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A Primer on Indian Water Rights: More Questions than Answers

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A PRIMER ON INDIAN WATER RIGHTS: MORE QUESTIONS THAN ANSWERS*

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I. INTRODUCTION

For years, uncertainty has reigned as the state water law system in Oklahoma. With final issuance of the *Franco-American* decision in 1993,[1] the Oklahoma Supreme Court settled, if not necessarily clarified, the state's approach to the use and allocation of surface waters and brought water into the forefront of the state's policy concerns.[2] But the state law system of allocating water rights is only part of the water saga. A crucial piece of the water allocation system in Oklahoma, as elsewhere in the western United States, will be the rights of Indians and Indian tribes to water resources.

Oklahoma is the successor to the Indian Territory. It is home today to thirty-six federally recognized Indian tribes[3] and their Indian country.[4] Despite the weight of Indian presence in Oklahoma, the Indian water wars that have raged throughout the West for the past few decades are only now peering over Oklahoma's borders. If any lesson emerges from the water wars of the West, however, it is that ignoring Indian water rights only ensures and escalates conflict. Recognizing and accounting for Indian rights to water may not avoid all conflict, but ultimately it benefits both the tribes and the non-Indian users dependent upon a stable and certain supply of water. As the State of Oklahoma grapples with water issues, it will eventually and unavoidably be faced with Indian claims to water. How the State and

1. Franco-American Charolaise, Ltd. v. Oklahoma Water Resources Bd., 855 P.2d 568 (Okla. 1990). Although the decision was issued in 1990, it was readopted and reissued in 1993.

2. For an explanation and discussion of the *Franco-American* litigation, see Gary D. Allison, *Franco-American Charolaise: The Never Ending Story*, 30 TULSA L.J. 1 (1994).

3. DIRECTORY OF INDIAN NATIONS AND TRIBAL COURTS IN OKLAHOMA 1-3 (1990). The State has the largest number of Indians of any state in the nation, and ranks third in the percentage of Indians in the population. STATE AND METROPOLITAN AREA DATA BOOK XV (4th ed. 1991).

4. Indian country is defined at 18 U.S.C. § 1151 (1988) as:

> (a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation, (b) all dependent Indian communities . . . and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

All three types of Indian country are present in Oklahoma. *See* State *ex rel.* May v. Seneca-Cayuga Tribe, 711 P.2d 77 (Okla. 1985) and State v. Klindt, 782 P.2d 401 (Okla. Crim. App. 1989) (holding trust and restricted allotments are Indian country); Housing Authority v. Harjo, 790 P.2d 1098 (Okla. 1990) (recognizing dependent Indian communities). In particular, the United States Supreme Court has determined that the meaning of "reservation" in § 1151(a) encompasses lands set aside under federal protection for tribal use, whether those lands are formally designated as reservations or not. Oklahoma Tax Commission v. Sac and Fox Nation, 113 S. Ct. 1985, 1991, 1993 (1993). So-called "informal" reservations—tribal trust lands not necessarily within the formal boundaries of a reservation—qualify as Indian country under § 1151(a). *Id.*

the tribes choose to resolve the water issues will significantly impact water policy in Oklahoma.

Indian rights to water are rights arising under federal law, impliedly reserved for tribes whenever lands were set aside as Indian reservations. The basic principles of Indian reserved rights to water are few and relatively simple. First, the rights vest as of the date the reservation was created; in western appropriation states, accordingly, the date of the reservation is the priority date of the water right. Second, the measure of the right is sufficient water to fulfill the purposes for which the reservation was set aside. And third, the rights are not lost through non-use, but may be asserted at any time.

But this simplicity is deceptive. Because of their early priority dates and often sizable quantity, Indian reserved rights to water, if not timely recognized and accommodated, have the potential to disrupt state appropriation systems of water rights. The possible effects on state-created water rights raise both practical concerns of economics and administration and emotionally-charged responses. In addition, the implementation and application of the basic principles of the reserved rights doctrine have generated a host of issues regarding the scope and extent of Indian water rights, as well as their adjudication and administration.

This article provides an introduction to this important area that is only now surfacing in Oklahoma. It surveys the basic doctrines of Indian reserved rights to water, noting the relatively few areas that, more than 85 years after the Supreme Court first recognized Indian reserved rights, are established and secure, and highlighting the many issues that remain unresolved.

II. ORIGINS OF THE RESERVED RIGHTS DOCTRINE

Most reserved rights to water are traceable to the 1908 decision in *Winters v. United States*,[5] a case brought by the United States in its

5. 207 U.S. 564 (1908). *But see* 4 WATERS AND WATER RIGHTS 204-05, 220-22 (Robert E. Beck ed., 1991) [hereinafter WATERS] (arguing that while *Winters* is the foundation case for rights created when a reservation is set aside, tribes also exercise recognized aboriginal rights to water for purposes pre-existing the reservations and that those reserved rights have their origin in United States v. Winans, 198 U.S. 371 (1905)).

capacity as trustee[6] to protect the Fort Belknap Reservation in Montana against upstream diversions of water from the Milk River.[7] The Fort Belknap Reservation was created by statute in 1888,[8] with its northern border formed by the center of the Milk River.[9] The following year, the year in which Montana was admitted to the Union,[10] the federal government began diverting water from the Milk River for the domestic and irrigation needs of the Indian agents.[11] In 1898, the government began a reservation irrigation project, irrigating some 30,000 acres.[12] At about the same time, non-Indian irrigators constructed diversion works on tributaries of the Milk River upstream of the reservation.[13] In 1905, a drought reduced the water flow below that

6. The trust relationship between the United States and the Indian tribes arguably has its origins in Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) 1, 16, 17 (1831), in which the Court termed Indian tribes "domestic dependent nations" whose relationship with the United States "resembles that of a ward to his guardian." *See generally* FELIX S. COHEN'S HANDBOOK OF FEDERAL INDIAN LAW 16-17 (Rennard Strickland et al. eds., 1982) [hereinafter COHEN'S HANDBOOK]. Other commentators have credited the trust concept to nineteenth century views of federal "plenary" power over Indian affairs. *See* Russel L. Barsh & James Y. Henderson, *Contrary Jurisprudence: Tribal Interests in Navigable Waterways Before and After Montana v. United States*, 56 WASH. L. REV. 627, 645 (1981); Milner S. Ball, *Constitution, Courts, Indian Tribes*, 1987 AM. B. FOUND. RES. J. 1, 63 (1987). On the question of federal power generally, see Nell J. Newton, *Federal Power Over Indians: Its Sources, Scope, and Limitations*, 124 U. PA. L. REV. 195 (1984).

7. *Winters*, 207 U.S. at 564.

8. Reservations were generally created by treaty until 1871, when Congress terminated treaty-making with the Indian tribes. 25 U.S.C. § 71 (1988). Thereafter reservations were created by statutes, generally ratifying agreements reached with the tribes, as in *Winters*. Between 1855 and 1919, numerous reservations were also created by executive order. COHEN'S HANDBOOK, *supra* note 6, at 493. The *Winters* doctrine applies to Indian reservations regardless of the means by which they were created. Arizona v. California (*Arizona I*), 373 U.S. 546, 598 (1963).

9. *Winters*, 207 U.S. at 565.

10. The Supreme Court subsequently ruled that it made no difference in application of the *Winters* doctrine whether Indian reservations were created before or after statehood. *Arizona I*, 373 U.S. at 597-98. Arizona had argued that once it was admitted on an equal footing and acquired ownership of the lands underlying navigable waters, the federal government lost the power to reserve those waters. *Id.* The Court found, however, that state ownership of the bedlands did not deprive the United States of its constitutional powers to reserve water rights for reservations and federal property. *Id.*

11. *Id.* at 566.

12. *Id.*

13. The non-Indian defendants claimed that they had diverted water to a beneficial use before the United States or the tribes appropriated water. *Winters*, 207 U.S. at 568-69. The United States asserted that water was diverted to reservation uses "long prior to the acts of the defendants complained of". *Id.* at 566. The truth was apparently somewhere in between; the lower court found that some of the defendants' diversions preceded the reservation appropriation and some did not. Winters v. United States, 143 F. 740, 741-42 (9th Cir. 1906).

If tribal rights to water had depended upon state appropriation law, which party first diverted the water and put it to a beneficial use (such as irrigation) would have been crucial. Under prior appropriation law, the first appropriator to divert water and put it to a beneficial use has prior rights as against all subsequent diverters. *See, e.g.*, Colorado River Water Conservation Dist. v. United States, 424 U.S. 800, 805 (1976). Given the Court's disposition of the controversy in *Winters*, however, the tribes' priority of actual use became irrelevant.

necessary to meet both the non-Indian and Indian needs, and the government brought suit to protect the Fort Belknap diversion.[14]

The Supreme Court held that the Fort Belknap tribes enjoyed the paramount right to the water, basing its analysis on the fundamental purpose of the reservation system, the practical need for water in the arid west, and the canons of construction for Indian treaties and agreements.[15] First, the Court noted that the purpose of the reservation was to turn the tribes from a nomadic, hunting culture to one of a "pastoral and civilized" nature.[16] And yet the arid lands set aside for the tribes were inadequate, indeed "valueless," in their natural unirrigated state to support an agrarian community.[17] Given the purpose of the reservation, and the centrality of water to that purpose, the Court found an implied reservation of water for the Fort Belknap tribes.[18] Moreover, the Court found, it was irrelevant that no express reservation of water was made, since all ambiguities in the agreement, such as silence concerning the water, were to be interpreted in favor of the

14. *Winters*, 207 U.S. at 565.

15. *Id.* at 576-77.

16. *Id.* at 576. The federal reservation policy, in effect from approximately the mid-1840s until the mid-1880s, was intended to ease conflicts between Indians and whites, prevent the destruction of the tribes, and eventually transform the Indians into Christian agriculturists. 1 FRANCIS PAUL PRUCHA, THE GREAT FATHER: THE UNITED STATES GOVERNMENT AND THE AMERICAN INDIANS 317 (1984). As Indian Commissioner William P. Dole stated in 1862, "the policy, recently adopted, of confining the Indians to reservations . . . is the best method yet devised for their reclamation and advancement in civilization." *Annual Report of the Commissioner of Indian Affairs* (1862), *reprinted in* DOCUMENTS OF UNITED STATES INDIAN POLICY 95 (Francis P. Prucha ed., 2d ed. 1990).

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

18. Whether those water rights were reserved by the tribes, or by the federal government for the tribes, remains a source of controversy. There is language in *Winters* supporting both views. *Winters*, 207 U.S. at 576-77.

Language in support of the latter view is found in the Court's discussion of the state's claim that even if the waters were reserved when the reservation was created, the waters reverted to the state the following year when it was admitted to the Union upon an equal footing. *Id.* In rejecting Montana's argument, the Court stated: "The power of the Government to reserve the waters and exempt them from appropriation under the state laws is not denied, and could not be. That the Government did reserve them we have decided. . . ." *Id.* at 577 (citations omitted). In the preceding paragraph, however, the Court implied that the tribes reserved the water: "The Indians had command of the lands and the waters. . . Did they give up all this? Did they reduce the area of their occupation and give up the waters which made it valuable or adequate? . . . The Government is asserting the rights of the Indians." *Id.* at 576.

Three years prior to *Winters*, the Court decided the Indian treaty rights case of United States v. Winans, 198 U.S. 371 (1905); Justice McKenna was the author of both opinions. In *Winans*, McKenna wrote that "the treaty was not a grant of rights to the Indians, but a grant of rights from them—a reservation of those not granted." *Winans*, 198 U.S. at 381. Logically, then, since the tribes in *Winters* did not grant (i.e., give up) their water rights when they ceded their aboriginal territory in exchange for the reservation, those rights should have been reserved to them under *Winans*. However, the only cite to *Winans* in the *Winters* case comes during the equal footing discussion. *Winters*, 207 U.S. at 577. McKenna cited *Winans* only for the proposition that the federal government had the power to reserve waters from state appropriation. *Id.*

tribes.[19] Based on that standard, the Court determined that the tribes would not have agreed to a territory too small to support their former nomadic life, but at the same time have given up the only thing—water—that would make the remaining land adequate to support them.[20] Accordingly, the Court ruled, the creation of the reservation impliedly reserved water rights as of the date the reservation was created.[21] For the Fort Belknap tribes, that meant a water right for irrigation which vested in 1888, several years prior to the upstream non-Indian diversions.[22]

The *Winters* decision thus introduced the basic themes of tribal water rights. The creation of an Indian reservation impliedly reserves water rights to the tribe or tribes occupying the territory. Those water rights are reserved in order to carry out the purposes for which the lands were set aside, and the rights are paramount to later-asserted water rights perfected under state law.

III. Scope and Extent of Reserved Rights

To date, *Winters* rights have been litigated in appropriation states.[23] Because tribal reserved rights and state law appropriation rights must be meshed into a workable system, *Winters* rights "cannot be understood apart from" the state doctrine of prior appropriation.[24] The basic features of the appropriation doctrine in use throughout the

19. *Winters*, 207 U.S. at 576-77. The principle that ambiguities in treaties, agreements, and statutes should be resolved in favor of the Indians is one of the "canons of construction" of federal Indian law. Cohen's Handbook, *supra* note 6, at 221. The other primary canons are that treaties and agreements should be interpreted as the Indians understood them, and should be interpreted liberally in favor of the Indians. *Id.* at 221-22. For an exploration of the origins of the canons in the cases of Chief Justice John Marshall in the 1820s and 1830s, and the use or misuse of the canons by modern Courts, see Philip P. Frickey, *Marshalling Past and Present: Colonialism, Constitutionalism, and Interpretation in Federal Indian Law*, 107 Harv. L. Rev. 381 (1993).

20. *Winters*, 207 U.S. at 576. Professor Tarlock asserts that the "broader principle" of *Winters* is that Indian tribes "are entitled to some measure of resource security as an attribute of tribal sovereignty." A. Dan Tarlock, *One River, Three Sovereigns: Indian and Interstate Water Rights*, 22 Land & Water L. Rev. 631, 643 (1987).

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

22. As noted, the non-Indian defendants disputed which party first actually diverted the water to a beneficial use. There was no dispute, however, that the defendants had not appropriated water from the Milk River prior to the creation of the Fort Belknap Reservation. Since the Tribes' priority date was the date the reservation was set aside and not the date that water was put to an actual beneficial use on the reservation, the Tribes were the senior appropriator on the Milk River.

23. *Winters* rights have not been rejected in riparian jurisdictions. Rather, with the possible exception of *Arizona v. California*, *see infra* section VII.B, no case has addressed the issue.

24. Cohen's Handbook, *supra* note 6, at 576.

western United States in one form or another were summarized by the Supreme Court:

> Under that [prior appropriation] doctrine, one acquires a right to water by diverting it from its natural source and applying it to some beneficial use. Continued beneficial use of the water is required in order to maintain the right. In periods of shortage, priority among confirmed rights is determined according to the date of initial diversion.[25]

The following sections explore the issues raised in determining the scope and extent of tribal reserved rights to water against the backdrop of the prior appropriation system.

A. *Waters Subject to the Right*

Water unappropriated at the creation of a reservation is subject to *Winters* rights. That is, water which is already subject to vested appropriation rights as of the date of creation of the reservation is not available to fulfill *Winters* rights.[26] In most cases, however, there are few state appropriation rights that predate Indian reservations[27] and thus little water that is removed from the reach of the *Winters* doctrine.

