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JUDICIAL FAILURE TO RECOGNIZE A RESERVED GROUNDWATER RIGHT FOR THE WIND RIVER INDIAN RESERVATION, WYOMING

Paige Graening*

In 1975 local authorities planned to drill water wells to augment supplies for the airfield and a proposed industrial park at the Riverton, Wyoming Municipal Airport. Tribal authorities from the nearby Wind River Indian Reservation, which had once owned the airport property, asserted a claim upon groundwater under the airport as part of their *Winters* rights[1] and objected to the drilling plans. Once again the unresolved fundamental dispute over scarce western water reared its head. The time was ripe for a general adjudication to quantify, define, and integrate the rights of all parties to the waters in the Big Horn Basin.[2] *In re the General Adjudication of the Big Horn River System* was trifurcated

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1. The term "*Winters* rights" refers to the doctrine of reserved water rights that was asserted in Winters v. United States, 207 U.S. 564 (1908). *See infra* notes 49-53 and accompanying text.

2. On January 22, 1977, the Wyoming Legislature enacted § 1-1-54.1 of the Wyoming statutes which authorized the State to commence system-wide adjudications of water rights (current version at WYO. STAT. ANN. § 1-37-106 (1977)). Two days later, the State commenced the litigation known as *In re* the General Adjudication of the Big Horn River Sys. and All Other Sources, 753 P.2d 76

and lasted 12 years.[3] Although *Big Horn* was essentially a local case, its outcome is likely to have profound implications for other reservation tribes whose water rights remain undefined.

Big Horn was an action to determine the water rights of numerous, diverse parties within the Big Horn River System and all other sources of water within Wyoming's Water Division No. 3.[4] The principal issue of the litigation was whether a reserved water right existed for the Wind River Indian Reservation and, if so, the scope of the water reservation. The ultimate outcome of this suit included findings that: (1) the purpose of the reservation was to provide an agriculturally-based homeland for the tribes; (2) there was intent to reserve water rights to the Wind River Indian Reservation upon its creation; (3) there was no intent to reserve groundwater rights for the reservation; and (4) the measure of the tribes'

(Wyo. 1988), *aff'd in part by an equally divided Court sub nom.* Wyoming v. United States, 492 U.S. 406 (1989) [hereinafter *Big Horn*].

It is noteworthy that the Wyoming Legislature meets bi-annually, beginning in mid-January. The fact that the Legislature provided for adjudication early in its first session after the Riverton Municipal Airport confrontation indicates the high level of importance attached to the water rights in the Big Horn Basin.

3. The case was divided into three phases: Phase I, Indian reserved water rights (decided by the *Big Horn* litigation); Phase II, non-Indian federal reserved rights; and Phase III, state water rights evidenced by a permit or certificate.

The initial trial on Indian rights, conducted by the special master (Teno Roncalio, a former U.S. Representative from Wyoming), lasted from January 26, 1981 until December 1981. Completion of the special master's 451 page report "Concerning Reserved Water Right Claims By and On Behalf of the Tribes of the Wind River Indian Reservation" took until December 15, 1982. Report of the Special Master at 7, *In re* the General Adjudication of All Rights to Use Water in the Big Horn River Sys. and All Other Sources, Civ. No. 4993 (Wyo. Dist. Ct. December 15, 1982) [hereinafter Report]. The Report was then forwarded to the state district court, whose ruling was appealed to the Wyoming Supreme Court. Following the state supreme court's three-to-two decision, the United States Supreme Court granted certiorari for one issue—the Practicably Irrigable Acreage standard for quantifying surface water rights under *Winters*—and affirmed *Big Horn* in a four-to-four decision.

A final judgment adjudicating the non-Indian federal reserved water rights, pursuant to stipulation, was entered February 9, 1983. Phase III determinations are still pending.

4. *Id.* at 1. *Big Horn* described Wyoming's Water Division No. 3 as:

> [E]ssentially identical with what is known as the Big Horn River drainage basin .... It is located in Fremont, Hot Springs, Washakie, Big Horn and Park counties in northwestern and west central Wyoming and includes parts of Yellowstone National Park. Other federal entities included are the Wind River Indian Reservation . . . consisting of approximately 4,000 square miles of land area, the Shoshone and Big Horn National Forest, the East Fork Winter Elk Pasture, the Sheridan County Elk Winter Pasture, the Yellowtail Wildlife Habitat Management Area, the Middle Creek Drainage Area of Yellowstone National Park, the Big Horn Canyon National Recreation Area, and numerous public water reserves, water wells and stock driveways upon federal lands administered by the Bureau of Land Management.

Big Horn, 753 P.2d at 83.

reserved water right was the water necessary to irrigate practicably irrigable acreage.[5] Res judicata notwithstanding, whether or not this enormous investment of time, money, and effort will prove to be the final examination of the stated issues remains to be seen.[6]

This article examines the judicial failure to find a reserved right to groundwater for the Wind River Indian Reservation and shows that precedent exists for finding the right through treaty construction and case law. Part I recounts the historical background of the Shoshone and Arapaho Tribes. Part II of this article examines key elements of water law and relevant groundwater cases. Part III reviews the canons of treaty construction. Part IV probes the precedential and contemporary interpretations of the principal treaty behind the *Big Horn* litigation. Finally, Part V explores some of the legal, social, and economic implications of exclusive state control over groundwater underlying the Wind River Indian Reservation.

I. HISTORY OF THE PEOPLE AND THE RESERVATION

The Shoshone and Arapahoe Tribes, residents of the Wind River Indian Reservation, first raised the issue of groundwater rights in the Riverton Municipal Airport incident. The tribes' relationship to the lands on which the airport stands was a determinative factor in their objection to the water well drilling. The story of how and why these tribes came to live on the reservation provides the legal and historical foundation for the *Big Horn* adjudication.[7]

Originally, the Shoshone were principally hunters and gatherers in the western part of what is now Wyoming.[8] Although they had helped Lewis and Clark on their trek to the Pacific Northwest between 1804 and

5. *See generally Big Horn*, 753 P.2d 76.

6. Certain issues raised were not decided within the framework of the litigation. For example, because the Wyoming Supreme Court ruled that the Indians did not have a reserved right to groundwater, the court did not reach the question as to whether the state owns the groundwater underlying the Wind River Indian Reservation. *Id.* at 100. Any subsequent decision on this issue will undoubtedly have ramifications for Indian reservations and other federal enclaves.

7. The Bannock Tribe, linguistically and geographically related to the Eastern Shoshone, also resided on the Wind River Indian Reservation during the early phase of its settlement. A widely roving group, the Bannocks asserted that lands in the general area of the present reservation had been their home in the past. *See* SMITHSONIAN INSTITUTION, BUREAU OF AMERICAN ETHNOLOGY, BULLETIN 30, HANDBOOK OF AMERICAN INDIANS NORTH OF MEXICO, PART I, 129 (Frederick W. Hodge ed. 1907).

8. For a description of the lifestyle of the Eastern Shoshone, see BARBARA A. LEPOER, A CONCISE DICTIONARY OF INDIAN TRIBES OF NORTH AMERICA 429-31 (1979).

