Quantification of Indian Water Rights: Foresight or Folly?

> There has been a lot said about the sacredness of our land which is our body; and the values of our culture which is our soul; but water is the blood of our tribes, and if its life-giving flow is stopped, or it is polluted, all else will die and the many thousands of years of our communal existence will come to an end.
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> Frank Tenorio, Governor
> Pueblo San Felipe, 1975

I.
INTRODUCTION

Indian water rights hang over the western United States like thunderclouds over a picnic. When water is scarce and demand is high, as is so often true in the arid West, beneficial use of all available water is desirable. The public generally views Indian water rights as an obstacle to such beneficial use. Moreover, non-Indians view Indian water rights as a threat to existing non-Indian interests. The National Water Commission summarized the situation as follows:

> The future utilization of early Indian rights on fully appropriated streams will divest prior uses initiated under both State and Federal law (and often financed with Federal funds) and will impose economic hardship, conceivably amounting in some cases to disaster for users with large investments made over long periods of time. The existence of unquantified Indian claims on streams not yet fully appropriated makes determination of legally available supply difficult and thus prevents satisfactory future planning and development.[1]

To resolve this dilemma, the Commission proposed quantification of the Indian claims, thereby fixing with certainty the amount of water the Indians are entitled to receive.

This comment will discuss the fundamental issues surrounding the quantification process and will also highlight certain problems inherent in this process. Using those problems as a springboard, the comment will go on to show that quantification is ill-advised be-

1. NATIONAL WATER COMM'N, WATER POLICIES FOR THE FUTURE, FINAL REPORT TO THE PRESIDENT AND TO THE CONGRESS 473, 477 (1973).

cause it serves neither side to any water dispute very well and because it is poorly suited to the task it is purportedly intended to accomplish: maximizing efficient utilization of western water resources.

II.
BACKGROUND

Virtually all federal Indian Reservations[2] are located in the western United States. In order to understand any discussion of tribal water rights on those Reservations, one must have a fundamental knowledge of the principles that govern water use in the relevant states.

Some form of appropriation doctrine governs water law throughout the West. The system of prior appropriation originated among gold miners during the California gold rush. The first miner to divert a specific amount of water from a stream had a priority claim to that amount of water in the stream. If water was still available in the stream, another miner could divert it and establish his own claim, which was subject to the claim of the first miner. The second miner, along with all others who came after him, was a junior appropriator. The priority of each appropriator was determined first by the date of diversion and, later, when states imposed permit systems, by the date of the permit.

Since the burden of water shortage in times of drought is borne first by junior appropriators to the full extent of their claims, rather than on a pro rata basis, the priority date of an appropriative right can be crucial. Assume one appropriator has a claim to 500,000 acre-feet of water with a priority date of 1862, another appropriator to 200,000 acre-feet with a priority date of 1875, and a third to 400,000 acre-feet with a priority date of 1890. Assume further that the normal flow of the river in question is 1,100,000 acre-feet per year. In the event of a drought that reduces the flow by 300,000 acre-feet in any given year, the drought will affect only the third appropriator. The prior appropriation doctrine will reduce his claim to 100,000 acre-feet. The first appropriator will not feel the pinch until the drought reduces water flow by more than 600,000 acre-feet. This priority system is often referred to as "first in time, first in right." Another principle of prior appropriation, forfeiture

2. For purposes of clarity, the word "Reservation" will refer to land reservations specifically set aside for Indians while the word "reservation" will be used for all other purposes.

for non-use, is often summarized by the phrase "use it or lose it." Under this principle, an appropriator forfeits any amount of water claimed but not used for a certain period of time.[3]

The landmark case of *Winters v. United States*[4] first announced the doctrine of reserved water rights for Indian Reservations. *Winters* involved the Milk River, which flowed through the Fort Belknap Indian Reservation in Montana. The Reservation was created in 1888 and Indians began diverting water for purposes of irrigation in 1898. Henry Winters and other defendants acquired land which had been opened for settlement following creation of the Reservation, and also diverted water from the Milk River. The settlers' diversions pre-dated virtually all of the Indians' diversions.[5] Justice McKenna noted in the Court's opinion that the settlers were without notice that the Indians had any claim to water in the river. Nevertheless, though recognizing that the settlers had legitimate claims to the water, the Court found the Indians' claim paramount. The Court believed it was inconceivable that either Congress or the tribes would create the Reservation in this arid region without also reserving sufficient water to meet Reservation purposes.[6]

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3. Wilkinson, *Western Water Law in Transition*, 56 COLO. L. REV. 317, 317-21 (1985); *see also* D. GETCHES, WATER LAW IN A NUTSHELL 78-191 (1984).

4. 207 U.S. 564 (1908).

5. The United States diverted approximately 250 miners' inches of water for use in and around agency buildings. 207 U.S. at 568. This diversion pre-dated the settlers' diversions and, therefore, had priority. The Reservation would get this amount of water before others were allowed to divert any water at all.