Reserved rights have generally been adjudicated or settled for surface waters that abut or run through the reservations.[28] No court, however, has ever expressly limited *Winters* rights to waters appurtenant to the reservation, and the Supreme Court has affirmed reserved water rights in the Colorado River for a reservation which is not adjacent to the river.[29] It would appear, therefore, that tribal reserved

25. Colorado River Water Conservation Dist. v. United States, 424 U.S. 800, 805 (1976); *See also* A. DAN TARLOCK, LAW OF WATER RIGHTS AND RESOURCES §§ 5.09[1], 5.10 (1988). In common parlance, the latter two principles are generally known as "use it or lose it" and "first in time, first in right."

26. Appropriation rights vested as of the creation of an Indian reservation carry an earlier priority date than the tribal rights.

27. *See, e.g.*, New Mexico *ex rel.* Martinez v. Lewis, 861 P.2d 235, 238 (N.M. Ct. App. 1993), *cert. denied*, 858 P.2d 85 (N.M. 1993) (noting that a priority date based on the Mescalero Apache Tribe's peace treaty of 1852 would give it the senior water right since the area was not settled by non-Indians until after that date).

28. In the *Winters* case itself, water rights were adjudicated in the Milk River, which formed the northern boundary of the Fort Belknap Reservation of the Gros Ventre and Assiniboine Tribes. Winters v. United States, 207 U.S. 564, 565 (1908). One of the arguments raised by the non-Indian appropriators, but not addressed by the Court, was that the reservation needs for water could be satisfied from springs and streams located within the reservation boundaries. *Id.* at 570.

29. One of the five Indian reservations with water rights at issue in *Arizona v. California* was the Cocopah Reservation. The Court affirmed the Master's award of water rights to that reservation, which lies about two miles from the river. Arizona v. California (*Arizona I*), 373

rights may be satisfied from any available source of surface water, with a strong preference for reservation-based streams.[30]

The major remaining issue concerning waters subject to tribal *Winters* rights is that of groundwater. The only court to directly address the issue of a *Winters* right to groundwater held that no such right existed.[31] The Wyoming Supreme Court noted that: "The logic which supports a reservation of surface water to fulfill the purpose of the reservation also supports reservation of groundwater."[32] Nonetheless, the court held that reserved rights did not extend to groundwater, on the basis that no other court had ever found such a right.[33]

Although technically accurate, the statement is somewhat misleading.[34] In *Cappaert v. United States*,[35] the Supreme Court did not reach the issue of a federal reserved right to groundwater because it found that an underground pool was in fact surface water.[36] Nonetheless, the Court held that junior diversions from both surface and groundwater could be enjoined to protect the federal reserved right to water for the underground pool.[37] Relying on *Cappaert*, a federal district court held that Pueblo water rights extend to "the surface waters

U.S. 546, 595 n.97, 600 (1963). The Court did not address the fact that the Cocopah Reservation was not contiguous to the River.

30. *See* COHEN'S HANDBOOK, *supra* note 6, at 585 (positing that tribes should have *Winters* rights in waters near reservations when the off-reservation waters are the only feasible source of supply); Note, *Indian Reserved Water Rights: The Winters of Our Discontent*, 88 YALE L.J. 1689, 1699 (1979). *But see* Harry B. Sondheim & John R. Alexander, *Federal Indian Water Rights: A Retrogression to Quasi-Riparianism?*, 34 S. CAL. L. REV. 1, 17 (1960).

In addition, one court has limited the water sources from which tribal rights may be satisfied. The Federal Circuit held that an enlargement of the Gila River Reservation, which brought the boundary of the reservation to the junction of the Gila and Salt Rivers and included four miles of land riparian to the Salt River, did not reserve to the tribe any water rights in the Salt River for lands other than 1490 acres for which a canal system had been developed. The tribe's sources of water, the court held, were limited to the Gila River and groundwater. Gila River Pima-Maricopa Indian Community v. United States, 695 F.2d 559, 561-62 (Fed. Cir. 1982).

31. *In re* General Adjudication of All Rights to Use Water in the Big Horn River System (*Big Horn I*), 753 P.2d 76, 99-100 (Wyo. 1988), *aff'd by an equally divided Supreme Court sub nom.* Wyoming v. United States, 492 U.S. 406 (1989), *reh'g denied*, 492 U.S. 938 (1989) [hereinafter *Big Horn I*].

32. *Id.* at 99.

33. *Id.*

34. The *Big Horn I* court distinguished each of the cases noted in the text on the basis that not one of them held as a matter of law essential to the decision that *Winters* reserved rights encompass groundwater as well as surface water.

35. 426 U.S. 128 (1976).

36. *Id.* at 142. In *Cappaert*, the Court upheld a federal reserved water right for an underground pool in the Devil's Hole National Monument. *Id.* at 147. The pool was home to the Devil's Hole pupfish, a species unique to the pool. *Id.* at 133. Nearby groundwater pumping under state permits was lowering the water table in the pool, endangering the fish species. *Id.*

37. *Id.* at 143.

of the stream systems and the ground water physically interrelated to the surface water as an integral part of the hydrologic cycle."[38]

The Federal Circuit similarly noted that one source of irrigation water reserved for the Gila River Reservation was groundwater.[39] Another federal district court reasoned that the *Winters* right should extend to groundwater as well as surface water, although that analysis was not necessary to the decision in the case.[40] On a more practical level, a number of Indian water settlements have expressly included a right to groundwater.[41]

The Wyoming Supreme Court's rejection of a *Winters* right to groundwater has been criticized on several grounds.[42] First, as the court itself noted,[43] the hydrologic interconnection between surface water and groundwater demands that the two sources be governed by the same rules.[44] Second, in some instances, groundwater may represent a more economical, more readily available, or higher quality alternative to surface water. And third, the Wyoming court's decision seemed to be based less on legal reasons than on the court's reluctance to be the first to find a *Winters* right to groundwater.[45]

Nonetheless, the existence of that right remains questionable. On the one hand, the "logic" of unitary management of surface and groundwater supports extending *Winters* rights at least to tributary groundwater, and that approach has considerable support in dicta and in holdings on related issues. On the other hand, the only court to

38. New Mexico *ex rel.* Reynolds v. Aamodt, 618 F. Supp. 993, 1010 (D.N.M. 1985). For sources of information on Pueblo water rights, see *infra* note 53.

39. Gila River Pima-Maricopa Indian Community v. United States, 695 F.2d 559, 561 (Fed. Cir. 1982).

40. Tweedy v. Texas Co., 286 F. Supp. 383 (D. Mont. 1968).

41. 4 WATERS, *supra* note 5, at 261-62. For a case study of the Ak Chin and Tohono O'Odham groundwater settlement acts, see LLOYD BURTON, AMERICAN INDIAN WATER RIGHTS AND THE LIMITS OF LAW 87-123 (1991).

42. *See generally* 4 WATERS, *supra* note 5, at 233-34; Paige Graening, *Judicial Failure to Recognize a Reserved Groundwater Right for the Wind River Indian Reservation, Wyoming*, 27 TULSA L.J. 1 (1991). For a different approach, see Gwendolyn Griffith, Note, *Indian Claims to Groundwater: Reserved Rights or Beneficial Interest*, 33 STAN. L. REV. 103 (1980) (rejecting a reserved right to groundwater as inefficient and unfair to non-Indians, and proposing instead, tribal rights to groundwater based on beneficial ownership of the overlying land base).

43. *Big Horn I*, *supra* note 31, at 99.

44. *See also* New Mexico *ex rel.* Reynolds v. Aamodt, 618 F. Supp. 993, 1010 (1985) (holding that Pueblo water rights extend to groundwater hydrologically connected to surface waters); *In re* the General Adjudication of All Rights to Use Water in the Gila River System and Source, 857 P.2d 1236 (Ariz. 1993) (noting that Arizona's approach of treating groundwater and surface water differently is "artificial and fluid").

45. In fact, the court offered not a single reason why groundwater should *not* be included in a *Winters* right determination.

directly address the issue has rejected a reserved right to groundwater.[46] While the Wyoming court's rejection was not adequately explained and finds little if any support in the existing case law or among commentators,[47] it remains the only direct holding on the application of the *Winters* doctrine to groundwater.

B. *Priority Date*

The first-in-time, first-in-right ranking of water rights under the prior appropriation system helps guarantee certainty and stability in western water law. In order for Indian water rights to intersect with the prior appropriation system—in order to determine the tribes' place in the ranking system—tribal reserved rights to water need priority dates. Indian water rights generally carry a priority date either of the date of creation of the reservation or of time immemorial, depending upon the type of right involved and whether the use of the water predated the reservation of the tribal territory.

The *Winters* decision set the basic standard for tribal priority dates. In general, the priority date of tribal water rights impliedly reserved when a reservation is set aside, is the date of creation of the reservation.[48] In most states, because Indian reservations were set aside well before significant non-Indian appropriations were perfected, tribal rights to water will predate most non-Indian uses.[49]

Some tribal rights to water have a priority date of "time immemorial."[50] In general, if a tribe was using water in its aboriginal territory prior to the creation of the reservation and those uses were confirmed by the treaty, agreement, or executive order creating the reservation,

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46. *Big Horn I*, 753 P.2d at 76.

47. *See* COHEN'S HANDBOOK, *supra* note 6, at 585; TARLOCK, *supra* note 25 at § 9.07[3] (contending that "little, if any, doubt remains that Indian tribes have groundwater as well as surface water rights.").

48. Arizona v. California (*Arizona I*), 373 U.S. 546, 600 (1963); *see also* Winters v. United States, 207 U.S. at 564, 577 (1908) (noting that the water rights were reserved as of the date of the agreement). A reservation may be "created" for purposes of *Winters* rights before the borders of the reservation are finally determined. *See* New Mexico *ex rel.* Martinez v. Lewis, 861 P.2d 235, 238 (N.M. Ct. App. 1993) (holding that the 1852 peace treaty with the Mescalero Apache Tribe, not the 1873 executive order which settled the boundaries, created the reservation for purposes of water rights), *cert. denied*, 858 P.2d 85 (N.M. 1993).

49. In one case, the New Mexico Court of Appeals refused to address the Mescalero Apache Tribe's claim to water rights with a priority date of time immemorial. *Lewis*, 861 P.2d at 238. Because the Tribe's priority date based on its peace treaty was 1852, and because the area was not settled by non-Indians until after 1852, the court held the Tribe would hold the senior water right in any case. *Lewis*, 861 P.2d at 238.

50. Time immemorial, of course, would give tribes the senior priority date.

the water rights continue with a "time immemorial" priority date.[51] For tribes historically dependent upon fishing, for example, water for preservation of the fisheries should carry a priority date of time immemorial.[52] Time immemorial priorities for irrigation water have been recognized for tribes such as the Pueblos which historically engaged in irrigated agriculture.[53]

C. *Purposes of the Reservation*

Under the *Winters* doctrine, water rights are reserved in order to carry out the government's purpose in creating the reservation. In *Winters* itself, the purpose of the Fort Belknap Reservation, the Court found, mirrored the general federal purpose of the national reservation policy in effect during the mid to late nineteenth century.[54] That general purpose was to transform the tribes into a "pastoral and civilized" community.[55] The tribes, therefore, were entitled to water for irrigation in order to make the land productive for agricultural uses.

Subsequently, in a non-Indian reserved rights case, the Supreme Court distinguished between primary and secondary purposes of federal reservations.[56] In *United States v. New Mexico*,[57] the question was the amount of water reserved for the Gila National Forest. The Court

51. "Such water rights necessarily carry a priority date of time immemorial. The rights were not created by the 1864 Treaty, rather, the treaty confirmed the continued existence of these rights." United States v. Adair, 723 F.2d 1394, 1414 (9th Cir. 1983), *cert. denied*, 467 U.S. 1252 (1984). *See also* Montana *ex rel.* Greely v. Confederated Salish & Kootenai Tribes, 712 P.2d 754, 764 (Mont. 1985). These "time immemorial" rights may owe their origin more to the treaty case of *Winans* than to the water rights case of *Winters*. *See* 4 WATERS, *supra* note 5, at 204-05 and 221-22.

52. *Adair*, 723 F.2d at 1413-15.

53. *See* New Mexico *ex rel.* Reynolds v. Aamodt, 618 F. Supp. 993, 1009-10 (D.N.M. 1985). *See also* 4 WATERS, *supra* note 5, at 223 n. 165 (noting an unpublished decision awarding time immemorial irrigation rights to the Pima Indians of the Gila River Reservation).

While some lands held by Indian pueblos may carry *Winters* rights, see *Aamodt*, 618 F. Supp. at 1010, the origin of Pueblo water rights is rooted in Spanish and Mexican law. Those water rights, their origins and their extent, are complex and beyond the scope of this primer. For discussions of Pueblo Indian rights, see CHARLES T. DUMARS, ET. AL, PUEBLO INDIAN WATER RIGHTS: STRUGGLE FOR A PRECIOUS RESOURCE (1984); Ed Newville, Comment, *Pueblo Indian Water Rights: Overview and Update on the Aamodt Litigation*, 29 NAT. RESOURCES J. 251 (1989); A. Patrick Maynez, Note, *Pueblo Indian Water Rights: Who Will Get the Water?*, 18 NAT. RESOURCES J. 639 (1978).

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

55. *Id.*

56. United States v. New Mexico, 438 U.S. 696, 700 (1978). The *New Mexico* holding was based on an earlier non-Indian case which imported the *Winters* purpose-of-the-reservation approach into federal water rights for non-Indian reservations of land. Cappaert v. United States, 426 U.S. 128 (1976). In *Cappaert*, the Court noted that the reserved rights doctrine "reserves only that amount of water necessary to fulfill the purpose of the reservation, no more." *Id.* at 141.

57. 438 U.S. 696 (1978).

examined the national forest legislation and concluded that the primary purposes of national forests were timber management and conservation of water flows, while aspects such as fish and wildlife, recreation, aesthetics, and environmental protection were merely secondary purposes.[58] The Court then held that water is impliedly reserved only for the primary purposes of federal reservations.[59] Water for secondary purposes must be obtained under state law.[60]

The Supreme Court has not applied this principle to Indian water rights,[61] and other courts have not developed a uniform approach to the purposes of Indian reservations. Instead, in the state and lower federal courts, the purposes of the reservation depend upon the courts' willingness to interpret federal intentions broadly or narrowly.

The Ninth Circuit has taken a broad approach to the purposes of Indian reservations. In a case involving the Colville Reservation, set apart by executive order "as a reservation for said Indians,"[62] the court ruled that the "general purpose" of Indian reservations was to provide the tribes with homelands.[63] Construing that general purpose liberally in favor of the tribes,[64] the court held that the primary purposes of the Colville Reservation were both agriculture and fisheries preservation.[65] The court noted that the Colville Tribes were a tradi-

58. *Id.* at 707-08. The Court bolstered its conclusion by contrasting the national forest legislation to that for national parks. Congress expressly directed that national parks were established for the "fundamental purpose" of conservation of scenery, historic and natural objects, and wildlife. *Id.* at 709.

59. *Id.* at 702.

60. That is, in an appropriation jurisdiction, the federal government may perfect additional water rights under state law, if water is available for appropriation. *Id.* ("Where water is only valuable for a secondary use of the reservation, however, there arises the contrary inference that Congress intended, consistent with its other views, that the United States would acquire water in the same manner as any other public or private appropriator.").

61. On the other hand, the Court has not decided an Indian water rights case since *New Mexico*. The Court did grant certiorari in part in *Big Horn I*. *Big Horn I*, *supra* note 31, at 76. The only issue on which the Court granted review, however, did not involve determining the purposes of the reservation. *See infra* note 92.

62. Colville Confederated Tribes v. Walton (*Walton I*), 647 F.2d 42, 47 n.8 (9th Cir. 1981), *cert. denied*, 454 U.S. 1092 (1981).

63. *Id.* at 47, 49; *see also* COHEN'S HANDBOOK, *supra* note 6, at 588.