1806, by mid-century the Shoshone had suffered greatly from white passersby and encroachers.[9] The great Shoshone Chief Washakie had long been tolerant of white development of the West, but by the late 1850s the destruction of game and the depletion of grazing areas led many Shoshone warriors to join the wilder Bannocks in a general war against trail travelers.[10] In 1863 government forces assigned to protect the pioneer trails inflicted a crushing defeat on the Shoshone near the Idaho-Utah border. Subsequently, all the hostile tribes signed peace treaties in which they agreed to permit white travel and railroad construction in return for reservation life, supported by annuities of goods and food.[11]

The 1863 Treaty of Fort Bridger,[12] signed by the Shoshone and the United States, set aside a total of over forty-four million acres in Wyoming, Colorado, Idaho, and Utah for the tribe's use.[13] Concluding that this amount of land for Indian use alone was unrealistic,[14] the federal government negotiated the 1868 Treaty of Fort Bridger.[15] Under this Treaty, the Eastern Shoshone Tribe ceded its original reservation in exchange for lands in the Utah Territory (now Wyoming) and promises of governmental support. The Treaty reduced the size of the tribe's holdings by more than ninety percent,[16] but declared that the newly set aside acreage in Wyoming "shall be . . . for the absolute and undisturbed use and occupation of the Shoshonee Indians."[17] Thus, the United States Government created the Wind River Indian Reservation.[18]

The Northern Arapahoes were also Plains hunters, but their political alliances were with the Sioux and Cheyenne. The Shoshone had long been hostile to all three of these Powder River tribes.[19] Following Custer's disastrous loss at the Battle of Little Big Horn, the Arapahoes were imprisoned at Camp Robinson where they languished for one year

9. ANGIE DEBO, HISTORY OF THE INDIANS OF THE UNITED STATES 161-62 (1970).
10. *Id.* at 161.
11. *Id.* at 162.
12. Treaty with the Eastern Bands of Shoshonee, July 2, 1863, U.S.-E. Shoshonee, 18 Stat. 685 (1875), *reprinted in* 2 INDIAN AFFAIRS: LAWS AND TREATIES 848 (Charles J. Kappler ed. 1904).
13. United States v. Shoshone Tribe of Indians, 304 U.S. 111, 113 (1938).
14. *See Big Horn*, 753 P.2d 76, 83 (Wyo. 1988).
15. Treaty with the Eastern Band of Shoshonees and Bannack Tribe, July 3, 1868, 15 Stat. 673 (1869), *reprinted in* 2 INDIAN AFFAIRS: LAWS AND TREATIES 1020 (Charles J. Kappler ed. 1904) [hereinafter Fort Bridger Treaty of 1868].
16. *See Shoshone*, 304 U.S. at 113.
17. Fort Bridger Treaty of 1868, *supra* note 15, art. II, 15 Stat. at 674, *reprinted in* 2 INDIAN AFFAIRS at 1020-21.
18. The Bannocks signed the treaty, but merely as an intermediate step toward the reservation of their own lands. *See id.* For a discussion of the historical implications of this treaty for the Bannocks, see BRIGHAM D. MADSEN, NORTHERN SHOSHONI 52-53 (1980).
19. *See* DEBO, *supra* note 9, at 241.

before the Shoshone took pity and gave them a temporary refuge on the Wind River Indian Reservation.[20] The federal government found it convenient to make this a permanent settlement. Despite the treaty's "absolute and undisturbed use and occupation" provision and the protests of the Shoshone, the government carved a new homeland for the Arapahoe out of the Wind River Indian Reservation.[21] The Shoshone and Arapahoe Tribes continue to live on the Wind River Indian Reservation, still holding themselves apart from one another.[22]

A series of subsequent agreements further decreased the size of the reservation. In 1872 the Shoshone Indians and the United States Government executed the Brunot Agreement, which provided for a cession of some six hundred thousand acres of tribal lands in exchange for monetary compensation.[23] The next significant transaction involving land cessions was the First McLaughlin Agreement in 1896.[24] The First McLaughlin Agreement was a simple conveyance and purchase under which the United States took full title to the subject lands.[25] As in the Brunot Agreement, nothing in this transaction placed either party in a position of continuing responsibility or obligation to the other. For purposes of the *Big Horn* litigation, the most significant transaction affecting the reservation, other than the 1868 Treaty itself, was the Second McLaughlin Agreement, commonly referred to as the 1905 Act.[26] Under the terms of this transaction, the tribe ceded 1,480,000 acres to the United States for disposal through sales to third parties.[27] Revenues derived from the subsequent transactions were returned to the tribe for development purposes. However, the land sales were not as successful or far-reaching as intended and the federal government restored all unsold lands to the reservation in 1934.[28]

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20. *Id.*

21. *Id.* In 1927 Congress gave the Shoshone permission to litigate its claim for the loss of half of the Reservation to the Arapahoe. In finally resolving the claim in *Shoshone*, the Supreme Court found that the tribe's compensation must cover the timber and mineral resources on forsaken Reservation lands. *Shoshone*, 304 U.S. at 116.

22. DEBO, *supra* note 9, at 241.

23. Agreement with Shoshone Indians, Dec. 15, 1874, U.S.-Shoshone, ch. 2, 18 Stat. 291, 292 (1874) (also known as the Lander Purchase). Report, *supra* note 3, at 33.

24. Agreement with the Shoshone and Arapahoe Tribes in Wyoming, June 7, 1897, ch. 3, § 12, 30 Stat. 93 (1897) (also known as the Thermopolis Purchase). Report, *supra* note 3, at 34.

25. Report, *supra* note 3, at 34.

26. Agreement with Indians of the Shoshone or Wind River Reservation, Wyoming, March 3, 1905, ch. 1452, 33 Stat. 1016 (1905) (Second McLaughlin Agreement).

27. Report, *supra* note 3, at 36.

28. *Id.* at 36-37. In the *Big Horn* adjudication, the State of Wyoming asserted that the Second McLaughlin Agreement had constituted a conveyance to the United States, which destroyed the reserved water right relating back to 1868. *Id.* at 35-44. The special master and the Wyoming

Finally, the Act of August 15, 1953[29] compensated the tribes for certain lands within the Riverton Reclamation Project. These lands are the site of the Riverton Municipal Airport.[30] Since that date, the size of the reservation has remained stable.[31]

II. WESTERN WATER

A. *The Doctrine of Prior Appropriation*

The prior appropriation doctrine is a water allocation system developed as the arid West's alternative to traditional, eastern riparian rights.[32] Somewhat akin to the Rule of Capture, prior appropriation gives water rights to users who are first in time. Beneficial use is the basis, measure, and limit to the use of water.[33]

The doctrine of prior appropriation permits diversion of water to remote lands. Appropriation rights are also quantified for a definite amount of water and are not correlative.[34] Junior users must yield to

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Supreme Court rejected the state's argument. Both found that the language of the Second McLaughlin Agreement did not create a conveyance of land, but rather a cession of lands in trust to the United States to be sold for tribal benefit if possible. *Id.* at 36. Under the 1934 restoration of ceded lands to tribal ownership, the reserved water right resumed its priority date of 1868. *Id.* at 37-44. *See generally Big Horn,* 753 P.2d 76, 92-93 (Wyo. 1988).

29. Act of August 15, 1953, Pub. L. No. 83-284, ch. 509, 67 Stat. 592 (1953).

30. Report, *supra* note 3, at 7.

31. *Big Horn,* 753 P.2d at 84.

32. According to Goldfarb, the doctrine of riparian rights generally holds that landowners adjacent to a watercourse may use such waters on their lands. Water rights are established by proximity to the watercourse. Developed in England, where rains are abundant, the riparian doctrine was adopted early in the United States and continues in effect in the great majority of states east of the Mississippi. *See* WILLIAM GOLDFARB, WATER LAW 21 (2d ed. 1988). In some states, riparianism has been supplemented by permit systems. *Id.* The various states have modified pure riparian doctrine in different ways. Some, for example, restrict the use of diverted water to land which is actually riparian to the watercourse. In most states, with no showing of actual harm, a riparian owner can seek a court order enjoining another riparian from using water on lands not appurtenant to the watercourse or outside the watershed. *Id.* at 21-22. Some states require evidence of tangible harm before issuing an injunction or permitting the recovery of damages. *Id.* at 22. Still other states permit riparian owners to make "reasonable" uses of water on lands not adjacent to the watercourse or on trans-watershed lands. *Id.* Furthermore, riparian states have adopted either the "source of title" or "unity of title" theories which differently govern the rights to use water on lands which have been severed from the original riparian tract and later reunited with it. *Id.*

33. Initially defined by the courts, "beneficial use" is now generally codified. *See, e.g.,* WYO. STAT. ANN. § 41-3-101 (1977). "Beneficial use shall be the basis, the measure and limit of the right to use water . . . ." *Id.*

34. GOLDFARB, *supra* note 32, at 33.

senior appropriators in times of shortage.[35] Appropriative rights are indefinite in duration, but may be lost through non-use, abandonment, forfeiture, or prescription.[36] In many jurisdictions, appropriative diversion rights may be severed and transferred; changes in use or place of use, and changes in point or method of diversion, are generally permissible if no injury occurs to other users.[37]

Wyoming adopted the prior appropriation doctrine for surface waters in its Constitution[38] and has subsequently extended it to groundwater by statute.[39] Statutory definitions of preferences for groundwater use are the same as those for surface waters.[40] Furthermore, Wyoming law permits "any appropriator of either surface or underground water [to] file a written complaint alleging interference with his water right by a junior right."[41]

B. *The Nature of Groundwater*

The National Water Commission has defined groundwater as "water that exists . . . in the interstices of . . . rocks may be called subsurface water; that part of subsurface water in interstices completely saturated with water is called groundwater."[42] Generally, there are two types of aquifers, or underground storage formations, containing significant quantities of groundwater: (1) the relatively rare non-recharging aquifers, which are cut off from the hydrologic cycle,[43] and (2) the more

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35. *Id.*

36. Significantly, however, reserved rights are not lost through non-use. Arizona v. California, 373 U.S. 546, 600 (1963).

