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Water Law - Quantification of Federal Reserved Indian Water Rights - Practicable Irrigable Acreage under Fire: The Search for a Better Legal Standard - In re the General Adjudication of All Rights to Use Water in the Big Horn River System - Wyoming v. United States

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CASENOTES

WATER LAW—Quantification of Federal Reserved Indian Water Rights—“Practically Irrigable Acreage” Under Fire: The Search for a Better Legal Standard. In re *The General Adjudication of All Rights to Use Water in the Big Horn River System*, 753 P.2d 76 (Wyo. 1988) aff'd mem. sub nom. *Wyoming v. United States*, 109 S. Ct. 2994 (1989).

An 1868 treaty established the Wind River Indian Reservation without an express reservation of water.¹ The language of the Second Treaty of Fort Bridger described the Wind River Indian Reservation (“Reservation”) as an “agricultural reservation,”² established for the broader purpose of providing the Indians with a permanent homeland. By 1905 the size of the Reservation had been reduced three separate times from its original 44,672,000 acres. Each reduction resulted from land sales from the Tribes to the United States Government. In the final and most significant reduction, the Second McLaughlin Agreement of 1904, the Tribes ceded 1,480,000 acres to the United States Government in exchange for cash payment.³ Congress earmarked part of the proceeds from that agreement to obtain state water permits for the Indians,⁴ in accordance with Wyoming law.⁵ As a result, by 1915,

1. In re *The General Adjudication of All Rights to Use Water in the Big Horn River System*, 753 P.2d 76, 91 (Wyo. 1988) [hereinafter *Big Horn*].

2. *Id.* at 95 (citing the Second Treaty of Ft. Bridger, art. 8, 15 Stat. 673 (1869)). This Treaty originally provided reserved lands for the Shoshone and Bannack tribes. The Arapaho tribe settled on the Wind River Indian Reservation in 1878. *Big Horn*, 753 P.2d at 83. Agricultural Indian reservations are those which were established to convert nomadic peoples to a pastoral life—to create an independent farming community as in the case of the Wind River Indian Reservation. *United States v. Shoshone Tribe of Indians*, 304 U.S. 111, 117-18 (1938).

3. *Big Horn*, 753 P.2d at 84. The Second McLaughlin Agreement was ratified by the Act of March 3, 1905, ch. 1452, 33 Stat. 1016.

4. Act of March 3, 1905, ch. 1452, 33 Stat. 1016, 1020.

5. Act of December 22, 1890, ch. 8, 1890 WYO. SESS. LAWS 100-02. Wyoming's first legislature laid the foundation for Wyoming water law in “an act providing for the supervision and use of the waters of the State,” passed December 22, 1890. Section 34 of that act required all water users to obtain a permit. Permit applications were made to the State Engineer on a prescribed form. The applicant was required to list the name of the appropriator, the source from which water was to be appropriated, the amount of water to be appropriated, the location and the character of the water works to be developed, the estimated date that beneficial use would begin, and the purpose for which water was to be applied. If the water was to be used for irrigation the applicant was also required to provide a description of the irrigated land. The State Engineer issued a permit if three criteria were met: (1) the application was in proper form; (2) there was unappropriated water in the source of supply named in the application; and, (3) such appropriation was not otherwise detrimental to the public welfare.

Perfection of a state permit, however, involved the completion of the applicant's proposed water distributing works, the filing of a map which described the location and amount of the distributing works, the source of water appropriated and a legal description of the land to which the water was being applied, and finally, the beneficial use of the appropriated water. Upon perfection, the board of control recorded a certificate of water rights on behalf of the applicant in the county clerk's office. The priority of such appropriation was the date of the filing of the application. *Id.*

It is interesting to note that this procedure has remained substantially unchanged for 99 years. WYO. STAT. §§ 41-4-501 to 502 (1977 & Cum. Supp. 1989).

the State Engineer had issued water permits to the Indians for the irrigation of approximately 145,000 acres of reservation lands.⁶

Coincident with the tribal acquisition of state water rights, the United States Supreme Court established the legal principles governing federal Indian water rights in *Winters v. United States*.⁷ That case held that when Congress established an Indian reservation, it impliedly reserved a water right sufficient to fulfill the purpose for which the reservation had been created.⁸

A creation of federal law, Indian water rights under the *Winters* reserved water rights doctrine are not subject to requirements imposed by state law.⁹ Unlike state water rights, federal reserved rights allow the Indians to expand their water use to meet future demands of the reservation. In reliance on *Winters* and notwithstanding Congress' refusal in 1914 to provide for an expressed reserved water right for the Reservation, the United States allowed unperfected state permits for the irrigation of 58,000 acres of Reservation land to expire beginning in 1963.¹⁰ Perfected state-awarded water rights remained in place for the irrigation of 87,000 acres.¹¹

On January 24, 1977, the State of Wyoming initiated a general adjudication aimed at quantifying the rights of more than 20,000 water users in the Big Horn River Drainage System,¹² including those rights claimed by the Tribes on the Wind River Indian Reservation.¹³ The State

6. Brief for the Petitioner at 5, *Wyoming v. United States of America, Shoshone Tribe and Northern Arapaho Tribe of the Wind River Indian Reservation, et al.* 109 S. Ct. 2994 (1989) (No. 88-309) [hereinafter Brief for Petitioner, *Wyoming v. United States*].

7. 207 U.S. 564 (1908).

8. *Id.* at 577.

9. See Laird, *Water Rights: The Winters Cloud over the Rockies: Indian Water Rights and the Development of Western Energy Resources*, 7 AM. INDIAN L. REV. 155, 160-61 (1979). Most western state water rights are governed by the principle of prior appropriation or "first in time-first in right." Those who establish their water rights first have priority over junior rights holders in times of scarcity. Under the prior appropriation system, three factors are of critical importance: (1) The water right priority date is the date of application for a state water permit; (2) Perfection of a state permit requires actual diversion or appropriation of the water within a reasonable time of the issuance of the permit; and, (3) State rights are subject to loss through nonuse. *Id.*

In contrast, the priority of federal reserved water rights are determined by the date of establishment of the reservation, making these rights senior to virtually all of the state rights. Furthermore, federal reserved water rights are created regardless of whether or not the water has actually been diverted or put to beneficial use, cannot be lost by nonuse, and include an amount sufficient to fulfill the purpose of the reservation into the future. *Id.*

10. Brief for the Petitioner at 6, *Wyoming v. United States*, 109 S. Ct. 2994. Beginning in 1917, state permit applicants had five years to perfect their permit; however, the State Engineer could extend this time upon a showing of good cause. Consequently, it was possible for permits to expire over an extended period of time. Act of February 21, 1917, ch. 119, 1917 WYO. SESS. LAWS 200-01.

