Indian Reserved Water Rights: 
The Winters of Our Discontent

Water is critical to make the western desert bloom,¹ and water development has permitted the western states to enjoy spectacular growth in recent years.² Indian reservations in the West have not shared this growth,³ but enormous Indian water claims⁴ will strikingly affect the economic futures of both the Indians and the region. Unfortunately, legal uncertainty about Indian water rights impedes future western growth and threatens Indian aspirations for economic improvement. The Indian water rights issue is pressing:⁵ demand for water is increasing rapidly,⁶ non-Indian claims to water already exceed existing supplies,⁷ and the issue arises in an area of great federal-state conflict.⁸

In Winters v. United States, the Supreme Court in 1908 recognized


3. See AMERICAN INDIAN POLICY REVIEW COMM'N, FINAL REPORT 305-06 (1977) ("There has been an obvious lack of meaningful development of tribal lands while one can observe prospering communities just beyond reservation borders.")

4. A water right is an intangible right to the flow and the use of the water but not to the corpus. Weil, Origin and Comparative Development of the Law of Water Courses in the Common Law and in the Civil Law, 6 CALIF. L. REV. 245, 254 (1918).

5. The problem has recently been described as a "time bomb," Blundell, Colorado River, Vital to Southwest Travels Ever-Rockerier Course, Wall St. J., Feb. 12, 1979, at 1, col. 1, at 16, col. 5; and as "the last big shoot-out in the West," Raines, American Indians: Struggling for Power and Identity, N.Y. Times, Feb. 11, 1979, § 6 (Magazine) at 21, col. 1, at 48, col. 1 (quoting Forrest Gerard, Assistant Secretary of the Interior for Indian Affairs).


7. See, e.g., F. TRELEASE, FEDERAL-STATE RELATIONS IN WATER LAW 33 (1971) (prepared for National Water Commission) (most streams in West fully appropriated); WATER FOR ENERGY, supra note 6, at 70 (Upper Colorado River Basin surface water over-appropriated).

8. The states have developed systems of water law that regulate the pattern of water development. However, federal assistance is necessary to finance and construct large water projects, and the federal government owns more than half the land in many western states. This has been the basis for a century of conflict over power to determine water policy and over the allocation of water to federal projects and to federal uses. Water policy has been the most persistent and intense federal-state conflict in the West. See F. TRELEASE, supra note 7, at 87-103 (analyzing the history and major points of conflict between state and federal governments over water law policy).
an implied water right associated with Indian reservations.9 Reservations occupy substantial land in the West,10 yet most Indian reserved rights have never been officially quantified.11 Although the reservations previously used only small amounts of their reserved water,12 the Indians are now demanding much larger quantities for agriculture, energy development, fishing, and tourism.13 Many claims extend beyond available supplies and threaten the rights of current non-Indian water users.14

This Note explores the legal uncertainty surrounding Indian water rights and finds that this uncertainty impairs public water planning, distorts water investment decisions, and handicaps negotiations important to Indian economic development. The Note evaluates possible avenues for defining the scope of Indian reserved rights—administrative, legislative, and judicial decisionmaking—and suggests that the best means for further definition is adjudication by federal courts.

I. Indian Water Rights Problems

State law governs most private use of western water and defines the quantity, priority, point of diversion, and time and nature of use for each state-created water right.15 Implied Indian water rights, however, are independent of state law and enjoy a higher priority claim than most non-Indian rights.16 Several elements of Indian reserved rights, such as quantity, point of diversion, transferability, and permissible


10. There are 172 Indian reservations in the 11 western states. These reservations comprise 12% of the private lands and are occupied by 1% of the area's population. Critical Water Problems, supra note 1, at 6.

11. Nat'l Water Comm'n, supra note 1, at 479; Clyde, Special Considerations Involving Indian Water Rights, 8 Nat. Resources Law. 237, 244 (1975).

12. F. TRELEASE, supra note 7, at 125-26; Nat'l Water Comm'n, supra note 1, at 479.


14. See F. TRELEASE, supra note 7, at 166.


16. See Nat'l Water Comm'n, supra note 1, at 476; Clyde, supra note 11, at 244. An Indian reserved right has an inferior priority claim relative to a private right only if the latter was perfected prior to the creation of the Indian reservation. See note 55 infra.
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reservation uses, are not clearly defined. Efficient water use and planning require further definition of these rights, followed by actual quantification.17

A. Express State Rights and Implied Indian Rights

Western states generally follow the prior appropriation doctrine of water law, which recognizes a right only when water is put to beneficial use and assigns priorities for times of shortage according to a first-in-time, first-in-right rule.18 In Winters the Supreme Court recognized a different kind of water right. The Court affirmed a circuit court decree enjoining upstream non-Indians from interfering with the use of Milk River water that flowed along the Fort Belknap Reservation border.19 Construing the 1888 agreement that created the reservation,20 the Court

17. The terms definition and quantification are used throughout this Note. Quantification is the actual measurement of the amount of water associated with an Indian reserved right. Definition is the formulation of standards that apply to various elements of the reserved right, including quantity, priority, and permissible use.

18. The prior appropriation doctrine recognizes a water right having the following characteristics: 1) the basis of the right is beneficial use of the water rather than landownership, and the right may be terminated by abandonment or forfeiture if the use ceases; 2) the right is stated in terms of a definite quantity, nature of use, time of use, and point of diversion; 3) priority is determined by the date the right is acquired and is the basis for allocation of water when claims exceed supply; and 4) the appropriation is a transferable right of indefinite duration. See note 15 supra (citing sources). Water rights in eastern, midwestern, and southern states are recognized under the riparian doctrine, which entitles a property owner to reasonable use of water traversing or bordering his land. See NATIONAL WATER COMMISSION, A SUMMARY-DIGEST OF STATE WATER LAWS 3-4 (R. Dewsnup & D. Jensen eds. 1973) [hereinafter cited as STATE WATER LAWS]. Nine states follow some combination of both appropriation and riparian systems. California, Kansas, Nebraska, North Dakota, Oklahoma, Oregon, South Dakota, Texas, and Washington generally follow the “California doctrine” of Lux v. Haggin, 69 Cal. 255, 10 P. 674 (1886), which recognizes that common-law riparian rights are attached to public lands. The “Colorado doctrine” of Coffin v. Left Hand Ditch Co., 6 Colo. 445 (1882), entirely rejects the riparian doctrine and is followed in Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.

Water rights are regulated and administered in most western states as part of comprehensive programs to develop and conserve water. See STATE WATER LAWS, supra at 2; Ranquist, supra note 15, at 646. The western states’ authority to allocate private water rights has been confirmed by federal legislation and the Supreme Court. California-Oregon Power Co. v. Beaver Portland Cement Co., 295 U.S. 142, 160-63 (1935) (Desert Land Act, Ch. 107, 19 Stat. 377 (1877), current version at 43 U.S.C. § 321 (1976), severed water from public lands, leaving unappropriated waters of nonnavigable sources open to appropriation).