64. *Walton I*, 647 F.2d at 47 & n.9. *See supra* note 19 (discussing the canons of construction in Indian law).

65. *Walton I*, 647 F.2d at 47-48. *See also* United States v. Adair, 723 F.2d 1394, 1414 (9th Cir. 1983), *cert. denied*, 467 U.S. 1252 (1984); *In re* the Determination of the Rights to the Use of the Surface Waters of the Yakima River Drainage Basin, 850 P.2d 1306, 1317 (Wash. 1993). As the court noted in *Adair*: "Neither *Cappaert* nor *New Mexico* requires us to choose between these activities [fishing and farming] or to identify a single essential purpose which the parties to the 1864 Treaty intended the Klamath Reservation to serve." *Adair*, 723 F.2d at 1410.

tional fishing culture and that preservation of their access to historic fishing sites was one purpose for establishing the reservation.[66]

Other courts, by contrast, have taken a strict approach to interpreting the purposes of the reservation. The Wyoming Supreme Court recently rejected the homeland concept for the Wind River tribes.[67] Despite language in the 1868 treaty setting the Wind River Reservation aside as a "permanent home" for the tribes,[68] and despite the finding of the special master that the Wind River Reservation was intended as a permanent homeland,[69] the court found that that language did "nothing more than permanently set aside lands for the Indians; it does not define the purpose of the reservation."[70] Recognizing that the treaty "clearly contemplates" activities other than farming,[71] the court nonetheless held that "the treaty encouraged only agriculture, and that was its primary purpose."[72] The court was expressly unwilling, in the absence of a specific treaty provision, to recognize a fisheries purpose for the Wind River tribes, who were not historically dependent upon fisheries for their livelihood.[73] The court was willing, however, to find that certain uses were "subsumed"

66. *Walton I*, 647 F.2d at 48; *see also Adair*, 723 F.2d at 1409. Both the Colville Tribes (in *Walton*) and the Klamath Tribe (in *Adair*) are located in the Pacific Northwest, where tribes were historically dependent upon the fisheries for their subsistence, their livelihood, and their culture. On the issue of a *Winters* right to water to protect treaty-reserved fishing rights, see David F. Coursen, Comment, *Reserved Rights: Water for Fish Protection and the 1983 Indian Water Rights Decisions*, 63 OR. L. REV. 699 (1984).

67. For general criticism of the Wyoming court's ruling on the purposes of the Wind River Reservation, see Peg Rogers, Note, *In re Rights to Use Water in the Big Horn River*, 30 NAT. RESOURCES J. 439 (1990). *See also* Tom Kinney, Comment, *Chasing the Wind: Wyoming Supreme Court Decision in Big Horn III Denies Beneficial Use for Instream Flow Protection, But Empowers State to Administer Federal Indian Reserved Water Right Awarded to the Wind River Tribes*, 33 NAT. RESOURCES J. 841, 871 (1993) (suggesting that a negotiated settlement of the Wind River Tribes' water rights expressly recognize a homeland purpose for the reservation).

68. Treaty with the Eastern Band Shoshoni and Bannock, July 3, 1868, 15 Stat. 673, *reprinted in* 2 INDIAN AFFAIRS: LAWS AND TREATIES 1020 (Charles J. Kappler ed., 1903). Article 2 of the treaty set the Wind River Reservation apart "for the absolute and undisturbed use and occupation" of the tribes. Article 4 provided that the tribes "will make said reservation their permanent home, and they will make no permanent settlement elsewhere".

69. *Big Horn I*, *supra* note 31, at 85.

70. *Big Horn I*, *supra* note 31, at 97.

71. The court specifically noted the treaty's mention of the activities of hunting, milling, and lumbering. *Id.* *See* David M. Stanton, Note, *Is There a Reserved Water Right for Wildlife on the Wind River Indian Reservation?—A Critical Analysis of the Big Horn River General Adjudication*, 35 S.D. L. REV. 326 (1990) (arguing that because the treaty preserved the tribes' hunting rights and because hunting was vitally important to the tribes, the court should have found that wildlife preservation was one purpose of the Wind River Reservation).

72. *Big Horn I*, 753 P.2d at 97. The court ostensibly made this finding after application of the canons of construction, *see id.* at 96-97, which mandate that treaties be interpreted liberally and as the tribes would have understood them.

73. *Id.* at 98. The court likewise expressly refused to recognize wildlife and aesthetics or mineral and industrial development as purposes of the Wind River Reservation. *Id.* at 98-99.

within the agricultural purpose, including livestock watering, and municipal, domestic, and commercial uses.[74]

D. *Quantification of the Right*

With the exception of occasional litigation[75] or acts of Congress applicable to particular reservations,[76] tribal rights to water in the decades after *Winters* were relegated to the legal attic. Indian reserved rights to water did not begin to have a widespread significant impact on western water use and allocation until the 1963 decision in *Arizona v. California,*[77] which quantified the *Winters* rights of five tribes to the Colorado River.

The method of quantifying Indian water rights depends upon the purposes which those water rights are intended to fulfill. Since agriculture is either one or the sole purpose of all reservations,[78] the primary measure of tribal water rights is an agricultural measure. In *Arizona v. California,* the Supreme Court affirmed the Special Master's ruling that the appropriate measure of Indian rights was practicably irrigable acreage (PIA).[79] The Court expressly rejected Arizona's suggested approach of the tribes' "reasonably foreseeable needs" on the ground that it would introduce too much uncertainty into western water law.[80]

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74. *Id.* at 99. It is not clear what the court meant by "commercial" uses that are subsumed within an agricultural purpose, particularly since the court expressly rejected any "industrial" purpose for the Wind River Reservation. Since the court distinguished the two, however, it would appear that the tribes are entitled to water based on any economic development purpose other than one considered purely "industrial."

75. *See, e.g.*, United States *ex rel.* Ray v. Hibner, 27 F.2d 909 (D. Idaho 1928); United States v. Ahtanum Irrigation Dist., 236 F.2d 321 (9th Cir. 1956), *cert. denied*, 352 U.S. 988 (1957).

76. *See, e.g.*, Act of August 1, 1914, ch. 222, 38 Stat. 582 (awarding a minimum of 720 cubic feet per second during irrigation season to the Yakima Nation) (discussed in *In re* the Matter of the Determination of the Rights to the Use of the Surface Waters of the Yakima River Drainage Basin, 850 P.2d 1306, 1321-22 (Wash. 1993)).

77. 373 U.S. 546 (1963) (*Arizona I*).

78. No case has rejected an agricultural purpose for any reservation. In addition, no court is likely to reject farming as a purpose, since one of the goals of the reservation policy was to establish agrarian communities.

79. *Arizona I*, 373 U.S. at 600-01. The Court noted that the PIA standard would provide sufficient water "to satisfy the future as well as the present needs of the Indian Reservations". *Id.* at 600. Under the PIA standard, the Court affirmed the Master's award of approximately 900,000 acre feet, calculated on the basis of approximately 135,000 practicably irrigable acres. Arizona v. California, 376 U.S. 340 (1964) (decree entered).

80. *Arizona I*, 373 U.S. at 600-01. The Court noted that "reasonably foreseeable needs" is a standard which depends upon the population of the tribes. *Id.* "How many Indians there will be and what their future needs will be can only be guessed." *Id.* For a survey of the various quantification standards suggested by courts prior to *Arizona I*, see Rebecca E. Wardlaw, Comment, *The Irrigable Acres Doctrine*, 15 NAT. RESOURCES J. 375, 379-81 (1975).

The determination of practicably irrigable acreage requires a two-part analysis.[81] First, the land must be physically irrigable: that is, the land must be capable of sustained irrigation on the basis of both arability and engineering feasibility. Second, the land must be economically irrigable: that is, it must be capable of irrigation at a reasonable cost.[82]

The PIA standard is the subject of considerable criticism. States often characterize PIA as a "windfall" for the tribes, providing them with far more water than they actually need.[83] Alternatively, PIA may provide insufficient water for tribes with few irrigable acres but other resources that, with adequate water, could provide an economic base for the reservation.[84] PIA is also criticized as locking tribes in to nineteenth century notions at a time when agriculture is no longer necessarily profitable.[85] More specifically, the economic feasibility prong of the PIA standard has come under attack. Economic feasibility has been criticized as inexact and easily manipulated, requiring the kind of guesswork and policy choices that PIA was designed to avoid.[86] It has also been criticized for requiring an all-or-nothing approach: either the tribe's proposal is economically feasible and the

81. *Big Horn I*, *supra* note 31, at 101-05; New Mexico *ex rel.* Martinez v. Lewis, 861 P.2d 235, 247 (N.M. Ct. App. 1993), *cert. denied*, 858 P.2d 85 (N.M. 1993). *See also* Arizona v. California (*Arizona II*), 460 U.S. 605, 641 n.31 (1983), *reh'g denied*, 462 U.S. 1146 (1983).

82. *See* H.S. Burness et al., *The "New" Arizona v. California: Practicably Irrigable Acreage and Economic Feasibility*, 22 NAT. RESOURCES J. 517 (1982) (praising the Special Master for introducing the concept of economic feasibility into the determination of PIA). Economic feasibility (cost-benefit) is distinguishable from financial feasibility (ability to repay costs). *Id.* at 518-19.

83. Walter Rusinek, Note, *A Preview of Coming Attractions? Wyoming v. United States and the Reserved Rights Doctrine*, 17 ECOLOGY L.Q. 355, 395 (1990) (quoting Wyoming's brief to the Supreme Court). Wyoming resurrected the idea of a needs-based quantification, the standard that the Court expressly rejected in *Arizona v. California*.

84. Wardlaw, *supra* note 80, at 382.

85. Lynnette J. Boomgaarden, Note, *Water Law—Quantification of Federal Reserved Indian Water Rights—"Practicably Irrigable Acreage" Under Fire: The Search for a Better Legal Standard*, 25 LAND & WATER L. REV. 417, 431 (1990); Susan M. Campbell, Note, *A Proposal for the Quantification of Reserved Indian Water Rights*, 74 COLUM. L. REV. 1299, 1313 (1974).

86. As one commentator notes:

> 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. For example, a 1% variance in discount rate estimates can mean the difference between economic feasibility and a nonviable irrigation project. Expert testimony during the Big Horn adjudication proposed discount rates ranging from 1% - 11%. 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.

Boomgaarden, *supra* note 85, at 430. *See also* Martha C. Franks, *The Uses of the Practicably Irrigable Acreage Standard in the Quantification of Reserved Water Rights*, 31 NAT. RESOURCES J. 549, 562 (1991).

tribe is entitled to an award of PIA, or the proposal is not economically feasible and the tribe receives no water based on the proposed acreage.[87]

The PIA standard also has its defenders, if for no other reason than the fact that "no satisfactory substitute has emerged."[88] Once quantified, PIA is above all things certain, and certainty of water rights is highly prized in appropriation states. The PIA standard eases the administration of water rights and the determination of surplus waters available for use, and encourages economic development dependent upon a stable supply of water.[89] By providing a definite quantification standard, PIA also provides a baseline for settlement negotiations.[90]

The future of the PIA standard is not certain. Although the Supreme Court originally adopted PIA in 1963 as "the only feasible and fair way by which reserved water for the reservations can be measured,"[91] in 1988 the Supreme Court took certiorari on the issue of whether PIA was the proper measurement of the Wind River Tribes' water right.[92] Following oral argument, however, an equally divided

87. Franks, *supra* note 86, at 561-63. For an illustration of the problem, see New Mexico *ex rel.* Martinez v. Lewis, 861 P.2d 235, 235 (N.M. Ct. App. 1993) (affirming an award to the Mescalero Apache Tribe of 2322.3 acre feet per year, but denying the Tribe's PIA claim to an additional 15,428 acre feet for two irrigation projects on the ground that neither was irrigable at reasonable cost), *cert. denied*, 858 P.2d 85 (N.M. 1993). The PIA standard essentially forced the Tribe "to proffer what may be fictional irrigation projects" in order to obtain water for the Tribe's real needs, which are not recognized under an agricultural standard. Franks, *supra* note 86, at 563. The Mescalero thus ran the "genuine risk of obtaining nothing," leaving tribal needs for water unfulfilled. *Id.*

By comparison, in the *Big Horn* litigation, the court noted that: "It is readily apparent that the master found economically feasible, or practicably irrigable, all the acres he found to be irrigable from an engineering standpoint." *Big Horn I*, *supra* note 31, at 103. Based in part on the fact that the master used a high-end-of-the-range 4% discount rate, the Wyoming court upheld his determination of PIA for the Wind River Reservation. *Id.* at 104. In addition, it found that the master erred in reducing the Tribes' water right by 10% on the ground of inevitable error. *Id.* at 105. The court noted that "a margin of error works both ways," and declined to penalize the Tribes for the uncertainty inherent in the determinations. *Id.* at 105.

88. Tarlock, *supra* note 20, at 659.

89. *See* Boomgaarden, *supra* note 85, at 427-28. *But see* Carla J. Bennett, Comment, *Quantification of Indian Water Rights: Foresight or Folly?*, 8 U.C.L.A. J. ENVTL. L. & POL'Y 267, 281 (1989) (finding the certainty argument "unpersuasive" since economists are competent to discount for the potential exercise of Indian rights).

90. 4 WATERS, *supra* note 5, at 230. *See also infra* text accompanying notes 99-101.

91. Arizona v. California (*Arizona I*), 373 U.S. 546, 601 (1963).

92. The question presented by the State of Wyoming's petition for certiorari was as follows:

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

Wyoming v. United States, 488 U.S. 1040 (1989), *aff'd*, 492 U.S. 406 (1989), *reh'g denied*, 492 U.S. 938 (1989). The Court did not grant certiorari on other petitions by various parties to the

court affirmed the Wyoming Supreme Court decision awarding water rights based on PIA.[93] Nonetheless, the grant of certiorari indicates the Court's apparent willingness to revisit the issue of PIA.

Not all reserved water rights are measured by PIA. For example, rights to water for irrigation that are based on a priority date of time immemorial are measured not by PIA, but by past use.[94] The time immemorial priority date attaches if the document creating the reservation recognized and affirmed existing aboriginal rights.[95] In the case of aboriginal irrigation, the treaty or agreement would affirm the amount of water historically used to irrigate, and the reserved right would thus be quantified based on that past use.

Rights to water based on reservation purposes other than agriculture are also quantified by different measurements than PIA.[96] For example, the Ninth Circuit held that because one purpose of the Colville Reservation was the preservation of the fisheries, the Colville Tribes had a right to "the quantity of water necessary to maintain" the fishery.[97] Unlike the PIA measure for agricultural water, there is no standard for quantifying the instream flow right for fisheries protection other than the amount of water necessary to preserve the fisheries resource.[98]

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litigation, including the Tribes. Shoshone Tribe v. Wyoming, 492 U.S. 926 (1989). The Tribes' petition had presented six questions. Question 1 read:

> Under Second Treaty of Fort Bridger, pursuant to which Wind River Indian Reservation was established, is amount of water reserved for Indians to be quantified solely by reference to irrigation needs of reservation or rather, in light of treaty's express purpose of creating "permanent home" for Indians, by reference to all uses necessary to develop permanent homeland for Indians on reservation?

Shoshone Tribe v. Wyoming, 57 U.S.L.W. 3319 (U.S. Nov. 21, 1988).

93. *Big Horn I*, *supra* note 31. Justice O'Connor heard oral argument but then recused herself from taking part in the decision. The remaining justices split evenly.

94. 4 WATERS, *supra* note 5, at 232.

95. *See supra* text accompanying notes 50-51.