6. 207 U.S. at 576. Whether the Indians reserved the water rights in a fashion similar to the hunting and fishing rights discussed in United States v. Winans, 198 U.S. 371 (1905), or whether Congress reserved the rights for the tribes is somewhat unclear in the *Winters* opinion. The Reservation was carved from a larger tract of aboriginal land. The Court at one point notes that the Indians did not relinquish the water rights when they ceded the lands. 207 U.S. at 576. Yet the Court also noted that the government reserved the water rights. *Id.* at 577. This ambiguity has resulted in a fierce dispute. If the Indians reserved the water, then the claim would date back to "time immemorial" and would potentially include all the water available. If the government reserved the water, the claim would arise on the date the Reservation was created and would be limited to the amount necessary to achieve the purposes for which the Reservation was created. *See* M. PRICE, LAW AND THE AMERICAN INDIAN 698 (2d ed. 1983); Bloom, *Indian "Paramount" Rights to Water Use*, 16 ROCKY MTN. MIN. L. INST. 669, 670 (1971) ("In its most virulent form, its proponents hold that tribal Indians have reserved to themselves and are entitled to enjoy immemorial rights to as much of the waters as they may wish to put to use."); Veeder, *Indian Prior and Paramount Rights to the Use of Water*, 16 ROCKY MTN. MIN. L. INST. 631, 649 (1971) ("the prior and paramount rights stem from the fact that title to those rights has always resided in the American Indians. There are no interests which could be prior in time or right.")

Although it is analytically more satisfying to view the water as reserved by the Indians, based on the sound logic set forth in *Winans* and on notions of tribal sovereignty and vested Indian property rights, it may be better for some tribes if the water is viewed

Winters rights exist outside state appropriation systems[7] and differ from typical appropriative water rights in several significant ways. First, the tribe does not need to actually divert the water to establish the right and does not need a state permit.[8] Second, the date the Reservation was created rather than the date of diversion or the date of issuance of a permit determines the priority of the right.[9] Third, and of particular significance, state laws regarding forfeiture for non-use do not apply to *Winters* rights.[10] Thus, since others can legally use water not being used by Indians, future use by a tribe can potentially divest prior non-Indian users.[11]

Though *Winters* rights are expansive, they have rarely resulted in any benefit for the Indians. As pointed out in the following frequently-cited passage by the National Water Commission, the federal government itself simply ignored Indian water rights for decades:

> Following *Winters*, more than 50 years elapsed before the Supreme Court again discussed significant aspects of Indian water rights. [Citations omitted.] During most of this 50-year period, the United States was pursuing a policy of encouraging the settlement of the West and the creation of family-sized farms on its arid lands. In ret-

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as reserved by the government. This is so because a government reservation of water rights extends to Indian Reservations created by Congress or executive order, even when the reservation is on non-aboriginal lands. *See* M. PRICE, *supra*, at 698. Since *Winters* is ambiguous, it might be possible to rely on a tribal reservation of water for tribes whose Reservation lands were set aside by treaty, particularly on aboriginal land, and assert a government reservation when the tribe resides on Reservation lands set aside by congressional act or executive order. *See* NAT'L WATER COMM'N, *supra* note 1, at 473 ("When the Reservation is located on lands aboriginally owned by the Indian tribe, their rights may even be said to have existed from time immemorial.").

The Supreme Court has apparently adopted the interpretation that Congress reserved the water to fulfill Reservation purposes: "We follow [*Winters*] now and agree that the United States did reserve the water rights for the Indians effective as of the time the Indian Reservations were created." Arizona v. California, 373 U.S. 546, 600 (1963).

7. *See* United States v. New Mexico, 438 U.S. 696 (1978); Cappaert v. United States, 426 U.S. 128, 138 (1976); United States v. District Court for Eagle County, 401 U.S. 520, 522-23 (1971); Arizona v. California, 373 U.S. 546, 597-600 (1963), *decree entered*, 376 U.S. 340 (1964).

8. NATIONAL WATER COMM'N, *supra* note 1, at 473; F. COHEN, HANDBOOK OF FEDERAL INDIAN LAW 578 (1982 ed.).

9. F. COHEN, *supra* note 8, at 578.

10. *Id.* It has been suggested that, even when using expansive language regarding the *Winters* doctrine and finding in favor of the Indians, courts often actually grant less than the amount needed even for present uses. The argument is that courts are implicitly applying the "use it or lose it" principle. Dellwo, *Indian Water Rights—the* Winters *Doctrine Updated*, 6 GONZ. L. REV. 215, 233-34 (1971). The courts might also implicitly be applying theoretically equitable considerations to protect existing non-Indian uses. *See infra* notes 41-52 and accompanying text.

11. F. COHEN, *supra* note 8, at 477.

> rospect, it can be seen that this policy was pursued with little or no regard for Indian water rights and the *Winters* doctrine. With the encouragement, or at least the cooperation, of the Secretary of the Interior—the very office entrusted with protection of all Indian rights—many large irrigation projects were constructed on streams that flowed through or bordered Indian Reservations, sometimes above and more often below the Reservations. With few exceptions, the projects were planned and built by the Federal Government without any attempt to define, let alone protect, prior rights that Indian tribes might have had in the waters used for the projects. . . . In the history of the United States Government's treatment of Indian tribes, its failure to protect Indian water rights for use on the Reservations it set aside for them is one of the sorrier chapters.[12]

Since 1908, conflicts over *Winters* rights have rarely arisen,[13] predominantly because Indian tribes have not had the resources to make use of the water. Turning these "paper rights" into "wet water" has been and remains a significant problem for Indians.[14] Of the handful of cases interpreting *Winters* since the Court handed it down in 1908, the most important is *Arizona v. California*.[15] *Arizona v. California* involved a dispute over allocation of Colorado River water between Arizona, California, Nevada, Utah, and New Mexico. The United States intervened to assert claims to water on behalf of five Indian tribes and for use in national forests, recreation and wildlife areas, and other federal lands.[16] The Reservations involved were created or enlarged by executive orders. The Court, in reaffirming the holding in *Winters*, found that creation of the Reservations gave rise to an implied reservation of water rights sufficient to satisfy the purposes for which the Reservations were created.[17] Significant aspects of this case will be discussed in appropriate places below.