19. Winters v. United States, 143 F. 740, 741 (9th Cir. 1906), aff’d, 207 U.S. 564 (1908). The United States brought suit on behalf of the Indians, alleging that all the water of the Milk River was necessary for the purposes of the Fort Belknap Reservation. 207 U.S. at 567. The defendants held water rights under Montana state law and alleged that they had appropriated more than 5,000 miners’ inches (approximately 7,000 cubic feet per minute) of Milk River water and would be forced to abandon their homes and farms if deprived of that water. Id. at 569-70.

20. Id. at 575.
held that the purposes of the Indians and the government in making
the agreement showed an intent to reserve water with the land. The
Court has since relied on Winters to recognize rights for Indian reservations created by statute or executive order. As with other Indian property, the United States has a fiduciary duty to protect Indian reserved water rights.

The water law systems of the western states cannot readily accommodate the Winters doctrine because the Indian reserved right is not limited by the same conditions as an appropriation right. Indian reserved rights do not originate with diversion and application to beneficial use; they are created and have a priority date at least as early as the date the land was reserved and are not lost by nonuse. In addition, Indian reserved rights are free from the comprehensive state regulation that governs most private water rights.

B. The Impact of Uncertain Indian Reserved Rights

Uncertainty about the legal elements of Indian reserved rights plagues state and federal governments, non-Indian water users, and Indians. Effective water planning requires inventory and quantification of all water rights on each stream, but those water officials charged with the administration of streams do not have a clear quantification standard and often lack records of the existence and location of Indian reserved rights. Thus planning for both state and federal water projects is impaired because neither present nor future water projects can rest securely on supply estimates. Moreover, uncertainty about Indian reserved rights creates problems for administration and enforcement of interstate water allocations.

The uncertain status of Indian reserved rights also handicaps non-Indian water users. State law generally offers reasonable certainty on

21. The Court focused on the treaty but also discussed the nature of the land. Id. at 576-77 (settling of Indians possible only if land can be irrigated). The Court concluded that it could not have been the Indians' or the government's intention to eliminate Indian rights to the use of water. Id.
24. See F. TRELEASE, supra note 7, at 109. For discussion of the time immemorial priority theory for Indian reserved rights, see note 55 infra.
25. See F. TRELEASE, supra note 7, at 129-30; STATE WATER LAWS, supra note 18, at 16.
26. F. TRELEASE, supra note 7, at 124.
27. NAT'L WATER COMM'N, supra note 1, at 460, 467; PLLRC, supra note 1, at 144.
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the nature and scope of state-created water rights. But if non-Indian water use occurs near an Indian reservation, that use is threatened by the possibility that an Indian reserved right with higher priority is large enough to displace the non-Indian use. Calculation of expected returns from water-related investment bears a substantial risk premium to reflect legal uncertainty. This increases the cost of investment, makes financing less likely, and distorts water investment decisions.

Substantial non-Indian capital investment uses water that could be claimed under unused Indian reserved rights.

At the same time, economic development on Indian reservations requires investment capital, which has been scarce and thus far has come predominantly from the federal government. Thus both Indians and non-Indians have an incentive to negotiate over reserved rights.

Negotiation is

29. PLLRC, supra note 1, at 142.

30. Uncertain water rights reduce the incentive to develop and invest in water resources, thus restricting the transfer of water to the optimal economic use. Milliman, Water Law and Private Decision-Making: A Critique, 2 J. L. & ECON. 41, 47 (1959). Non-Indian use is often the result of water projects that require millions of dollars of investment. Should Indians develop their reservations through full use of their water rights, enormous non-Indian capital investments depending on the same water supply would be impaired. The decree in Arizona v. California, 376 U.S. 340 (1964), demonstrates the extent of the problem. Five Indian reservations in the Lower Colorado River Basin were awarded one million acre-feet of water per year. If the full allotment were used, Los Angeles would receive no Colorado River water, even though it has invested $500 million on an aqueduct to import 1.3 million acre-feet per year. Meyers, Book Review, 77 YALE L.J. 1036, 1042 n.15 (1968).


32. See Certain Water Rights Claims of the Ak-Chin Indian Community: Hearings on S. 1582 Before the Senate Select Comm. on Indian Affairs, 95th Cong., 1st Sess. 30 (1977) (Sen. DeConcini) (investors fear supplying capital for water-related investment because Indian reserved rights too uncertain). Cf. F. Trelease, supra note 7, at 128-29 (federal agencies may be unwilling to invest in projects where water rights jeopardized by Winters doctrine).

33. See NAT'L WATER COMMN', supra note 1, at 476.


35. Negotiated agreements can take a variety of forms. Indians can agree to deferral of reserved water use. The prototype is the Ute-Ouray Reservation's agreement to defer use of reserved rights in return for participation in the Central Utah Project's storage and other reclamation works. Indian Deferral Agreement of Sept. 20, 1965 (Contract No. 14-06-W-194, Bureau of Reclamation), covering the Upper Duchesne River and Rock Creek. Deferral agreements may prevent a disruption of development patterns. They may also permit time for construction of storage facilities to secure a steady supply. See Clyde, supra note 11, at 245, 250-51. Alternatively, Indian reservations may agree to shortage-sharing arrangements. See Weatherford & Jacoby, supra note 28, at 200. Indians may also waive their Winters rights entirely. See Act of July 28, 1978, Pub. L. No. 95-828, 92 Stat. 409 (authorizing Secretary of Interior to study feasibility of certain water projects provided Ak-Chin tribe agrees to waive Winters rights).

As consideration for these agreements, Indians may receive development of water
considered the primary conflict resolution process for reserved rights disputes, but negotiation encounters difficulties given the uncertainty surrounding the rights. Indians confronting bargaining opponents with great economic and political power hold an inchoate paper right and may be tempted unduly by immediate economic gains. When the federal government as a non-Indian water developer is an adverse negotiating party, uncertainty over the bargained-for right compounds the difficulty of fulfilling its trust responsibility to the Indians. Moreover, legal uncertainties about Indian reserved rights have forestalled agreement in specific Indian water negotiations.

