ever have been contemplated" in 1868.[325] Mr. Minear responded that although the projects envisioned using 1868 technology might have been smaller, they would have been less efficient and used more water.[326] In addition, he argued, measuring PIA based on treaty-time technology would violate the precedent in *Arizona I,* would be enormously difficult, and would not reflect the intent of Congress and

317. *Id.* at 23-24.

318. *Id.* at 24. See *supra* notes 251-56 and accompanying text for a discussion of the agreement. The Justice asked, "These people are not selling water, are they?" Official Transcript of Proceedings, *supra* note 63, at 24.

319. Official Transcript of Proceedings, *supra* note 63, at 24.

320. *Id.*

321. *Id.* at 25.

322. *Id.* In its appellate brief, the state had discussed the tribes' closing of the headgates on non-Indian irrigators and the subsequent agreement with the state. Brief for the Petitioner On Writ of Certiorari at 9-10, *Wyoming v. United States.* Both actions had occurred after the Wyoming court decision.

323. Official Transcript of Proceedings, *supra* note 63, at 28.

324. *Id.* at 28-29. Mr. Minear's first answer to the question had been, "I think it does depend on the fact that the tribes will sell it themselves," to which the Justice responded, incredulously, "That what?" In the ensuing discussion, Mr. Minear corrected himself and stated "and *use* it themselves." *Id.* at 29 (emphasis added).

325. *Id.* at 30.

326. *Id.*

the belief of the tribes in entering the agreement that the ultimate quantification would be based on the "best available information."[327]

At this point, Chief Justice Rehnquist challenged the precedential validity of *Arizona I* by noting that the opinion "contains virtually no reasoning" and that the Court merely had accepted the special master's conclusion as to the PIA standard.[328] The Chief Justice also pointed to the fact that the *Arizona I* reservations, unlike the Wind River Reservation, had not been established for a particular tribe but rather for any tribes that might be settled in the relevant areas.[329] Arguing that Congress must have contemplated the size of the tribe that would live on the Wind River Reservation, the Chief Justice stated that he found it difficult to believe that

> in 1868 Congress . . . should be deemed to have said we're giving enough water to irrigate every—every inch of arable land. No matter how large the tribe they thought they were settling. Did they expect to make some tribes very rich so they could have an enormous export business . . . in agricultural products.[330]

Here, Mr. Minear interrupted the Chief Justice and charged that "the idea that these tribes would become very rich off this grant of water is simply a fantasy."[331] But the Chief Justice's reply merely stated the minimal needs standard: "I thought that the purpose . . . of the agricultural grant was to enable them to grow food by which they could live."[332]

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327. *Id.* at 30-34. The current/past technology argument also would have to take into account what past experts, not current experts, believed the technology could accomplish. In fact, the leading irrigation figures of the 19th century projected irrigable acreage far beyond what has been accomplished. Even John Wesley Powell, portrayed as the supreme realist of the irrigation movement, estimated that 100 million acres could be reclaimed in the West. P. GATES, HISTORY OF PUBLIC LAND LAW DEVELOPMENT 645-51 (1968); *see also generally* W. STEGNER, BEYOND THE HUNDREDTH MERIDIAN: JOHN WESLEY POWELL AND THE SECOND OPENING OF THE WEST (1953). Powell's estimate was made before national reclamation had become a reality and did not rely on heavy use of groundwater supplies. Even with a national effort, only about 40 million acres are being farmed in the West, in large part using groundwater. *See* Gutentag, *et al., Geohydrology of the High Plains Aquifer in Parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming,* U.S. GEOLOGICAL SURVEY PROFESSIONAL PAPER 1400-B, at 1 (1984).

328. Official Transcript of Proceedings, *supra* note 63, at 34-35. In response to Mr. Minear's assertion that the issue had been discussed before the special master, Justice Rehnquist stated that the Court ordinarily does not "consider the report of a special master as someone incorporated by reference into the Court's opinion." *Id.* at 35.

329. *Id.* at 35-36.