11. Brief for the Petitioner at 6, *Wyoming v. United States*, 109 S. Ct. 2994.

12. The Big Horn River Drainage System is essentially identical with the State of Wyoming's Water Division No. 3. Water Division No. 3 is comprised of over thirteen million acres located in Fremont, Hot Springs, Washakie, Big Horn and Park counties in northwestern and west central Wyoming and includes parts of Yellowstone National Park. *Big Horn*, 753 P.2d at 83.

13. *Id.* at 84.

of Wyoming originally filed the complaint in the District Court of the Fifth Judicial District of Wyoming pursuant to Wyoming statute¹⁴ and the McCarran Amendment.¹⁵ The United States, claiming water rights as trustee for the Shoshone and Arapaho tribes of the Wind River Indian Reservation,¹⁶ removed the case to the United States District Court.¹⁷ The district court remanded the adjudication to state court.¹⁸ After denying a motion to dismiss by the United States,¹⁹ the state district court granted the Tribes' motion to intervene²⁰ and appointed a special master.²¹

The special master trifurcated the adjudication for purposes of management: Phase I, federal claims by and on behalf of the Tribes of the Reservation;²² Phase II, non-Indian federal claims of the United States in its proprietary capacity;²³ and Phase III, all claims based on state water rights evidenced by a permit or certificate.²⁴ In December, 1982, after four years of conferences and hearings, the special master issued a 451-page report concerning the Phase I claims.²⁵ The report determined that the Reservation had been established for the purpose of providing a permanent homeland for the Indians and recognized an 1868 implied reserved water right²⁶ on behalf of the Reservation for

14. WYO. STAT. § 1-37-106 (1977). The statute authorizes the state to commence system-wide adjudication of water rights.

15. McCarran Amendment, 43 U.S.C. § 666 (1982). The Act waives federal immunity to the adjudication of Indian water rights in state courts.

16. The United States holds title to Indian reserved water rights in trust for the tribe. *United States v. McIntire*, 101 F.2d 650, 653 (9th Cir. 1939).

17. *Big Horn*, 753 P.2d at 84. The United States claimed that the state court was without jurisdiction in this suit against the United States.

18. *Id.* The United States Supreme Court held that state courts have concurrent jurisdiction with federal courts in the adjudication of Indian reserved rights. *Colorado River Water Conservation District v. United States*, 424 U.S. 800, 809 (1976). In *Colorado* the Court held that both the language and the policy of the McCarran Amendment dictated the inclusion of Indian rights in its provisions allowing the United States to be named as defendant in a state adjudication proceeding. *Id.* at 810. The Court reaffirmed its *Colorado* decision in *Arizona v. San Carlos Apache Tribe of Arizona*, by holding that federal courts should generally defer to state courts if the states have initiated a comprehensive adjudication process. 463 U.S. 545, 570 (1983).

19. *Big Horn*, 753 P.2d at 84. The Tribes were granted leave to file an amicus curiae brief on the dismissal motion. *Id.*

20. *Id.* The United States in its capacity as trustee claimed federal reserved rights in the amount of 570,000 acre feet for historic and future irrigation. Determining that the United States' claims were inadequate, the Tribes filed their own supplemental claims for an additional 1,103,000 acre feet for irrigation. Brief for the Petitioner at 6, *Wyoming v. United States*, 109 S. Ct. 2994.

21. *Big Horn*, 753 P.2d at 85.

22. *Id.* These claims were the sole subject of the principle case.

23. *Id.* For example, federal reserved rights involving Yellowstone National Park and two National Forests. These claims were resolved by negotiation.

24. *Id.* Approximately 27,000 claims based on state law are still before the state district court's master.

25. *Id.*

26. *Id.* Note that the 1868 priority date is superior to the Indians' state permits beginning in 1905. The 1868 priority date makes the reserved rights senior to virtually every non-Indian water right in the Big Horn Basin.

multiple uses.²⁷ The master applied the “practicably irrigable acreage” (PIA) standard²⁸ to quantify those reserved water rights for agricultural use.²⁹

After reviewing the special master’s recommendation, the Wyoming district court rejected the recommended award of non-agricultural reserved rights, but confirmed the master’s recommended award based on the PIA standard.³⁰ The Wyoming Supreme Court upheld the district court’s use of the PIA quantification standard.³¹ The majority specifically held that “[t]he measure of the Tribes’ reserved water right is the water necessary to irrigate the practicably irrigable acreage on the reservation.”³² Using the PIA standard, the court ultimately awarded the Indians nearly 500,000 acre feet of water based on approximately 100,000 practicably irrigable acres.³³ The United States Supreme Court, in a 4-4 split affirmed the Wyoming decision without opinion.³⁴

This casenote examines the merits of the PIA standard traditionally used to quantify the implied federal reserved water rights for agricultural Indian reservations as well as the implication of the United States Supreme Court’s recent split decision regarding the appropriateness of this standard.

BACKGROUND

Reserved Water Rights

The doctrine of federally reserved Indian water rights originated in *Winters v. United States* in 1908.³⁵ The Supreme Court in *Winters* held that when the federal government created an Indian reservation

27. *Big Horn*, 753 P.2d at 85. The special master quantified and awarded reserved rights for irrigation, stock watering, fisheries, wildlife and aesthetics, mineral and industrial, and domestic, commercial and municipal uses. *Id.*

28. *Big Horn*, 753 P.2d at 101. The parties stipulated to the definition of practicably irrigable acreage as a measure of “those acres susceptible to sustained irrigation at reasonable costs.” The determination of practicably irrigable acreage therefore requires a two-part analysis. First, in order to be classified as susceptible to sustained irrigation both the arability and engineering feasibility of irrigating the land must be proven. Second, the land must be shown to be irrigable at a “reasonable cost.” *Id.*

29. *Id.* at 86.

30. *Id.*

31. *Id.* at 101.

32. *Id.* The dissent advocated a “pragmatic limitation” on the PIA standard which would eliminate lands designated as future irrigation projects from the quantification formula. *Id.* at 119 (Thomas, J., dissenting).

33. *Id.* at 101, 106. The award encompassed 48,097 practicably irrigable acres associated with five future Reservation water projects, and 54,216 practically irrigable acres currently and/or historically irrigated on the Reservation. *Id.* The court denied an award of practicably irrigable acreage for two additional future projects on grounds of economic infeasibility. *Id.* at 106.

34. *Wyoming v. United States*, 109 S. Ct. 2994 (1989). Justice O’Connor abstained. Generally, the Court does not write an opinion where affirmance is by an equally divided vote; the Court merely issues a per curiam opinion. 12 J. MOORE, H. BENDIX & B. RINGLE, *MOORE’S FEDERAL PRACTICE* § 400.05 - 3 (2d ed. 1988). An equally divided court affirms the lower courts judgment or decree, and has no precedential effect. *Neil v. Biggers*, 409 U.S. 188, 192 (1972).