37. GOLDFARB, *supra* note 32, at 33-34.

38. WYO. CONST. art. VIII, § 3.

39. Article I of the Wyoming Water Code, WYO. STAT. ANN. § 41-3-101 (1977) states:

> A water right is a right to use the water of the state, when such use has been acquired by the beneficial application of water under the laws of the state . . . . Beneficial use shall be the basis, the measure and limit of the right to use water at all times . . . .

In other scattered sections, the statutes indicate means of perfecting priority rights to surface and groundwater.

40. Section 41-3-102 states preferred uses are for domestic and transportation purposes, steam power plants and industrial purposes. WYO. STAT. ANN. § 41-3-102 (1977).

41. WYO. STAT. ANN. § 41-3-911 (1977).

42. NATIONAL WATER COMMISSION, WATER POLICIES FOR THE FUTURE 230 (1973). Wyoming statute provides a less technical definition of groundwater: "[A]ny water, including hot water and geothermal steam, under the surface of the land or the bed of any stream, lake, reservoir, or other body of surface water, including water that has been exposed to the surface by an excavation, such as a pit." WYO. STAT. ANN. § 41-3-901(a)(ii) (1977).

43. Professor Meyers has stated that few, if any, aquifers have zero recharge. However, some are functionally non-recharging because their rate of recharge is measured in decades or centuries. The Ogallala, underlying parts of Texas, Oklahoma, Kansas, and Nebraska is a well-known example

common recharging aquifers, which maintain a steady level because of an equal inflow and outflow of water.

Surface flows of many streams at various times of the year depend on full or near full underground aquifers that are in hydrologic continuity with the surface flows.[44] The National Water Commission recognized this relationship between surface and groundwater and framed its recommendation as follows:

> RECOMMENDATION NO. 7-1: STATE LAWS SHOULD RECOGNIZE AND TAKE ACCOUNT OF THE SUBSTANTIAL INTERRELATION OF SURFACE WATER AND GROUND WATER. RIGHTS IN BOTH SOURCES OF SUPPLY SHOULD BE INTEGRATED, AND USES SHOULD BE ADMINISTERED AND MANAGED CONJUNCTIVELY. THERE SHOULD NOT BE SEPARATE CODIFICATIONS OF SURFACE WATER LAW AND GROUND WATER LAW; THE LAW OF WATERS SHOULD BE A SINGLE, INTEGRATED BODY OF JURISPRUDENCE.[45]

Wyoming has recognized this interrelationship to some degree. Its statutes provide that:

> Where underground waters in different aquifers are so interconnected as to constitute in fact one source of supply, or where underground waters and the waters of surface streams are so interconnected as to constitute in fact one source of supply, priorities of rights to the use of all such interconnected waters shall be correlated and such single schedule of priorities shall relate to the whole common water supply.[46]

Several factors make groundwater an extremely attractive resource. Stored in its natural condition, it does not require the capital outlay that traditional surface water reservoirs require.[47] In addition, groundwater suffers little evaporative loss in storage. Although there are many concerns today regarding the pollution of aquifers by surface leaching and migration of toxic and hazardous substances, groundwater in its natural state is relatively pure and does not require expensive purification prior to use in industrial processes. Finally, and perhaps most importantly, the increasing demand for water where surface resources are limited is causing society to place new value on groundwater.[48]

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of a functionally non-recharging aquifer. Charles J. Meyers, *Federal Groundwater Rights: A Note on* Cappaert v. United States, 13 LAND & WATER L. REV. 377, 382 (1978).

44. Robert S. Pelcyger, *Indian Water Rights: Some Emerging Frontiers*, 21 ROCKY MTN. MIN. L. INST. 743, 759 (1975).

45. WATER POLICIES FOR THE FUTURE, *supra* note 42, at 233.

46. WYO. STAT. ANN. § 41-3-916 (1977).

47. *See* Pelcyger, *supra* note 44, at 761.

48. *Id.*

C. *The* Winters *Doctrine*

Winters v. United States[49] announced the doctrine of reserved water rights which dictates that where land in territorial states was reserved by treaty to the Indians, an implied water reservation necessary to support the purpose of the reservation arose from the treaty and related back to the creation of the reservation. The case involved the competing water rights of reservation Indians and subsequent white settlers. Although the federal government had set aside the Fort Belknap Indian Reservation in Montana Territory for Indian use,[50] white settlers on lands ceded to the federal government by the Indians invested substantial sums of money to divert Milk River waters to benefit their own agricultural projects.[51] On behalf of the reservation tribes, the United States Government complained that the settlers' actions deprived the Indians of the use of water. The United States Supreme Court found that even though the treaty was silent on the issue of water rights, Congress could not have intended for the Indians to dwell on the reservation without benefit of water rights.[52] Therefore, the Court held that where land in territorial states was reserved by treaty to an Indian tribe, an implied reservation of water necessary to support the purpose of the Indian reservation arose from the treaty.[53] Since the reservation of water related back to the creation of the Indian reservation, competing users such as the settlers could not appropriate such waters unless their appropriation was effective prior to the creation of the reservation.[54] The Court also rejected the contention that the United States had repealed the reservation of water rights when Montana was admitted into the Union.[55]

The eighty-three year old *Winters* decision has been a source of significant litigation, particularly in the arid Western States, the site of many federal reservations. Courts have, for example, struggled with the quantification of *Winters* rights in cases such as *Arizona v. California*,[56] which held that water was intended to satisfy the future as well as the

49. 207 U.S. 564 (1908).

50. Agreement with the Indians of Gros Ventre, Piegan, Blood, Blackfeet, and River Crow Tribes Establishing a Reservation, Montana, May 1, 1888, ch. 213, 25 Stat. 113 (1887-1889) (approved by an Act of Congress, April 15, 1874, ch. 96, 18 Stat. 28 (1875)).

51. *Winters*, 207 U.S. at 567.

52. *Id.* at 576-77.

53. *See id.* at 575-77.

54. *Id.* at 577.

55. *Id.* at 577-78.

56. 373 U.S. 546 (1963).

present needs of the Indian reservation. Additionally, water must be reserved in amounts adequate to serve all the reservation's practically irrigable acreage.[57]

The Supreme Court may be lauded for its interpretation of the Fort Belknap Reservation Treaty which gave rise to the *Winters* litigation. The Court found that Congress intended for the Indians to find sustenance on their new homeland, even though the treaty included no express language concerning water.[58] Yet this finding has created problems because the Court based the Indian's water rights solely upon the original purpose of the reservation. The idea of restricting water rights to those rights necessary to sustain the original purpose of the reservation has been limited by subsequent decisions such as *Big Horn*.

D. *The* Winters *Doctrine Applied to Groundwater*

The logic that caused the *Winters* court to establish the implied water reservation—that Congress could not have intended for the reservation Indians to dwell and prosper without water rights—supports the contention that the doctrine should also be extended to groundwater.[59] This has been the reasoning and the conclusion of the courts that addressed the question within the context of the federal reserved right prior to *Big Horn*.[60]

The first case to examine groundwater rights within an Indian reservation was *Tweedy v. Texas Co.*[61] The factual background is different from that of *Big Horn* in that the case concerned the rights of an oil and

57. *Id.* at 600.

58. *Winters*, 207 U.S. at 576-77.