II. Uncertainty about Indian Reserved Rights: Scope and Use

Legal recognition of the Indian reserved right occurred seventy years ago, but important questions about the right's basic elements remain unanswered. Neither courts, nor legislatures, nor agencies have defined the two key elements of the right: its scope, including the quantity of water affected and the priority of the right, and its uses, including transferability of the right and permissible applications of Winters water on the reservation. Questions concerning use of the water are amenable to fixed rules applicable to all reservations, but uncertainty concerning the scope of the right cannot be resolved through specific, uniform standards.

projects or other benefits. The Ute-Ouray deferral agreement and the Ak-Chin legislation both provided water projects for the reservations. In 1968 the Navajos agreed to allow water to be used for cooling at the Navajo Generating Station, Navajo Tribal Council Resolution CD-108-68, Dec. 11, 1968, in order to enjoy the economic benefits of the power station—mainly royalties on coal and wages from employment, see Price & Weatherford, supra note 13, at 109-19.


37. See Price & Weatherford, supra note 13, at 118.

38. Cf. Note, supra note 31, at 1306-08 (inventory and quantification of Indian reserved rights necessary to prevent diminution of rights due to inadequate government protection). For examples of this conflict of interest problem, see note 76 infra.

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A. Defining the Scope of Reserved Rights

1. Nature of the Uncertainty

Although Winters recognized an implied water right arising from the purposes for creation of the reservation, the Court did not decide the full scope of that reservation's right. Courts have struggled with the quantification problem ever since the vague pronouncements in Winters. Subsequent cases have recognized only agriculture as an economic purpose for a reservation. But even with this narrow focus, the quantification standard has not been uniform.

The few cases that address the scope of Indian reserved water rights reveal varied attempts to discern any teaching from Winters. Some courts have ruled simply that the right must satisfy the present and future needs of the reservation and, as in Winters, have therefore refused to fix the total quantity. Though attractive to the Indians, this approach plays havoc with the rest of the watershed, for no one can know how secure his water rights are. Other courts have quantified according to past and present water use. This also may comport with...
Winters because the non-Indian use in Winters interfered with prior Indian use. But because Indian reservations generally have used only a fraction of their reserved water, fixing reserved rights at historical or present use levels could freeze reservations into permanent economic underdevelopment, and the Winters Court appeared to contemplate an economically viable community.

In Arizona v. California, the Supreme Court offered a standard for measuring Indian agricultural water: that amount necessary for all “practically irrigable acreage.” Except for its failure to provide guidance on the technological standards or economic feasibility to be used in applying this formula, the Court may have settled the uncertainty surrounding the quantity for Indian agriculture because its standard accommodates present and future needs and facilitates determination of a fixed amount. However, the Arizona standard is not dispositive of the quantification issue because the Court did not expressly declare irrigable acreage as the applicable standard for all Indian agricultural water. More important, the Court did not decide

46. See note 12 supra.
47. This would have been the effect of H.R. 9951, 95th Cong., 1st Sess. (1977). The bill would have required federal district courts to quantify Indian reserved water rights on the basis of highest annual actual permissible use in any of the five years preceding Jan. 1, 1977. Id. § 8(a).
48. The Winters Court spoke of the reservation and by implication the use of water “to change” Indians to a “pastoral and civilized people.” 207 U.S. at 576.
50. 375 U.S. at 600.
51. The Special Master relied on a 1952 Bureau of the Budget report for agricultural technology to determine the amount of water for the practicably irrigable acreage. S. RIFKIND, REPORT OF THE SPECIAL MASTER—ARIZONA V. CALIFORNIA 267-82 (1960) [hereinafter cited as MASTER’S REPORT] (relying on BUREAU OF THE BUDGET, EXECUTIVE OFFICE OF THE PRESIDENT, CIRCULAR No. A-47 (Dec. 31, 1952) (officially withdrawn May 15, 1962)). The quantification analysis suggested in this Note argues that a fixed amount of Winters water was reserved with the land, see pp. 1700-01 infra. If the measurement of Winters water is based on technology existing at the moment of quantification or on an estimate of future technological development, this would allow the quantity of reserved rights water to shift with technological change, and thus undermine the objective of reducing uncertainty surrounding Indian reserved rights. See Comment, Federal Reserved Rights in Water: The Problem of Quantification, 9 Tex. Tech. L. Rev. 89, 101 (1977). Technology at the time the particular reservation was established would provide a reference point consistent with the theory of a determinate quantity, but determination of 19th century water technologies would be difficult. A brightline standard applicable to all reserved rights seems preferable. Technology problems should therefore be resolved by developing a single standard applicable to all reservations.
52. In addition to advisory opinion objections, the Court's language can be read to suggest no intention to set forth a standard for all reservations whose primary activity is agriculture: [The Master] found that the water was intended to satisfy the future as well as the present needs of the Indian Reservations and ruled that enough water was reserved to irrigate all the practicably irrigable acreage on the reservations. Arizona, on the other hand, contends that the quantity of water reserved should be measured by the
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whether purposes other than agriculture could be recognized for Indian reservations, whether those purposes generate Winters rights, and how those rights should be measured. Even if an amount of water is quantified, no court has addressed how far the reserved right extends to sources outside the reservation when water within the reservation is less than the scope of the right.

2. Defining Scope

Efficient water management requires that a chief goal in defining reserved rights should be to permit accommodation of Indian rights with the state water systems. This means that the Indian reserved rights must be fixed in quantity and priority. Co-existence of state Indians' "reasonably foreseeable needs," which, in fact, means by the number of Indians. How many Indians there will be and what their future needs will be can only be guessed. We have concluded, as did the Master, that the only feasible and fair way by which reserved water for reservations can be measured is irrigable acreage.

373 U.S. at 600-01.

The Court may be suggesting that the irrigable acreage standard is a general standard for all agricultural reserved water, or that this standard should be limited to cases where the circumstances show it is fair and reasonable. For some reservations the irrigable acreage standard would provide substantial water to sparsely inhabited areas. The Arizona decree awarded the Fort Mohave Indian Reservation an annual 122,648 acre-feet diversion from the mainstream. 376 U.S. at 345. The largest amount of land ever irrigated in the Fort Mohave Indian Reservation was 23 acres and the population in 1957 was one family. C. MEYERS & A. TARLOCK, WATER RESOURCES MANAGEMENT 172 (1971). The Court did not foreclose recognition of Winters water based on nonagricultural purposes for the reservation.

53. The Arizona standard need not be exclusive. The various ways Indian reservations have attempted to use water suggests that agriculture should not be deemed the only economic reason for Indian reservations. See F. TRELEASE, supra note 7, at 162-63 (citing Indian use of water for recreation, fishing, tourism, and mining). Indian tribes are presently asking courts to recognize water for purposes other than agriculture. E.g., United States v. Bighorn Low Line Canal, Civ. No. CV-75-34 (D. Mont.), amended complaint (D. Mont., filed Sept. 16, 1975) (seeking municipal, domestic, and stockwatering in addition to irrigation water for the Crow Reservation); Jicarilla Apache Tribe v. United States, Civ. No. 75-742 (D. N.M., filed Dec. 12, 1975) (seeking water for irrigation, propagation and harvesting of fish, recreation, domestic, municipal, and industrial purposes). If recognized, these purposes would require a quantification standard other than practicably irrigable acreage.