In recent decades, however, conflict with Indian tribes over their water rights has increased dramatically. This is partly because tribes now have a greater ability to assert their rights and also have greater knowledge of the consequences of their failure to do so. Additionally, many tribes, in their effort to achieve self-sufficiency, are

12. NATIONAL WATER COMM'N, *supra* note 1, at 474.

13. *See* Shrago, *Emerging Indian Water Rights: An Analysis of Recent Judicial and Legislative Developments*, 26 ROCKY MTN. MIN. L. INST. 1105, 1108 n.14 (1980).

14. Miklas & Shupe, *Introduction*, in INDIAN WATER 1985, at ix (1986).

15. 373 U.S. 546 (1963). *Arizona v. California* has a complex procedural history, which resulted in more than one Supreme Court ruling, and which carries the potential for further Supreme Court involvement.

16. *Id.* at 595.

17. *Id.* at 600.

planning projects which require water.[18] More importantly, the pressure on the limited supply of Western water is becoming critical. For a long time, enough water existed to satisfy all claims in most water basins so long as reclamation projects maximized availability and waste was minimized. Increased population, massive irrigation projects, and a new definition of beneficial use, now expanded to include instream needs, recreation, and scenic beauty, all put pressure on the West's finite and invaluable water resources. While non-Indian water users become less willing to share the available water, Indians are becoming increasingly assertive about claiming and using their water rights. Since it is unlikely that the Supreme Court will negate eighty years of consistent loyalty to the *Winters* doctrine, and since Congress is equally unlikely to legislate the doctrine out of existence at this juncture,[19] the focus of many of the current disputes has been on quantifying the Indian rights. Quantification, which may ultimately prove to be a back door approach to eliminating *Winters* rights, involves determination of the specific amount of water to which the Indians are entitled as well as designation of the priority date of each tribe's claim.

III.
ANALYSIS

Ordinary people often become impassioned advocates when water rights questions arise. This is especially so in the arid West, where water rights are zealously sought and jealously guarded. Quantification of Indian water rights is no exception and has inspired heated debate on many issues, including how to measure the Indian's entitlement, how to take into account equitable considerations, and whether quantification itself is an appropriate way to deal with *Winters* rights.

A. *Measure of the Right*

One significant question in a quantification proceeding is how to measure the tribe's entitlement. The *Winters* case sets forth the principle that Congress reserved sufficient water to fulfill the purposes of the Reservation when the Reservation was created.[20] This formulation contains two pressure points: first, the purposes for

18. J. FOLK-WILLIAMS, WHAT INDIAN WATER MEANS TO THE WEST: A SOURCEBOOK 25 (1982).

19. Collins, *The Future Course of the* Winters *Doctrine*, in INDIAN WATER 1985, at 89 (1986).

20. F. COHEN, *supra* note 8, at 575-76.

which the Reservation was created; and second, how much water is sufficient to fulfill those purposes.

1. Reservation Purposes

To determine Reservation purposes, courts typically look at the language in the relevant agreements, treaties, statutes, and executive orders, and consider legislative history and traditional uses. From such an examination, the court usually decides the Reservation was intended to transform the Indians from a nomadic to a pastoral people[21] or to guarantee the Indians a place to pursue their traditional way of life, such as fishing or hunting.[22]

In *United States v. New Mexico*,[23] the Supreme Court modified this traditional analysis. To quantify the amount of water reserved for a national forest, the Court distinguished between primary and secondary purposes of the original reservation of land. In the national forest context, the Court found timber production and maintenance of the watershed to be the primary purposes of the land reservation. The Court found wildlife preservation, recreation, and aesthetic beauty to be secondary purposes for which the government may seek to appropriate water through state appropriation systems.

It is not clear whether this primary/secondary purposes distinction applies to Indian land reservations or, if it does, what effect it will have on the legal analysis. Indian Reservations are often treated differently than other federal reservations of land, and this distinction may change the primary/secondary analysis. Moreover, most treaties fail to enunciate specific purposes for the Reservation in the way that congressional acts creating other sorts of government reservations usually do. It would, therefore, be difficult to separate primary and secondary purposes. For example, if an Indian Reservation were created explicitly as a "permanent home" for the Indians or to "advance the civilization of the Indians" and no other indication of Reservation purposes is available, primary Reservation purposes might include a wide variety of endeavors.[24] On the other hand, it has been suggested that, if the primary Reserva-

21. *See, e.g., Winters*, 207 U.S. at 576-77; Arizona v. California, 373 U.S. at 596.

22. *See, e.g.*, Alaska Pac. Fisheries v. United States, 248 U.S. 78 (1918); Muckleshoot Indian Tribe v. Trans-Canada Enterprises, Ltd., 713 F.2d 455 (9th Cir. 1983), *cert. denied*, 465 U.S. 1049 (1984); Colville Confederated Tribes v. Walton, 647 F.2d 42 (9th Cir.), *cert. denied*, 454 U.S. 1092 (1981); United States v. Finch, 548 F.2d 822 (9th Cir. 1976), *rev'd on other grounds*, 433 U.S. 676 (1977).

23. 438 U.S. 696 (1978).