59. Many commentators have noted the logic of extending the reserved right doctrine to groundwater. *See, e.g.*, FELIX S. COHEN, HANDBOOK OF FEDERAL INDIAN LAW 585-87 (1982); Aaron H. Hostyk, *Who Controls the Water?*, 18 TULSA L.J. 1, 50-53 (1982); Meyers, *supra* note 43, at 388-89; Marc P. Bouret, Note, Cappaert v. United States: *A Dehydration of Private Groundwater Use?*, 14 CAL. W. L. REV. 382 (1978); Pelcyger, *supra* note 44, at 759; A. Dan Tarlock, *One River, Three Sovereigns: Indian and Interstate Water Rights*, 22 LAND & WATER L. REV. 631, 647 (1987).

The *Winters* doctrine is the strongest analogue for study of a reserved groundwater right. Others rights which might be developed include reserved fishing, trapping, and hunting rights. See, e.g., United States v. Winans, 198 U.S. 371 (1905), which remains the doctrinal source for off-reservation treaty fishing. Menominee Tribe v. United States, 391 U.S. 404, 406 (1968), held that where Congress was silent on the issue, statutory termination of tribal supervision by the federal government and the conveyance of reservation lands to third parties did not abrogate reserved tribal hunting and fishing rights. An extended discussion of these other potential analogues is, however, beyond the scope of this article.

60. The Supreme Court first applied the reserved rights doctrine to federal lands other than Indian reservations in Arizona v. California, 373 U.S. 546, 601 (1963), which concerned surface waters. Subsequent cases, discussed herein, have specifically addressed the reservation of groundwater.

61. 286 F. Supp. 383 (D. Mont. 1968).

gas lessee to use groundwater underlying non-Indian surface owners' lands within an Indian reservation.[62] However, the court's reasoning on the reservation of groundwater is quite relevant to *Big Horn*. At issue was whether the defendant oil and gas lessee owed damages to the plaintiff landowners for groundwater used in secondary recovery operations. The plaintiffs' case failed because they could not establish title to the groundwater as an incident to mere surface ownership of fee land within the reservation.[63] Therefore, they could show no interference with their rights.[64] However, in discussing the reserved right to groundwater, the *Tweedy* court expressly reasoned that:

> [T]he same implications which led the Supreme Court to hold that surface waters had been reserved would apply to underground waters as well. The land was arid—water would make it more useful, and whether the waters were found on the surface of the land or under it should make no difference.[65]

Although not binding on the Wyoming Supreme Court, *Tweedy* gives strong support for the tribes' argument that they have *Winters* rights to the groundwater underlying their reservation lands.

The landmark case of *Cappaert v. United States*[66] first articulated a reserved right to groundwater on non-Indian federal land reservations. At issue was the reserved water right for Devil's Hole National Monument, which Congress had established in 1952 for the preservation of the unique desert pupfish found in a subterranean pool.[67] In 1968 the Cappaerts established prior appropriation rights to groundwater in the area through permits issued by the Nevada State Engineer.[68] However, when their irrigation pumping began to decrease the water in Devil's Hole, the United States Government moved to enjoin the Cappaerts' continued water use. The United States Supreme Court stated, "[W]e hold that the United States can protect its water from subsequent diversion, *whether the diversion is of surface or groundwater.*"[69] The Court could hardly have made a clearer statement regarding the legality of the reservation of

62. The land was located on the Blackfeet Indian Reservation in Montana. *Id.*

63. *Id.* at 385.

64. The Tweedys' grantors, who had acquired the lands and minerals from the Blackfeet Tribe, reserved the minerals when they conveyed the surface to the Tweedys. *Id.* at 383-85.

65. *Id.* at 385.

66. 426 U.S. 128 (1976).

67. *Id.* at 132-33.

68. *Id.* at 134.

69. *Id.* at 143 (emphasis added).

groundwater. In keeping with *Arizona v. California*,[70] the Court reasoned that need determines the extent of the reservation and rejected an equitable balancing of competing users.[71] *Cappaert's* treatment of the issue was most striking in that the Court found a reserved federal right to groundwater, but found no need to invoke the right because the Court declared that the pool at Devil's Hole was surface water.[72] However, *Cappaert's* establishment of a reserved right to groundwater, and its reiteration that the doctrine of reserved rights "extends to Indian reservations,"[73] set the stage for establishing the reserved right to groundwater for the Shoshone and Arapahoe Tribes in *Big Horn*.[74]

III. CANONS OF TREATY CONSTRUCTION

The courts have adopted special rules of interpretation for Indian treaties. The degree to which those rules figure in judicial interpretation varies somewhat from case to case. However, the recognized canons of treaty interpretation are generally acknowledged by courts.

First and foremost, Indian treaties are to be interpreted as the Indians understood them at the time of signing.[75] This canon is particularly important in Indian treaty construction since tribal representatives were often unable to read, speak or understand English—the language of the drafters and the treaties themselves.[76] In *Jones v. Meehan*,[77] the Supreme Court explained the rationale for this principle:

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70. 373 U.S. 546 (1963).

71. *Cappaert*, 426 U.S. at 138-39.

72. *Id.* at 142-43.

73. *Id.* at 138.

74. Not all water law authorities agree with the reservation theory as the best means of establishing groundwater rights. Professor Meyers' early readings of *Cappaert* led him to believe that:

> [J]ust as Indian water rights under *Winters* provided the foundation for federal reserved water rights on non-Indian reservations, federal groundwater rights on a National Monument under *Cappaert* would provide the basis for Indian groundwater rights. I no longer hold that view. I would argue that when an Indian Reservation was created . . . a property interest comparable to a fee simple absolute was set aside in trust for the tribe. The Indians own the beneficial interest in all the resources on their land: soil, oil and gas, coal, other minerals *and* groundwater. If this conceptualization is accepted, then Indian groundwater rights are different in one important respect from non-Indian federal reserved groundwater rights: the question of intent to reserve does not arise. Equitable title to the groundwater passed to the tribe in precisely the same manner as title passed to the land and its other resources.

Meyers, *supra* note 43, at 388. See *supra* note 59 for commentators who discuss the extension of the *Winters* doctrine to groundwater.

75. Choctaw Nation v. Oklahoma, 397 U.S. 620, 631 (1970).

76. The *Shoshone* court described the Native Americans who signed the 1868 Treaty of Fort Bridger as "full-blood blanket Indians, unable to read, write, or speak English." United States v. Shoshone Tribe of Indians, 304 U.S. 111, 114 (1938).

77. 175 U.S. 1 (1899).

> In construing any treaty between the United States and an Indian tribe, it must always . . . be borne in mind that the negotiations for the treaty are conducted, on the part of the United States, an enlightened and powerful nation, by representatives skilled in diplomacy, masters of a written language, understanding the modes and forms of creating the various technical estates known to their law, and assisted by an interpreter employed by themselves; that the treaty is drawn up by them and in their own language; that the Indians, on the other hand, are a weak and dependent people, who have no written language and are wholly unfamiliar with all the forms of legal expression, and whose only knowledge of the terms in which the treaty is framed is that imparted to them by the interpreter employed by the United States . . . .[78]

A second canon of treaty construction requires that ambiguities shall be resolved in favor of the Indians.[79] In the landmark decision *Worcester v. Georgia*,[80] Chief Justice Marshall wrote, "[T]he language used in treaties with the Indians should never be construed to their prejudice."[81] Thus, a goal of treaty interpretation is to achieve the reasonable expectations of the weaker party, rectifying the unequal bargaining position by using a technique commonly employed in contract interpretation.

A third major canon of treaty construction requires consideration of secondary sources of information to ascertain the true intent of the parties. For example, oral versions of the treaty, minutes of the proceedings, and previous treaties between the same parties may be reviewed to clarify meaning.[82] Treaty interpreters are encouraged to go beyond the four corners of the document to resolve ambiguities and determine the parties' understanding of the treaty.

Finally, the Supreme Court has articulated a *duty* of the United States. The government must carry out the terms of treaties as they were

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78. *Id.* at 10-11.

79. *See, e.g.*, McClanahan v. Arizona State Tax Comm'n, 411 U.S. 164, 174 (1973); Carpenter v. Shaw, 280 U.S. 363, 367 (1930); Winters v. United States, 207 U.S. 564 (1908). *Winters* stated that this rule of interpretation also extends to agreements with Indians. *Id.* at 576.