54. The Court awarded off-reservation water to one reservation in Arizona v. California, but this was done without comment in the decree or the opinion on the basis for this decision. Arizona v. California, 376 U.S. 340, 344 (1964).

Indian reserved rights currently extend to water that borders, traverses, or arises on the reservation, and probably include water underlying the reservation. See Cappaert v. United States, 426 U.S. 128 (1976) ("Pupfish Case") (suggesting reservation doctrine applies to groundwater).

55. Courts have recognized the Indian reserved right priority as effective from the date when the land was reserved. See, e.g., Arizona v. California, 373 U.S. 546, 600 (1963). All water appropriated after that date has an inferior right.

But some Indians claim that for ancestral lands the priority should be recognized as time immemorial because they, not the government, reserved the water. It is further
and Indian rights on the same streams implies that they were both intended to have a determinate scope, for otherwise the two rights would undermine each other. Because the existence of the Indian right depends on the purposes for which each reservation was created, the quantity of that right likewise should be linked to those purposes. Quantification according to construction of the intent behind creation of the reservation can be guided by some broad but nevertheless limiting principles.

Quantification decisions should recognize all economic purposes requiring water at the time the reservation was created. Under this approach, the Arizona v. California irrigable acreage formula would be applicable when appropriate, but fishing, mining, or another activity could also be deemed a purpose. The amount of water decreed should be sufficient to satisfy the full potential of these purposes. This would preserve the sensible case law commitment to water for future needs—a fundamental condition for economic development of the reservations—while fixing a definite amount. Private users could be protected by limiting the quantity of the right to the direct economic

argued that the scope of the time immemorial right should not be limited by the same conditions that apply to other reserved rights. For thorough presentation of this theory by its leading proponent, see Veeder, Indian Prior and Paramount Rights to the Use of Water, 16 Rocky Mt. Min. L. Inst. 631 (1971); Veeder, Indian Prior and Paramount Rights Versus State Rights, 51 N.D. L. Rev. 107 (1974).

Acceptance of this theory would not significantly affect relative priorities because most Indian reservations were created in the nineteenth century before much water was appropriated under state law. See Clyde, supra note 11, at 244. However, this theory should be rejected as it relates to scope. The time immemorial priority has never been recognized. Moreover, the reservation doctrine supports consistent treatment for the substantive elements of Indian reserved rights regardless of whether the reserved lands are ancestral. Most important, equal treatment protects Indian and non-Indian alike against the reappearance of uncertainty problems already associated with Indian reserved rights created by the federal sovereign. See Ranquist, supra note 15, at 654 & n.59 (Indians better protected if federal sovereign considered source of right).

56. See F. TRELEASE, supra note 7, at 21-28 (western prior appropriation doctrine recognized need for water right with fixed quantity due to multiple demands for water in an arid region).

57. In Colville Confederated Tribes v. Walton, 460 F. Supp. 1320 (E.D. Wash. 1978), the court rejected Indian claims to water to support fish spawning grounds, although fish were a traditional food source when the reservation was created. The court reasoned that since fish propagated at a nearby federal hatchery were available to the Indians, water was not necessary to support spawning. Id. at 1330. The analysis is faulty because, as the court recognized, both fishing and agriculture are purposes for reserved water. Both purposes should determine the scope of the right. Off-reservation developments and changes in use should be independent of the quantity reserved. Although incorrect in subordinating purposes to present needs in determining quantity, the decision recognizes that irrigable acreage does not have a monopoly as a quantification standard. The Supreme Court has said nothing to date about an Indian reservation not exclusively intended to support an agricultural economy. For examples of pending cases claiming Indian water for purposes other than agriculture, see note 53 supra.
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purposes for creating the reservation, an approach recently adopted for federal reserved rights of national forests. This would prevent Indian tribes from asserting a host of purposes that would leverage the Winters doctrine to produce exorbitant claims.

When riparian and underground water prove inadequate to satisfy the “direct purposes” criterion, Winters rights could extend to a non-riparian water supply unless such an extension violates the purposes for creating the reservation. In some cases off-reservation supply may be critical to the Indians and may have been intended when the land was reserved. Again, a narrow construction of “purpose” would tend to protect other users in the watershed from questionable Indian claims to water located outside the reservation.

Although it is essential to reduce the uncertainty surrounding Indian reserved water rights, the decisionmaking process for developing the scope of these rights must be flexible to account for the unique characteristics of each reservation and to accommodate fairly the many interests involved. Thus, case-by-case determination of the scope of the reserved rights is a more workable approach than general rulemaking.

As purposes generating reserved rights are recognized and formulae for measuring the rights are developed, broad standards governing scope should emerge to provide a foundation for negotiation, water planning, and adjudication.

58. In United States v. New Mexico, 438 U.S. 696 (1978), the Supreme Court defined the scope of reserved water rights of national forest lands. The Court rejected the government’s claims for water to meet a variety of uses and restricted the scope of the right to the “limited purposes” for which the reservation was created—timber preservation and secure water flows. Id. at 705-13. The New Mexico “limited purposes” standard is confined to forest lands. It is based on construction of the enabling legislation, Organic Administration Act of June 4, 1897, 30 Stat. 34, 16 U.S.C. § 475 (1976), which has authorized establishment of most of the national forests. The case is significant because over half the streamflow in the 11 western states originates on national forests. C. WHEATLEY, T. STETSON, & D. REED, STUDY OF THE DEVELOPMENT, MANAGEMENT, AND USE OF WATER RESOURCES ON THE PUBLIC LANDS 211 (1969) (prepared for Public Land Law Review Commission). The New Mexico decision therefore assists water planners and users in estimating the amounts of a significant portion of federal reserved water entitlements.

59. But see Pelcyger, The Winters Doctrine and the Greening of the Reservation, 4 J. CONTEMP. L. 19 (1977) (arguing that the Winters doctrine should confer vastly greater entitlements than presently recognized).

60. See Decree, Arizona v. California, 376 U.S. 340, 344 (1964) (reservation located neither on nor adjacent to Colorado River entitled to Winters water from within natural watershed); United States v. Wightman, 230 F. 277, 282-83 (D. Ariz. 1916) (suggesting that in appropriate circumstances Indians may be entitled to water from outside the reservation). There is little if any case law discussion of off-reservation sources.

61. Such a limited construction is responsive to the fears of off-reservation users. But see Clyde, supra note 11, at 250 (off-reservation source for Winters water would disrupt non-Indian watershed).