24. *See* D. GETCHES, *supra* note 3, at 304.

tion purpose is to create a permanent homeland for the Indians, then even agricultural use is secondary.[25]

The Supreme Court has not yet ruled on the applicability of the *New Mexico* standard to Indian water rights. The Ninth Circuit, however, had occasion to consider Reservation purposes subsequent to *New Mexico* in *Colville Confederated Tribes v. Walton*.[26] The court paid lip service to the *New Mexico* standard but, ignoring the primary/secondary purposes distinction, went on to note that "[t]he specific purposes of an Indian reservation . . . were often unarticulated. The general purpose, to provide a home for the Indians, is a broad one and must be liberally construed."[27]

No analytically sound reason exists for interpreting Reservation purposes narrowly rather than broadly. The broad view, which many commentators support, holds that Reservations were intended to establish a permanent and economically self-sufficient home for the Indians.[28] To adopt this broader view, as the *Colville* court did, allows a court to use virtually any measure, including agricultural, municipal, industrial, or mining requirements, to determine a tribe's water entitlement. Such an approach is more in accord with *Winters* itself, which plainly anticipated the problem of changing Reservation needs by establishing an open-ended standard.[29]

2. Sufficient Water

A determination of how much water is sufficient to fulfill Reservation purposes appears, at first blush, to be a more straightforward and technical process. However, experience shows that, in fact, it is a complex and subjective process involving several difficult issues. Though an in-depth discussion of those issues is beyond the scope of this comment, it is appropriate to take note of the most significant issues at this time.

First, the proper measure of the right must be determined. The most commonly applied measure is "practicably irrigable acreage"

25. Shrago, *supra* note 13, at 1130.

26. 647 F.2d 42 (9th Cir. 1981), *cert. denied*, 454 U.S. 1092 (1981).

27. *Id.* at 47. The court then proceeded down a more predictable path and found Reservation purposes to include both agriculture and fishing. The executive order creating the Colville Reservation stated merely that "the country . . . [is] set apart as a reservation for said Indians . . . ." *Id.* at 47 n.8.

28. *See* F. COHEN, *supra* note 8, at 584; D. GETCHES, *supra* note 3, at 304; *see also* Alaska Pac. Fisheries v. United States, 248 U.S. at 88; Colville Confederated Tribes v. Walton, 647 F.2d at 47.

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

(PIA), the measure adopted by the Supreme Court in *Arizona v. California*.[30] In effect, this measure involves a determination of how much acreage on the Reservation is practicably irrigable and how much water is necessary to irrigate that acreage.[31]

Since the *Arizona v. California* decision was first announced in 1963, PIA has been the favored measure. It does not always work well, however, and lower courts have persisted in attempts to formulate other acceptable measures. Most commonly, these alternative measures either incorporate impermissible elements such as "present uses,"[32] which have been rejected by the Supreme Court, or fail to satisfy the purpose of the quantification proceeding by failing to make certain the scope of the *Winters* right.[33]

The PIA standard itself is not without problems. Foremost is that application of the PIA measure without careful consideration of the facts on a case-by-case basis can produce anomalous results. Some Reservations have no practicably irrigable acreage at all, but are uniquely suited to some other use, such as recreation or mining. Despite the need for a careful evaluation of the propriety of PIA in any given case, most courts simply apply the standard unless the tribe makes an affirmative showing that another standard is more appropriate. Such a showing in many cases has depended on traditional tribal activities. Accordingly, tribal land with potential for more modern uses such as recreation, power generation, and mining, but with little practicably irrigable acreage, may not receive sufficient water for the most desirable and efficient uses.[34]

A similar problem occurs when a tribe whose water has been quantified in terms of PIA wishes to divert some of the water from irrigation to other uses. A supplemental decree entered in 1979 in *Arizona v. California* stated: "[R]eference to a quantity of water necessary to supply consumptive use required for irrigation . . . shall

30. *See* note 15 & accompanying text.

31. Shupe, *Identifying Practicably Irrigable Acreage (PIA)*, in INDIAN WATER 1985, at 105 (1986).

32. Such a measure would limit the Indians to the amount of water actually utilized at the time of the adjudication, the approach rejected by *Winters*.

33. *See* Laird, *Water Rights: The* Winters *Cloud Over the Rockies: Indian Water Rights and the Development of Western Energy Resources*, 7 AM. INDIAN L. REV. 155, 165-66 (1970); Comment, *The Irrigable Acres Doctrine*, 15 NAT. RESOURCES J. 375, 379-82 (1975).

34. *See, e.g.*, Colville Confederated Tribes v. Walton, 647 F.2d 42, 48 (9th Cir.), *cert. denied*, 454 U.S. 1092 (1981) ("Providing for a land-based agrarian society, however, was not the only purpose for creating the reservation. The Colvilles traditionally fished for both salmon and trout. Like other Pacific Northwest Indians, fishing was of economic and religious importance to them.").

constitute 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."[35] It thus appears settled that, once quantified on any basis, Indians can put reserved water to any use the tribe desires.[36]

The qualifier "practicably" in the PIA standard introduces certain problematic features into the equation. Although the Supreme Court has never articulated the need for a cost/benefit analysis, such an economic element seems inherent in the term "practicable." Analyzing a proposed Indian water project on a cost/benefit basis, however, is difficult in many ways. Most of the problems are inherent in a process which attempts to place finite boundaries on a property right intended to vary over the years. For example, one problem is determining whether to confine the analysis to primary benefits or to consider secondary benefits as well. Primary benefits are generally limited to the direct increase in net farm income attributable to the water project. Secondary benefits include a higher employment rate, a higher standard of living, improved health from better nutrition, and a generally more prosperous tribal economy.[37]

Another controversial issue relating to the cost/benefit analysis is determination of an appropriate discount rate. Selection of a discount rate is one small step in the process, but has sufficiently serious ramifications to decide the success of any given water project.[38]

Yet another issue in determining "practicability" which is often disputed is what technology to apply. The non-Indian parties in *Arizona v. California* urged the Court to calculate "practicability" based on nineteenth-century technology because that was when the Reservations were created. Special Master Rifkind declined to accept that argument and relied on modern technology in determining

35. 439 U.S. 419, 422 (1979).