80. 31 U.S. (6 Pet.) 515 (1832).

81. *Id.* at 582.

82. KIRKE KICKINGBIRD ET AL., INDIAN TREATIES 32 (1980). In *Big Horn*, the Supreme Court of Wyoming stated that the special master's interpretation of the treaty was not a question of fact but rather one of law. As such, the state's supreme court had full powers of review over the special master's findings which freed the court to consider other evidence. *Big Horn*, 753 P.2d 76, 94-95 (Wyo. 1988). Relying on Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n, 443 U.S. 658, 675 (1979), the court employed an interpretative approach to the treaty that relied on the legal principles of contract law to determine intent. *Big Horn*, 753 P.2d at 94. In arriving at this interpretation, the court looked beyond the treaty to documents such as the Constitution of the State of Wyoming, the Second McLaughlin Agreement and the Minutes of Council, Shoshone Agency, April 19, 1904. *Id.* at 98-115.

understood by the Indians and do so "in a spirit which generously recognizes the full obligation of this nation to protect the interests of a dependent people."[83]

IV. JUDICIAL INTERPRETATIONS OF THE TREATY BEHIND *BIG HORN*

A. *The Purpose of the Wind River Indian Reservation*

For the objectives of the *Big Horn* litigation, the treaty provisions of principal import are articles II-IV, VI-IX, and XII.[84] The purpose of the reservation is both expressly and implicitly outlined within these provisions. Because the *Winters* doctrine ties the reservation of water rights to the purpose of the reservation, these articles provide the critical foundation for the scope of water rights.

The single, broad purpose of the reservation—to establish a homeland for the Indians—can be reasonably inferred from the treaty. Article I speaks of the Indians' desire to live in peace and article II speaks of the Shoshone Tribe's "absolute and undisturbed use and occupation" of the reservation.[85] It is only in the later articles of the treaty that more specific uses of reservation land are outlined. Interpretation of the treaty begins with a general sense that the Indians agreed to make their home in a new place, with the belief that they would control its use and occupation.

Although the treaty emphasizes agricultural pursuits by the Indians, it by no means ignores other activities. References to hunting and provisions for many occupations such as blacksmithing, carpentry, sawmilling, and gristmilling are specifically mentioned in article III.[86] Whether such occupations were intended merely to support an agrarian society or whether they were intended to provide the Indians with alternative employment is not discussed. The Wyoming Supreme Court acknowledges the existence of non-agricultural activities at Wind River in its review of

83. Tulee v. Washington, 315 U.S. 681, 684-85 (1942).

84. Fort Bridger Treaty of 1868, *supra* note 15, 15 Stat. at 674-76, *reprinted in* 2 INDIAN AFFAIRS at 1020-23.

85. Article II also provides that the Bannocks may request their own reservation "whenever the Bannacks desire . . . or whenever the President . . . shall deem it advisable . . . , he shall cause a suitable one to be selected for them . . . ." *Id.* Pursuant to article II, the Bannocks eventually elected to settle on the Fort Hall Reservation in Idaho. Exec. Order of July 30, 1869, *reprinted in* 1 INDIAN AFFAIRS: LAWS AND TREATIES 839 (Charles J. Kappler ed. 1904).

86. Fort Bridger Treaty of 1868, *supra* note 15, 15 Stat. at 674, *reprinted in* 2 INDIAN AFFAIRS at 1020.

documents outside the treaty. For example, the court stated, "Agreements subsequent to the treaty acknowledge the continuance of non-agricultural activities on the reservation. . . . *The reports of the Indian agents are replete with descriptions of and plans for other activities.*"[87]

Prior to *Big Horn*, the Supreme Court established precedent for a broad interpretation of the purpose of the Wind River Indian Reservation. In *Shoshone*, the Supreme Court stated that the "principal purpose of the treaty was that the Shoshones should have, and permanently dwell in, the defined district of country."[88] Even with such a straightforward statement of the reservation's broad purpose by the Court, the Wyoming majority refused to see more than an agricultural objective for the tribes. The Wyoming court stated, "The primary activity was clearly agricultural."[89] This narrow, single-minded interpretation of the treaty resulted in *Big Horn's* conclusion that water rights for mineral, industrial, and other non-agricultural uses were not reserved to the tribes.[90] *Shoshone* provided additional precedential guidelines for interpreting the 1868 Treaty, but the majority in *Big Horn* ignored these guidelines. In deciding the extent of damages suffered by the Shoshone tribe due to the placement of the Arapahoes on the reservation, the *Shoshone* Court found that "[f]or all practical purposes, the tribe owned the land. . . . The treaty, though made with knowledge that there were mineral deposits and standing timber in the reservation, contains nothing to suggest that the United States intended to retain for itself any beneficial interest in

87. *Big Horn*, 753 P.2d 76, 98 (Wyo. 1988) (emphasis added). Documents on which the court relied for this conclusion are the Brunot Agreement of 1872, *supra* note 23; the First McLaughlin Agreement, *supra* note 24, and the Second McLaughlin Agreement, *supra* note 26.

88. United States v. Shoshone Tribe of Indians, 304 U.S. 111, 116 (1938). This broad interpretative approach has been adopted by other courts construing other Indian treaties. In Colville Confederated Tribes v. Walton, the 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 Indians and their way of life." 647 F.2d 42, 49 (9th Cir.), *cert. denied*, 454 U.S. 1092 (1981), *modified*, 752 F.2d 397 (9th cir. 1985). *See also* Montana v. Confederated Salish and Kootenai Tribes, 712 P.2d 754, 768 (Mont. 1985) (stating the goals of the reservation system are to further "Indian self-sufficiency").

89. *Big Horn*, 753 P.2d at 98.

90. This is not to say that the tribes may not seek a change in use for their declared water rights. However, they must submit to what appears to be hostile state law to effect such a change. Section 41-3-104 of the Wyoming statutes permits a change of use or place of use applications to be filed with the Board of Control. WYO. STAT. ANN. § 41-3-104 (1977). Applications are to be judged on all pertinent facts, including: (1) the economic loss to the community and state that may result from transfer of the right; (2) the extent to which such economic loss will be offset by the new use; and (3) whether other sources of water are available for the new use. Section 41-3-917 permits applications to change the location of a water well if the groundwater right has been adjudicated. WYO. STAT. ANN. § 41-3-917 (1977).

them."[91] Accordingly, the Court, following the accepted canons of treaty construction, resolved the ambiguity in the failure to reserve timber and mineral rights in favor of the Indians. *Shoshone's* reasoning and finding—that the Indians' land included the natural resources appurtenant thereto—could have been extended in *Big Horn* to include groundwater. The tribes in *Big Horn* were not litigating the loss of any lands. However, their claim to an underlying resource is quite analogous to the facts of *Shoshone.*

The special master and the trial court attributed significantly different purposes to the creation of the Wind River Indian Reservation. In its opinion, the Wyoming Supreme Court commented on the differing interpretations:

> The special master found as a matter of law that the treaty was unambiguous and ascertained the purpose for creation of the reservation . . . stating . . . "[T]he principal purpose for entering into this Treaty was to provide the Indians with a homeland where they could establish a permanent place to live and *to develop their civilization just as any other nation* throughout history has been able to develop its civilization." The district court ascertained the purpose of the reservation stating: . . . "On the very face of the Treaty, it is clear that its purpose was purely agricultural."[92]

The astounding feature of these interpretations is their radical difference in concept and implication. The expansive view of the special master is diametrically opposed to that of the district court which found only a narrow, agricultural purpose in the reservation. The Wyoming Supreme Court, in its review of articles VI, VIII, IX, and XII adopted the district court's interpretation and found that "[t]he treaty does not encourage any other occupation or pursuit [other than farming]."[93] The court's adoption of the district court's treaty interpretation had serious negative consequences on the Shoshone and Arapahoe Tribes' ultimate water rights in this case.[94]

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91. *Shoshone,* 304 U.S. at 116-17.

92. *Big Horn,* 753 P.2d at 94-95 (emphasis added).

93. *Id.* at 97.