62. See pp. 1702-11 infra.
B. Defining Permissible Uses of Reserved Rights

1. The Nature of Uncertainty

It has not been determined whether the purposes for which an Indian reservation was established limit the uses to which reserved water may be put, and no standards have been developed concerning permissible changes in the nature and place of use of Indian reserved water. One important use of Indian reserved water is to sell or lease it, with or without the land. Courts have recognized that Winters water may be sold or leased together with reservation land, but it is not clear whether reservations may dispose of reserved water alone for non-Indian off-reservation use. Resolution of these issues will have a significant impact on the nature and extent of water-related development both on and surrounding Indian reservations.

2. Defining Uses

Permitting uses different from the purposes for creating the reservation is consistent with the basis for the right's existence. Reserved rights were granted to enable the Indian reservations to function as self-sufficient economic units. Failure to permit flexible use of Winters water on the reservation would constrain Indian economic development. The state appropriation doctrine provides flexibility by allow-

63. See Ranquist, The Effect of Changes in Place and Nature of Use of Indian Rights to Water Reserved Under the "Winters Doctrine," 5 NAT. RESOURCES LAW. 34, 35-36 (1972) (little authority on permissible uses of Indian reserved water).
64. United States v. Powers, 305 U.S. 527 (1939). The case law is both sparse and contradictory. Compare United States ex rel. Ray v. Hibner, 27 F.2d 909, 912 (D. Idaho 1928) (non-Indian allottee of Indian reserved land acquires Indian priority date but is subject to state law requirement of beneficial use) and United States v. Preston, 352 F.2d 352, 357-58 (9th Cir. 1965) (suggesting allottee acquired transferable reserved rights) with Colville Confederated Tribes v. Walton, 460 F. Supp. 1320, 1326-29 (E.D. Wash. 1978) (Indian reserved rights not transferable because intended for Indian ownership, but Indian allottees may convey water rights with land).
65. Skeem v. United States, 273 F. 93, 96 (9th Cir. 1921). The National Water Commission recommended that the United States make a standing offer to lease any unused Indian water rights in a fully appropriated stream that the Indians desire to lease to satisfy needs of non-Indian users. Nat'L WATER COMM'N, supra note 1, at 481. This would enable non-Indian users to continue to receive water for projects developed in reliance on state law, and would enable the Indians to lease their water at fair-market value without being forced into untimely decisions about important water rights.
66. If the reservation was created for agricultural purposes, the amount of water could be quantified at least in part by an irrigable acreage formula, but that water should be available to develop coal or oil shale deposits located on the reservation if that is the preferred economic use. There is implicit case law support for these propositions. See Winters v. United States, 297 U.S. 564, 576 (1908) (referring to beneficial uses such as hunting, grazing, agriculture, and "arts of civilization"); Conrad Inv. Co. v. United States, 161 F. 829, 831 (9th Cir. 1908) (water needed for irrigation, stock raising, domestic use). See also MASTER'S REPORT, supra note 51, at 265 (irrigable acreage standard does not limit use of water to agriculture).
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ing private users to change the place and nature of use according to certain guidelines, the most important being lack of injury to junior appropriators.67 Riparian state water users also have discretion on use.68 This same flexibility, subject to the protection of others in the watershed, must be available to Indian reservations to ensure efficient allocation of water resources.69

Similarly, free transferability of Indian reserved rights to other users without a change of priority date should be permitted.70 This is especially important for the portion of Indian reserved water that is not used due to the tribes' inability to finance development.71 Moreover, a full range of lease, sale, deferral, and shortage-sharing arrangements would facilitate the negotiation process.72

Uncertainties concerning reservation uses and transferability of Indian reserved water can—and should—be resolved by rules applicable to all reservations. Legal standards encouraging free substitution and transfer would provide social benefits in allocative efficiency and foster gains through exchange to Indian and non-Indian water users. These elements therefore should not be conditioned by the purposes for which each individual reservation was established.

III. Defining Reserved Rights—Who Should Decide?

Uncertainties concerning permissible uses of Winters water could be resolved by rules applicable to all reservations. Uncertainties con-

67. STATE WATER LAWS, supra note 18, at 37-38.
68. Id.
69. Free substitution in the use of the resource by the owner or through exchange is necessary for allocation to the most valuable use. R. Posner, ECONOMIC ANALYSIS OF LAW 27-31 (1977); Milliman, supra note 30, at 51-56. Legal requirements governing transfers of water rights under state law have been criticized by economists as too restrictive, C. Meyers & R. Posner, MARKET TRANSFERS OF WATER RIGHTS: TOWARD AN IMPROVED MARKET IN WATER RESOURCES 17-38 (1971) (prepared for National Water Commission). For a representative state statute on changes in the place and nature of use of appropriated water, see Utah Code Ann. § 73-3-3 (1953).
70. Opponents of transferability fear disruption to established use patterns. Clyde, supra note 11, at 250. However, this same fear extends to reservation use of unused reserved rights. Moreover, after the reserved water has once been put to beneficial use either on the reservation or off the reservation following transfer, any further transfer of the water could involve a change in the place and perhaps the nature of use. Competing private users of the watershed should then be protected by appropriate standards governing changes of place and nature of use. See Ranquist, supra note 63, at 40-41 (suggesting forms change of use standards would take).
71. See note 34 supra.
cerning scope, however, are not amenable to specific, uniform rules. Thus, the primary concern is to determine the most practical process for developing broad scope standards. The task of defining scope can be undertaken either by legislation or adjudication. The governmental body charged with defining the rights may be Congress, the courts, or a federal agency. Regardless of which body assumes this responsibility, resolution of particular disputes between private users and Indian reservations must be made against a background of the larger political battle between the states and the federal government for control over western water. The federal-state concerns are supplemented by Indian fears of unfair treatment at the state level and of failure by the federal government to meet its fiduciary obligations to the tribes.

A. Legislation

Clarification of Indian reserved rights is necessary so that uncertain legal doctrine will not hinder planning, negotiation, and efficient use of water resources. Congress could directly legislate the standards, or it could authorize a federal agency to do so through rulemaking procedures.

1. Congress

Congress holds plenary authority over Indians and their property and decides whether to authorize and fund water projects benefiting them. In addition, clarification and codification of imprecise common

73. The amount of water associated with Indian reserved rights is the question of greatest uncertainty and consequence as well as the issue posing the most challenging problems as to which governmental body should provide standards. Although the analysis focuses on the unique problems for decisionmaking on the scope of Indian reserved rights, the political problems in this area extend to the other elements of the right. Thus, this analysis should help suggest the governmental institution best suited to define these elements.