35. 207 U.S. 564 (1908).

out of public lands, the government also intended to reserve a supply of water adequate to sustain the tribal existence through the years.³⁶ In *Winters*, landowners on the upper Milk River in Montana were diverting water in such a manner as to prevent the water of the river or its tributaries from flowing to the Fort Belknap Indian Reservation.³⁷ The Court found that the Reservation, without water, was "practically valueless,"³⁸ contrary to the government's policy and the Indians' desire to become a pastoral and civilized people.³⁹ Therefore, by implication, the reservation of land required a water right sufficient to fulfill the purposes for which the reservation had been created.

Although the Supreme Court recognized the reserved right doctrine in 1908, more than fifty years passed before the Court again discussed these significant Indian claims.⁴⁰ During that period, actions involving Indian water rights were concerned mainly with the existing uses by Indians, and did not involve the full extent of rights under the *Winters* reserved rights doctrine.⁴¹

Quantification of Reserved Rights

Winters established solid authority for the assertion of federally reserved water rights on behalf of Indian reservations.⁴² The *Winters* Court failed, however, to provide specific guidelines for quantifying the Indian rights. Not until the issue resurfaced in *Arizona v. California*, in 1963, did the Court directly address the quantification issue.⁴³ An original action in the United States Supreme Court,⁴⁴ *Arizona* constituted an adjudication of the five lower-Colorado River states' legal rights to use water from the Colorado River system.⁴⁵ Although reserved Indian water rights composed only a small portion of the overall adjudication, the Court took the opportunity to adopt an important principle defining the quantification of those rights on agricultural Indian reservations.

The *Arizona* Court found, as did the *Winters* Court, that the reserved water was "intended to satisfy the future as well as the present needs

36. *Id.* at 577.

37. *Id.* at 565.

38. *Id.* at 576.

39. *Id.*

40. NATIONAL WATER COMM'N, WATER POLICIES FOR THE FUTURE 474 n.1 (1973). During this time the lower federal courts attempted to refine the scope of *Winters*. See *United States v. Ahtanum Irr. D.*, 236 F.2d 321 (9th Cir. 1956); *United States v. Walker River Irr. D.*, 104 F.2d 334 (9th Cir. 1939); *Skeem v. United States*, 273 F. 93 (9th Cir. 1921); *Conrad Investment Co. v. United States*, 161 F. 829 (9th Cir. 1908); *United States v. Hibner*, 27 F.2d 909 (D. Ida. 1928).

41. NATIONAL WATER COMM'N *supra* note 40, at 474 n.1.

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

43. 373 U.S. 546, 600 (1963).

44. Judicial power extends to controversies between two or more states, and the United States Supreme Court has original jurisdiction in all cases in which a state is a party. U.S. CONST. art. 3, § 2; 28 U.S.C. § 1251(a) (1982).

45. *Arizona*, 373 U.S. at 551. The states involved were Arizona, California, New Mexico, Nevada and Utah. *Id.*

of the Indian Reservations.”⁴⁶ The Court held that the “only feasible and fair way by which reserved water for the reservations can be measured is irrigable acreage.”⁴⁷ In adopting the PIA standard to determine the quantity of water impliedly reserved for agricultural Indian reservations, the Court in *Arizona* expressly rejected a quantification standard based on “reasonable foreseeable needs.”⁴⁸ The Court reasoned that a broad “need” standard would be too uncertain because “[h]ow many Indians there will be and what their future needs will be can only be guessed.”⁴⁹

Since *Arizona*, however, three United States Supreme Court cases involving federal lands reserved for purposes other than agricultural Indian reservations have quantified reserved rights to natural resources using broader language of “necessity.”⁵⁰ In *Cappaert v. United States*, for example, the Supreme Court held that the quantity of water impliedly reserved for Devil’s Hole National Monument was no more and no less than that amount necessary to effectuate the purpose of the reserved land.⁵¹ Two years later, in *United States v. New Mexico*, the Supreme Court stated that the quantity of water impliedly reserved for the Gila National Forest was only the amount necessary to fulfill the primary purpose of the reserved land, no more.⁵² In addition, *New Mexico* held that when federal reserved water rights require a gallon-for-gallon reduction in the amount of water available for non-reservation users, this impact must be considered in the quantification of those rights.⁵³

In the third related case, *Washington v. Washington State Commercial Fishing Vessel Association*, the natural resource being quantified was anadromous fish in tribal fishing grounds. *Washington* held that the central principle with regard to quantification of Indian reserved rights to a natural resource is that reserved rights secure only that

46. *Arizona*, 373 U.S. at 600.

47. *Id.* at 601.

48. *Id.* at 600-01.

49. *Id.* at 601.

50. See *Washington v. Washington State Commercial Fishing Vessel Ass’n*, 443 U.S. 658 (1979); *United States v. New Mexico*, 438 U.S. 696 (1978); *Cappaert v. United States*, 426 U.S. 128 (1976).

51. 426 U.S. 128, 143 (1976). Devil’s Hole is a deep limestone cavern and pool declared a National Monument in part to preserve the habitat of a unique species of desert fish. The United States brought action when nearby landowners threatened the pupfish habitat by lowering the water level in the pool. The Supreme Court affirmed the district court and Ninth Circuit holdings which permanently enjoined the landowners from pumping only that amount which would lower the level of the pool below the point which was crucial for spawning. *Id.* at 135, 141.

52. 438 U.S. 696, 700 (1978) (quoting *Cappaert*, 426 U.S. at 141).

53. *New Mexico*, 438 U.S. at 705. This principle regarding the law of federal reserved rights has been coined the “sensitivity doctrine” by lower courts, based upon Mr. Justice Powell’s oft quoted dissent in *New Mexico* which states: “I agree with the Court that the implied-reservation doctrine should be applied with sensitivity to its impact upon those who have obtained water rights under state law and Congress’ general policy of deference to state water law.” *Id.* at 718 (Powell, J., dissenting).

amount of the resource necessary to provide the Indians with a moderate living.⁵⁴

Notwithstanding the Supreme Court's apparent needs-based approach to quantification of federal reserved rights in *Cappaert, New Mexico* and *Washington*, the more specific PIA standard has been mechanically applied in the lower courts in at least four subsequent cases involving Indian water rights.⁵⁵ In addition, the Supreme Court declined an opportunity to re-examine the PIA standard in *Arizona v. California II*.⁵⁶ In *Arizona II*, the Court expressed fear that an urge to relitigate the PIA standard in consideration of new claims for "omitted" lands⁵⁷ could open a "Pandora's Box."⁵⁸

PRINCIPAL CASE

The appropriateness of the PIA standard was a relatively insignificant issue in light of the overall complexity of Phase I of the Big Horn adjudication.⁵⁹ Furthermore, the choice regarding the PIA issue seemed clear. The Wyoming Supreme Court could either adopt the traditional PIA standard, or it could tailor a standard which would quantify the amount of "water necessary to meet the reservation's 'minimal needs' and to ensure that its 'primary purpose' is not 'entirely defeated.'"⁶⁰

The United States and the Tribes argued that *Arizona v. California* was controlling precedent for the quantification of reserved water rights for agricultural Indian reservations.⁶¹ Although the State of Wyoming stipulated to the definition of "practicably irrigable acreage" and did not originally challenge the *Arizona* holding, it did not accept the PIA standard as being the only consideration in quantifying the Indians' reserved rights to water from the Big Horn River System.⁶²

54. 443 U.S. 658, 686 (1979). This litigation necessitated the interpretation of several Indian treaties entered into by the United States and various tribes in 1854 and 1855. The treaties reserved a right in the Indians to take fish from tribal fishing grounds in the Washington state area. *Id.* at 662.