94. On behalf of the tribes, the government argued for the broadest view of the reserved water right. It maintained that the Wind River Indian Reservation was established to provide a permanent home for the Indians. As such, the United States contended that any purpose which furthered the goal of establishing that permanent home is valid and should be included in quantifying the amount of water to which the Indians are entitled. Report, *supra* note 3, at 65 (citing Legal Parameters for United States' Statement of Claims, filed March 5, 1980, at 6). "The proposed purposes included agriculture, livestock, fisheries and wildlife, mineral development, municipal and industrial uses and aesthetics." *Id.* In keeping with Arizona v. California, 373 U.S. 546 (1963), the United States argued

Given the Indians' historical pursuit of hunting and gathering in the same area as the reservation and given their weaker bargaining position in the treaty negotiations, the question becomes whether the tribes truly understood the long-term implications of the agricultural references in the treaty. The answer to this question must be negative, for even the drafters of the treaty proposed financial rewards for farming pursuits for only a short period.[95] Thus the farming provisions gave the Indians the impetus to settle into a defined area and begin their integration into white civilization. However, the Wyoming majority disregarded the special master's "conclusion that the principal purpose of the United States in entering into the Treaty of 1868 was to provide a permanent homeland for the Indians so that they may, *in whatever way most suitable to their development*, establish a permanent civilization on the Wind River Indian Reservation."[96] While citing rules which counseled against giving treaties a restrictive meaning,[97] the state's high court ultimately relied on United States Supreme Court dicta such as, "We cannot remake history"[98] to justify its conclusion that the tribes' reserved water right pertained only to surface waters used for agricultural purposes.

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that the water to satisfy these purposes must be measured by present *and* future Reservation needs. *Id.*

The State of Wyoming argued that there was no reserved water right at all because: (1) the language of the Treaty did not include such a reservation; and (2) Wyoming entered the Union on the equal footing doctrine, which gave it full jurisdiction over the waters within its boundaries. *Id.* at 56, 62-64.

Although none of the triers of fact accepted either of the state's arguments, which were clearly contrary to *Winters*, the Wyoming Supreme Court decided the purpose of the reservation was "clearly agricultural." *Big Horn*, 753 P.2d at 98. The court found insufficient evidence to support a fishery flow right and found insufficient evidence of a tradition of wildlife and aesthetic preservation to justify this as a purpose for the reservation. *Id.* at 98-99. Furthermore, it subsumed the water requirements for livestock, municipal, domestic and commercial use within the agricultural purpose of the reservation, and it denied a reserved water right for mineral and industrial uses. *Id.*

95. Article XII contains short-term economic incentives for farmers such as cash prizes for the best crops during each of the three years following the execution of the treaty. Fort Bridger Treaty of 1868, *supra* note 15, 15 Stat. at 676, *reprinted in* 2 INDIAN AFFAIRS at 1023. In addition to clothing, article IX provided annual stipends of $10 to "each Indian roaming" and $20 for "each Indian engaged in agriculture" for the ensuing ten years. *Id.* If the Indians understood the plain language of article IX, they could see an immediate financial benefit to farming. However, it is unconscionable to bind a sovereign nation to an imposed occupation for all of time, based on provisions such as these.

96. Report, *supra* note 3, at 67 (emphasis added). In arriving at this conclusion, the special master gave much weight to article II's "absolute and undisturbed use and occupation" language; article IV's reference to the reservation as the "permanent home" of the Indians; and article VII's reference to the desire of the United States to "insure the civilization of the tribes entering into this Treaty." *Id.* at 67-68.

97. *Big Horn*, 753 P.2d at 97 (quoting McClanahan v. Arizona State Tax Comm'n, 411 U.S. 164, 176 (1973)).

98. *Id.* (quoting Rosebud Sioux Tribe v. Kneip, 430 U.S. 584, 615 (1977)).

The Wyoming Supreme Court acknowledged that "[t]he legal principles applicable to the interpretation of contracts apply also to interpretation of Indian treaties."[99] Yet sua sponte, it did not consider the unconscionability argument often used to void contracts signed by parties with unequal bargaining power. Given the policy of the nineteenth century United States Government to turn the tribes into yeoman farmers who could progress into the white vision of American society, the unconscionability argument begs to be raised.[100] The societal differences between the pre-treaty Shoshone and Arapahoes and their descendants now residing on the Wind River Indian Reservation—the differences between healthy, hearty groups able to care for themselves and today's poverty-stricken, woefully dependent tribes—prompts the question as to whether the Indians really understood the limiting effects of the treaty. Without a more favorable interpretation of the treaty, the Shoshone and Arapahoes are locked into a time warp by the economic, social and cultural trappings of a society that the rest of America left behind earlier this century.

B. *The Wyoming Interpretation of the Reserved Right to Groundwater*

None of the triers of fact in *Big Horn* extended the clear language of *Tweedy* or *Cappaert* to the Shoshone and Arapahoe Tribes' claims against the pumping of groundwater underlying the Riverton Municipal Airport. Their decisions reflect a very narrow view of the *Winters* doctrine.[101]

The special master found purposes for the reservation that ranged far beyond the narrow agricultural objective ultimately adopted by the Wyoming Supreme Court. However, his findings were constrained by the United States Supreme Court's statement in *Cappaert* that the implied-reservation-of-water-rights doctrine is based on the necessity of

99. *Big Horn*, 753 P.2d at 94.

100. Uniform Commercial Code § 2-302 states that a determination of unconscionability is a matter of law, not one of fact. *See* U.C.C. § 2-302 cmt. 3. Although U.C.C. § 2-302 governs transactions in goods, it has been applied to many other contractual agreements by analogy. *See, e.g.*, Zapatha v. Dairy Mart, 408 N.E.2d 1370 (Mass. 1989) (franchise agreement); Graham v. Scissor-Tail, 28 Cal. 3d 807 (1981) (contract to promote concert tour); Weaver v. American Oil, 276 N.E.2d 144 (Ind. 1971) (gas station lease); Ellsworth Dobbs, Inc. v. Johnson, 236 A.2d 843 (N.J. 1967) (real estate brokerage contract).

101. The trial court accepted the special master's finding that a reserved right to groundwater had not vested in the tribes. The Wyoming Supreme Court did not discuss the lower court's rationale in doing so, but merely stated that the trial court did not err in this regard. *Big Horn*, 753 P.2d at 100.

water for the purpose of the federal reservation.[102] Thus, the special master required a showing of "use and need" for groundwater before a reserved right might be found.[103] This concept is a predominant feature of prior appropriation law, but no support is given for its application to lands held in trust for Indians by the United States Government. Factors that were more practical than legal in nature appear to have driven the special master to this conclusion.[104] The special master's use of *Cappaert* was further limited by the concept of sustaining the purpose of the reservation. He reasoned that the *Cappaert* doctrine could be applied to the facts "[o]nly if the purpose for which the Wind River Indian Reservation was created is threatened with defeat."[105] Apparently, the tribes did not meet the court's vague criteria of "defeat." They were unable to prove a sufficient need for the disputed groundwater.[106] The special master continued, "There is nothing in *Cappaert* law, or in the *Winters* concept, or in the evidence of this long proceeding, which warrants a right to the tribes to impinge upon the groundwater users of adjoining areas, or those of fee-owned inholdings within the boundaries of the Reservation."[107]

The Wyoming Supreme Court majority dispensed with the plain language of both *Tweedy* and *Cappaert* more summarily. In an unexplained interpretation of *Tweedy*, the majority stated, *"Tweedy* . . . did not recognize a reserved groundwater right."[108] As to *Cappaert*, the court reasoned that since the Supreme Court had found the subterranean pool at Devil's Hole to be surface water, there was no precedential case supporting the tribes' claim of a reserved right to groundwater.[109]

Given the recognized significance of groundwater in Wyoming, and its particular recognition as a supply source for the future, the Wyoming Supreme Court could have applied the finding of *Arizona v. California*[110] to the groundwater rights sought by the Wind River Indian Reservation.

102. Report, *supra* note 3, at 223.

103. *Id.* at 222-37.

104. "[T]o rule otherwise would constitute a clear danger to the source of groundwater for Indian and non-Indian alike who reside in the general area of the Wind River aquifer and other similarly shallow structures. It is sometimes addressed as a limited police power." *Id.* at 236 n.16.