96. One commentator has proposed a standard of quantification in cases where a court recognizes the reservation purpose of establishing a permanent homeland. Rusinek, *supra* note 83, at 407. The court "could require a claimant tribe to present a plan for reservation development that would specify prospective uses of the water and estimate the quantity of water needed to effectuate those purposes. This process alone would force the tribe to establish a comprehensive plan for the development or protection of the reservation's lands before the reserved rights were quantified." *Id.*

97. Colville Confederated Tribes v. Walton (*Walton I*), 647 F.2d 42, 48 (9th Cir. 1981), *cert. denied*, 454 U.S. 1092 (1981). *See also* Harold A. Ranquist, *The Winters Doctrine and How It Grew: Federal Reservation of Rights to the Use of Water*, 1975 B.Y.U. L. REV. 639, 661 (positing that the "amount of water necessary to fulfill the particular purpose for which the water is impliedly reserved" is the appropriate quantification standard for all nonagricultural uses).

98. *See* Michael C. Blumm, *Unconventional Waters: The Quiet Revolution in Federal and Tribal Minimum Streamflows*, 19 ECOLOGY L.Q. 445, 472 (1992) (noting that reserved rights for fisheries, unlike reserved rights for irrigation, are needs based).

Moreover, all of these standards for quantifying tribal water rights are judicially developed measurements, and judicial determinations of *Winters* rights are increasingly being replaced with settlement agreements.[99] The central feature of these settlements is the quantification of the tribal right to water. While negotiations may proceed on the basis of PIA, tribes generally agree to a certain amount of water, usually with promises of assistance in delivering the water to the reservation, in exchange for ceding their claims to potentially larger but often unspecified amounts of water.[100] In virtually all settlements, the tribes have agreed to less water than they would be entitled to under their *Winters* rights.[101]

E. *Use of Reserved Water Rights*

Although tribal rights to water are quantified based on the purposes of the reservations, those purposes generally do not define the uses which tribes can make of the water. In particular, courts have generally not confined the use of water quantified by PIA to agricultural purposes, but have recognized that tribes may use their PIA-awarded water rights for other purposes. On the other hand, where courts have recognized that one purpose of a reservation is fisheries protection and awarded a non-consumptive instream flow right, tribes may not change the use of the water to a consumptive purpose.

As noted, most tribes are likely to be awarded a water right based on an agrarian purpose of their reservation. Those PIA rights, although quantified on an agricultural basis, are typically not restricted to agricultural use. In *Arizona v. California*, in conformance with a stipulation of the parties, the Supreme Court declared that PIA is "the means of determining quantity of adjudicated water rights but shall not constitute a restriction of the usage of them to irrigation or other agricultural application."[102] In accordance with the Court's statement, the Ninth Circuit subsequently held that the tribe may determine how to use its quantity of reserved water.[103] The court noted

99. *See generally* 4 WATERS, *supra* note 5, at 259-63.

100. BURTON, *supra* note 41, at 80-81; *see also* COHEN'S HANDBOOK, *supra* note 6, at 598.

101. BURTON, *supra* note 41, at 80-81. Burton states that this is true of all water settlements from 1910 to 1989. *Id.* Tribes may generally be willing to negotiate for less than their legal *Winters* rights in exchange for delivery of "wet" water and for concessions on other unsettled issues such as access to groundwater, right to change of use, and water marketing. On settlements generally, see *infra* section VI.B.

102. Arizona v. California, 439 U.S. 419, 422 (1979), *reh'g denied*, 462 U.S. 1146 (1983).

103. Colville Confederated Tribes v. Walton (*Walton I*), 647 F.2d 42, 48 (9th Cir. 1981) ("When the Tribe has a vested property right in reserved water, it may use it in any lawful

that tribal choice of use is "consistent with" the general homeland purpose of Indian reservations; as the tribes adapt to changing circumstances, their water rights may also be adapted to modern usages.[104] Forcing the tribes to use their water for agriculture also forces the tribes to conform to late nineteenth century views of what was best for the Indians.[105]

Nonetheless, the Wyoming Supreme Court recently ruled in *Big Horn III* that tribes have no "unfettered right" to use their PIA-based water rights for other than agricultural uses.[106] In that case, the Wind River Tribes had attempted to devote a portion of their "future" PIA water right[107] to instream flow for fisheries, recreational, and other purposes. The court refused to allow the change in use for future water, even though it appears that a majority of the justices would reach the opposite result as to existing water.

Justice Macy, who delivered the opinion of the court,[108] believed that the instream flow issue was foreclosed by the court's decision in *Big Horn I*. He found that the court's prior ruling on the agricultural-

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manner. As a result, subsequent acts making the historically intended use of the water unnecessary do not divest the Tribe of the right to the water."), *cert. denied*, 454 U.S. 1092 (1981).

104. *Id.* at 49 (noting that a homeland implies "the survival and growth of the Indians and their way of life.").

105. *See* Sondheim & Alexander, *supra* note 30, at 9 (arguing that if the only use of water contemplated was agricultural, then tribes should lose the water if it is used for any other purpose). *Cf. In re* General Adjudication of All Rights to Use Water in the Big Horn River System (*Big Horn III*), 835 P.2d 273, 288 (Wyo. 1992) (Brown, J., concurring and dissenting) ("The effect of the majority determination is to make marginal farmers out of the Tribes forever. This defeats the purposes for which the Reservation was created.").

106. *Big Horn I*, *supra* note 31, at 278 (Macy, J., delivering the opinion of the court). Presumably, however, the tribes do have a right to use their PIA-based water for any of the uses which the court found "subsumed" within agriculture: livestock watering and municipal, domestic, and commercial use. *See supra* text accompanying note 74.

For more detailed criticism of this aspect of the case, see Wes Williams, Jr., *Changing Water Use for Federally Reserved Indian Water Rights: Wind River Indian Reservation*, 27 U.C. DAVIS L. REV. 501 (1994); Berrie Martinis, Note, *From Quantification to Qualification: A State Court's Distortion of the Law in In re General Adjudication of All Rights to Use Water in the Big Horn River System*, 68 WASH. L. REV. 435 (1993); Peggy Sue Kirk, Note, *Water Law—Indian Law—Cowboys, Indians, and Reserved Water Rights: May a State Court Limit How Indian Tribes Use Their Water?*, 28 LAND & WATER L. REV. 467 (1993). *See also* Gover, Stetson & Williams, *In re: The General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources in the State of Wyoming*, 46 ARK. L. REV. 237 (1993) (reprinting the tribes' petition for rehearing of the *Big Horn III* decision).

107. The decision technically addressed only the tribes' "future water", that is, the PIA-based water right awarded for future irrigation projects on lands not yet developed for agriculture. *See Big Horn I*, 753 P.2d at 101. As Justice Cardine noted, however, the court's rationale would seem to apply to existing water rights as well as to future water rights. *Big Horn III*, 835 P.2d at 285 (Cardine, J., concurring and dissenting).

108. The *Big Horn III* decision is remarkable for the fact that the five-justice Wyoming Supreme Court delivered five separate opinions. Although Justice Macy was able to garner a 3-2 majority on each issue, no other justice actually joined fully in his opinion.

only purpose of the Wind River Reservation[109] was determinative of the uses to which the water could be put. "If we had intended to specify what the water could be used for merely as a methodology to determine the amount of water the Tribes could use for any purpose, we would have said so."[110] If the tribes wanted to change the use, Macy said, they were required to comply with Wyoming state law. And since Wyoming law permits only the state itself to hold an instream flow right, the tribes would be prevented from using their *Winters* rights for that purpose.[111] Justice Thomas agreed that the tribes could not change their use to an instream flow, but based his opinion solely on his belief that the tribes' water rights were subject to state regulation. Accordingly, Thomas believed that the tribes could put their water to an instream use only if that were permitted under Wyoming law, which it was not.[112] Both Justices Macy and Thomas thus ignored the fact that *Winters* rights are federal rights, defined and controlled by federal rather than state law.[113]

Justice Cardine, who gave Justice Macy his 3-2 victory on the change of use issue, wrote an idiosyncratic and opaque opinion in which he argued that "future" water could not be put to an instream flow use unless it were first put to the use for which it was awarded: that is, irrigation.[114] However, Cardine also would hold that the tribes

109. *See supra* text accompanying notes 67-73.

110. *Big Horn III*, 835 P.2d at 278. To support this contention, Justice Macy cited passages from *Big Horn I* restricting the purpose of the reservation to agriculture and therefore restricting the measure of the water right to the agricultural standard of PIA. *Id.* at 277-78. At no time, however, did the court in *Big Horn I* make any ruling concerning the uses to which that amount of water could be put.

111. *Big Horn III*, 835 P.2d at 288. Like Wyoming, most western states that recognize instream flows prefer to maintain state control over the use of water instream. *See* Blumm, *supra* note 98, at 447-48. State control is often justified by the notion that instream flows prejudice appropriators. Tribal instream flows, however, would not appear to do so. Upstream junior appropriators must deliver to the reservation the amount of water to which the tribe is entitled, regardless of the use to which the tribe puts that water. In addition, a change from irrigation to the non-consumptive instream flow right would, at least theoretically, benefit downstream junior appropriators since it would make more water available below the reservation.

112. *Big Horn III*, 835 P.2d at 284 (Thomas, J., concurring).

113. *See* United States v. Adair, 723 F.2d 1394, 1410-11 & n.19 (9th Cir. 1983) (expressly noting that the tribe was entitled to an instream flow for fisheries protection even though state law did not recognize an instream flow right, because Indian reserved rights are "defined by federal, not state, law"), *cert. denied*, 467 U.S. 1252 (1984). One commentator who criticized the justices' incorporation of state law nonetheless proposed an alternative that would subject tribal water rights to state law as well. Williams, *supra* note 106, at 529-31 (proposing that tribes be able to put their water to any "beneficial" use, but defining beneficial use according to state law, and apparently awarding to the state any tribal water not applied to state-defined beneficial uses).

114. *Big Horn III*, 835 P.2d at 285-86 (Cardine, J., concurring and dissenting). This approach is particularly odd, since it would require the tribes to develop irrigation projects, undoubtedly at

"are free to promulgate their own standards for instream flow rights and for change of use" for PIA-based water rights presently in use for irrigation.[115] Since the remaining two justices argued that the tribes had the right to a change of use even for future water,[116] the practical outcome of the case is bizarre. The court held 3-2 that the tribes may not put their future PIA rights to an instream use. But three justices plainly supported the proposition, not before the court, that the tribes *can* put their *existing* PIA-based water to an instream use.[117] And it would appear that if the tribes put their future water to actual use in irrigation, the decision is then 3-2 that they have the right at that point to change the use of the water to an instream flow.

The Wyoming litigation involved a tribal attempt to change the use of water awarded for the consumptive purpose of irrigation to the non-consumptive use of instream flow. While most courts would find that change of use within the tribe's authority to determine, the Ninth Circuit has ruled that tribes may not make the opposite change in use.[118] Where tribes have been awarded a quantity of water to fulfill the purpose of fisheries preservation, that water right is an instream flow right,[119] and the court held that tribes may not change their instream flow rights to consumptive uses. The court noted that the right to an instream flow is more in the nature of a right to prevent others from drawing the stream down below a certain level than a right to use the water.[120] Moreover, changing the instream flow right to a consumptive use would return less water to downstream appropriators, adversely impacting state-law diverters below the reservation.

As with other unsettled areas of tribal water rights, the right to change of use, and in particular the right to use water for instream flows for fisheries, wildlife, recreation, and tourism, can be addressed in settlement negotiations. Some Indian water settlements have resolved the issue by specifying that the tribes may use their water rights

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great cost, simply in order to then transfer the water right to an instream or other non-agricultural (or subsumed) use.

115. *Id.* at 285.

116. *Id.* at 288-90 (Brown, J., concurring and dissenting) and 292-94 (Golden, J., dissenting).

117. This was Justice Cardine's point. The two justices who supported the tribes' right to change of use for future water would certainly support the same right for existing water. Therefore, if and when the issue of change of use for existing water reaches the Wyoming court, the decision would be 3-2 in favor of the tribes.

118. United States v. Adair, 723 F.2d 1394, 1410-11 & n.19 (9th Cir. 1984), *cert. denied*, 467 U.S. 1252 (1984).

119. *See generally* Blumm, *supra* note 98 (discussing rights to instream flows).

120. *Adair*, 723 F.2d at 1411.

for any purpose or for specified purposes other than agricultural purposes, such as instream flows.[121]

F. *Water Transfers and Water Marketing*

One aspect of *Winters* rights related to tribal use of the water is that of water transfers and water marketing.[122] The tribes' ability to transfer their *Winters* rights to non-Indian lessees within the reservation[123] or to market their water rights outside the reservation may be crucial to tribal economic development.[124]

Both types of transfers may require the consent of Congress. Under the Nonintercourse Act, tribal property may not be alienated or encumbered without congressional authorization,[125] and that restriction likely extends to tribal water rights.[126] Tribes may thus lease or market their water with congressional consent. While Congress has given general consent to on-reservation transfers of tribal water rights to lessees of Indian lands, there is some uncertainty concerning off-reservation transfers.

Leasing of Indian lands is, as a practical matter, dependent upon the appurtenant water rights. Certainly agricultural leases of trust lands would be virtually useless without water, but other types of lease activities require water as well. Accordingly, Congress has authorized

121. For discussions of settlements that include instream flow rights, see 4 WATERS, *supra* note 5, at 261-62; Blumm, *supra* note 98, at 475-76.

122. The concepts of water marketing and the use to which water may be put, while often linked, are conceptually distinct. Certainly the prevailing view that the use of water is not dependent upon the purposes for which the water is reserved, *see supra* text accompanying notes 102-105, eases the water marketing concept. If PIA rights may be used for any purpose, and if PIA rights may be marketed, then the water should be subject to marketing for any purpose. And that flexibility, in turn, should increase the marketability and the value of the rights. But even in the unlikely event that the *Big Horn III* argument prevails — that the use of *Winters* rights is restricted to the purposes for which the water is reserved; *see supra* text accompanying notes 106-110—marketability remains viable. If the water right is marketable, then the tribe could, for example, market its agricultural water for agricultural or subsumed purposes. That approach would limit the uses for which the water could be marketed, but it would not affect the determination of marketability itself.

123. The transfer of water rights to non-Indians who acquire lands within reservation boundaries is discussed *infra* in section IV.

124. For some tribes, the "only resource of any real value" may be the *Winters* rights to water. Bill Leaphart, *Sale and Lease of Indian Water Rights*, 33 MONT. L. REV. 266, 276 (1972).

125. 25 U.S.C. § 177 (1988). The Nonintercourse Act was first enacted in 1790.

126. *See* Steven J. Shupe, *Indian Tribes in the Water Marketing Arena*, 15 AM. INDIAN L. REV. 185, 197 (1990) (water rights are included because "resources associated with land" are encompassed within the meaning of "land" in the Nonintercourse Act); Richard B. Collins, *The Future Course of the Winters Doctrine*, 56 U. COLO. L. REV. 481, 489 (1985) (water rights are included because they are property rights).

the Secretary of the Interior, in leasing Indian lands, to lease the water rights appurtenant to those lands.[127]

Off-reservation marketing of tribal water rights is potentially even more valuable than on-reservation leasing. Once tribal water rights are quantified, tribes are often not able to put the water to immediate use. Water projects and delivery systems are seldom in place and are prohibitively expensive for most tribes to construct without federal financial assistance.[128] Off-reservation marketing of the water can provide the tribes with a prompt economic return from their water rights,[129] while also providing the off-reservation non-Indian water users with needed water. Opponents of tribal water marketing generally argue that it will decrease water available to state users or make the water too expensive,[130] but in the absence of water marketing state appropriators have free use of a valuable tribal resource.[131] With mechanisms available to ameliorate the impact on junior state diverters,[132] water marketing can prove a profitable economic development measure for tribes.