74. See note 8 supra. In every Supreme Court case since Winters that involved the doctrine of reserved water rights, every western state has separately, or together with other western states, filed an amicus brief in opposition to the position of the federal government.

75. See note 117 infra (Indian fear of state court bias).

76. For analysis of federal agency conflict of interest problems in protecting Indian water, see Comment, Interagency Conflicts of Interests: The Peril to Indian Water Rights, 1972 L. & Soc. Order 313, 317-19 (case history of conflict between Newlands Irrigation Project and the Paiute Indian Tribe's water rights to Truckee River and Pyramid Lake water); Nat'l Water Comm'n, supra note 1, at 475 ("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.")

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law doctrine is a familiar legislative activity.\(^7\) Thus, congressional action appears appropriate to define the Indian reserved right more explicitly. However, analysis of the pattern of interest representation in the legislature counsels against reliance on Congress.

The Indians have no congressional representatives of their own and are not likely to receive effective representation from their western legislators. The policy of most western states favoring water development merges with the interests of large private users,\(^7\) who feel threatened by an expansive definition of Indian reserved rights. Thus the political constituency of most western congressmen does not encourage support for the cause of Indian water.

The federal trust responsibility may stimulate some advocacy for Indian interests before Congress, but this might be compromised and overshadowed by federal interests in reclamation projects that conflict with Indian water rights.\(^8\) Moreover, because actual use of Indian water on the reservation depends largely on congressionally authorized funding,\(^8\) there may be an inducement to restrict the scope of Indian reserved rights to avoid difficult spending decisions.\(^9\) Thus, even though the federal government might continue to oppose expanded state control over water, Congress may not serve the best interests of the Indian reservations.

The history of legislative activity suggests that even if Congress were the appropriate institution to define Indian reserved rights, legislative action is unlikely. Over fifty bills have been introduced by western congressmen since 1955 to abolish the federal reserved right or to

80. See note 76 supra. In negotiations for the Navajo Deferral Agreement of 1958, government negotiators for the Indians relied on Bureau of Reclamation data even though the Bureau was the sponsoring agency for the non-Indian project. Price & Weatherford, supra note 13, at 114-15. The Navajos gave up Winters claims to 110,000 acre-feet annually, which is diverted to the San Juan-Chama Project in New Mexico, where the water is used for irrigation and for municipal and industrial supply for the city of Albuquerque. In exchange the Navajos are to receive congressional funding of the Navajo Indian Irrigation Project, which contemplates water for irrigation of approximately 110,000 acres and would require a diversion of over 500,000 acre-feet of water annually. See Navajo Tribal Council Resolution (CD-86-57, Dec. 12, 1957); 43 U.S.C. § 615ss (1976). For background on the projects, see H.R. REP. No. 685, 87th Cong., 2d Sess. 1681 (1962). By 1975, the San Juan-Chama Project was built and served the non-Indian community, whereas the Navajos had yet to see a single acre irrigated by the Navajo Indian Irrigation Project. See Price & Weatherford, supra note 13, at 128-30.
81. See note 34 supra.
82. This would be a particularly unjustifiable restriction if unused reserved water is freely transferable to non-Indian users because the Indians would lose the great potential benefits of exchange.
modify and subject it to greater state control.\textsuperscript{83} Federal agencies have
proposed legislation for quantification by the federal government.\textsuperscript{84} No major legislation has passed,\textsuperscript{85} and no major legislative proposal
specifically addressing Indian reserved rights has received even serious
consideration.\textsuperscript{86}

2. Federal Agency Rulemaking

Agency rulemaking procedures seem to avoid the threat of dispro-
portionate political influence endemic to congressional action,\textsuperscript{87} and

\textsuperscript{83} See, e.g., S. 863, 84th Cong., 2d Sess. (1956) ("Barrett Bill") (requiring all federal
water users to acquire rights in conformance with state law and procedure). For a survey
of this avalanche of stillborn legislation, see Morreale, Federal-State Conflicts Over
Western Waters—A Decade of Attempted "Clarifying Legislation," 20 Rutgers L. Rev. 423
(1966). Three general proposals are recurrent: to bring federal reserved water rights under
state administration and control; to compensate private water users whose water rights
are taken by use of a prior federal reserved right; and to record and quantify all federal
reserved water rights.

Extensive hearings have been held on reservation doctrine legislation. See, e.g., Federal-
State Water Rights: Hearings on S. 1275 Before the Subcomm. on Irrigation and Reclama-
tion of the Senate Comm. on Interior and Insular Affairs, 88th Cong., 2d Sess. (1964); Hear-
ings on the Water Rights Settlement Act Before the Subcomm. on Irrigation and Reclama-
tion of the Senate Comm. on Interior and Insular Affairs, 84th Cong., 2d Sess. (1956).

\textsuperscript{84} See Kiechel, Inventory and Quantification of Federal Water Rights—A Common
Denominator of Proposals for Change, 8 Nat. Resources Law. 355 (1975) (describing
Justice Department proposal for each federal agency to inventory and quantify reserved
water under agency's jurisdiction). The "Kiechel Bill" was never introduced because the
Office of Management and Budget refused clearance. Other legislative proposals are in
Nat'l Water Comm'n, supra note 1, at 461-71, 477-83 (quantification of Indian rights
but only modification and limitation of federal reserved rights), and PLLRC, supra note 1,
at 144-49.

\textsuperscript{85} Acute federal-state conflict has been a major cause for failure of legislation con-
cerning federal reserved rights, see F. Trelease, supra note 7, at 130-47; C. Bell, Report
on the Reservation Doctrine 20 (1975) (prepared for Federal-State Water Rights Sub-
committee of the Western States Water Council).

\textsuperscript{86} See Note, supra note 31, at 1301 (reserved rights legislation has not addressed
Indian claims); Hanks, supra note 79, at 57 (arguing that legislative proposals do not
touch Indian rights because any bill giving states greater control over water allocation
would not pass if Indian water involved). Rep. Meed's proposed bill, supra note 47, ad-
dressed Indian rights but never received serious consideration. Even congressional ratifica-
tion of negotiated settlements appears feasible only on an ad hoc basis; such legislation
does nothing to reduce the uncertainty problem beyond the particular reservation involved.
the Ak-Chin legislation, quoting letter dated March 24, 1978, to Senator Abourezk from
Interior Solicitor Krulitz) (tribe-by-tribe solutions more sensible than comprehensive
legislation). The impetus for the Ak-Chin legislation, see note 35 supra, arose in the
context of severe water shortage and threatened litigation, see H.R. Rep. No. 954, 95th
Cong., 2d Sess. 4-5 (1978).