105. *Id.* at 225.

106. The expert hydrologist for the United States Government relied on *Cappaert* and asserted that the United States has a proprietary right and ownership to groundwaters under non-Indian surface if those groundwaters are necessary for the well being of the Indians who live in a different area from where the water is found. *Id.* at 226 n.7.

107. *Id.* at 225.

108. *Big Horn*, 753 P.2d at 100.

109. *Id.* at 99.

110. 373 U.S. 546 (1963).

In that case, the United States Supreme Court applied the *Winters* doctrine and held that when the federal government created the five Indian reservations at issue, it reserved enough water "to satisfy the future as well as the present needs of the Indian Reservations."[111]

Alternatively, if the *Big Horn* court had recognized a more significant interrelationship between the aquifers underlying the reservation and adjacent lands, or between the aquifer underlying the Riverton Reclamation Area and the tribes' reserved rights to surface water, then the application of *Winters* could have been legally and scientifically logical. *Winters* recognized the tribes' right to surface water. If the court had recognized the interrelationship between surface and ground water as is suggested by the National Water Commission,[112] the court could have logically extended *Winters* to groundwater.

Considering the magnitude of the *Big Horn* adjudication, the state's high court gave little attention (only four terse paragraphs) to the groundwater issue. With little explanation of its reasoning, the *Big Horn* majority simply stated, "[W]e hold that the reserved water doctrine does not extend to groundwater."[113] Apparently, it did not recall *Winters*' reasoning: "We realize that there is a conflict of implications, but that which makes for the retention of the waters is of greater force than that which makes for their cession."[114]

V. THE IMPLICATIONS OF THE FAILURE TO RECOGNIZE A RESERVED RIGHT TO GROUNDWATER

The implications of *Big Horn*'s holding for purposes of treaty construction are indeed negative. The decision appears to permit courts to pay lip service to the canons of treaty interpretation but then proceed according to local political pressures. The 1868 Treaty of Fort Bridger promised the Shoshone the "absolute and undisturbed use and occupation" of the lands subject to the treaty.[115] Granted, the Wyoming Supreme Court found an implied reservation of surface water to support

111. *Id.* at 600.

112. *See supra* note 45 and accompanying text.

113. *Big Horn*, 753 P.2d at 100. Although the special master did not find a reserved right to groundwater for the tribes, he did award them the "use of groundwater" from specified sources, subject to monitoring by the State Engineer. Report, *supra* note 3, at 332. The Wyoming Supreme Court did not mention this "award" in its decision. However, the court did state that it was not addressing the ownership of the groundwater issue. *Big Horn*, 753 P.2d at 100.

114. *Winters*, 207 U.S. 564, 576 (1908).

115. Fort Bridger Treaty of 1868, *supra* note 15, art. II, 15 Stat. at 674, *reprinted in* 2 INDIAN AFFAIRS at 1020-21.

tribal "use and occupation." However, in failing to establish such a right for groundwater, the court has limited the tribes' congressionally-approved treaty rights of controlling their homeland.[116] This damaging precedent does not bode well for future treaty interpretation by courts.

Even a cursory look at the implications of *Big Horn*'s groundwater holding reveals that it will harm Indian interests. Legally, economically, and socially the *Big Horn* decision will affect the Shoshone and Arapahoe Tribes well into the future.[117] The results of the adjudication are also likely to bear on future decisions to determine the nature and extent of other reservation tribes' groundwater rights.[118] In pure economic terms,

116. Even where the court did find a reserved right—i.e., to instream flow—it subjected the tribes' interest to state authority for administrative purposes. *Big Horn*, 753 P.2d at 114, The state proved hostile and the tribes filed a complaint. The Fifth Judicial District Court of Wyoming recently found that the state engineer had "difficulty assuming a neutral role in the administration of the reserved water rights" and assigned those duties to the tribal water resources agency. *In re* the General Adjudication of the Big Horn River Sys. and all Other Sources, Civ. No. 4993, (Wyo. Dist. Ct. March 11, 1991). Although this ruling permits the tribes certain authority over Indian and non-Indian water rights, it does not alter in any way the legal absence of groundwater rights.

117. For thought-provoking insight into Indian economic development, see Frank Pommersheim, *Economic Development in Indian Country: What Are The Questions?*, 12 AM. INDIAN L. REV. 195 (1984). Professor Pommersheim takes a cultural approach and counsels that many of the "problems" with economic development in Indian country arise because the right "questions" are not posed in the first place. *Id.* at 196. On a pragmatic level, he recommends that "tribes should not lease tribal natural resources or accept sweeping personal services contracts that do not permit the tribe to actively participate in the venture." *Id.* at 212. In addition to the implicit employment opportunities that would come with such participation, Pommersheim suggests that this would increase tribal management and technical capabilities. *Id.* See also, ROBERT H. WHITE, TRIBAL ASSETS (1990) for a detailed narrative account of four tribes' economic development efforts. White's account includes the Ak-Chin's water project, enabled by settlement (Act of July 28, 1978, Pub. L. No. 95-328, 92 Stat. 409 (1978)) and later enactment of Act of Oct. 19, 1984, Pub. L. No. 98-530, 98 Stat. 2698 (1984).

118. Several tribes have opted to settle their water rights disputes via mediation rather than assume the risks of litigation. Congressional policy under the McCarran Amendment, 43 U.S.C. § 666 (1988), has been interpreted to mean that state courts have jurisdiction over general adjudications of water rights. This was a preliminary issue in *Big Horn*. *Big Horn*, 743 P.2d at 88. With good reason, many tribes consider state courts hostile to tribal interests. Settlements which have acknowledged tribal rights to use groundwater include the Southern Arizona Water Resources Settlement Act, Pub. L. No. 97-293, 96 Stat. 1261 (1982) (SAWRSA). SAWRSA specified that 10,000 acre feet of the Papago Tribe's (now recognized as the Tohono O'odham Nation) annual allocation of 76,000 acre feet should come from groundwater pumping on the reservation. RODNEY T. SMITH, TRADING WATER 68 (1988). The Papagos dealt from a position of relative strength because Congress refused to appropriate money for the massive Central Arizona Project until tribal water rights were decided. Nonetheless, the Papago Tribe "waived any claims to water rights other than those established by SAWRSA." *Id.* Another settlement example is that of the Ak-Chin Indian Community, which includes groundwater rights. Act of July 28, 1978, Pub. L. No. 95-328, 92 Stat. 409 (1978), *as amended by* Act of Oct. 19, 1984, Pub. L. No. 98-530, 98 Stat. 2698 (1984). It should be realized, however, that these settlements do not define groundwater rights as reserved rights, as the Shoshone and Arapahoe sought to do. Rather, they quantify water rights and acknowledge that parts of the rights will be met by groundwater resources.

Other powerful forces, as well, are pushing for settlement of water rights disputes. President Bush announced that disputes regarding Indian water rights should be resolved through negotiated

the *Big Horn* decision is a two-edged sword. The tribes were successful in preserving the Practicably Irrigable Acreage (PIA) standard as a means of measuring their rights to surface waters for agricultural purposes.[119] This may be considered a major victory in protecting tribal rights from encroachment by competing users. However, the tribes were unsuccessful in convincing the Wyoming Supreme Court of their right to use water for other purposes. Although the *Big Horn* court determined that the tribes had a reserved right to use water for municipal, domestic, livestock, and commercial uses, it implied that those uses were merely parts of the larger agricultural reservation right.[120] The tribes failed to obtain other rights to surface waters when the Wyoming Supreme Court denied them a reserved water right for mineral and industrial uses and for wildlife and aesthetic preservation.[121] As discussed above, judicial failure to recognize a reserved right to groundwater effectively places tribal use of this natural resource under state control.[122]

The failure of *Big Horn* to recognize more expansive water rights for the tribes is particularly disturbing when one considers the dire economic condition of the reservation. The *Big Horn* decision, while important in preserving the PIA standard, may be of limited value for the future development of the Indians' homeland. The reservation is the nation's third largest containing some two and one half million acres and a population of 4500 Indians in 1980.[123] Mainly high desert, its elevation ranges from 4500 feet above sea level on the plains to 12,500 feet in the

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settlements rather than litigation when in 1989 he signed into law the Puyallup Tribe of Indians Settlement Act of 1989, Pub. L. No. 101-41, 103 Stat. 83 (1989). The United States Department of Interior has recently promulgated guidelines to implement the President's policy of negotiation. *See* Criteria and Procedures for Indian Water Rights Settlements, 55 Fed. Reg. 9223 (1990). For a critique of these guidelines, see Eileen Shimizu, *Indian Water Rights*, 38 FED. B. NEWS & J. 88 (1991).