36. *See* D. GETCHES, *supra* note 3, at 305.

37. Burness, Cummings, Gorman & Lansford, *The "New"* Arizona v. California*: Practicably Irrigable Acreage and Economic Feasibility*, 22 NAT. RESOURCES J. 517, 519 (1982). "The equity implications of measuring the feasibility of a right which is 'reserved' through time with standards extant at a particular moment in time pose an (as yet) unanswered challenge in water rights law." *Id.* at 521-22 & n.22.

38. Burness, Cummings, Gorman & Lansford, *Practicably Irrigable Acreage and Economic Feasibility: The Role of Time, Ethics, and Discounting*, 23 NAT. RESOURCES J. 289 (1983). Assume, for example, that a given project will produce benefits totalling $100,000,000 over 100 years. If a 2% discount rate is applied, investors should be able to spend $43,527,202 on the project and still break even. If a 4% discount rate is applied, the sum investors can spend and break even is reduced to $24,990,294. At 8%, the most that can be spent without losing money is $12,984,476, and at 11% it is $9,577,586.

PIA. The Court found the overall conclusions of the Special Master reasonable,[39] but did not specifically address the technology problem in its opinion. Nevertheless, the view that quantification must proceed in light of current conditions is the most analytically sound. The *Winters* case established a right that is open-ended in nature, a right the Court intended to continue through the years to fulfill Reservation purposes.[40] The open-ended nature of the reserved right implies consideration of new technology and other changing conditions.

B. *Equitable Considerations*

1. Reliance

Some commentators urge consideration of the reliance interests of non-Indian users in any quantification proceeding. Reliance is a particularly unattractive argument in this context for three reasons.[41] First, the argument depends on the assertion of lack of notice. Appropriators argue that, since the Indians have not claimed the water before, the non-Indian users had no reason to think the Indian claims would arise, much less supersede existing claims. This argument is unpersuasive and, following the *Winters* decision, virtually untenable. This is particularly true in view of the fact that most non-Indian water projects were in some way related to the federal government. "The truth is that the main players in western water development have always known that a shadow body of law existed based on the *Winters* doctrine. They have known, too, that water allocated in contravention of the *Winters* doctrine might someday be called into question."[42]

Prior to 1908, when the Court announced the *Winters* decision, there may have been some validity to the claim of lack of notice, particularly in cases where the water in question did not pass through or border on any Reservation. However, even if the non-Indian users were without notice of potential Indian claims, the argument that their reliance on the availability of water should be considered would remain unpersuasive, in part because the *Winters* court rejected it, and in part because their claims were conditional

39. 373 U.S. 546, 601 (1963).

40. *See* 207 U.S. 564, 578 (1908).

41. Consideration of reliance interests is arguably more appropriate once reserved rights have been quantified in a judicial decree. *See* Nevada v. United States, 463 U.S. 110 (1983) (Brennan, J., concurring).

42. Wilkinson, *The Future of Western Water Law and Policy*, in INDIAN WATER 1985, at 51, 54-55 (1986).

anyway. Water rights are subject to the federal navigation servitude.[43] They are also subject to the public trust doctrine, which originates as far back as Roman times and is firmly incorporated into English law,[44] and which provides protection for navigable waters in the United States.[45] Moreover, all water rights are contingent on reasonable and beneficial use and therefore fluctuate based on available quantities and on changing use patterns.[46] Thus, it seems clear that no water right is ever truly certain.[47]

The second reason why consideration of reliance interests is inappropriate in a quantification proceeding is that such consideration is contrary to the *Winters* doctrine as well as the *Arizona v. California* decision. As noted above, the *Winters* Court declined to consider the non-Indian reliance interests, despite the fact that the appropriators developed those interests without notice of Indian reserved rights. In *Arizona v. California*, where appropriators were on notice of Indian reserved rights, the Court also applied its measure without reducing the Indians' entitlement to protect reliance interests.

Finally, a reliance argument is morally and ethically unsuitable as a basis of decision in the context of an Indian Water rights dispute. Such an argument would require a court to use non-Indian abuse of reserved water rights in the past to justify future non-Indian abuse of those same water rights. It must be kept in mind that, when non-Indians began diverting or otherwise using reserved water, they were appropriating to themselves the property rights of others. This constitutes a legal abuse of the Indians' property rights. A court would have to rely on this wrongful appropriation to justify further wrongful appropriation. Reliance is an equitable

43. *See* D. GETCHES, *supra* note 3, at 338-41.

44. MacGrady, *The Navigability Concept in the Civil and Common Law: Historical Development, Current Importance, and Some Doctrines that Don't Hold Water*, 3 FLA. ST. U.L. REV. 511 (1975).