\textsuperscript{87} Agency rulemaking and adjudication would require statutory authorization, 5
U.S.C. §§ 553, 554 (1976). One proponent of administrative quantification argues that
statutory authority for rulemaking and/or adjudication already exists. Ranquist, supra
note 15, at 719-20. Ranquist finds quantification authority in the Indian General Allot-
ment Act, 25 U.S.C. §§ 331-58 (1976), which gives the Secretary of the Interior authority
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federal agencies traditionally have assumed responsibility for many aspects of Indian affairs.88 Indeed, President Carter recently directed the Bureau of Indian Affairs to formulate a ten-year plan to inventory and quantify Indian reserved rights.89 Standards promulgated through rulemaking could be part of this plan. However, federal agency rulemaking raises its own threats of bias.

The history of western water policy reflects bitter federal-state conflict, including federal opposition to state control over reserved water.90 A federal agency would bring not only this political stance to the rulemaking task, but also its trust obligation to protect and maximize Indian water claims. Thus the federal government would be both interested party and decisionmaker in any agency rulemaking. The federal government's interests and responsibilities would create persistent bias against state concerns.91

A different source of agency conflict of interest similarly threatens the interests of the Indians. On all major streams, agencies from the Department of the Interior compete with Indians for a water supply that is inadequate to meet both existing and future demands.92 This conflict has permitted reclamation projects to frustrate the Winters doctrine and the trust responsibility.93 The Indians may therefore benefit from federal agency decisions relative to non-federal interests, but the Indian cause may be subordinated to federal water objectives that compete with Winters rights.

Lodging legislative authority in a federal agency rather than Con-

88. See Singer, Federal Indian Law, 1976 ANN. SURVEY OF AM. L. 41 (discussing role of Bureau of Indian Affairs in administration of national Indian policy).
89. The directive set June 6, 1979, as the deadline for completion of the plan. President Carter, Memorandum on Federal and Indian Reserved Water Rights 3 (July 12, 1978). The agency failed to meet this deadline.
90. See note 8 supra. Even though the states and other water users would be given notice and an opportunity to participate in agency rulemaking, 5 U.S.C. § 553 (1976), the political context suggests that no federal agency action could guarantee fair representation to the wide range of affected interests.
91. As Professor Stewart argues, a primary function of the administrative process is to guarantee fair representation for a wide range of affected interests in the decisionmaking process, but agency client interests tend to become overrepresented, which produces a persistent policy bias in favor of those interests. See Stewart, The Reformation of American Administrative Law, 88 HARV. L. REV. 1669, 1713 (1975).
93. See notes 76 & 80 supra.
gress may ensure full participation by the affected interests in rule-
making, but it does not depoliticize the outcome. The political im-
balance threatened in agency rulemaking would not be corrected on
appeal due to the limited scope of judicial review of rulemaking.
Even if the rulemaking process provided fair consideration of interests,
federal-state antagonisms over water control could cause delays in
implementing any federal agency standard.

Legislative definition of Indian reserved rights standards could
resolve the problem of uncertainty in one blunt stroke; therein lies
both the attraction and the danger of congressional action or agency
rulemaking. Any definition of the Indian reserved right must be judged
by its workability; legislative standards would lack the benefits of
decentralized decisionmaking. Given the diversity of Indian reserva-
tions and the variety of their claims, fine-tuning and flexibility is
essential in defining the scope of Indian reserved rights.

B. Adjudication

The alternative to legislative definition of Indian reserved water
rights is development of standards through case-by-case considera-
tion of reservations. Such consideration requires close scrutiny of the legal
instruments and circumstances surrounding the creation of the reserva-
tion as well as thorough evaluation of the tribe's economic possibilities
at the time. Because the definition of Indian reserved rights is cur-

94. 5 U.S.C. § 553(c) (1976).
95. See Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council,
    Inc., 435 U.S. 519, 545-48 (1978) (emphasizing limited judicial supervision of agency rule-
    making); G. ROBINSON & E. GELLIHN, THE ADMINISTRATIVE PROCESS 227-28 (1974); Bruff,
96. State resistance to implementation is discussed at p. 1708 and notes 106-08 infra.
97. See Master's Report, supra note 51, at 292-65 (irrigable acreage standard de-
    fended because most workable); Meyers, supra note 31, at 70-71 (quantification standard
    in Arizona v. California defended by Master in negative sense that nothing else is better).
98. See note 53 supra.
99. A legislative definition of Indian reserved rights standards, particularly if such
definition departs from case law following the Winters doctrine, may diminish the value
of a water right relative to that right's value under a judicial declaration. Such legislative
definition could raise a takings issue under the Fifth Amendment. Clyde, supra note 11,
at 247 (due process problems raised if legislature diminishes judicial holdings); NCAI
to GAO: Legislative Quantification of Indian Water Rights Is Not the Answer, 5 Am.
INDIAN J. 33, 35 (1979) (legislative solution will entitle tribes to Fifth Amendment com-
pensation). The takings issue may counsel against legislative definition of Indian reserved
rights, but it is not a decisive factor because prediction about interpretation of the com-
pensation clause is virtually impossible. See B. ACKERMAN, PRIVATE PROPERTY AND THE
CONSTITUTION 8 (1977) (case-law on takings clause widely believed a chaos of confused
docline).
100. This was the form of analysis in Winters. The Court construed the 1888 agree-
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rently undeveloped, a court or agency adjudicating these rights has great flexibility to ensure that the result is equitable under the circumstances of each case. Decentralized decisionmakers would be permitted to learn by experience. This familiar process of common law evolution would develop outer boundaries for Indian reserved rights that could be tested in a variety of contexts and adversary proceedings and could then be applied to particular situations. Reliance on adjudication thus involves significantly less potential than the legislative approach for unwanted rigidities in defining the extent of Indian reserved water rights.

1. Federal Agency Adjudication

Federal agencies that administer reserved lands have attempted to inventory and quantify reserved water rights on a case-by-case basis but have never achieved satisfactory results.101 Case-by-case development of reserved rights standards would require agency adjudication without advance rulemaking. Although agency adjudication, like decisions by courts, provides an alternative to the blunt legislative approach, reliance on a federal agency gives rise to the same risks that threaten unfair treatment of state and Indian interests in the rulemaking context.102 These problems of “political” decisionmaking could not be cured through appeal to the federal courts. The scope of review on appeal would be narrow: agency factual determinations would be subject to the “substantial evidence” test, while legal interpretations would probably be judged by their “reasonableness.”104 Therefore, the parties’


102. See pp. 1705-06 supra.


104. The substantive content of Indian reserved rights would develop in adjudication through application of the existing reservation doctrine to facts. Judicial review of agency decisionmaking has vacillated between the rational basis test and the substitution
fears that political imbalances will be incorporated into agency adjudicative decisions cannot be dismissed by the promise that court review will correct inequities. 105

Agency adjudication, like agency rulemaking, is likely to encounter numerous delays. 106 Because state law controls most private water rights, comprehensive quantification of Indian reserved rights will require cooperation among federal and state officials as well as the tribes. 107 But given the history of sharply divided interests concerning this judicially created, inchoate right, strong state resistance can be expected if the federal government attempts to impose its definition of the right. 108

2. Courts

Until the 1970s, Indian reserved rights litigation arose only in the federal courts in actions brought by the United States. 109 The in-
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frequency of such actions\textsuperscript{110} is a principal reason the reservation doctrine has not matured. However, the Department of Justice has embarked on a vigorous program to adjudicate Indian reserved rights in federal courts\textsuperscript{111} and from these cases general quantification standards should emerge.