330. *Id.* at 36-37. Of course, Congress did settle the Arapaho tribe onto the Wind River Reservation in violation of the treaty. United States v. Shoshone Tribe, 304 U.S. 111, 112 (1938). The Chief Justice also raised the issue of the Indian population on the Wind River Reservation during the oral presentation of the tribes' attorney. The attorney noted that the current population of around 5,400 was increasing "dramatically," and it was estimated that the population would reach 9,000 by the year 2020. Official Transcript of Proceedings, *supra* note 63, at 46. It is unclear if the Chief Justice agreed that a 120 person per year increase in population was "dramatic."

331. Official Transcript of Proceedings, *supra* note 63, at 37.

332. *Id.*

Mr. Minear responded, "yes," and conceded that necessity was part of the reserved rights calculation.[333] But, he continued, the PIA doctrine accurately measured this need.[334]

The most direct attack on the basic tenets of the reserved rights doctrine came when Justice White asked if the reserved right could be subject to diminution for nonuse.[335] To Mr. Minear's logical retort that immunity from the state law nonuse principal was "the very nature of a reserved water right," Justice White stated forebodingly, "Well, it doesn't have to be."[336] Mr Minear: "I think that has been the clear implication." Justice White again: "Well, it doesn't have to be. If water is scarce and nobody is using it . . . under most state laws you either use it or lose it . . . . There is no doctrine of water law that elevates one water right over the other to that extent."[337] Indeed, Justice White continued, "[T]he whole *Winters* Doctrine is just an implication to Congress . . . just what this Court said Congress must have intended. So, Congress has never even spoken."[338] Mr. Minear's only response was that congressional silence reflected congressional reliance on the *Winters* doctrine.[339]

Opponents of the reserved rights doctrine must be heartened by these exchanges. Not only did the Chief Justice question the PIA standard and support a minimal needs test, but another Justice attacked the immunity historically granted reserved rights from state nonuse laws. The foundation of the agricultural reserved right seemed to be teetering.

3. The Tribes' Argument

Following Mr. Minear's ordeal, Ms. Susan Williams made a generally uninterrupted defense of the Wyoming court's decision. She argued that the 1905 water proviso did not demonstrate clear congressional in-

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333. *Id.* at 37-38.

334. *Id.* at 38.

335. *Id.* at 39. The question asked was "[Y]ou don't want the reserved right to ever be subject to diminution for non-use?"

336. *Id.*

337. *Id.* The issue of nonuse resurfaced during Mr. White's rebuttal argument when an unidentified Justice, possibly Justice White again, asked if a downstream junior appropriator would have a valid objection if a water user who had allowed unused state right water to flow down the river now "wanted to use it for something else." Mr. White replied: "Absolutely. And that points out the stark distinction between the state and federal rights involved here." He was interrupted by the Justice's statement that "we don't know whether that's different or not." *Id.* at 53-54. Clearly, this Justice was troubled by the reserved rights immunity from state law "use it or lose it" forfeiture or abandonment statutes. But see *supra* notes 16-17 and accompanying text for a discussion of the lack of enforcement of the forfeiture laws in Wyoming.

338. Official Transcript of Proceedings, *supra* note 63, at 40. Later, one Justice reiterated the argument that *Winters* was based on the Court's interpretation of congressional action but did not pursue the issue. *Id.* at 44-45.

339. *Id.* at 40.

tent to abrogate the water rights reserved in 1868.[340] She also ardently disputed Wyoming's contention that the Wind River tribes had ample opportunity to develop their lands.[341] As evidence that the federal bias against Indian irrigation projects was "starkly in evidence at Wind River," she explained that over $70 million had been spent on projects on the reservation benefitting non-Indians, but only $4.4 million had been used for Indian irrigation projects.[342] Although, as she noted, the Wyoming court had rejected the need to balance equities in measuring reserved rights,[343] these figures alone showed that equity demanded support for the tribes' position.[344]