119. The Wyoming Supreme Court quantified the tribes' reserved surface water right as "the amount of water necessary to irrigate all of the reservation's practicably irrigable acreage." *Big Horn*, 753 P.2d at 101. Central considerations in this computation are the arability of the lands, economic feasibility, and efficiency ratings. A discussion of these factors is beyond the scope of this article, since they become important only after a right to water is legally established. Even so, groundwater use is generally measured against a "safe yield" standard, which is "the maximum amount of water that could be extracted annually, year after year, without eventually depleting the underground basin." City of Los Angeles v. City of San Fernando, 537 P.2d 1250, 1263 (Cal. 1975). Without comment, the Supreme Court upheld the *Big Horn*'s use of the PIA standard in its four-to-four decision in Wyoming v. United States, 492 U.S. 406 (1989).

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

121. *Id.* The *Big Horn* majority found that "the Tribes and the United States did not introduce sufficient evidence of a tradition of wildlife and aesthetic preservation which would justify finding this to be a purpose for which the reservation was created and for which water was impliedly reserved." *Id.* at 99.

122. *See supra* note 116 and accompanying text.

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

Wind River Mountains.[124] The Wind River, which bisects the reservation, drains the mountains on the west and joins the Popo Agie River to form the Big Horn River, which flows along the eastern reservation boundary.[125] Despite this vast land area and the small number of people dependent on its bounty for their livelihood, the economic condition of the tribes is pathetic. According to a 1980 survey which studied life on the Wind River Indian Reservation, the average family income on the reservation was only $6200.[126] Forty-six percent of reservation households had no income whatsoever.[127] At the time of the survey, during peak employment months, the overall unemployment rate stood at an astounding seventy-one percent.[128] The survey furthermore commented on the lack of basic transportation, adequate housing, medical care, garbage service, and supervised recreational activities for children.[129]

Water is an undisputed key to economic development in the West. Securing the tribes' rightful share—that which was implicitly reserved in the treaties and agreements with the United States Government—is of paramount importance in the improvement of their economic and social welfare. Although the reservation overlies abundant mineral wealth, the tribes are unable to fully benefit from their natural resources. The primary recovery of oil and gas began declining during the 1970s which seriously reduced the tribes' largest source of income.[130] The principal method of secondary recovery for oil and gas is waterflooding, which utilizes groundwater to force trapped hydrocarbons out of formations.[131]

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492 U.S. 406 (1988) (No. 88-309). The Arapahoes currently comprise 63.4% of the Reservation population. *Id.* at 24a.

124. *Big Horn*, 753 P.2d at 83.

125. *Id.* at 118.

126. Executive Summary of Final Report, Wind River Needs Determination Survey (1988), *reprinted in* Respondents Brief at 25a, *Wyoming* (No. 88-309). Funds for the survey came from the State of Wyoming, the Bureau of Indian Affairs and the tribes themselves. Although current data may vary somewhat from that collected in 1980, the quoted statistics are those with which the tribes supported their case.

127. *Id.*

128. *Id.* at 27a.

129. *Id.* at 32a.

130. Shoshone & Arapahoe Tribes, Wind River Economic Development Planning Program, Overall Economic Development Program (1976), *reprinted in* Brief for Tribal Respondents on Writ of Certioria, *Wyoming* (No. 88-309).

131. Secondary recovery is generally recognized as a natural resource conservation measure because it prevents the "loss" of oil and gas in the ground. Oil and gas law recognizes an implied covenant to develop such resources. *See generally* EUGENE KUNTZ, A TREATISE ON THE LAW OF OIL AND GAS § 4.8 (1987). States with oil and gas reserves have enacted conservation statutes and promulgated regulations to encourage the efficient and economic development of hydrocarbons. *Id.* § 65; INTERSTATE OIL COMPACT COMMISSION, SUMMARY OF STATE STATUTES AND REGULATIONS FOR OIL AND GAS PRODUCTION (1990).

The *Big Horn* decision does not permit the tribes to use the groundwater underlying the reservation for such economic development without state approval. Despite the "absolute and undisturbed use" language of the 1868 Treaty of Fort Bridger, the tribes and their lessees must now seek permission from the State of Wyoming to use groundwater for development of this natural resource. The underpinning philosophy of prior appropriation law makes it clear that Wyoming will consider water use for tribal mineral development junior to already-established non-Indian uses. *Big Horn* has precluded the tribes' ability to develop other economically beneficial uses of groundwater. Water transfer rights and the concept of water marketing are highly charged issues throughout the West. Because of the fundamental role of water in the evolution of western American society, water transfer and water sale rights are potentially quite valuable—both economically and politically. The special master, the district court, and the Wyoming Supreme Court all denied a tribal right to export groundwater.[132] Thus, another avenue of possible economic revenue to be derived from "the absolute and undisturbed use and occupation of said lands" has been foreclosed by the courts.

The overarching social results of the groundwater decision in *Big Horn* are dismaying. The Wyoming Supreme Court's utter lack of concern over the implications of its treaty interpretation indicates that the development of the Indians' place within society is once again the victim of legal maneuvering. Perhaps Justice Thomas put it best in his dissent from Big Horn:

> I cannot agree that the implied reservation of water with respect to the Wind River Indian Reservation should be limited, as the majority has held . . . . *The fault that I find with such a limitation is that it assumes that the Indian peoples will not enjoy the same style of evolution as other people, nor are they to have the benefits of modern civilization.* I would understand that the homeland concept assumes that the homeland will not be a static place frozen in an instant of time but that the homeland will evolve and will be used in different ways as the Indian society

132. Report, *supra* note 3, at 320; *Big Horn*, 753 P.2d 76, 100 (Wyo. 1988). The Wyoming Supreme Court reported that "[t]he Tribes did not seek permission to export reserved water." *Big Horn*, 753 P.2d at 100. However, Plaintiff's Exhibit WRIR BG-3, at [1] asserted, "Both their reserved right and their ownership of the resources of the Reservation assure the Tribes the use of minable groundwater if they choose and their prevention of such mining by anyone else." At least one party attacked the constitutionality of the district court's prohibition of groundwater exportation. *Id.* The state's high court declined to address this issue because it did not find a reserved tribal right to groundwater. *Id.* Presumably, since the court found no right, it could not find the abridgement of a right. The special master did not view his ruling as an undue burden on interstate commerce "inasmuch as no similar denial is made herein regarding surface waters awarded to the Tribes." Report, *supra* note 3, at 320.

develops. For that reason, I would hold that the implied reservation of water rights attaching to an Indian reservation assumes any use that is appropriate to the Indian homeland as it progresses and develops.[133]

VI. CONCLUSION

The Wyoming Supreme Court's failure to establish a reserved right to groundwater for the Wind River Indian Reservation is legally unsound. Its *Big Horn* decision is flawed from the beginning because of the narrow and single-minded interpretation that it gave to the 1868 Treaty of Fort Bridger. *Big Horn* has implicitly trapped the Shoshone and Arapahoe Tribes in a time warp by limiting their use of water to that established in the decision and that which they can obtain through state bureaucratic channels. Although the court acknowledged the proper precedents for establishing a reserved right to groundwater in analogous contexts, it misconstrued them to the detriment of the tribes. Consequently, Native American interests in groundwater have suffered a severe setback in *Big Horn*.

133. *Big Horn*, 753 P.2d at 119 (emphasis added). District Judge Hanscum, who was seated on the state's Supreme Court for *Big Horn*, joined in this portion of the dissent. Thus, the limitation of the reserved right was a three-to-two decision. Neither Thomas nor Hanscum directly addressed the groundwater claim as a separate matter within the reserved right.