45. The leading case on the public trust doctrine for navigable waters in the United States is Illinois Central R.R. v. Illinois, 146 U.S. 387 (1892). This case incorporates the public trust principle—that navigable waters must be protected from private exploitation in order to serve the public at large—which has existed for centuries.

46. As one commentator has pointed out, certainty in water rights is an illusion. Tarlock, *The Illusion of Finality in General Water Rights Adjudications*, 25 IDAHO L. REV. 271 (1988-89). Professor Tarlock believes that the notion that water rights could be finally adjudicated apparently arose from an initial mischaracterization of a water rights adjudication as a form of quiet title action. Analogizing water rights to land rights, however, is not a productive exercise. Land rights are susceptible to a much greater degree of certainty than water rights. Because water rights are inherently uncertain, quantifying water rights may result in unfairness to some water users with no offsetting gain to existing water users. *Id.* at 282-86.

47. *Id.* at 285.

doctrine and should not be used in this most inequitable fashion. Thus, this approach appears to be doctrinally indefensible, especially in light of the United States' trust obligation to the Indians and a tradition of judicial solicitude toward Indian property rights.

Use of reliance as a basis of decision at first glance seems only fair. Careful scrutiny reveals that it would require compromise of essential, well-established principles of law.

2. Estoppel

A related argument asserted by non-Indian users is that, since the United States encouraged the non-Indian development of the water resources and often participated directly in that development, the United States is now estopped from asserting prior Indian claims. The Ninth Circuit was presented with this argument in *United States v. Ahtanum Irrigation District*[48] and rejected it. The court ruled that "[n]o defense of laches or estoppel is available to the defendants here for the Government as trustee for the Indian Tribe, is not subject to those defenses."[49] The court based this finding on its understanding of *Utah Power & Light Co. v. United States*,[50] which involved use of national forest lands for power projects. In *Utah Power & Light*, the construction of the power projects began before the government withdrew the land from the public domain and reserved it for a national forest. The power companies argued that federal employees had assured them that the withdrawal from the public domain would not hinder their use of the land. Moreover, they argued that the government was aware of the on-going construction for years and failed to object. The Supreme Court responded to these arguments by holding that "the United States is neither bound nor estopped by acts of its officers or agents in entering into an arrangement or agreement to do or cause to be done what the law does not sanction or permit."[51]

Utah Power & Light is not a water rights case and the fact that one may acquire water rights on public lands and reservations pursuant to state law may affect the analysis for ordinary federal reservations of land. However, no congressional enactments exist permitting non-Indians to acquire Indian reserved water rights pursuant to state law. It would thus seem that *Utah Power & Light*

48. 236 F.2d 321 (1956), *cert. denied*, 352 U.S. 988 (1957).

49. *Id.* at 334 (citing Utah Power & Light Co. v. United States, 243 U.S. 389, 408-09 (1917)).

50. 243 U.S. 389 (1917).

51. *Id.* at 409.

should apply with full force and vigor in the Indian water rights context. This case may also be useful to refute related reliance arguments.

3. Equitable Apportionment

Non-Indians have made several attempts to persuade courts to apply the doctrine of equitable apportionment when quantifying Indian water rights. This argument was presented to the Court in *Arizona v. California* and found to be inapplicable to Indian Reservations:

> The doctrine of equitable apportionment is a method of resolving water disputes between States. It was created by this Court in the exercise of its original jurisdiction over controversies in which States are parties. An Indian Reservation is not a State. And while Congress has sometimes left Indian Reservations considerable power to manage their own affairs, we are not convinced by Arizona's argument that each [R]eservation is so much like a State that its rights to water should be determined by the doctrine of equitable apportionment. Moreover, even were we to treat an Indian Reservation like a State, equitable apportionment would still not control since, under our view, the Indian claims here are governed by the statutes and Executive Orders creating the [R]eservations.[52]

C. *Desirability and Propriety of Quantification*

1. Desirability of Quantification

The desirability of quantification from the Indian's point of view is problematic. Indians who seek quantification in effect put a limit on their claim to water, a claim which was intended to be essentially unlimited. Some tribes have taken the position that they are better off keeping their reserved rights open-ended, as in *Winters*, so that future growth and development on the Reservation will not be limited.[53] Other tribes, understandably wary of their ability to protect their *Winters* rights in the courts, have decided that a contract or judicial decree for a fixed amount of water is preferable to the rather vague assurances provided by *Winters*.[54] This is especially so because of the general erosion of reserved rights by the courts in re-

52. 373 U.S. 546, 597 (1963).

53. *See* Zah, *Water: Key to Tribal Economic Development*, in INDIAN WATER 1985, at 76 (1986); Amundson, *Recent Judicial Decisions Involving Indian Water Rights*, in INDIAN WATER 1985 3, 22 (1986); Wilkinson, *supra* note 3, at 340.

54. Amundson, *supra* note 53.

cent years.[55] Moreover, quantification may enable a tribe to turn its *Winters* rights into much-needed wet water.

The desirability of quantification from the point of view of non-Indians also presents problems. The major objective of Western non-Indian water users who seek quantification of Indian reserved rights is two-fold. First, they want to establish with sufficient certainty the amount of water available for junior appropriators. The argument is that most appropriators will be willing to spend less money on water systems or other uses if the quantity of water is uncertain. This would mean limited economic growth and less flexibility in planning for the future. Second, they want to protect existing non-Indian claims. In many water basins, assertion of Indian rights which have long been dormant threatens existing claims of non-Indian users.[56] For these reasons, non-Indian water users want a ruling that will confirm and protect their present and future claims and that will set forth exactly what is and will be available for their use. Whether such a ruling is desirable, or even attainable, is therefore a significant question.