Water, then, had become the last best hope of the tribes. With the reservation's oil and gas reserves depleted, "agribusiness," she contended, "represents the only certain hope for this tribe's sustained economic future on this reservation."[345] The tribes, she claimed, "are poised to build a sustained and productive reservation agricultural economy," just as "their ancestors envisioned in 1868."[346] Even so, she concluded, the tribes' use of their reserved rights should not be subject to limitations not imposed on other water users, such as export bans.[347]

IV
ANALYZING THE ORAL ARGUMENTS

For the Wind River tribes, the Court's subsequent four-four split constituted a "tremendous victory," which "cast in stone" the quantification of the Wyoming Supreme Court.[348] Although future decisions of the Court concerning reserved rights will not affect the quantity of the reserved rights on the Wind River Reservation, tribes who have not had their rights quantified may have reason to worry about the standard the Court will apply in future cases. One point to keep in mind, though, is that if the current members of the Court remain on the bench and Justice O'Connor removes herself from other cases involving reserved rights, the four-four split may be repeated. If this situation occurs, the final reserved rights decisions ultimately will rest with the various state supreme courts.

Although the oral arguments do not reveal exactly why four members of the Court disagreed with the Wyoming Supreme Court, they do

340. *Id.* at 46-48.
341. *Id.* at 48.
342. *Id. See* Ambler, *A Tale of Two Districts,* High Country News, Oct. 27, 1986, at 23-24.
343. *See* Cappaert v. United States, 426 U.S. 128, 138-42 & n.4 (1976) ("balancing the equities is not the test" for the doctrine of federally reserved water rights).
344. Official Transcript of Proceedings, *supra* note 63, at 47-48.
345. *Id.* at 49.
346. *Id.* at 50.
347. *Id.* at 51.
348. Casper Star-Tribune, June 27, 1989, at B1, col. 1.

show that the Court is not only troubled by the PIA standard, but by the reserved rights doctrine itself. This concern centers on two general issues: (1) the quantity of water awarded using the PIA standard, and (2) the conflict between reserved rights and state law water users.

A. Attacking the PIA Measure

There is little dispute that applying the PIA standard is an arduous and time-consuming process fraught with technical difficulties. The debate before the Court, however, did not address the technical problems that plague the PIA process—determining arability and engineering feasibility, choosing the proper discount rate, or including secondary economic benefits. Rather, the issue framed by the Court was whether the PIA measure itself produced reserved rights that exceeded the amount of water needed to effectuate the agricultural purposes of the reservation.[349] That the state and the Court failed to address the technical problems associated with the PIA standard is unfortunate because technical decisions made during the PIA process critically affect the final reserved right award. The Court's exclusive focus on the PIA result, and not on the process of determining the PIA, ignores the fact that even though the PIA standard is unruly, it does provide a useful framework for quantifying reserved rights.

The Court's refusal to work with the PIA standard indicates that the concept itself is still at issue. Statements made during the oral arguments, particularly those made by Chief Justice Rehnquist, reveal that some members of the Court want to discard the PIA standard and replace it with a "minimal needs" or a "historically irrigated acreage" test.

The Court's apparent willingness to replace PIA with a "minimal needs" test, however, is misguided and would likely result in an even more amorphous standard. Although the limited discussion of this standard during the oral argument does not reveal how a "minimal needs" test would be administered, it seems unlikely that the Court would provide detailed guidance on the issue. At one point, though, Chief Justice Rehnquist offered the view that the "minimal needs" test would better reflect the idea that agricultural reservations were established to enable the tribes "to grow food by which they would live."[350] If by this statement the Chief Justice means that the reserved right should equal the amount of water necessary for the members of a tribe to maintain subsistence gardens, it hardly reflects the bargain made by the tribes when they relinquished large tracts of land and their way of life to live on the reservations.