55. See *United States v. Anderson*, 736 F.2d 1358, 1361 (9th Cir. 1984); *United States v. Adair*, 723 F.2d 1394, 1415-16 (9th Cir. 1983); *Colville Confederated Tribes v. Walton*, 647 F.2d 42, 48 (9th Cir. 1981); *Montana v. Confederated Salish and Kootenai Tribes*, 712 P.2d 754, 764 (Mont. 1985).

56. 460 U.S. 605 (1983).

57. *Id.* at 615. "[O]mitted" lands referred to those lands for which water rights could have been sought in the earlier litigation. *Id.*

58. *Id.* at 615, 625.

59. 753 P.2d 76 (1988). Some of the other Indian water rights issues addressed by the Wyoming Supreme Court included jurisdiction, estoppel, congressional intent to reserve water, treaty interpretation to determine the actual purpose of the Wind River Indian Reservation, and the scope of reserved rights regarding ground water, not to mention the many evidentiary and technical issues surrounding the actual quantification process. *Id.*

60. Brief of Appellant State of Wyoming at 51, *Big Horn*, 753 P.2d 76 (1988) (No. 85-203, 204, 205, 217, 218, 225, 226) (relying on *Cappaert*, 426 U.S. 128, 141; *New Mexico*, 438 U.S. 696, 700) [hereinafter Brief of Appellant, *Big Horn*].

61. Brief of the Shoshoni and Northern Arapaho Tribes As Appellees at 103, *Big Horn*, 753 P.2d 76 (1988) (No. 85-203, 204, 205, 217, 218, 225, 226) [hereinafter Brief of Appellees, *Big Horn*].

62. Brief of Appellant at 40, *Big Horn*, 753 P.2d 76.

Rather, the State advocated that the court was obliged to find that any amount quantified using the PIA standard was also “necessary” to meet the reservation’s minimal needs. The state argued the court need only reserve a quantity of water necessary to insure that the primary purpose of the reservation not be entirely defeated and that the Indians could maintain a moderate standard of living.⁶³ In other words, the State relied on *Cappaert, New Mexico* and *Washington* to advocate a pragmatic ceiling on PIA-based quantification.

Given these options, the Wyoming Supreme Court perfunctorily adopted an unrestrained PIA standard as the appropriate quantification tool.⁶⁴ The court relied solely on *Arizona v. California* and reaffirmed the value of certainty believed inherent in the PIA standard. It rejected any type of needs test as too uncertain.⁶⁵ The court acknowledged the “necessity” language in the *Cappaert* line of cases, but implied that if the United States Supreme Court had wanted to change or modify the PIA standard in light of these decisions, it would have done so in *Arizona II*.⁶⁶ Furthermore, the Wyoming Supreme Court held that the PIA-based quantification evidenced sufficient sensitivity to the water needs of other water users.⁶⁷

The PIA issue took on new proportions when presented to the United States Supreme Court because it was the only issue upon which the Court granted certiorari.⁶⁸ The parties’ basic arguments remained unchanged; however, in light of the ultimate importance of this single issue, the arguments of both sides were more fully developed.

On appeal, the State of Wyoming used the “necessity” language of the later cases to support its argument for a quantification approach substantially different from the PIA standard.⁶⁹ The State of Wyoming sought to replace the PIA quantification standard with a tailored approach which could be adapted to the reservation’s minimum needs as derived from its primary purpose.⁷⁰ The State argued that a tailored approach would be no more difficult for the trial court to apply than the “excruciating evidentiary exercise involved in determining practicably irrigable acreage.”⁷¹ In addition, the State proposed that a tailored approach would more appropriately recognize the “sensitivity doctrine” established in *New Mexico*,⁷² and prevent an unjustified windfall for the United States as well as for agricultural Indian reservations.⁷³

63. *Id.*

64. *Big Horn*, 753 P.2d at 101.

65. *Id.*

66. *Id.*

67. *Id.* at 112.

68. 109 S. Ct. 863 (1989).

69. Brief for Petitioner at 11, *Wyoming v. United States*, 109 S. Ct. 2994.

70. *Id.* at 47.

71. *Id.*

72. *See supra* note 53.

73. Brief for the Petitioner at 31, 35, *Wyoming v. United States*, 109 S. Ct. 2994.

The Tribes and the United States responded to these arguments by taking the position that a tailored approach to quantification would be unworkable and "fundamentally inconsistent" with the governing law of *Arizona v. California*.⁷⁴ They also denied that any unjustified windfall would be realized from the quantification based on PIA.⁷⁵ According to the Tribes and the United States, the PIA standard was well-founded in legal precedent and had generated substantial reliance. They argued that the PIA standard should not be modified or replaced because it assures an orderly, efficient and certain resolution of Indian reserved water rights disputes.⁷⁶

An equally divided United States Supreme Court affirmed the Wyoming Supreme Court's application of the unrestrained PIA standard without opinion.⁷⁷

ANALYSIS

Few issues rouse political passion and public interest like those involving water rights in the American West. Water is vested with symbolic, cultural and economic importance; it is the very basis of community existence. However, water is a finite resource with water abundance being the exception rather than the rule in the arid West. An expanding urban population, energy development, agriculture and fragile state economies place increasing demands on the allocation and management policies involving this precious natural resource.

The economic well-being of many Western states and communities, as well as the status of many Indian tribes, depends in large part on an equitable and efficient resolution of water issues. Accordingly, the quantification of federal reserved water rights of Indian reservations has been a major issue in Western water adjudications during the past decade.⁷⁸

The Western states' interest in quantification of Indian reserved water rights is substantial. Although much of the water claimed by Indians under the reserved rights doctrine has never been appropri-

74. Brief for the United States at 9, *Wyoming v. United States*, et. al. 109 S. Ct. 2994 (1989) (No. 88-309) [hereinafter Brief for the United States, *Wyoming v. United States*].

75. Brief for Tribal Respondents at 43, *Wyoming v. United States*, et. al. 109 S. Ct. 2994 (1989) (No. 88-309) [hereinafter Brief for the Tribes, *Wyoming v. United States*].