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127. *See* Skeem v. United States, 273 F. 93, 96 (9th Cir. 1921). General surface leasing authority is found at 25 U.S.C. § 415 (1988), which provides that lands can be leased for "public, religious, educational, recreational, residential, or business" purposes and that natural resources can be developed or used in connection with the leases. *See also* the agricultural leasing statutes: 25 U.S.C. § 402a (1988) (leasing of unallotted irrigable lands); § 394 (1988) (leasing of allotted lands that are "arid but susceptible of irrigation"); § 393 (1988) (leasing of restricted allotments); and § 393a (1988) (leases of restricted lands of the Five Civilized Tribes). These authorized leases for farming purposes would be all but useless without water for irrigation.

128. Shupe, *supra* note 126, at 197.

129. The economic benefits from off-reservation water marketing are not confined to the lease revenues. Water marketing would also "generate jobs, increase services, and stimulate the economic growth of the reservation as a whole." Lee H. Storey, Comment, *Leasing Indian Water Off the Reservation: A Use Consistent with the Reservation's Purpose*, 76 CAL. L. REV. 179, 217 (1988).

130. *See, e.g.*, Jack D. Palma II, *Considerations and Conclusions Concerning the Transferability of Indian Water Rights*, 20 NAT. RESOURCES. J. 91, 95-96 (1980); Belinda K. Orem, Comment, *Paleface, Redskin, and the Great White Chiefs in Washington: Drawing the Battle Lines Over Western Water Rights*, 17 SAN DIEGO L. REV. 449, 469 (1980).

131. *See* David H. Getches, *Management and Marketing of Indian Water: From Conflict to Pragmatism*, 58 U. COLO. L. REV. 515, 545 (1988) (noting that tribal senior rights will have "little practical effect" on state appropriators so long as the tribal rights go unused).

132. Most common is the suggestion that off-reservation marketing be permitted only if junior state appropriators are not injured. *See, e.g.*, Storey, *supra* note 129, at 212. That importation of the state no-injury rule, however, has been attacked as restricting tribes' ability to make full use of their *Winters* rights. Susan Williams, *Indian Winters Water Rights Administration: Averting New War*, 11 PUB. LAND L. REV. 53, 74 (1990). Other commentators have offered additional ways to protect junior state appropriators. One has suggested that if the state's interests are disadvantaged by the highest bidder for Indian water rights, then the state could buy the rights and make them available to state users in accord with state policy. Christine Lichtenfels, Comment, *Indian Reserved Water Rights: An Argument for the Right to Export and Sell*, 24 LAND & WATER L. REV. 131, 144 (1989). Another has suggested federal compensation for junior users injured by tribal water marketing. Karen M. Schapiro, *An Argument for the Marketability of*

Nonetheless, legal authority for water marketing is uncertain. Congress has not given express general consent to off-reservation leasing of water rights,[133] and based on that lack of express consent, the Wyoming Supreme Court ruled that the Wind River Tribes had no right to market their water.[134] The Department of the Interior, however, has recently proposed draft rules that recognize an existing right to market water for those tribes with rights to water in the lower basin of the Colorado River.[135] Relying on the general leasing statute,[136] additional statutes granting the Department broad authority to manage Indian affairs and trust resources,[137] and the law of the Colorado River,[138] the Department asserted the right to water marketing for the lower Colorado basin tribes without further authorization from Congress. The Department's conclusions, however, were limited to the lower Colorado River basin and were not necessarily applicable to all tribes with rights to water.[139]

In addition to the Department's position that Congress has consented to the marketing of tribal rights in the waters of the lower Colorado River, Congress itself has expressly consented to water marketing by particular tribes. A number of Indian water settlement

Indian Reserved Water Rights: Tapping the Untapped Reservoir, 23 IDAHO L. REV. 277, 291 (1987).

133. Shupe, *supra* note 126, at 198. One commentator has suggested that tribes might avoid the Nonintercourse Act by agreeing to forego the use of their water rights in exchange for payment. Schapiro, *supra* note 132, at 290 n.68; *but see* Getches, *supra* note 131, at 546 (noting that deferral agreements have "many attributes of a lease"). Deferral agreements can be valuable to tribes. For example, the Wind River Tribes agreed to forego their newly-adjudicated water rights for 1989 in exchange for state payments of 5.5 million dollars. Robert H. Abrams, *The Big Horn Indian Water Rights Adjudication: A Battle for the Legal Imagination*, 43 OKLA. L. REV. 71, 74 (1990).

134. *Big Horn I*, *supra* note 31, at 100.

135. *Regulations for Administering Entitlements to Colorado River Water in the Lower Colorado River Basin* at 8-19 (May 6, 1994 draft regulations) [hereinafter *Draft Regulations*]. The Department stated that "it is the Department's preliminary conclusion that in the context of the Lower Basin it is permissible, without additional authority from Congress, to allow for the use of Indian reserved right water off the reservations." *Id.* at 11. As of September 30, 1994, the draft regulations had not yet been issued as a proposed rule.

136. 25 U.S.C. § 415 (1988); *see supra* note 127.

137. The Department referenced 25 U.S.C. §§ 2 and 9. *Draft Regulations*, *supra* note 135, at 13-14.

138. In particular, the Department relied on the Boulder Canyon Project Act of 1928 and its interpretation by the Supreme Court in *Arizona I*. *Draft Regulations*, *supra* note 135, at 14-16. The Department noted that the Act, as interpreted by the Court, granted the Department full power to manage and control the waters of the lower basin of the Colorado River. *Id.* at 16. Given that the ability to market Indian water rights "will add much-needed flexibility to the system," the Department concluded that its authority under the law of the Colorado River "authorized inclusion of Indian water rights" in the leasing and water marketing provisions. *Id.*

139. *Id.* at 10 (noting that the conclusions are "within the context of the law of the Colorado River").

acts have included provisions for water leasing and water marketing.[140] Many of these settlement acts consent to off-reservation leasing, although generally not to the permanent alienation of tribal rights to water.[141]

G. *Water Quality*

The *Winters* right to water has generally been litigated as a right to a quantity of water, leaving unresolved the question of whether the doctrine also encompasses a right to water quality.[142] Where water of adequate quality is necessary to fulfill the purposes for which the reservation was set aside, however, the *Winters* doctrine would seem to dictate that the tribal water right includes a right to quality as well as quantity.[143] Both irrigation and fisheries protection require water of adequate quality for the intended uses.[144] Certainly if domestic uses

140. *See* 4 WATERS, *supra* note 5, at 261-62 (1991) and 35-36 (1993 Supp.) for sample settlements. For discussions of particular acts, see Nancy K. Laney, Note, *Transferability Under the Papago Water Rights Settlement*, 26 ARIZ. L. REV. 421 (1984); Shupe, *supra* note 126, at 199-202 (discussing the San Luis Rey and Colorado Ute water rights settlement acts).

141. *See, e.g.*, the Papago (Tohono O'odham Nation) water rights settlement act. Laney, *supra* note 140, at 424.

142. Tribal water quality concerns are more commonly addressed under the federal environmental statutes, which generally permit tribes to seek program authorization for the environmental programs mandated under the acts. The Clean Water Act, for example, provides that tribes may seek program authorization for implementing the permit programs for dredge and fill materials and discharges from point sources; promulgating water quality standards; developing management programs for non-point source pollution; seeking certain types of grants; and granting or denying certification for federally permitted activities that may result in discharges of pollutants into the waters. 33 U.S.C. § 1377(e) (1988). Under the Act, tribes may seek authorization to impose stringent water quality standards for such purposes as traditional religious use of waters. *See* City of Albuquerque v. Browner, No. 93-82 (D.N.M. 1993) (upholding the Environmental Protection Agency's approval of extremely stringent Isleta Pueblo WQS for the segment of the Rio Grande running through the Pueblo). Similarly, under the Safe Drinking Water Act, tribes may seek to assume primary enforcement responsibility for the public water systems program (enforcing drinking water standards) and the underground injection control programs, 42 U.S.C. § 300j-11(a) (1988), and the Environmental Protection Agency has proposed rules that would authorize tribes to seek funding for sole source aquifer and wellhead protection programs. *See* 52 Fed. Reg. 46,712 (1987); *see also* Judith Royster, *Approaches to Groundwater Protection in Indian Country* in Sovereignty Symposium VII (1994). On the issues of tribal control over environmental protection under the federal acts, see generally Judith V. Royster & Rory SnowArrow Fausett, *Control of the Reservation Environment: Tribal Primacy, Federal Delegation, and the Limits of State Intrusion*, 64 WASH. L. REV. 581 (1989). Despite the apparently comprehensive nature of the federal statutes, however, the programs are not available to all tribes and do not cover all water resources. Accordingly, a right to water quality under the *Winters* doctrine would provide tribes with an additional and important means of ensuring clean water resources in Indian country.

143. *See* COHEN'S HANDBOOK, *supra* note 6, at 587; 4 WATERS, *supra* note 5, at 220; Margaret S. Treuer, *An Indian Right to Water Undiminished in Quality*, 7 HAMLINE L. REV. 347 (1984).

144. *See* Treuer, *supra* note 143, at 366. On a related issue, one district court held that the Spokane Tribe had a right to a sufficient quantity of water to keep the water temperature at 68° F or less because a higher temperature would endanger the native fish population. United States

such as water for drinking and cooking are subsumed within the *Winters* PIA right,[145] water quality becomes an even more vital concern.

Although no court has yet directly addressed a *Winters* right to water quality, one recent decision determined that non-Indian irrigation return flows high in salt content did not satisfy the downstream San Carlos Apache Tribe's right to the "natural flow" of the river.[146] Although the district court noted that water quality issues would be deferred to later phase of the litigation, it nonetheless enjoined upstream non-Indian users from diverting the entire flow of the river for irrigation, leaving only saline return flow for the downstream Apache Tribe.[147] On appeal, however, the circuit court held that injunction to be an abuse of discretion.[148] Because the water quality issues had been postponed by stipulation, the appeals court noted, the upstream diverters were not allowed to present evidence concerning the quality of the irrigation return flows.[149] Accordingly, the appeals court vacated the injunction and left the water quality issues for a later proceeding at which all parties could present their evidence.[150]

IV. WATER RIGHTS OF ALLOTTEES & NON-INDIANS

The question of water rights for allottees and non-Indians owning land within Indian country has its origins in the ill-fated allotment era of the late nineteenth and early twentieth centuries. In 1887, the federal government instituted a fundamental shift in federal Indian pol-

v. Anderson, 6 INDIAN L. REP. F-129, F-130 (E.D. Wash. 1979). That reasoning should permit a tribe to prevent or enjoin thermal pollution of water where water of a certain temperature is necessary to fulfill the purposes of the reservation.

145. *See Big Horn I*, *supra* note 31, at 99.

146. United States v. Gila Valley Irrigation Dist., 804 F. Supp. 1, 7 (D. Ariz. 1992), *aff'd in part and vacated in part*, No. 93-15076, 1994 U.S. App. LEXIS 17033 (9th Cir. July 13, 1994). The "natural flow" right was based on the 1935 Globe Equity Consent Decree, which provided that the United States owned, on behalf of the San Carlos Apache Tribe, the right to divert 6000 acre feet of the Gila River during the irrigation season "from the natural flow in said river." *See id.* at 5. The court subsequently noted, however, that the decree "codifies their right to the 'natural flow' of the river," *id.* at 7, indicating perhaps that a natural flow right is inherent in tribal water rights. In any case, the court held that the Tribe had a prior right as against the upstream diverters to the natural flow of the river. *Id.*

147. *Id.* The court ordered that the Tribe's full right to 6000 acre feet must pass undiverted so long as the Tribe asserted its rights to the water. If the Tribe did not exercise its rights, the upstream users were entitled to divert the water and send the irrigation return flow downstream.

148. United States v. Gila Valley Irrigation District, No. 93-15076, 1994 U.S. App. LEXIS 17033, at *48 (9th Cir. July 13, 1994).

149. *Id.* at *45-46.

150. *Id.* at *48-49. The water quality phase of the litigation is scheduled for November 1994. *Id.* at *40.

icy. With passage of the General Allotment Act,[151] Congress pursued the allotment of tribal lands and the assimilation of Indians into white society. Allotments were designed to break up the reservations into private ownership, in the belief that individual property would turn the Indians from a tribal life to agriculture, Christianity, and citizenship.[152] To that end, the Act allotted to individual Indians a certain number of acres, to be held in trust for the individual for 25 years and then patented in fee.[153] Lands remaining after the allotment process were declared "surplus" lands and could be opened to non-Indian settlement.[154]

Prior to 1934, when Congress formally ended allotment and indefinitely extended the trust status of existing allotments,[155] millions of acres of reservation lands were lost to tribal ownership. In all, tribes lost approximately 90 million acres of trust lands between 1887 and 1934.[156] Some 60 million were "surplus" lands opened for homesteading. An additional 27 million acres, some two-thirds of the lands allotted to Indians, passed into non-Indian ownership by voluntary

151. Ch. 119, 4 Stat. 388 (1887) (codified in part at 25 U.S.C. §§ 331-358 (1988)). Several tribes in Oklahoma, including the Five Tribes, were exempt from the General Allotment Act, although Congress subsequently enacted special allotment acts. *See, e.g.*, Cherokee Allotment Act, ch. 1375, 32 Stat. 716 (1902). For tribes in eastern Oklahoma, the former Indian Territory, allotments were restricted (that is, the allottee held the fee subject to a restriction against alienation) rather than trust allotments. However, there is little if any legal difference between the two types of allotted lands.

On the General Allotment Act and its effects, see Judith V. Royster, *The Legacy of Allotment*, 27 ARIZ. ST. L.J. 1 (forthcoming 1995); John W. Ragsdale, Jr., *The Movement to Assimilate the American Indians: A Jurisprudential Study*, 57 U.M.K.C. L. REV. 399 (1989); FREDERICK E. HOXIE, A FINAL PROMISE: THE CAMPAIGN TO ASSIMILATE THE INDIANS, 1880-1920 (1984); JANET A. MCDONNELL, THE DISPOSSESSION OF THE AMERICAN INDIAN 1887-1934 (1991).

152. *See* 2 PRUCHA, *supra* note 16, at 661 (citing Senator Richard Coke, chairman of the Committee on Indian Affairs). In that regard, the goals of the allotment policy were similar to the goals of the reservation policy: both were designed to turn the Indians into yeoman farmers. The reservation-era policy of a "measured separatism," however, *see* CHARLES F. WILKINSON, AMERICAN INDIANS, TIME AND THE LAW 16 (1987), was replaced with the allotment-era policy of assimilation.

153. General Allotment Act, ch. 119, § 5, 24 Stat. 388, 389 (1887) (codified as amended at 25 U.S.C. § 331 (1988)). The precise size of allotments varied over time, although most allotments consisted of 80 or 160 acres. Eventually, allotments of agricultural land were 80 acres, while allotments of grazing land were 160 acres. Act of June 25, 1910, ch. 431, § 17, 36 Stat. 859 (codified at 25 U.S.C. § 331 (1988)).

154. General Allotment Act, ch. 119, 24 Stat. 388, 389-90 (1887).

155. The Indian Reorganization Act of 1934 provided that trust allotments would continue in trust until Congress provided otherwise. Act of June 18, 1934 , ch. 576, § 2, 48 Stat. 984 (1934) (codified at 25 U.S.C. § 462 (1988)). Tribes in Oklahoma were exempted from the IRA, 25 U.S.C. § 473 (1988), although the provisions of the IRA were subsequently extended to them in the Oklahoma Indian Welfare Act of 1936, *see* 25 U.S.C. § 503 (1988). Today, an allottee can petition the Secretary of the Interior to remove the trust restrictions and issue a fee patent. *See* 25 C.F.R. §§ 152.4-5 (1993).