The possibility of or need for certainty in the water rights context is far from clear. The argument that certainty is needed for economic purposes such as fostering resource development is unpersuasive. Economists have proven time and time again that they can evaluate the future impact of uncertain events. In fact, they do so regularly when planning water projects because they must allow for the various contingencies which affect claims to water. The potential for exercise of Indian water rights at any time can be evaluated and factored into a cost/benefit analysis for a pending water project simply by modifying the discount factor. Therefore, the typical argument that certainty is required in order to promote resource development is seriously flawed. Moreover, resolutions of water rights disputes rarely go unchallenged.[57] Even final court decrees are sometimes reopened.[58] This further uncertainty must also be

55. Dellwo, *Recent Developments in the Northwest Regarding Indian Water Rights*, 20 NAT. RESOURCES J. 101 (1980).

56. This is so because the water of a senior appropriator which is not being used may legally be used by a junior appropriator. Collins, *supra* note 19, at 89.

57. For a detailed discussion of problems arising from the negotiated agreement establishing the Navajo Indian Irrigation Project, *see* DuMars & Ingram, *Congressional Quantification of Indian Reserved Water Rights: A Definitive Solution or a Mirage*, 20 NAT. RESOURCES J. 17 (1980).

58. Many water rights decisions contain provisions retaining jurisdiction so that the court can modify the decree in the future. F. COHEN, *supra* note 8, at 603. The obvious next question is what sort of changed circumstances will justify ignoring the virtues of finality and reopening a decree. It is certain that a determination that Reservation

considered by planners.

In addition, current non-Indian users who have already made their capital investments may be better off if they take no action at all or at least do nothing that will put affected Indians in an untenable situation, thus prompting tribal or governmental action. As at least one commentator has noted, "the most effective way to suppress Indian water claims has been to minimize the development of Indian lands."[59] Many tribes do not have the resources to develop their *Winters* rights. If no possibility exists of an assertion of Indian rights for ten years, or twenty years, or even more, an action brought by non-Indian users to quantify the *Winters* right could accelerate loss of water currently available for non-Indian use. In circumstances like this, the tribe may be in a position to lease excess water to the non-Indians and then use the revenue to fund construction of facilities to develop the tribal water rights.[60] Similarly, settlement of a water rights dispute may include funding of facilities to enable the tribe to put its water to use.[61] Once the tribe actually

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boundaries have changed will be enough. *See* Arizona v. California, 460 U.S. 605, 636 (1983), where such a finding twenty years after the initial decree resulted in increasing the tribe's entitlement by 317,000 acre-feet. It is equally certain, however, that judicial decrees, which are subject to the doctrine of res judicata, will be reopened only under compelling circumstances. *See* Nevada v. United States, 463 U.S. 110 (1983); Arizona v. California, 460 U.S. 605 (1983).

59. Collins, *supra* note 19, at 89.

60. Whether or not Indian water rights can be leased apart from the land is disputed. The National Water Commission urged Congress to pass legislation clarifying the issue in 1973, but no such legislation has yet been enacted. Several negotiated settlements of Indian water disputes contain provisions authorizing marketing of the water rights. To be certain of validity, congressional consent should be obtained. D. GETCHES, *supra* note 3, at 310-11. For further discussion of this issue, see Comment, *Leasing Indian Water Off the Reservation: A Use Consistent With the Reservation's Purpose*, 76 CAL. L. REV. 179 (1988); Comment, *Indian Reserved Water Rights: An Argument for the Right to Export and Sell*, 24 LAND & WATER L. REV. 131 (1989).

61. For example, the Ak-Chin Community in Arizona achieved a settlement without litigation by which the tribe's *Winters* rights were exchanged for contract rights. The agreement was ratified by Congress in 1978 and obligates the federal government to fund the system necessary to transport water to the Reservation. The original Ak-Chin contract is reprinted in J. FOLK-WILLIAMS, *supra* note 18, at 129-32. *See* Thorson, *Resolving Conflicts through Intergovernmental Agreements: The Pros and Cons of Negotiated Settlements*, in INDIAN WATER 1985, at 25, 33-34 (1986). Similarly, the Papago Indian water agreement, signed into law in 1982, provides for construction of an on-Reservation irrigation system as well as creation of a trust fund to assist the tribe in utilizing the water and maintaining the delivery system. *Id.* at 35-36. This Act, known as the Southern Arizona Water Rights Settlement Act, Pub. L. No. 97-293, 96 Stat. 1261 (1982), specifically permits the tribe to transfer use of the water. Agreements such as these appear to arise when there is a sufficient mutuality of interests among the parties. For example, the Ak-Chin agreement seems to have resulted from an Indian desire

puts the water to consumptive use, the non-Indian users will have to seek replacement water.

In summary, then, it is very difficult to understand why non-Indians would find quantification desirable since it may well limit the non-Indian claim on water earlier than would be necessary otherwise. Quantification establishes a firm Indian claim on existing water supplies which Indians might never have asserted, and it sometimes provides the Indians with funding to take advantage of their claim. In return, the non-Indians end up with a claim only marginally more certain than before the quantification proceeding. In other words, they have made a potentially significant sacrifice to obtain something very little better than they already had and which they never really needed anyway.