349. Official Transcript of Proceedings, *supra* note 63, at 7-10, 22-23.
350. *Id.* at 37.

Likewise, although applying a historic use standard might be a simpler process, it would be indefensible in light of one underlying rational for the *Winters* doctrine: reserved water rights should not be based on the ability of Indian tribes to compete with non-Indian water users for irrigation project financing. The Supreme Court itself has recognized that Indian tribes, because of their political weakness, invariably lose in the race to develop water supplies.[351] Before the Court penalizes the tribes based on this historic reality, it would do well to remember Justice Stone's admonition that "prejudice against discrete and insular minorities may be a special condition, which tends seriously to curtail the operation of those political processes ordinarily to be relied upon to protect minorities."[352]

Finally, the Court could choose to replace the PIA standard with a flexible standard that would force lower courts to consider a range of factors in determining the amount of water reserved. These factors might include the projected population of the reservation, historic uses of the water, the certainty of project funding, and the tribe's cultural traditions. Using this type of standard, however, may merely restate the "reasonably foreseeable needs" standard rejected in *Arizona I*.[353]

While the Court appears ready to restrict the quantification of agricultural reserved rights, it seems unwilling to consider the permanent homeland concept.[354] The Court should reassess this position. Cynical motives aside, the goals of the reservation system were to move Indian tribes out of the path of white settlement, provide them a homeland, and "civilize" individual tribal members, often by attempting to transform them into yeoman farmers.[355] Even then, farming was seen as an intermediate step on the road to civilization.[356] As the dissenting judges in the *Big Horn* case argued, the permanent homeland concept better reflects the evolutionary intent of the reservation system.[357]

The *Winters* Court recognized that treaty making is a bilateral process, and the intent of tribes in entering into the agreement is as important as Congress' intent. Recall that in *Winters,* the Court granted that the tribes did not relinquish their "command of all beneficial use" of the

351. Winters v. United States, 207 U.S. 564 (1907).

352. United States v. Carolene Products Co., 304 U.S. 144, 152-53 n.4 (1938), issued the same day as United States v. Shoshone Tribe, 304 U.S. 111 (1938).

353. Arizona v. California, 373 U.S. 546, 600 (1963).

354. The Court refused to grant certiorari to the tribes on this issue. Shoshone Tribe v. Wyoming, 109 S. Ct. 3265 (1989).

355. *See supra* notes 51-56 and accompanying text.

356. *See* Comment, *Indian Reserved Water Rights: An Argument for the Right to Export and Sell,* 24 LAND & WATER L. REV. 141-42 (1989). The Comment notes that Darwin's theory of evolution and anthropologist Lewis Henry Morgan's theory of the "stages of civilization" were particularly influential models during the late 19th century when many reservations were created.

357. *Big Horn Adjudication,* 753 P.2d 76, 119 (Wyo. 1988) (Thomas, J., dissenting).

water they once had controlled,[358] even though the United States sought water only for irrigation. Extending this analysis, although the Indians may have agreed to become farmers, it is unlikely that they agreed to limit use of their water to farming or, more importantly, to remain farmers forever. Thus, once their reserved rights are quantified, the tribes should be free to use their water for agriculture or industry, for maintenance of instream flows on reservation lands, or for sale or lease.

If the Court adopted the permanent homeland concept, it could require a claimant tribe to present a plan for reservation development that would specify prospective uses of the water and estimate the quantity of water needed to effectuate those purposes. This process alone would force the tribe to establish a comprehensive plan for the development or protection of the reservation's lands before the reserved rights were quantified.[359] For example, if the tribe's development plan sought to increase tourism, which might require instream flows or water for fisheries, the Court could quantify this right based on the data provided in the tribe's plan for development. Similarly, if farming is to be expanded, the plan would have to outline the acreage proposed to be irrigated. The feasibility of irrigating this acreage would still be tested under a modified PIA test, but, more importantly, the proposed expansion of agriculture would have to conform with the other parts of the development plan. If diversions for irrigation would impede instream flows, this conflict would have to be reconciled within the plan. After quantification, any subsequent change in use, or the sale or transfer of water rights, should be required to meet state law requirements that protect other vested water users from injury. This requirement could apply even if the water had not yet been used in the manner outlined in the plan.