156. COHEN'S HANDBOOK, *supra* note 6, at 138.

sale, fraud, and sheriffs' sales once patents in fee were issued to allottees. Millions of acres more remained in trust allotments, with approximately 9 million acres still held in trust for individuals today.[157] The water rights issue for these lands is whether the owners are entitled to exercise some portion of the tribal *Winters* right to water, and if so to what extent.

A. *Allotment Water Rights*

Indian allottees hold *Winters* rights to water reserved for agricultural purposes. The principle has its origins in *United States v. Powers*,[158] in which the Supreme Court refused to enjoin water use on former allotments.[159] The Court found that water rights for allotted lands were consistent with the purpose behind the allotment policy: water was necessary to cultivation of the lands, and cultivation was the purpose of allotment.[160] Subsequently, the lower courts read *Powers* to grant allottees a "just share" of the tribe's water rights,[161] and eventually the allottee's share was quantified as a ratable share of the tribe's PIA rights, based on the amount of irrigable acres in the allotment.[162] Because the allottees' rights are tied to the agrarian purposes of the allotment policy, allottees have no rights to tribal water reserved for other than irrigation purposes. Thus, a share of tribal reserved rights to water for purposes other than agriculture, such as water for instream flows to maintain fisheries, does not pass to allottees but remains with the tribes.[163]

157. Trust allotments represent almost one-fifth of the approximately 53 million acres currently held in trust. MARJANE AMBLER, BREAKING THE IRON BONDS: INDIAN CONTROL OF ENERGY DEVELOPMENT 145 (1990).

158. 305 U.S. 527 (1939).

159. *Id.* The lands in question were, in 1939, held in fee, apparently by non-Indians. *Id.* at 531; *see also* United States v. Powers, 16 F. Supp. 155, 164 (D. Mont. 1936) (the district court case).

160. *Powers*, 305 U.S. at 533.

161. Segundo v. United States, 123 F. Supp. 554, 558 (S.D. Cal. 1954); *see also* Scholder v. United States, 428 F.2d 1123, 1126 (9th Cir. 1970), *cert. denied*, 400 U.S. 942 (1970). *But see* David H. Getches, *Water Rights on Indian Allotments*, 26 S.D. L. REV. 405, 416-19 (1981) (arguing that water rights for allotments are not rights vested in the allottee, but tribal rights which the allottee is entitled to use).

162. Colville Confederated Tribes v. Walton (*Walton I*), 647 F.2d 42, 51 (9th Cir. 1981), *cert. denied*, 454 U.S. 1092 (1981); Colville Confederated Tribes v. Walton (*Walton II*), 752 F.2d 397, 401 (9th Cir. 1985), *cert. denied*, 475 U.S. 1010 (1986); Montana *ex rel.* Greely v. Confederated Salish Kootenai Tribes, 712 P.2d 754, 764 (Mont. 1985).

163. *Walton II*, 752 F.2d at 400.

Allottees' water rights, because they derive from tribal rights,[164] are governed by the same principles. Thus, the priority date for allottees is the date the reservation was created,[165] and allottees' rights are not lost through non-use.[166] The same rights apply to Indian fee lands which have never passed out of Indian ownership.[167]

B. *Water Rights of Non-Indians*

Non-Indians can acquire reservation lands in one of two ways. Non-Indians may have purchased allotments from allottees who received fee patents to their land, or they may have homesteaded "surplus" reservation lands opened to settlement after the reservations were allotted. The extent of water rights available to the non-Indian owners depends upon how the fee lands were acquired.

Where the non-Indian fee land was formerly an allotment, the non-Indian owner succeeds to the allottees' water rights[168] on the ground that the water is necessary to make the land marketable.[169] The non-Indian acquires the priority date of the allottee: that is, the date the Indian reservation was created.[170] However, the non-Indian

164. This assumes that the allotment was created from reservation lands. Some allotments were acquired from the public domain or by purchase. Professor Collins argues that these allotments, as Indian country, should be accorded reserved water rights subject to the same rules as tribal reserved rights. Richard B. Collins, *Indian Allotment Water Rights*, 20 LAND & WATER L. REV. 421, 437 (1985).

165. *Walton I*, 647 F.2d at 51; Hackford v. Babbitt, 14 F.3d 1457, 1469 (10th Cir. 1994).

166. *Walton I*, 647 F.2d at 51; *Walton II*, 752 F.2d at 404; *Greely*, 712 P.2d at 764.

167. *Big Horn I*, *supra* note 31, at 112. The Indian fee lands at issue were allotments on which the trust period had expired and the Indian owners had received fee patents. Some commentators have argued that Indian patentees should not succeed to the full share of the tribe's *Winters* rights, but rather should have a right to the quantity of water actually put to use at the time of the patent. Getches, *supra* note 161, at 422; Robert Isham, Jr., Note, *Colville Confederated Tribes v. Walton: Indian Water Rights and Regulation in the Ninth Circuit*, 43 MONT. L. REV. 247, 262 (1982). Isham further suggests that the patentee's priority date should be the date of the first continuous appropriation, not the date of creation of the reservation.

168. *See* United States v. Powers, 305 U.S. 527, 533 (1939); United States v. Ahtanum Irrigation Dist., 236 F.2d 321, 342 (9th Cir. 1956), *cert. denied*, 352 U.S. 988 (1957). This rule has been roundly criticized. Commentators note that water was reserved to fulfill the purposes of the *reservation* and that permitting the water to pass to non-Indians does nothing to fulfill those purposes. *See* Philip W. Dufford, *Water for Non-Indians on the Reservation: Checkerboard Ownership and Checkerboard Jurisdiction*, 15 GONZ. L. REV. 95, 112-16 (1979) (referring to the practice as "giv[ing] the henhouse to the fox"); John F. Araas, Note, *Indian Law—Water Law—Transferability of Reserved Rights from the Indian Allottee to the Non-Indian Purchaser*, 17 LAND & WATER L. REV. 155, 161 (1982); Matthew L. Fick, Note, *Water Rights on Indian Reservations—Transferability of Indian Water Rights—State Administration of Non-Indian Water Rights Within the Reservation*, 58 WASH. L. REV. 89, 96 (1982).

169. *Walton I*, 647 F.2d at 51. *See also* Getches, *supra* note 161, at 423; Frank M. Bond, Note, *Indian Reserved Water Rights Doctrine Expanded*, 23 NAT. RESOURCES J. 205, 212 (1983).

170. United States v. Adair, 723 F.2d 1394, 1410-11 & n.19 (9th Cir. 1983), *cert. denied*, 467 U.S. 1252 (1984); *Walton I*, 647 F.2d at 51; *Big Horn I*, 753 P.2d at 113.

fee owner does not automatically acquire the full measure of the allottee's PIA right. Instead, the non-Indian acquires a right to the quantity of water being used at the time title passes, plus the amount of water which the non-Indian can put to a beneficial use within a reasonable time after the purchase, up to a maximum amount equal to the allottee's ratable share of the tribe's *Winters* right.[171] Non-Indian purchasers can lose *Winters* rights through non-use because the purpose of the water rights — to make the land productive farming land for the Indians — no longer exists when the land is sold to a non-Indian.[172]

Non-Indian lands acquired by homesteading, by contrast, do not include *Winters* rights, for two reasons.[173] First, homesteaders generally do not acquire water rights incident to the acquisition of public domain lands.[174] Second, the purpose of *Winters* rights, to make the land productive for Indians, disappears when the land has been returned to the public domain.[175] This analysis, however, would only seem to apply if the surplus lands were in fact disestablished from the reservation and returned to the public domain before being opened for homesteading. Not all surplus lands acts returned the surplus lands to the public domain. Many simply opened portions of the reservations to homesteading without terminating the land as reservation territory.[176] Because some surplus lands were neither returned to the public domain nor disestablished from the reservations, it is not clear that *Winters* rights were terminated when those lands were homesteaded.[177]

171. United States v. Anderson, 736 F.2d 1358, 1362 (9th Cir. 1984); *Adair*, 723 F.2d at 1417; *Walton I*, 647 F.2d at 51; *Big Horn I*, 753 P.2d at 113-14; United States *ex rel.* Ray v. Hibner, 27 F.2d 909, 912 (E.D. Idaho 1928). Some commentators have argued that only the water right in use by the Indian owner should carry the tribe's priority date; "unused" water put to use by the non-Indian owner should have a priority date of the first continuous appropriation. Getches, *supra* note 161, at 426; Fick, *supra* note 168, at 99.

172. *Walton I*, 647 F.2d at 51; *Hibner*, 27 F.2d at 912.

173. *Anderson*, 736 F.2d at 1362-63.

174. *Id.*; California-Oregon Power Co. v. Beaver Portland Cement Co., 295 U.S. 142 (1935).

175. *Anderson*, 736 F.2d at 1363.

176. *Compare* Solem v. Bartlett, 465 U.S. 463, 475 (1984), *reh'g denied*, 466 U.S. 948 (1984) (Cheyenne River surplus lands act did not disestablish the reservation, but merely opened reservation lands to non-Indian settlers) *with* Hagen v. Utah, 114 S. Ct. 958, 970-71 (1994), *reh'g denied*, 114 S. Ct. 1580 (1994) (Uintah surplus land acts disestablished portion of the reservation and returned the lands to the public domain). *See* Royster, *supra* note 151.

177. *See* Dufford, *supra* note 168, at 118-19 (positing that awarding homesteaders of on-reservation lands a portion of the tribe's *Winters* rights could be viewed as consistent with the purposes of the reservation).

C. *Water Rights of Reacquired Lands*

Tribal reacquisition of reservation lands can take three forms: reacquisition of lands owned by Indians whether in trust or in fee; reacquisition of former allotments owned by non-Indians; and reacquisition of surplus lands.

Since allotments or former allotments owned by Indians retain their full *Winters* rights, those rights would pass back to the tribe upon reacquisition of the land. Where a tribe reacquires a former allotment owned by a non-Indian, the tribe basically succeeds to the non-Indian's rights.[178] That is, the tribe reacquires water rights with the original priority date of the creation of the reservation.[179] The measure of the reacquired *Winters* rights, however, is apparently not the full PIA amount, but only those rights which the non-Indian owner had not lost through non-use.[180]

Non-Indian lands acquired under the surplus lands act (at least those homesteaded from tribal lands returned to the public domain) do not carry *Winters* rights, and thus there are no water rights for the tribe to reacquire.[181] The tribe will, however, generally succeed to the state law water rights of the non-Indian owner.[182] If the property does not include perfected water rights, either because the homesteader did not appropriate water or because the land was never homesteaded, then the land is essentially treated as a new reservation. The tribe will be entitled to *Winters* rights on the land in order to carry out the purposes of reserving the reacquired lands.[183] *Winters* rights on reacquired homesteaded land, however, have a priority date as of the date

178. One commentator has noted that this reasoning essentially leaves the tribes without *Winters* rights on reacquired lands. Instead, the tribe receives "an appropriative water right dependent upon the diligence and efforts of non-Indian transferees." Marte Lightstone, Note, *Indian Water Law: The Continuing Jurisdictional Nightmare*, 25 NAT. RESOURCES J. 841, 847 (1985). Professor Getches has argued that allotments returned to tribal trust status should carry the same water rights that the land had before it was allotted, despite the potential impact on state appropriators. Getches, *supra* note 161, at 428-29.

179. *Big Horn I*, *supra* note 31, at 114.

180. United States v. Anderson, 736 F.2d 1358, 1362 (9th Cir. 1984). Other courts have not indicated this restriction on the tribe's reacquired rights. *See Big Horn I*, 753 P.2d at 114 ("Because all the reacquired lands on the ceded portion of the reservation are reservation lands, the same as lands on the diminished portion, the same reserved water rights apply.").

181. *Anderson*, 736 F.2d at 1363.

182. *Id.*

183. *Id.* It is not clear from the court's opinion whether any state-law appropriation rights will bar new *Winters* rights, or whether the state-law rights must be adequate to fulfill the purposes of the reservation. The latter is the preferable interpretation, since inadequate water does not meet the purposes of reacquiring the land in trust status.

of reacquisition, not the date the reservation was originally created,[184] and consequently may be worthless on over-appropriated streams.[185]

V. ADMINISTRATION OF WATER RIGHTS

Water rights and water use within Indian country must be administered in order to assure proper access to and distribution of the water. While the federal government could either administer water rights or delegate the authority to do so, federal regulation of reserved rights to water has been minimal.[186] The possible regulators are thus the tribes and the states, which often assert conflicting authority over the administration of Indian country water rights. Tribal authority should generally be exclusive over Indian reserved rights and possibly over non-Indian water use as well. Tribal ability to regulate water use in Indian country, however, is complicated by an almost 20-year moratorium on Interior Department approval of tribal water codes.[187] For those tribes that require secretarial approval of their laws,[188] the moratorium instituted in 1975 presents a serious roadblock. Nonetheless, many tribes have sought exceptions to the moratorium and approval of their water codes, while other tribes are exempt from the approval requirement or have chosen to attempt regulation without code approval.[189]

A. *Administration of Indian Reserved Rights*

The administration of *Winters* rights to water within Indian country involves the regulation of property rights held by tribes and individual Indians. Tribal authority to regulate Indian property interests within reservations is exclusive of the states.[190] Tribes are sovereign

184. *Id.*

185. Lightstone, *supra* note 178, at 848.

186. *See* 4 WATERS, *supra* note 5, at 269.

187. In 1975, the Secretary of the Interior mandated automatic disapproval of any tribal law that "purports to regulate the use of water on Indian reservations." *See* Steven J. Shupe, *Water in Indian Country: From Paper Rights to a Managed Resource*, 57 U. COLO. L. REV. 561, 579-81 (1986) (discussing the moratorium and Interior Department efforts to promulgate rules for tribal water codes). *See also* Getches, *supra* note 131, at 527-28; 4 WATERS, *supra* note 5, at 266-67.

188. The constitutions of most tribal governments organized under the Indian Reorganization Act of 1934, see 25 U.S.C. § 476 (1988), require that tribal laws and constitutional amendments be approved by the Secretary of the Interior. Tribes whose governments are not constituted under the IRA, however, do not need secretarial approval. Kerr-McGee Corp. v. Navajo Tribe of Indians, 471 U.S. 195 (1985). Moreover, IRA tribes are theoretically free to amend their IRA constitutions to delete the requirement of secretarial approval. *Id.* at 199.

189. *See generally* Shupe, *supra* note 187, at 581-88.

190. Brendale v. Yakima Indian Nation, 492 U.S. 408, 445 (Stevens, J.) and 460 (Blackmun, J. concurring) (1989) (tribes have exclusive authority to zone trust lands); Montana v. United

governments, with authority over their people and their territories,[191] retaining the right "to make their own laws and be ruled by them."[192] Consequently, tribes should have full and exclusive regulatory authority over Indian reserved rights to water, including water rights of allottees and lessees, subject only to any overriding federal regulation.[193]

States are permitted to regulate Indians and Indian property inside Indian country only in "exceptional circumstances."[194] The Supreme Court has confined those circumstances to two situations: liquor regulation and conservation of species.[195] While no court has held that a state may directly regulate reserved rights to water, the Wyoming Supreme Court recently determined that the State Engineer was authorized to monitor all water rights on the Wind River Reservation.[196] The court explicitly noted, however, that the engineer was not empowered to regulate reserved rights under state law, but rather to enforce reserved rights as determined by federal law.[197] The engineer's authority extended to state appropriators in order to protect the tribes' *Winters* rights.[198] In the event the engineer believed the tribes were in violation of their water rights, the court specified that the engineer had no authority to take action against the tribes, but was required to seek enforcement in the Wyoming courts.[199]

B. *Administration of Non-Reserved Rights*

Regulation of non-Indian use of "excess" waters on non-Indian lands within reservations is a more complicated issue.[200] As a rule, tribes may regulate non-Indians on fee lands where the non-Indian

States, 450 U.S. 544, 557 (1981) (tribes have exclusive authority to regulate hunting and fishing on trust lands).