76. Brief for the United States at 48, *Wyoming v. United States*, 109 S. Ct. 2994.

77. 109 S. Ct. 2994 (1989). Justice O'Connor took no part in the decision. See J. MOORE, H. BENDIX & B. RINGLE *supra* note 34.

78. Numerous Indian claims are presently in litigation or negotiation. The Bureau of Indian Affairs budgeted \$10.53 million to support these claims during fiscal year 1989. While Indian claims for federal reserved water rights are concentrated in Arizona, Montana, Washington, South Dakota, Idaho, and Utah (estimated claims exceed 500,000 acre feet per year), California, Colorado, Nebraska, Nevada, New Mexico, North Dakota, Oregon, and Wyoming confront substantial Indian claims as well. *Divided Court, Divided Region: Indian Water Claims after Big Horn*, 3 WATER STRATEGIST 3 (1989); WESTERN STATES WATER COUNCIL, INDIAN WATER RIGHTS IN THE WEST 93 (1984).

ated or used by the tribes,⁷⁹ an inherent conflict exists between state appropriative rights and the Tribes' implied federal reserved rights.⁸⁰ "The federal reserved right is not like other water rights in the West. It is not on record, not fixed in size, not dependent on beneficial use."⁸¹ Consequently, the Indians' reserved water rights are seen as creating a cloud of uncertainty over the legal availability of water for the use of those possessing junior state water certificates. Such uncertainty discourages investment and water works development by non-Indian users.⁸²

Quantification through adjudication, therefore, provides Western states with a means by which to attain a reasonable degree of certainty regarding the scope and quantity of the Indians' federal reserved water rights. Quantification also facilitates state recordkeeping and supervision of water distribution among lawful claimants according to their respective rights. In addition, the quantity of water impliedly reserved for Indian reservations is a crucial factor in the states' assessment of surplus water available to intending appropriators.⁸³

To further its interests in the certainty of state water rights and non-Indian economic development, the State of Wyoming sought to minimize the tribal reserved right claims in the Big Horn adjudication.⁸⁴ The attorney generals in ten Western states and numerous municipalities and water authorities supported the State of Wyoming in its position.⁸⁵

In opposition, the Tribes sought to maximize their allotment of federally reserved water during the Big Horn adjudication.⁸⁶ Not unlike most contemporary Indian tribes, the Shoshone and Arapaho of the Wind River Indian Reservation faced stark economic conditions. Water is money. An award of significant quantities of water under the reserved rights doctrine would give the Tribes the potential to become a viable political and fiscal force. The Native American Rights Fund, the National Congress of American Indians and nearly 20 tribes supported the Wind River Indian Reservation tribes.⁸⁷

Big Horn was the first Indian water quantification adjudication to be completed since *Arizona v. California*.⁸⁸ Despite its potential to

79. Indian water rights have been largely unquantified and unused because the Indians are dependent on federal assistance and have lacked the capital for construction of water works projects necessary to put their water to use. J. FOLK-WILLIAMS, *WATER IN THE WEST—WHAT INDIAN WATER MEANS TO THE WEST* 7 (1982).

80. See *supra* note 9.

81. Trelease, *Federal Reserved Water Rights Since PLLRC*, 54 DENVER L.J. 473, 474 (1977).

82. See WESTERN STATES WATER COUNCIL, *supra* note 78, at 121-24.

83. See *Pacific Live Stock Co. v. Oregon Water Bd.*, 241 U.S. 440, 448 (1916).

84. *Big Horn*, 753 P.2d 76; Brief for Petitioner at 7, *Wyoming v. United States*, 109 S. Ct. 2994.

85. *Divided Court, Divided Region*, *supra* note 78, at 1.

86. Brief for the Tribes at 49, *Wyoming v. United States*, 109 S. Ct. 2994.

87. *Divided Court, Divided Region*, *supra* note 78, at 1.

88. Getches, *Foreword to AMERICAN INDIAN RESOURCES INSTITUTE, TRIBAL WATER MANAGEMENT HANDBOOK* at xv (1988).

become clarifying precedent, in the final analysis *Big Horn* will likely be viewed as just another episode in the Court's search for an equitable quantification standard.⁸⁹

The established legal precedent of *Winters*⁹⁰ and *Arizona*⁹¹ made it relatively easy for the Wyoming Supreme Court to summarily affirm the utilization of the PIA standard in the Big Horn adjudication. In attempting to convince the court to reevaluate the PIA standard, the State of Wyoming was forced to argue policy more than precedent.⁹² Notwithstanding the pragmatic appeal of Wyoming's policy argument to limit reserved water rights to the actual needs of the reservation, a quantification standard tailored to meet the minimal needs as they currently exist on each agricultural Indian reservation⁹³ was entirely inconsistent with the *Winters* doctrine itself. *Winters* provides for a reservation's future as well as present water needs. The State's proposed tailored approach to quantification based on actual need is difficult to reconcile with the requisite sensitivity to the Indians' future needs.

The courts' objective when resolving conflicting quantification interests like those represented in the Big Horn adjudication has been to formulate a quantification standard which, consistent with *Winters*, would accommodate the past, present and future water needs of the reservation in relation to its original purpose. At the same time the ideal quantification standard would make possible the determination of a fixed quantity of water so as to remove the cloud of uncertainty inhibiting non-Indian water development. The United States Supreme Court in *Arizona* concluded, as did the Wyoming Supreme Court, that the PIA standard fit the bill.⁹⁴

A standard based on irrigable acreage was clearly related to the original purpose of the agricultural reservations to transform the "nomadic and uncivilized" Indians into a "pastoral and civilized" agrarian society.⁹⁵ In addition, the PIA standard seemed a fair way to put

89. In *Winters* the Court's primary concern was addressing Congress' failure to create express water rights for Indian reservations. The Court was concerned with establishing the existence of rather than the quantity of the Indians' reserved water rights. Consequently, parameters of the *Winters* reserved rights doctrine, such as quantification, were left to judicial determination—case law which is fact specific, sporadic and often vague. See WESTERN STATES WATER COUNCIL, *supra* note 78, at 10-11.

90. The *Winters* reserved rights doctrine is an 80 year old rule of property law established by the United States Supreme Court. It was unlikely that the Wyoming Supreme Court would modify a rule of this nature without extraordinary justification. See Collins, *The Future Course of the Winters Doctrine*, 56 U. COLO. L. REV. 481 (1985).

91. *Arizona* was the first and only United States Supreme Court authority on the question of quantification of Indian reserved water rights. The Court summarily adopted the PIA standard as "the only feasible and fair way by which reserved water for the reservations can be measured." *Arizona*, 373 U.S. at 601.

92. The *Cappaert* line of cases relied upon by the State of Wyoming was distinguishable in that none of those cases involved federal reserved water rights for an agricultural Indian reservation. See *supra* notes 50-54 and accompanying text.