Of course, one reason tribes have fought to retain the PIA standard is that it generally results in substantial reserved rights, primarily because irrigation is the most consumptive use of water. Thus, some tribes might ignore other potential development options and simply seek irrigation water. Courts could deal with this situation by closely scrutinizing a tribe's plan to determine if it honestly represents the will of tribal members and realistically reflects the potential for future development. Where a tribe has no alternative to irrigation, however, the debate over the use of PIA or some other standard remains.

358. Winters v. United States, 207 U.S. at 576 (1908).

359. For the Shoshone and Arapaho tribes, these water management decisions began after the Big Horn adjudication and the Supreme Court's decision. *See* MacKinnon, *Wind River Tribes Mull New Water Uses, 2 Indian Officials Say,* Casper Star-Tribune, July 30, 1989, at 6, col. 1.

B. *Conflicts with State Law Water Rights*

During the past two decades, the Supreme Court has sought to protect state law water users by narrowly construing the intent of Congress in reserving water and by attempting to integrate federal and state water law.[360] As a result, the Court has created conflicting standards. The Court rejected the need to balance federal reserved rights against state interests[361] at the same time that it cautioned lower courts to be "sensitive" to the vested rights of state law water users.[362] Judging from the strong negative reaction of some Justices to the tribes' use of their reserved rights in bargaining with the state of Wyoming and to the reserved right's immunity from state law nonuse provisions, it appears that "sensitivity" may be winning out. Clearly, a number of the Justices view the PIA process as creating a windfall for the tribes. Because these Justices view protection of established state law water users as a preeminent concern, the idea that tribes could sell their reserved water, perhaps back to junior users at inflated prices or to a higher bidder, is intolerable.

The allegations by state law water users—that the sale of reserved water, as well as the entire reserved rights concept, is inequitable—are not persuasive. For years, the federal government has provided western farmers with subsidized water, subsidized power to pump groundwater, and crop subsidies.[363] Indeed, many farmers who have survived or prospered because of these subsidies now are reaping the benefits of a second crop by selling their water rights to municipal and industrial users at market prices far above the cost they have borne historically.[364] Although these sales are a controversial means of transforming water uses from irrigation to higher value, more efficient uses such as municipal, industrial, or recreational uses,[365] the fact that farmers can sell these water rights negates arguments for an outright ban on sales by the tribes.

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360. *See, e.g.*, Arizona v. San Carlos Apache Tribe of Ariz., 463 U.S. 545, *reh'g denied*, 464 U.S. 874 (1983) (state court jurisdiction is proper even if tribes bring a reserved rights claim on their own behalf); California v. United States, 438 U.S. 645 (1978) (a state has the power to place conditions on use, appropriation, and distribution of water from federal reclamation projects); United States v. New Mexico, 438 U.S. 696 (1978) (water for secondary purposes of the reservation must meet state law requirements); Colorado River Water Conservation Dist. v. United States, 424 U.S. 800 (1976) (Indian reserved rights claims are determined in state court).

361. Cappaert v. United States, 426 U.S. 128, 138-39 (1976).

362. United States v. New Mexico, 438 U.S. at 718 (Powell, J., dissenting in part).

363. *See, e.g.*, D. MCCOOL supra note 33, at 22, 68-70. Subsidized electricity comes from federal hydroelectric facilities such as the Hoover Dam. *See* Tucson Citizen, May 23, 1985, at 1C, 4C (discussing battle over allotments of cheap Hoover Dam hydropower).

364. *See, e.g.*, Gottlieb & Wiley, *Selling Water, or Selling Out?*, High Country News, Sept. 29, 1986, at 17-18.

365. *Id.*; *see also* Roos-Collins, *Voluntary Conveyance of the Right to Receive a Water Supply From the United States Bureau of Reclamation*, 13 ECOLOGY L.Q. 773 (1987).

Of course, when the tribes do sell or lease their water off the reservation, perhaps until they secure financing to build needed irrigation works, they should comply with state laws that protect other users from injury due to such transfers.[366] Although some of the Justices probably would like to go further and force courts to protect state law users by requiring, for example, additional storage facilities to replace the water lost to the tribes, such a requirement would "fl[y] in the face of the object of the reserved water right—a prior entitlement to the waters."[367] Simply granting lower courts the discretion to force tribes to provide storage before they could use their reserved rights would emasculate the reserved rights doctrine and conflict with state law. No state law requires a senior appropriator to provide storage for junior appropriators as a condition to use of the water.