191. Tribes possess "attributes of sovereignty over both their members and their territory." United States v. Mazurie, 419 U.S. 544, 557 (1975); California v. Cabazon Band of Mission Indians, 480 U.S. 202, 207 (1987).

192. Williams v. Lee, 358 U.S. 217, 220 (1959). *See also* New Mexico v. Mescalero Apache Tribe, 462 U.S. 324, 332 (1983).

193. COHEN'S HANDBOOK, *supra* note 6, at 604.

194. *Cabazon*, 480 U.S. at 215.

195. Rice v. Rehner, 463 U.S. 713 (1983) (liquor); Puyallup Tribe v. Washington Dep't of Game, 433 U.S. 165 (1977) (preservation of species).

196. *Big Horn I*, *supra* note 31, at 115.

197. *Big Horn I*, 753 P.2d at 115. The court carefully distinguished between monitoring and regulation: "Incidental monitoring of Indian use to this end has carelessly been termed 'administration' of Indian water by the state engineer." *Id.*

198. *In re* General Adjudication of All Rights to Use Water in the Big Horn River System (*Big Horn III*), 835 P.2d 273, 283 (Wyo. 1992).

199. *Big Horn I*, 753 P.2d at 115; *Big Horn III*, 835 P.2d at 283.

200. The excess waters are those beyond what it necessary to meet *Winters* rights and therefore subject to appropriation under state law.

conduct has some substantial and direct effect on tribal health or welfare, political integrity, or economic security.[201] Although fragmented administration of stream systems would seem almost by definition to adversely affect tribal interests,[202] courts have generally been willing to authorize state regulation of non-Indian use of excess waters.

In one case, the Ninth Circuit held that the state had no authority to regulate water in a creek system in Indian country, including no authority to issue state appropriation permits in the creek.[203] Three years later, however, the court held that state regulation of non-Indian water rights on the Spokane Reservation would not adversely impact tribal interests.[204] The court readily distinguished the two situations. In the earlier case, the creek system was small and non-navigable, located entirely within the reservation, and appropriations from it would imperil tribal agricultural and fisheries use of the water.[205] In the later case, by contrast, the stream system flowed for most of its length outside the Spokane Reservation, creating stronger state interests in regulating.[206] Similarly, as already noted, the Wyoming Supreme Court held that the State Engineer was authorized to en-

201. Montana v. United States, 450 U.S. 544, 566 (1981). *See also* Brendale v. Yakima Indian Nation, 492 U.S. 408, 431 (White, J.) and 456-57 (Blackmun, J.) (1989); South Dakota v. Bourland, 113 S. Ct. 2309, 2320 (1993). In *Montana*, the Court footnoted its articulation of this "direct effects" test, stating that "[a]s a corollary, this Court has held that Indian tribes retain rights to river waters necessary to make their reservations livable." *Montana*, 450 U.S. at 566 n.15.

202. *See* Williams, *supra* note 132, at 78-80 (arguing that the need for uniform regulation and the fact that most water rights within reservations will be subject to tribal administration in any case justify tribal primacy over all water administration in Indian country, subject to a "public interest" standard).

In the context of water quality regulation under the Clean Water Act, the Environmental Protection Agency (EPA) has asserted its understanding "that the activities regulated under the various environmental statutes generally have serious and substantial impacts on human health and welfare." 56 Fed. Reg. 64,876, 64,878 (1991). In particular, EPA stated that the Clean Water Act "itself constitutes, in effect, a legislative determination that activities which affect surface water and critical habitat quality may have serious and substantial impacts." *Id.* Accordingly, EPA determined that tribes will usually be able to show serious and substantial effects on tribal interests, and therefore will also be able to assert tribal regulatory authority over non-Indian activities on fee lands within reservations. *Id.*

203. Colville Confederated Tribes v. Walton (*Walton I*), 647 F.2d 42, 51 (9th Cir. 1981), *cert. denied*, 454 U.S. 1092 (1981).

204. United States v. Anderson, 736 F.2d 1358, 1365 (9th Cir. 1984). *See also* Holly v. Confederated Tribes and Bands of Yakima Indian Nation, 655 F. Supp. 557, 558-59 (E.D. Wash. 1985), *aff'd without opinion sub nom.* Holly v. Totus, 812 F.2d 714 (9th Cir. 1987), *cert. denied*, 484 U.S. 823 (1987) (holding that the Yakima Nation was without authority to extend its water code to nonmembers diverting surplus waters, but declining to determine whether the state or the federal government should regulate).

205. *Walton I*, 647 F.2d at 52; *Anderson*, 736 F.2d at 1365-66.

206. *Anderson*, 736 F.2d at 1366.

force state appropriation water rights on the Wind River Reservation.[207]

Both courts which held that the state was authorized to regulate non-Indian use of water in Indian country emphasized that the state could regulate only the excess water, not Indian reserved rights.[208] Both also stressed their belief that tribal rights would not be adversely impacted because the state was charged with protecting the *Winters* rights of the tribes.[209] Commentators also have noted that state ad-

207. *Big Horn I, supra* note 31, at 114-15; *In re* General Adjudication of All Rights to Use Water in the Big Horn River System (*Big Horn III*), 835 P.2d 273, 282-83 (Wyo. 1992). For critiques of this aspect of the decisions, see Michelle Knapik, Note, *Environmental Law—Who Shall Administer Water Rights on the Wind River Reservation: Has Wyoming Halted an Environmentally Sound Indian Water Management System*, 12 TEMP. ENVTL. L. & TECH. J. 233 (1993); Eric Hannum, Comment, *Administration of Reserved and Non-Reserved Water Rights on an Indian Reservation: Post-Adjudication Questions on the Big Horn River*, 32 NAT. RESOURCES J. 681 (1992).

The court in *Big Horn I* specified that the engineer was empowered to enforce state law with regard to state appropriators, but not to apply state law to tribal reserved rights. Subsequent to the decision, the Wind River tribes attempted to change the use of their future water to an instream flow. When the state engineer refused to curtail junior state appropriators to ensure the instream water for the tribes, they sought an injunction. The trial court removed the engineer from administration of water rights on the Reservation, and made the tribes the sole administrator of all water rights in their territory. *See Big Horn III*, 835 P.2d at 275-76. On appeal, the Wyoming Supreme Court reversed the district court by a 3-2 decision, returning to the *Big Horn I* approach.

The various rationales proposed by the justices of the majority, however, were of concern to the tribes. Justice Macy believed that state law applied to the tribes' water rights and that the state engineer could not be removed from administration of state water rights under the state constitution. *Big Horn III*, 835 P.2d at 282-83. Justice Thomas proposed a unique approach. He argued that a portion of the reservation had been diminished; that the engineer had full authority to regulate water on that portion because it was no longer Indian country; and that therefore, in the interests of unitary regulation, the engineer could also regulate water within the existing reservation. *Id.* at 284. Justice Brown concurred with Macy and Thomas on the issue, on the ground that dual water management would be impractical. *Id.* at 290. Justices Cardine and Golden dissented on the administration issue, and both expressly noted that state law is not applicable to tribal reserved rights. *Id.* at 288 (Cardine) and 296 (Golden). Cardine proposed joint tribal-state administration of the water, *id.* at 287-88, and Golden argued that the trial court's substitution of the tribe for the state engineer was appropriate under the circumstances. *Id.* at 297.

Given the lack of any majority rationale in *Big Horn III*, the majority decision to reinstate the engineer gave the engineer authority only over state appropriation rights, not tribal reserved rights. Justice Macy's opinion, considered the opinion of the court, reiterated those principles from *Big Horn I*. *Big Horn III*, 835 P.2d at 283.

208. *Anderson*, 736 F.2d at 1365-66; *Big Horn I*, 753 P.2d at 115. The Ninth Circuit further specified that the state could only issue appropriation permits for waters in excess of those held by the tribes. *Anderson*, 736 F.2d at 1365.

209. *Anderson*, 736 F.2d at 1365; *Big Horn III*, 835 P.2d at 283. Where tribal rights to water have not been quantified, state administration presents additional difficulties. If states grant non-Indians the right to use water on fee lands within reservations, and that water is later determined to be tribal water under the *Winters* doctrine, the states will have created non-Indian expectations in Indian water. Perhaps for that reason, the tribes of the Flathead Reservation are seeking to enjoin the state from administering new water uses on the reservation prior to the quantification of the tribes' rights to water. *See* Confederated Salish & Kootenai Tribes of the

ministration of appropriation rights should not affect tribal interests because the state is obligated to take account of the prior and paramount tribal rights.[210] Given the history of state indifference and even hostility to tribal water rights, however, not all tribes may be willing to trust the states in this regard, at least not without cooperative agreements or enforcement mechanisms.

VI. Determination of Water Rights

Tribal rights under the *Winters* doctrine have traditionally been determined through judicial litigation. While both federal and state courts can have jurisdiction to determine Indian reserved rights to water, a federal abstention doctrine makes state courts the forum of choice. And while both federal and state courts are bound to follow federal law, the choice of forum can have an effect on the substantive law of *Winters* rights. Perhaps as a consequence, given all the uncertainties attendant upon a judicial determination of water rights, negotiated settlements of tribal claims to water are becoming increasingly common.

A. *Jurisdiction to Adjudicate*

Although tribal rights to water are federal rights, they may under certain circumstances be adjudicated in state court. In 1952, Congress enacted the McCarran Amendment, which expressly permitted the joinder of the federal government in state suits involving the adjudication of water rights in river systems.[211] The Supreme Court subsequently determined, in a case involving federal reserved water rights for a national forest, that the McCarran Amendment authorized state courts to determine federally reserved water rights as part of general stream adjudications.[212] The Court noted that the purpose of the Amendment, to ensure that all the rights in a stream system could be adjudicated in a general proceeding, would be undermined if federal reserved rights were omitted from system-wide adjudications.[213] Five years later, in *Colorado River Water Conservation District v. United*

Flathead Reservation v. Simonich, 29 F.3d 1398 (9th Cir. 1994) (affirming the district court's grant of a stay of the tribes' federal action until state court proceedings are complete).

210. *See* Getches, *supra* note 161, at 432; Fick, *supra* note 168, at 105.

211. 43 U.S.C. § 666 (1988).

212. United States v. District Court in and for Eagle County, 401 U.S. 520 (1971).

213. *Id.* at 525.

States,[214] the Court extended that reasoning to state court adjudications of tribal reserved rights to water.[215]

The *Colorado River* case did more, however, than merely allow state courts concurrent jurisdiction to determine tribal reserved rights. Instead, the Court created a new abstention doctrine based on principles of "wise judicial administration".[216] The United States had filed suit in federal court to determine reserved rights for various federal and Indian reservations, naming state law water users as defendants. Shortly thereafter, one of the defendants sought to add the United States as a party defendant to an on-going state adjudication. The Supreme Court ruled that, given the McCarran Amendment policy against piecemeal adjudication of water rights and the fact that no meaningful progress had been made in the federal court proceeding, the federal court should abstain in favor of the state court proceeding.[217]

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214. 424 U.S. 800 (1976).

215. *Id.* The Court noted that "bearing in mind the ubiquitous nature of Indian water rights in the Southwest, it is clear that a construction of the Amendment excluding those rights from its coverage would enervate the Amendment's objective." *Id.* at 811. The Court's decision has been widely criticized for failing to "confront the strong countervailing interests of the United States and the American Indians in presenting their reserved rights claims to a federal forum." Robert H. Abrams, *Reserved Water Rights, Indian Rights and the Narrowing Scope of Federal Jurisdiction: The Colorado River Decision*, 30 STAN. L. REV. 1111, 1130-31 (1978). *See also* Peter Toren, Comment, *The Adjudication of Indian Water Rights in State Courts*, 19 U.S.F. L. REV. 27 (1984); Michael Lieder, Note, *Adjudication of Indian Water Rights Under the McCarran Amendment: Two Courts Are Better Than One*, 71 GEO. L.J. 1023 (1983); Jeff Taylor & Duane Birdbear, Note, *State Jurisdiction to Adjudicate Indian Reserved Water Rights*, 18 NAT. RESOURCES J. 221 (1978). *But see* Jack D. Palma II, *Indian Water Rights: A State Perspective After Akin*, 57 NEB. L. REV. 295, 310-18 (1978) (arguing that state court adjudication is necessary to avoid uncertainty and disruption of state water rights).

The *Colorado River* case concerned reserved rights in Colorado, one of the few western states without a disclaimer clause over Indian lands in its enabling act. Subsequently, the Court determined that "whatever limitation" enabling act disclaimer clauses may have placed on state adjudications of Indian reserved rights to water, "those limitations were removed by the McCarran Amendment." Arizona v. San Carlos Apache Tribe, 463 U.S. 545, 564 (1983). The Montana Supreme Court subsequently determined that the state constitutional disclaimer clause, as a matter of state law, did not bar state court adjudication of tribal reserved rights. Montana *ex rel.* Greely v. Confederated Salish Kootenai Tribes, 712 P.2d 754, 760-62 (Mont. 1985).

Moreover, the McCarran Amendment apparently applies to state proceedings to determine water rights, even if those proceedings include a significant administrative component. One district court ruled that Oregon's proceedings, which begin with administrative hearings and findings of fact that are then reviewed in a judicial hearing, constituted a "suit . . . for the adjudication" of water rights within the meaning of the McCarran Amendment. United States v. Oregon Water Resources Dep't, 774 F. Supp. 1568, 1576 (D.Or. 1991). *See also* Michael D. White, *McCarran Amendment Adjudications—Problems, Solutions, Alternatives*, 22 LAND & WATER L. REV. 619, 628 (1987) (arguing that states should be authorized to determine reserved water rights in purely administrative proceedings affecting only those federal rights).

216. *Colorado River*, 424 U.S. at 817.

217. *Id.* at 819-20. The Court subsequently ruled that the abstention doctrine should apply even if the federal proceeding was brought by the tribe rather than the United States and sought

Despite the preference for abstention, the Court ruled that the McCarran Amendment does not divest federal courts of their concurrent jurisdiction to determine federally reserved water rights.[218] Subsequent federal decisions refusing to abstain, however, have been rare. In 1983, the Ninth Circuit affirmed a district court's refusal to abstain in favor of the state court, citing a number of differences from the facts in *Colorado River*.[219] The circuit court noted that at the time the federal lawsuit was filed, no state proceedings were underway; in fact, seven years later, the state proceedings had not progressed beyond the fact-gathering stage.[220] Accordingly, the court ruled that to dismiss a completed federal court determination of federal rights would result in duplicate efforts and a waste of judicial resources.[221] Moreover, the court noted that the federal lawsuit sought to determine only the federal-law issue of priority of reserved rights, and therefore would not intrude on the role of the state court in any general stream adjudication.[222] Similarly, the Ninth Circuit also declined

to adjudicate only Indian rights to water. *San Carlos Apache*, 463 U.S. at 565-69. The Court in *San Carlos Apache* premised the abstention doctrine on its assumption "that the state adjudications are adequate to quantify the rights at issue in the federal suits". On remand, the Ninth Circuit refused to determine whether the state proceeding was "adequate," finding that the issue was one "best decided by the state courts in the first instance." Northern Cheyenne Tribe v. Adsit, 721 F.2d 1187, 1188 (9th Cir. 1983).