One possible reason, perhaps the only real reason, for non-Indians to seek quantification is their desire to establish local control over Indian water claims and uses. Tribes should be concerned that quantification may eventually subject their water rights to ordinary state appropriation rules and other water regulations.[62] Once tribal water rights have been quantified in the same terms that state water rights are quantified, are assigned a priority date, and notice has been placed on file in the appropriate state offices, the Indian rights look very much like ordinary state appropriative water rights. A court might easily apply ordinary state rules and take the position that new appropriative rights replaced the tribe's *Winters* rights. Indeed, many negotiated settlements explicitly do just that.

2. Propriety of Quantification

Quantification of Indian reserved water rights involves several complex and troublesome issues. Most of these issues arise because quantification is essentially inappropriate in the context of the open-ended rights contemplated by the *Winters* Court. The measure of *Winters* rights is inherently uncertain and subject to change as circumstances develop through time. No way exists to make certain

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to secure an immediate and stable source of water and a non-Indian desire to avoid disruption of existing water supplies by imposition of *Winters* rights. *Id.* at 34.

62. There are already enough suggestions in the literature that tribal water rights should be governed by state law to indicate that this will be one of the most litigated issues in the Indian water rights arena in future years. *See, e.g.*, Brookshire, Merrill & Watts, *Economics and the Determination of Indian Reserved Water Rights*, 23 NAT. RESOURCES J. 749, 754 n.25 (1983) ("The water supply issue can be complex because the availability of water in priority depends, in part, on yet unresolved legal issues concerning the integrated administration of appropriative and Indian reserved water rights.").

that which is uncertain without encountering obstacles such as those discussed above.

Examination of this subject produces an unpleasant sensation of unease for two reasons. First, the process of quantification seems much like a form of assimilation. Taking reserved rights and making them as much like appropriative rights as possible[63] is disturbingly similar to the allotment process, in which reserved lands were made as much like surrounding farm lands as possible. The grant of jurisdiction to state courts to adjudicate Indian water rights highlights this trend.[64] For example, the *Akin* case acknowledges no difference between Indian water rights and any other federal water claims. And, "[t]he tenor of [recent Supreme Court cases] seems always to be conciliatory and deferent to concurrent or co-existing state law but minimizing and assimilationist of Indian law and jurisdiction."[65]

The second reason for unease is the disturbing quality of *deja vu* that emanates from this growing body of law. Many see the historical treatment of tribes as an effort by the federal government to make lands previously allocated to the Indians available for white settlement. Similarly, quantification of reserved water rights seems to be an attempt by non-Indians to limit property rights previously granted to Indians. This would permit non-Indians to gather to themselves these previously Indian benefits. As noted above, the argument that water rights must be made certain to be efficiently developed is not convincing. The only reason discernible for the current pressure to quantify reserved rights is that it would limit a

63. Recent Supreme Court cases seem to indicate a growing move toward reconciling *Winters* rights to appropriation doctrine. *See* Comment, *The* Winters *of our Discontent: Federal Reserved Water Rights in the Western States*, 69 CORNELL L. REV. 1077, 1091 (1984) ("The Court's efforts to make *Winters* rights inoffensive to western states' prior appropriation schemes have been a significant step in the right direction.").

64. Colorado River Water Conservation Dist. v. United States, 424 U.S. 800 (1976) (commonly referred to as *Akin*). State courts have traditionally been viewed as hostile to Indian claims. "The policy of leaving Indians free from state jurisdiction and control is deeply rooted in the Nation's history." McClanahan v. Arizona State Tax Comm'n, 411 U.S. 164, 168 (1973) (quoting Rice v. Olson, 324 U.S. 786, 789 (1945)). Federal jurisdiction over Indian affairs is very broad. *See, e.g.*, 25 U.S.C. § 1322(b) (1982); 28 U.S.C. § 1360(b) (1982). State power was limited primarily because of the perceived hostility of state courts to Indian interests. The federal government's role from the earliest times has been to protect the Indians from state action. Case law is in accord with this view. United States v. John, 437 U.S. 634 (1978); Bryan v. Itasca County, 426 U.S. 373 (1976); United States v. Kagama, 118 U.S. 375, 384 (1886) (States have historically been considered the Indians' "deadliest enemies."); Worcester v. Georgia, 30 U.S. (6 Pet.) 515 (1832).

65. Dellwo, *supra* note 55, at 110.

right that was meant to be unlimited and possibly subject the Indians' remaining water claims to state control. In other words, quantification by any measure will reduce the amount of water a tribe should get and increase the amount available for non-Indians to claim. Peterson Zah has said:

> Our water requirements have created a "problem" for the non-Indians. From our perspective, we have what they want and, just as was done in the past, they are looking for ways to take what we have. In our view, that is the impetus behind all the recent attention on Indian water rights, an attempt to find ways to limit our call on the water.[66]

The probability that Zah's view is accurate is chillingly high.

IV.
CONCLUSION

Quantification of Indian water rights is sweeping inexorably forward in spite of a number of serious questions. Most of the troublesome issues exist because of the difficulty in making certain a right to water that was meant to change to fit circumstances as altered by the course of events. One might think that, after hundreds of years of dealing with Indians, and after experiencing waves of national guilt over previous injustices, our society and its most venerated institutions could find a morally principled way to honor our promises to the tribes. In the area of reserved water rights, such a solution remains elusive.

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66. Zah, *supra* note 53, at 75.

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