Even more radical is Justice White's notion that state nonuse provisions should apply to reserved rights. If Justice White was suggesting that nonuse provisions should apply prior to quantification, his position is inimical to the spirit and intent of the reserved rights doctrine that the government "intended to deal fairly with the Indians."[368] If he was positing that these provisions should apply after quantification, however, he fails to consider the reality that state nonuse laws are often not enforced. He also raises an interesting jurisdictional issue: can state laws apply to divest Indians of vested water rights absent tribal consent or explicit congressional directive? Under existing treaty abrogation theory, the answer should be no.[369] Even the Court's decision that states can regulate the

366. *See, e.g.*, WYO. STAT. § 41-3-104 (1977) (amount of water transferred "shall not exceed the historic rate of diversion under the existing use . . . nor in any manner injure other lawful appropriators"); United States v. Anderson, 591 F. Supp. 1, 11 (1982) (Spokane Indians could transfer use of water reserved for irrigation to their fishery); Green v. Chaffee Ditch Co., 371 P.2d 775, 783 (Colo. 1962) (a water user who had never beneficially used more water than eight cubic feet per second (cfs) could only transfer that amount even though he had decreed right to use 16 cfs). In both *Anderson* and *Green*, the water transferred had been beneficially used. It is unclear if the "no injury" standard would apply where the reserved waters have never been used. On this point the *Anderson* court noted that:

> So long as other water users are no worse off than they would have been if the rights had been exercised for their original use at the original place, Indians and Indian Tribes presumably [should] be allowed to change the nature and place of use of their reserved rights in order to further the purposes of their reservations and to advance their economic self-sufficiency.

Anderson, 591 F. Supp. at 11 (citing COHEN, HANDBOOK OF FEDERAL INDIAN LAW 592 (1982)). For an opposing view, see Palma, *Considerations and Conclusions Concerning the Transferability of Indian Water Rights*, 20 NAT. RESOURCES J. 91 (1980).

Another limit on the ability of tribes to transfer their water may be the Indian Non-Intercourse Act, 25 U.S.C. § 177 (1988), which requires Congress to approve any land conveyances by Indians to non-Indians. *See* J. SAX & R. ABRAMS, *supra* note 2, at 557; P. SLY, *supra* note 5, at 84.

367. *Big Horn Adjudication*, 753 P.2d 76, 112 (Wyo. 1988).

368. *Arizona I*, 373 U.S. 546, 600 (1963). Although unused, the Court found the reserved rights of the tribes to be "present perfected rights." *Id.*

369. *See generally* Wilkinson & Volkman, *supra* note 193.

use, appropriation, and distribution of water in federal reclamation projects was based on its interpretation of specific congressional legislation.[370] Neither of these theories provides for state control of "federal" water in the absence of specific congressional language allowing such control.[371] Moreover, if the Court seeks to integrate the reserved rights doctrine into the fabric of state law by subjecting those rights to the non-use principle, it should also allow the tribes to sell their water rights like other state law water users.

CONCLUSION

It is disheartening that the measure of reserved rights generally revolves around the use of water for irrigation. Even if the tribes actually intend to use their PIA water for agriculture, they will face enormous problems in trying to wrest money from Congress for water projects in this era of budget restraints. In this context, the PIA doctrine, and its resulting limitations on tribal use of reserved water, is an artificial measure—it neither reflects the broader goals of Indian reservations nor does it take into account the difficulty tribes face in developing their lands. This political reality, rather than the hypothetical, technical, and economic ability to build proposed projects, may be a more important factor to consider when evaluating the value of the PIA standard.[372]