In addition, the Court in *San Carlos Apache* addressed the tribes' claim that while the McCarran Amendment may have waived federal sovereign immunity, it did not waive tribal sovereign immunity. The Court agreed in part: "although the McCarran Amendment did not waive the sovereign immunity of Indians as *parties* to state comprehensive water adjudications, it did (as we made quite clear in *Colorado River*) waive sovereign immunity with regard to the Indian *rights* at issue in those proceedings." *San Carlos*, 463 U.S. at 566 n.17 (emphasis in original). Recently, a Supreme Court decision on sovereign immunity has raised questions about whether tribes are subject to state water adjudications under the McCarran Amendment. United States v. Nordic Village, Inc., 112 S. Ct. 1011 (1992). The Court held that a waiver of sovereign immunity must be express in the text of the statute and that if there is another "plausible" interpretation of the text, that ambiguity means no waiver. *Id.* Courts have, however, ruled that *Nordic Village* does not affect the traditional interpretation of the McCarran Amendment. *See* United States v. Oregon Water Resources Dep't, 1992 U.S. Dist. LEXIS 10832 (D. Or. 1992). *See also* Idaho Dep't of Water Resources v. United States, 832 P.2d 289 (Idaho 1992), *rev'd on other grounds*, 113 S. Ct. 1893 (1993). *But see* Stephen M. Feldman, *The Supreme Court's New Sovereign Immunity Doctrine and the McCarran Amendment: Toward Ending State Adjudication of Indian Water Rights*, 18 HARV. ENVTL. L. REV. 433 (1994).

218. *Colorado River*, 424 U.S. at 817-20.

219. United States v. Adair, 723 F.2d 1394, 1404-07 (9th Cir. 1984), *cert. denied*, 467 U.S. 1252 (1984).

220. *Id.* at 1404-05.

221. *Id.* at 1405-06. *But see* Matthew Reynolds, Note, *Water Law—The Exercise of Federal Jurisdiction in Reserved Water Rights Litigation*, 20 LAND & WATER L. REV. 511 (1985) (arguing that while the *Adair* court had little practical option other than to affirm federal retention of the case, none of the factors cited by the court warranted federal jurisdiction under the Supreme Court's guidelines in *Colorado River* and *San Carlos Apache*).

222. *Adair*, 723 F.2d at 1406. *But see* Mikel L. Moore & John B. Weldon, Jr., *General Water-Rights Adjudication in Arizona: Yesterday, Today and Tomorrow*, 27 ARIZ. L. REV. 709, 722

to order abstention in favor of a general stream adjudication where the federal court was asked to interpret the rights of the Yakima Nation to fisheries water under a federal consent decree awarding non-Indian irrigation rights.[223] Despite these instances of federal retention of reserved rights cases, most tribal *Winters* rights to water will, as a practical matter, likely be determined in state court general stream adjudications.

When Indian reserved rights are adjudicated in state court proceedings, the state courts are obligated to determine those rights under federal law.[224] The McCarran Amendment is procedural only, and "in no way changes the substantive law by which Indian rights in state water adjudications must be judged. State courts, as much as federal courts, have a solemn obligation to follow federal law."[225] Nonetheless, the state and federal courts have often taken quite different approaches to fundamental issues in *Winters* rights adjudications,[226] fracturing what should be a uniform federal law of Indian water rights. Tribes may thus have little reason to believe that state courts will follow their obligation under *Colorado River* to fairly determine Indian reserved rights to water under federal law.[227]

(1985) ("Requiring a state court to 'plug' the federal determination of reserved rights into the broader state decree is unworkable.").

223. Kittitas Reclamation Dist. v. Sunnyside Valley Irrigation Dist., 763 F.2d 1032, 1034-35 (9th Cir. 1985), *cert. denied sub nom.* Sunnyside Valley Irrigation Dist. v. United States, 474 U.S. 1032 (1985) ("The parties intended no general adjudication of water rights and no party moved to dismiss the federal suit.").

224. Professor Tarlock contends that: "In practice, the effect of *Colorado River* may be overexaggerated as the substance of *Winters* rights are much more important than the forum of their adjudication." Tarlock, *supra* note 20, at 661; *see also* Elizabeth McCallister, Note, *Water Rights: The McCarren [sic] Amendment and Indian Tribes' Reserved Water Rights*, 4 AM. INDIAN L. REV. 303, 307 (1976). The difficulty is that the forum may in fact affect the substance. *See infra* text accompanying notes 226-227.

225. Arizona v. San Carlos Apache Tribe, 463 U.S. 545, 571 (1983). *See also* Montana *ex rel.* Greely v. Confederated Salish Kootenai Tribes, 712 P.2d 765-66 (Mont. 1985)("We hold that state courts are required to follow federal law with regard to [Indian reserved] water rights.").

226. Section III of this primer is rife with examples, particularly of disparate approaches taken by the Ninth Circuit and the Wyoming Supreme Court. As noted at various points in that section, some justices on the Wyoming Supreme Court have asserted their belief that *state* law controls the exercise of tribal reserved rights to water.

227. Tribes fear that state economic interests in the water, the vulnerability of state court judges to reelection concerns, and the actual or perceived historic bias of state courts against Indian interests will all preclude fair adjudication of Indian reserved rights. *See* Abrams, *supra* note 215, at 1131-32 and 1141-44; Donald D. MacIntyre, *Quantification of Indian Reserved Water Rights in Montana: State ex rel. Greely in the Footsteps of San Carlos Apache Tribe*, 8 PUB. LAND L. REV. 33, 54-58 (1987). Those tribal concerns are not unfounded. As noted by a special assistant attorney general in the *Big Horn* litigation: "States and their water users not only want certainty, but also a little justice, at least for themselves.... Justice, at least from that viewpoint, dictates that whatever resolution may be reached, [it] will not injure present users." White, *supra* note 215, at 625. *See also* Orem, *supra* note 130, at 460 (arguing that the danger of inconsistent state and federal decrees "should outweigh the contentions that Indian water rights will

B. *The Settlement Alternative*

The use of litigation to determine tribal rights to water has additional potential drawbacks. Litigation, particularly in the context of a state general stream adjudication, is lengthy and expensive, resulting in a determination of paper rights to water but delivering no actual water to reservation economies and providing no funds for future delivery.[228] Those disadvantages, coupled with litigation in a potentially hostile forum, have led to increasing use of negotiated settlements.

Settlements offer both tribes and states advantages over protracted litigation. Negotiated settlements are flexible to accommodate local needs, and they provide cheaper and faster resolution of difficult issues. Tribes receive "wet" water rather than mere paper rights, and states gain the desired certainty of water rights.[229] In addition, tribes are often able to bargain for aspects of *Winters* rights that are unresolved by the courts, such as access to groundwater, change in use of the PIA water right, and off-reservation water marketing.[230]

Nonetheless, settlement of reserved rights to water has its critics. Tribes invariably give up some measure of their legal rights to water in the course of settlement negotiations.[231] If water quantity and priority issues are not first determined by a court, tribes may find themselves in a weak bargaining position for concessions on other important issues.[232] As a result, tribes may prefer to litigate certain basic reserved rights issues, in particular the tribal right to water, priority date, and

not receive just adjudication in state courts before judges elected by a popular, non-Indian majority.").

The Klamath Tribe recently argued that subjecting the determination of its water rights to state proceedings violated its due process right to an impartial decision maker. United States v. Oregon Water Resources Dep't, 774 F. Supp. 1568, 1579 (D. Or. 1991). The federal court, however, found that the tribe had failed to produce evidence that, simply because the state had litigated against the tribe on its treaty rights, the state would not be impartial in determining the tribe's water rights. *Id.*

228. *See* John A. Folk-Williams, *The Use of Negotiated Agreements to Resolve Water Disputes Involving Indian Rights*, 28 NAT. RESOURCES J. 63, 69 (1988); Gina McGovern, Note, *Settlement or Adjudication: Resolving Indian Reserved Rights*, 36 ARIZ. L. REV. 195, 197 (1994); Daina Upite, Note, *Resolving Indian Reserved Water Rights in the Wake of San Carlos Apache Tribe*, 15 ENVTL. L. 181, 198 (1984).

229. Upite, *supra* note 228, at 199.

230. PETER W. SLY, RESERVED WATER RIGHTS SETTLEMENT MANUAL 193 (1988); McGovern, *supra* note 228, at 218. *See generally supra* Section III.

231. BURTON, *supra* note 41, at 80-81.

232. *See Indian Water Rights Disputes*, *in* RETHINKING INDIAN LAW 96 (1982); Folk-Williams, *supra* note 228, at 70, 100.

quantification, before they negotiate water rights settlements with the states.[233]

Despite potential drawbacks to negotiation, settlement of Indian rights to water has become increasingly common since the 1970s[234] and likely will continue to be a preferred method of determining the scope and extent of *Winters* rights. The most significant barrier to settlement may be the history of mutual distrust between the tribes and states; advocates of negotiated settlements posit that successful water rights settlements may not only provide both tribes and states with the water they need, but foster an increased spirit of general governmental cooperation.

VII. WINTERS RIGHTS IN RIPARIAN JURISDICTIONS

As noted earlier, no case has ever conclusively determined whether the *Winters* doctrine of tribal reserved rights to water extends to tribes whose reservations are located in riparian or dual riparian/appropriation states. Instead, the doctrine has thus far developed largely against the backdrop of the prior appropriation system of state water rights.[235]

A. *Winters Rights in Riparian States*

No court has ever adjudicated a tribal claim to *Winters* rights in a purely riparian jurisdiction. A lawsuit brought by the Seminole Tribe in Florida[236] that might have addressed the issue was settled by enactment of the Florida Indian (Seminole) Land Claims Settlement Act of 1987,[237] which incorporated the Seminole Water Rights Compact as federal law.[238] The Compact did not quantify Seminole water rights, but rather recognized the Tribe's rights to a percentage of the water

233. Folk-Williams, *supra* note 228, at 70-71; Susan D. Brienza, *Wet Water vs. Paper Rights: Indian and Non-Indian Negotiated Settlements and Their Effects*, 11 STAN. ENVTL. L.J. 151, 172 (1992).

234. *See* SLY, *supra* note 230, at 25-26.

235. *Id.* at 192-93.

236. Florida is no longer a "pure" riparian jurisdiction, in the sense that it has altered its common-law riparian doctrine by instituting a state permit system for riparian uses. FLA. STAT. ANN. §§ 373.203-249 (West 1983).

237. 25 U.S.C. §§ 1772-1772g (1988).

238. 25 U.S.C. § 1772e (1988). The Compact is reprinted in *Seminole Indian Land Claims Settlement Act of 1987: Hearing on S. 1684 Before the Senate Select Comm. on Indian Affairs*, 100th Cong., 1st Sess. 83-122 (1987) [hereinafter *Seminole Hearing*]. *See generally* Jim Shore & Jerry C. Straus, *The Seminole Water Rights Compact and the Seminole Indian Land Claims Settlement Act of 1987*, 6 J. LAND USE & ENVTL. L. 1 (1990); Barbara S. Monahan, Note, *Florida's Seminole Indian Land Claims Agreement: Vehicle for an Innovative Water Rights Compact*, 15 AM. INDIAN L. REV. 341 (1991).

available from specified sources.[239] Pursuant to the Compact, the Tribe agreed to comply with most of the non-procedural "terms and principles" of the state water system, although Seminole water rights are perpetual in contrast to state water rights, which are subject to periodic renewal by the state.[240] Regulation of Seminole water use is the exclusive province of the Tribe; neither the state nor the regional water management district has any administrative control over the Tribe's water use, although the Tribe is obligated to provide notice of its uses by filing an annual plan with the water management district.[241]

B. *Winters Rights in Dual-System States*

The Supreme Court has confirmed *Winters* rights, without modification, for Indian reservations in California, a dual riparian/appropriation state.[242] In *Arizona v. California*, the United States asserted claims to water on behalf of five reservations, three of which are located in whole or in part in California.[243] All five reservations were awarded water rights in the Colorado River based on the *Winters* doctrine, quantified by the PIA standard. Although the Court did not address the fact that some of the reservations were located in a dual system state, the case may indicate the Court's willingness to apply the *Winters* doctrine in riparian and dual-system jurisdictions.

In addition to *Winters* rights, tribes may also be able to assert state-law riparian rights to water for additional purposes not covered by their reserved rights. The California Supreme Court held, in the context of non-Indian lands, that federally-reserved lands are entitled to riparian rights under state law.[244] The court noted that while the federal lands carried a reserved right to water to meet the primary purposes of the reservation, the federal government also had riparian rights in a national forest for water to meet the secondary purposes of the reservation.[245] In so holding, the court relied on the Supreme Court decision in *United States v. New Mexico*, in which the Court

239. *Seminole Water Rights Compact* at 25-27, *reprinted in Seminole Hearing*, *supra* note 238, at 111-13. The percentage was generally 15%.
240. *Seminole Hearing*, *supra* note 238, at 41-42.
241. *Id.* at 43-44.
242. Oklahoma is now ostensibly a dual-system state. *See* Franco-American Charolaise, Ltd. v. Oklahoma Water Resources Bd., 855 P.2d 568 (Okla. 1990).
243. 373 U.S. at 600. Of the five reservations at issue, see *id.* at 595 n.97, the Chemehuevi Reservation is located in California and small portions of the Colorado River and Fort Mohave Reservations extend into that state as well.
244. *In re* Water of Hallett Creek Stream System, 749 P.2d 324 (Cal. 1988).
245. *Id.* at 327-30.

held that non-Indian federal reservations carried an implied right to water necessary to fulfill the primary purposes of the reservation.[246] The Court noted, however, that the federal government could seek water for secondary purposes under state law. Based on those principles, the California court recognized the federal government's right to seek riparian rights for purposes not covered by reserved rights water.[247] Under state law, however, in order to avoid disruption of settled water rights, the State Water Resources Control Board could subordinate the riparian rights to any appropriative rights authorized before the riparian right was exercised.[248]

While the applicability of *New Mexico*'s primary-purpose test to Indian reservations is doubtful,[249] the California court's reasoning should be applicable to Indian lands. In other words, Indian tribes should be entitled to perfect water rights under state law over and above their *Winters* rights. In appropriation states, tribes could acquire appropriation rights under state law; in riparian or dual-system states, tribes could assert their riparian rights. For tribes, these state-law rights could help offset the rulings of some courts that *Winters* rights cannot be used for purposes other than agricultural uses.

VIII. CONCLUSION

The tribal reserved right to water has long been a dormant issue in Oklahoma. For the most part, the tribes have not asserted and the state has not taken account of *Winters* rights. As the state seeks to clarify its water laws, however, it would be negligent to ignore the claims of 36 tribes to the water resources. The tribes in Oklahoma also would benefit by early assertion and determination of tribal claims to water. One of the clear lessons of the appropriation states is that the more entrenched the state system becomes and the scarcer the water resource, the greater the hostility when tribes assert their reserved rights to water. As Oklahoma struggles with the appropriate state system of water allocation, it has a unique opportunity, in con-

246. 438 U.S. 696, 702 (1978).

247. The *New Mexico* Court stated that the federal government could "acquire water [for secondary purposes] in the same manner as any other public or private appropriator." *New Mexico*, 438 U.S. at 702. As the California court noted, however, New Mexico recognized only appropriation rights. California, by contrast, recognized both appropriation and riparian rights. Accordingly, the court held, the United States could acquire water for secondary purposes in the same manner as any other public or private entity: that is, by the assertion of riparian rights. *Hallett Creek*, 749 P.2d at 330.

248. *Id.* at 336-38.

249. *See* 4 WATERS, *supra* note 5, at 219-20; COHEN'S HANDBOOK, *supra* note 6, at 583-84.

junction with the tribes, to develop a system which accommodates and accounts for tribal rights to water at the outset. Whether Oklahoma and the Indian tribes take advantage of that opportunity will affect water resources and tribal-state relations for decades to come.