93. Brief of Appellant at 48, 53, *Big Horn*, 753 P.2d 76; Brief for the Petitioner at 47, Wyoming v. United States, 109 S. Ct. 2994.

94. *Arizona*, 373 U.S. at 601; *Big Horn*, 753 P.2d at 101.

95. *Winters*, 207 U.S. at 576.

a ceiling on the open-ended *Winters* rights. "Practicably irrigable acreage" was quantifiable, not limited to present use, and a formula which did not necessitate predicting the future needs of Indian reservations. The courts found the PIA standard to preserve the full extent of the water rights impliedly reserved by the United States and "to establish water rights of a fixed magnitude and priority so as to provide certainty for both the United States and non-Indian users."⁹⁶ Given this precedent, the United States Supreme Court's review of *Big Horn* on the PIA issue alone came as a surprise.

Because the Court did not issue an opinion,⁹⁷ the reason(s) for granting plenary review remain unknown; however, two interrelated possibilities exist. First, at least four current justices⁹⁸ may have perceived that the issue of quantification based on practicably irrigable acreage was not fully presented or carefully considered in *Arizona*.⁹⁹ The second explanation is that four justices believed that the problems raised by the PIA standard outweigh the benefit of "certainty" inherent in a measurable physical entity such as irrigable acreage.¹⁰⁰

The Court adopted the PIA standard in *Arizona* because it allowed a present water allocation that would be appropriate for future water needs. The *Arizona* Court failed, however, to provide adequate guidelines necessary for efficient and equitable application of the PIA standard. The just determination of practicably irrigable acreage requires fixed parameters with regard to technological standards for irrigation or economic feasibility.¹⁰¹ The necessary legal guidelines are difficult

96. S. RIFKIND, SPECIAL MASTER REPORT 265, *Arizona v. California* (December 5, 1960).

97. See *supra* note 34.

98. The Supreme Court grants plenary review of a certiorari case if a minimum of four Justices favor granting the petition. This longstanding judicial practice is known as the Rule of Four. R. STERN, E. GRESSMAN & S. SHAPIRO, *SUPREME COURT PRACTICE* § 5.4 (6th ed. 1986).

99. Several factors point to a less than adequate consideration of the PIA issue by the *Arizona* Court. First, *Arizona* constituted a complex of interstate lawsuits in which the quantification of Indian reserved rights was only a minor issue. Second, the report of Special Master Rifkind emphasized the controversial nature of the PIA standard and suggested that his findings regarding the PIA standard were limited to that particular case. S. RIFKIND, *supra* note 96, at 262-65. Third, the Court summarily adopted the special master's findings regarding the PIA standard, disposing of the issue in a single paragraph of a 57 page opinion. *Arizona*, 373 U.S. at 601. Finally, in a dissenting opinion Justices Harlan and Stewart parenthetically expressed "some misgivings regarding the amounts of water allocated to the Indian reservations." *Arizona*, 373 U.S. at 603 (Harlan, J., dissenting).

For a more complete discussion of this argument, see Brief Amicus Curiae of the State of California and the Metropolitan Water District of Southern California in Support of Petitioner at 6-13, *Wyoming v. United States*, 109 S. Ct. 2994.

100. This hypothesis is supported by the ultimate 4-4 split vote, demonstrating that the Wyoming and Amici arguments scored points with at least four of the justices.

101. WESTERN STATES WATER COUNCIL, *supra* note 78, at 95; AM. INDIAN RESOURCES INST., *supra* note 88, at 143. The standards referred to include but are not limited to: (1) Arability variables such as depth to barrier, maximum slope, hydraulic conductivity, barrier definition and maximum drain spacing standards. *Big Horn*, 753 P.2d at 102; (2) Engineering feasibility factors such as climate base and project efficiency esti-

if not impossible to ascertain, however, due to “conceptual and evidential” problems with the PIA standard itself.¹⁰²

The conceptual flaw of the PIA standard is that it neglects the value of water.¹⁰³ Due to its limited supply, water has been increasingly viewed as a commodity in Western states.¹⁰⁴ As such, water policy-makers are becoming more sensitive to supply and demand economics. By excluding the value of water when assessing the feasibility of irrigation,¹⁰⁵ the PIA standard identifies economically unrealistic water use. Consequently, the Indians’ PIA-based water claims may easily exceed the available supply.¹⁰⁶ For example, in Arizona, potential Indian water claims based on PIA exceed 30 million acre feet per year. In contrast, the dependable water supply in Arizona is roughly 5 million acre feet per year.¹⁰⁷ Such unrealistic claims are tremendous cause for state government concern and would do little to further the efficient and equitable resolution of the issue.

If, however, the PIA standard could be refined to incorporate the value of water so that acreage would be “practicably irrigable” only if an irrigation project was profitable enough to justify paying the market price for water,¹⁰⁸ the standard would violate the reserved rights doctrine.¹⁰⁹ *Winters* guaranteed the Indians sufficient water to fulfill the purpose of the reservation into the future and in no way limited the supply to the amount that the Indians could afford to purchase on the open market.¹¹⁰ The nature of reserved water rights is independent of the value of the resource. Fashioning an economically reasonable quantification standard consistent with a legal doctrine giving the Indians a perpetual option to expand their water use is an enigmatic task—most likely an impossible task.

mates. *Big Horn*, 753 P.2d at 102-03; and, (3) Economic feasibility factors such as crop yield data, management and labor cost estimates, and discount rates. *Big Horn*, 753 P.2d at 103-05.

102. *Divided Court, Divided Region*, *supra* note 78, at 11, 13.

103. This is not to imply that the states’ prior appropriation system is market based. However, the requirement of beneficial use which governs the quantification of state water rights is inherently more sensitive to the dynamics of supply and demand than the open-ended Indian reserved rights.

104. A tension exists between two fundamental water value concepts. From a commodity perspective, like oil and gas, the value of water has been reduced to dollars and cents with a mounting pressure to have water move to the highest bidder. In contrast, water has been traditionally viewed as a unique natural resource with a special value not reducible to monetary figures. Proponents of the community value concept resist the commodity approach in order to protect their lifestyles and cultures from water commercialization. See GETCHES, *supra* note 88, at 18.

105. A PIA analysis focuses on three irrigation components: soil arability, engineering feasibility, and economic feasibility of investment. The available water supply or theoretical cost of the water itself is not taken into consideration. See *Divided Court, Divided Region*, *supra* note 78, at 13.

106. *Id.* at 13.

107. WESTERN STATES WATER COUNCIL, *supra* note 78, at 95.

108. Theoretically, water demands would then equal available supplies. *Divided Court, Divided Region*, *supra* note 78, at 13.

109. *Id.*

110. *Winters*, 207 U.S. 564; *Divided Court, Divided Region*, *supra* note 78, at 13.