More problematic is that irrigation is one of the most inefficient and ecologically damaging ways to use water. Even if the tribes can secure financing for irrigation projects, increasing the use of water for irrigation runs counter to a historic trend in western water use—the transition from agricultural to less consumptive and higher-valued municipal and industrial uses. In fact, the tribes' use of the water for irrigation may offset any water saved from this transition in the non-Indian sector. In addition to the economic problems, there will be ecological effects if the tribes intend to farm previously undeveloped lands. A new irrigation infrastructure will have to be built and lands, probably of marginal fertility, will have to be stripped and prepared for planting. As irrigated farming increases, the myriad problems facing the non-Indian farming sector, including market fluctuations, land erosion, declining water quality, and exposure to pesticides, will face Indian farmers and the other residents of the reservation. The hydraulic trap that has forever changed the face of the western landscape will now engulf the reservations.

370. California v. United States, 438 U.S. 645, 675-77 (1978) (interpreting the Reclamation Act of 1902, § 8 (codified as amended at 43 U.S.C. §§ 372, 383 (1982)).

371. Where regulation of federal lands is at issue, however, dual regulation is the norm absent a preempting federal statute or rule. *See* Cowart & Fairfax, *Public Lands Federalism: Judicial Theory and Administrative Reality,* 15 ECOLOGY L.Q. 375, 466 (1988) (relying principally on language in Kleppe v. New Mexico, 426 U.S. 529, 543 (1976)).

372. Official Transcript of Proceedings, *supra* note 63, at 26.

Hopefully the tribes will recognize and seek to alleviate the problems inherent in creating irrigated empires on the reservations. Of course, one means of avoiding this trap is for the tribes to sell or exchange their water rights. Given the political realities facing a tribe that tries to secure money to build irrigation projects, the sale, lease, or exchange of the water is a more viable alternative. If done wisely, either by settlement or by specific contract, the reinvestment of the proceeds could provide alternatives to creating new farms.[373] The manner in which these proceeds can best be used ultimately is an issue the tribal members should decide.

The tribes also can attempt to use their water rights as bargaining chips in an effort to wrest concessions from Congress or from non-Indian water users. Although this latter strategy seemed to work for the Shoshone and Arapahoe tribes and has been successful in other instances as well,[374] there may be political costs to such a course of action.

Similarly, the federal and state governments must acknowledge the serious problems confronting the tribes and the environmental consequences of encouraging the farming of Indian land as a "solution" to these problems.[375] The Court could help by recognizing the permanent homeland concept. Not only would this better reflect the goals of the reservation system, but it would be a positive statement by the Court that reservations do not have to become irrigated commercial farms. Other parties involved in the reserved rights conflict should leave the tribes a number of options by not demanding that irrigated agriculture is the sole purpose for the reservation.[376]

Finally, both Indians and non-Indians must recognize that water is a scarce natural resource, one that must be used in a spirit of joint stewardship. As one author has succinctly stated, "Because Indians and non-Indians share the same landscape, Indian water rights must be limited by the conservation and sharing principles that apply to all natural resources."[377] Urging such restraint on the tribes after they have been awarded reserved rights may be little solace to state law water users whose rights have been preempted, and may seem inconsistent to the tribes who have watched others inefficiently use the same water in the

373. *See* Note, *Transferability Under the Papago Water Rights Settlement,* 26 ARIZ. L. REV. 421 (1984) (discussing the tribe's relinquishment of reserved rights claims for actual supplies of water and financial inducements); *see also* J. SAX & R. ABRAMS, *supra* note 2, at 553-54.

374. *See* Tarlock, *supra* note 10, at 659 (discussing the Navajo Project).

375. *See generally* Note, *supra* note 373.

376. As one author has stated, "Indian water rights are tied to the idea of a tribal community, and the tribal community should be able to define the relationship between water use and community welfare. *Winters* rights should not, for example, be limited to irrigation." Tarlock, *supra* note 10, at 644.

377. *Id.* at 644-45.

past. But, a policy that encourages wise use of water and considers the interests of the tribes, the public, and the environment must guide courts, interested parties, and legislative bodies in resolving the reserved rights issue. Water is far too ecologically valuable to be used as a political pawn in the effort to resolve the centuries-old conflict between Native Americans and those who followed them in settling the West.