The failure to account for the value of water is not the only weakness of the PIA standard. As the State of Wyoming pointed out, the concept of "practicably irrigable acreage" is deceptively simple.¹¹¹ The true complexity of the PIA standard is not reflected in the courts' opinions. In *Arizona*, the special master defined "practicably irrigable" simply as that quantity of water required to make the lands productive and usable when needed to support a reservation's economy.¹¹² The special master for *Arizona II* was only slightly more specific when he defined "practicably irrigable" as "economically feasible."¹¹³ The Big Horn Adjudication provided the most explicit definition. The parties' stipulated definition of "practicably irrigable acreage" required an analysis of the feasibility of sustained irrigation as well as the economic feasibility of the project.¹¹⁴ What the simplicity of these definitions fails to reveal are the problems inherent in proving the economic and engineering feasibility components of the PIA standard.¹¹⁵

The difficulty of proving economic feasibility illustrates the nature of these problems. A PIA feasibility analysis can be easily manipulated to either maximize or minimize the reserved water claim. Small differences in the economic variables used to compute cost/benefit ratios can lead to very different feasibility conclusions.¹¹⁶ For example, a 1% variance in discount rate estimates can mean the difference between economic feasibility and a nonviable irrigation project.¹¹⁷ Expert testimony during the Big Horn adjudication proposed discount rates ranging from 1% - 11%.¹¹⁸ It follows that the Indians' evidence to maximize their allotment or the States' evidence to minimize the Indian allotment is limited only by the ingenuity of counsel and their experts.¹¹⁹

A court lacks the expertise necessary to define critical economic parameters; therefore, final quantification inevitably depends on the special master's choice between the parties' proposed findings-of-fact that are within the realm of competent economic studies.¹²⁰ This type

111. Brief for Petitioner at 40, *Wyoming v. United States*, 109 S. Ct. 2994.

112. S. RIFKIND, *supra* note 96, at 262.

113. Brief for the Petitioner at 40 n.62, *Wyoming v. United States*, 109 S. Ct. 2994.

114. *See supra* note 28.

115. *See Big Horn*, 753 P.2d at 100-12 for an illustration of the complex evidentiary issues presented to the court. *See also* GETCHES, *supra* note 88, at 143-54.

116. *Divided Court, Divided Region*, *supra* note 78, at 13, 14. *See also* Brief for Petitioner at 39-46, *Wyoming v. United States*, 109 S. Ct. 2994. Examples of the economic variables which can greatly affect the overall economic analysis include: discount rate, crop prices, estimated cost of the proposed irrigation project, available technology. Variable evidence concerning engineering feasibility and irrigation efficiency requirements may also impact the overall economic analysis.

117. *Divided Court, Divided Region*, *supra* note 78, at 13.

118. *Big Horn*, 753 P.2d at 104.

119. *See* Brief for Petitioner at 39, *Wyoming v. United States*, 109 S. Ct. 2994.

120. *Divided Court, Divided Region*, *supra* note 78, at 13. PIA claims are ultimately won or lost with the special master. When presented with a sufficiency of evidence issue on appeal, the Wyoming Supreme Court held that it "looks only at the evidence most favorable to the prevailing party, giving to it every favorable inference, and leaving out of consideration entirely evidence in conflict therewith." *Big Horn*, 753 P.2d at 89.

of "we win-you lose" resolution encourages the exploitation of feasibility evidence and does little to foster the cooperation between the states and tribes necessary for practical resolution of water quantification issues.¹²¹

One other pragmatic problem with the PIA standard deserves mention. The PIA standard is consistent with the *Winters* holding that reserved water rights be quantified with regard to the original purpose of the reservation. However, a standard premised on agricultural use of water ignores the fact that expanding production of agricultural commodities is currently unprofitable in most areas in the country.¹²² This inherent tension between an 80 year old legal doctrine and modern economic reality is enhanced by unresolved issues regarding the Indians' authority to market their water off-reservation and their authority to pursue alternative on-reservation uses.¹²³

As illustrated by these conceptual and evidential problems, the quantification of reserved rights is not amenable to litigation based on the feasibility analyses envisioned by the PIA standard.¹²⁴ The United States Supreme Court's split decision on the PIA issue as presented in *Big Horn* demonstrates that no pure and simple legal standard exists that respects the special nature of reserved water rights.¹²⁵ The Court's indecision in *Big Horn* has led to widespread speculation

121. "Cooperation rather than combat will lead to solving practical problems with practical solutions, instead of prolonged disputes that ultimately award one party a paper victory that does not readily translate into 'wet water'." Getches, *Management and Marketing of Indian Water: From Conflict to Pragmatism*, 58 U. COLO. L. REV. 515, 548 (1988).

122. *See id.* at 518.

123. No federal statute authorizes the Indians to sell or lease their water separate from the land. *Big Horn*, 753 P.2d at 100. Some believe that the Nonintercourse Act which forbids conveyance of Indian land applies to Indian water right transactions as well. *Divided Court, Divided Region*, *supra* note 78, at 11. The majority of the Wyoming Supreme Court let stand the district court's holding which prohibited exportation of reserved surfaced waters, but deferred on the exportation of ground water issue. The dissent, however, was split on this issue. Justice Thomas would limit reserved water use to the territorial boundaries of the reservation. *Big Horn*, 753 P.2d at 119 (Thomas, J., dissenting). District Judge Hanscum, on the other hand, would permit the sale of water off the reservation if such marketing contributed to the progress and development of the reservation. *Big Horn*, 753 P.2d at 135 (Hanscum, dissenting). The Indians will probably need to litigate their right to market their water off-reservation.

The Indians' right to shift water use on the reservation is less controversial, but still lacking solid legal authority. Although *Arizona* allowed shifts of uses on the reservation, the Court's 1979 Supplemental Decree was based on a stipulated agreement among the parties. 439 U.S. 419, 422 (1979). The Wyoming Supreme Court majority, consistent with *Arizona*, limited quantification of the Indians' reserved rights to that amount necessary for agricultural and related purposes; however, they hedged the question of the Indians' right to shift the usage once quantified. *Big Horn*, 753 P.2d at 98-99. In his dissent, Justice Thomas stated that he did "not agree that reserved water rights . . . should be limited in the manner suggested by the majority," and that the reserved rights should assume "any use that is appropriate to the Indian homeland as it progresses and develops." *Big Horn*, 753 P.2d at 119 (Thomas, J., dissenting). It may be that the Indians will need to litigate this right in the future as well.

124. *Divided Court, Divided Region*, *supra* note 78, at 13.

125. *Id.*

that the PIA standard's days are numbered. The inherent "certainty" of the PIA standard, applauded in *Arizona*, has eroded into uncertainty as to its legal credibility. This uncertainty will have a profound impact on the future course of western water adjudications.

The division of the United States Supreme Court has opened the door to numerous petitions for review as these adjudications grind their way through the state courts. Facing enormous Indian water claims based on "practically irrigable acreage,"¹²⁶ the Western states are tempted to present "the" case which will convince the Court to abandon or refine the PIA standard. Western Indian tribes will resist such efforts, having relied on the PIA standard as the foundation of their claims for over 25 years. Furthermore, the economic welfare of those tribes whose reserved rights were adjudicated in the *Arizona* and *Big Horn* actions may depend in large part on the finality of those decisions.

With their economic and political health on the line, the states and tribes should proceed with caution. As they plan their next moves, the court should encourage, and the parties should strive to achieve, cooperation in designing practical solutions for the mutual benefit of Indians and non-Indians. Additional litigation geared toward the search for a "quick-fix" legal standard or "blanket formula" would be counter-productive¹²⁷—an expense of time, energy and resources which could be better utilized in the negotiated settlement process.¹²⁸ Moreover, while the PIA standard has been shown to be a less than perfect means by which to quantify Indian reserved water rights in the litigation context, it is a useful and appropriate starting point for equitable negotiated agreements.

126. See *supra* note 78.

127. See *Divided Court, Divided Region*, *supra* note 78, at 15; Tarlock, *One River, Three Sovereigns: Indian and Interstate Water Rights*, 22 LAND & WATER L. REV. 631, 635 (1987).

128. Notwithstanding its disadvantages, many commentators view negotiated settlement as the most efficient and equitable process by which to resolve Indian water rights issues. The basic arguments in favor of settlement negotiation as the optimum forum for quantification of Indian reserved water rights are as follows:

Litigation of this issue has proven to be complicated, expensive and inconclusive. Frought with delays, litigation generally produces only partial, often theoretical answers or "paper" rights, prolonging the uncertainty which disserves the tribes as well as the states. "Paper" water rights benefit the tribes only to the extent that they can develop water works and irrigation projects, pursue alternative on-reservation uses and market their water.

Negotiated settlement proceedings, although costly and time consuming, are flexible and therefore more responsive to the particular needs of each different state-tribal conflict. In addition, negotiated settlements allocate water resources in light of economic reality thereby providing the parties with actual rather than theoretical access to water. Whereas litigation is a win-lose proposition, negotiation allows the interested parties direct control over quantification decisions.

Proponents point out that negotiation is typically the final forum even for those claims supposedly resolved by the courts. The current negotiation of usage and transfer issues between the State of Wyoming and Shoshone and Arapaho tribes is a good illustration of this point. See *Divided Court, Divided Region*, *supra* note 78, at 14-15; Getches, *supra* note 121, at 515, 517, 520, 548-49; Tarlock, *supra* note 127; WESTERN STATES WATER COUNCIL, *supra* note 78, at 118-21; AM. INDIAN LAWYER TRAINING PROGRAM, INC., INDIAN WATER POLICY IN A CHANGING ENVIRONMENT 59-60 (1982).

Negotiated settlements of Indian reserved water right claims should commence with an established legal standard because legal principles define credible bargaining positions.¹²⁹ The *Winters* doctrine provides the legal framework for legitimate negotiations aimed at quantifying tribal reserved water rights. As discussed, "practicably irrigable acreage" is an established legal standard consistent with that framework.¹³⁰

Since negotiation between the interested parties can achieve outcomes not attainable through litigation,¹³¹ the PIA standard should be viewed as a means to prompt negotiated settlements rather than a quantification tool to be applied by the courts. Using the PIA standard for this purpose would not eliminate problematic feasibility analyses; however, the parties would be more likely to employ realistic economic variables since their analysis would be for the purpose of defining their bargaining positions rather than to persuade a special master.¹³²

Before the states and tribes can be induced to alter their strategies, the Court must acknowledge its limited competence to define and apply the PIA standard¹³³ while at the same time certify the value of the PIA standard as a springboard for negotiated settlement. Accepting this view, the Court should seize the first opportunity to reassert the credibility of the PIA standard in the context described. Once the Court validates "practicably irrigable acreage" as the best available quantification tool, strategies can readily be changed to use the PIA standard to effectuate a cooperative, equitable and efficient resolution of the reserved rights quantification issue via negotiation.

CONCLUSION

Federal reserved water on Indian reservations spells political power and economic gain to many tribes in the American West. Understandably, the tribes are anxious to quantify this valuable asset so that they may proceed with economic development projects. Many Western states are in need of economic development as well. Consequently, the states are anxious to expunge the uncertainty created by the unquantified

129. *Divided Court, Divided Region*, *supra* note 78, at 11.

130. *See supra* text accompanying notes 94-96.

131. *See supra* note 128.

132. *Divided Court, Divided Region*, *supra* note 78, at 14-15.

133. Three elements contribute to the courts' lack of competence regarding application of the PIA standard and quantification of Indian reserved water rights: (1) The technical nature of the evidence. Determination of practicably irrigable acreage is dependent upon a multitude of technical factors which change constantly and are subject to reasonable disagreement among the experts. (2) The court cannot appropriate funds for water development on the Indian reservations. The water awarded under the reserved rights doctrine only benefits the Indians to the extent that they can construct water works and irrigation projects. Through negotiation the tribes can bargain for the political support of non-Indians for Congressional appropriations. (3) The court is not in a position to delegate water use/water marketing authority. Again, negotiation provides the tribes with a vehicle by which to bargain for marketing/alternative use rights or at least the incentive to solicit the political support of non-Indians. *See Divided Court, Divided Region*, *supra* note 78, at 15.

Indian water rights. This uncertainty substantially interferes with the development of state and private water projects as well as water management programs and administration of state water rights.

Tremendous amounts of time and money are being spent by the states, tribes and federal government toward the litigation of the reserved rights quantification issue. Due to the United States Supreme Court's failure to clarify the law when presented the opportunity in the *Big Horn* adjudication, time and money will likely continue to funnel into the litigation process. Now is an appropriate time for the interested parties to reevaluate their positions in light of the *Big Horn* setback.

A race to the courthouse in search of a better quantification standard is contrary to the interests of Indians and non-Indians. Despite its conceptual and evidential flaws, the PIA standard is a useful quantification tool when properly limited and when employed in the optimum forum. As demonstrated by the courts' recent struggle, the most suitable forum is the bargaining table rather than the courtroom. Litigation is a win-lose proposition with the ultimate reserved water award akin to the lottery. Negotiation is the vehicle by which the interests of Indians and non-Indians will most efficiently and equitably be served.

Notwithstanding the judicial uncertainty surrounding the PIA standard, "practicably irrigable acreage" can and should be used by the parties to define their bargaining positions before negotiating the quantity of water reserved for agricultural Indian reservations. A determination of practicably irrigable acreage as step one in the negotiated settlement process would ensure that negotiations remain within the legal framework mandated by the *Winters* reserved water rights doctrine. The Court's timely stamp of approval on this proposal would encourage the many states and tribes involved in this type adjudication to invest their time and money in a pragmatic, cooperative endeavor rather than counter-productive legal combat.

LYNNETTE J. BOOMGAARDEN