The opportunity for federal courts to clarify Indian reserved rights has been considered uncertain in light of the Supreme Court's recent decision in \textit{Colorado River Water Conservation District v. United States}.\textsuperscript{112} The Court held that the McCarran Amendment,\textsuperscript{113} which grants a limited waiver of sovereign immunity in water rights adjudication, applies to Indian reserved rights and evidences a preference for adjudication of those rights in a state general adjudication. The United States had brought an action on behalf of Indian rights in a federal district court; dismissal was deemed justified when the United States was subsequently joined in an ongoing state proceeding.\textsuperscript{114} This result was based primarily on the recognition that a state general water rights adjudication is the best procedure for defining and integrating the rights of all users of a stream or watershed.\textsuperscript{115}

\textsuperscript{110} In the 70-year history of the reservation doctrine, federal courts have decided cases involving Indian reserved rights only 15 times. \textit{See Clyde, supra note 44} (citing cases).

\textsuperscript{111} There are 26 cases pending in federal courts in the West that involve Indian reserved rights. Letter from Myles E. Flynt, Chief, Indian Resources Section, U.S. Department of Justice, Jan. 4, 1979 (copy on file with \textit{Yale Law Journal}) (federal cases pending in Arizona, California, Montana, Nevada, New Mexico, and Washington). Because Indian water litigation is assigned to a separate section of the Justice Department, the danger of compromising the trust responsibility in favor of federal non-Indian water interests, a concern in the agency context, is reduced. In addition to Department of Justice representation, the tribes may participate independently in water litigation. \textit{New Mexico v. Aamodt}, 537 F.2d 1102, 1107 (10th Cir. 1976).

\textsuperscript{112} 424 U.S. 800 (1976).


\textsuperscript{114} 424 U.S. at 809-13. Previously the Court had only held that the McCarran Amendment permitted joinder of federal reserved rights in state general adjudications. \textit{See United States v. District Court for Water Div. No. 5}, 401 U.S. 527 (1971); \textit{United States v. District Court for Eagle County}, 401 U.S. 520 (1971).

\textsuperscript{115} 424 U.S. at 817-20. State adjudication would call for both quantification and establishing priority dates; otherwise the policy underlying state general adjudications—integration of all water rights on a given stream—would not be fulfilled. The state court would therefore be faced with defining the content of the reserved right. \textit{See Avondale Irrigation Dist. v. North Idaho Properties, Inc.}, 96 Idaho 1, 4-5, 523 P.2d 818, 821-22 (1974) (under McCarran Amendment, United States bound by Idaho state court's quanti-
Although the consequences of Colorado River are just beginning to emerge, the decision does not appear to foreclose federal adjudication of reserved rights. In fact, it has stimulated a large volume of Indian claims for water in federal courts, largely because Indians fear state court bias and because the federal water interest opposes state control over reserved rights. Some states have brought Indian reserved rights into state adjudications, but the states and private users may hesitate to rush into court before legal uncertainties are resolved.

Federal jurisdiction is denied under Colorado River only if a state general adjudication on the same stream or watershed is pending, the non-Indian parties to the federal action join the United States in the state court, the federal court proceeding has not progressed significantly beyond the filing of the complaint, and the federal court exercises its discretion to dismiss.

Most pending cases in federal courts have professional conflict between reserved rights. The Colorado River Court's reasoning is open to the criticism that reserved rights will have to be incorporated into state general stream adjudications whether the reserved right is defined initially by Congress, an agency, or the federal and state courts. For a representative state adjudication statute, see Utah Code Ann. § 73-4-1 to -24 (1953).

116. See note 111 supra (26 pending federal cases involving Indian reserved rights).
118. See note 8 supra.
119. Indian reserved rights are being adjudicated in state courts in Alaska, Arizona, Colorado, New Mexico, and Wyoming. Letter from Myles E. Flynt, supra note 111. See Comment, Determination of Federal Water Rights Pursuant to the McCarran Amendment: General Adjudications in Wyoming, 12 Land & Water L. Rev. 457, 459, 475-84 (1977) (describing establishment of statutory general adjudication procedure so that federal and Indian reserved water rights could be determined in state court). Although most western states have a statutory adjudication procedure to determine a watershed's water rights, the Colorado River case may be limited to the continuous stream adjudication system established in Colorado. See Colo. Rev. Stat. §§ 37-92-101 to 602 (1973 & Supp. 1978). Wyoming modeled its general adjudication statute after Colorado's so that Colorado River could apply. The Montana state legislature recently enacted legislation to adopt an adjudication procedure similar to Colorado. Sen. Bill 76 (Montana 1979). Other states have not followed suit, but they safely have jurisdiction over Indian water only if Colorado River is interpreted liberally. However, Colorado River "could be limited to its facts." Interview with Alan Cronister, Asst Attorney General for the State of Montana, Feb. 27, 1979 (notes on file with Yale Law Journal).
120. Utah has not adjudicated Ute Indian water claims in state court in part due to legal uncertainties concerning Indian reserved rights. Utah has pursued negotiation in order to avoid litigation. Interview with Dallin Jensen, supra note 39.
121. Colorado River Water Conservation Dist. v. United States, 424 U.S. at 809-20. It is possible that Colorado River will be extended so that Indian water rights will be further subject to state jurisdiction, a forum considered inhospitable to Indian claims, see note 117 supra, and whose findings of fact would receive as much deference on review as federal agency findings. But it is just as likely that Colorado River will be confined to its narrow procedural facts, see note 119 supra; Abrams, Reserved Water Rights, Indian Rights and the Narrowing Scope of Federal Jurisdiction: The Colorado River Decision, 30 Stan. L. Rev. 1111, 1147 n.222 (1978).
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ceeded beyond the danger zone of Colorado River dismissal, and state courts cannot ignore the substantive developments in the federal litigation. The race to the courthouse encouraged by concurrent jurisdiction may provide the broad range of cases necessary for standards to emerge. Furthermore, the Administration is considering a proposal to repeal the McCarran Amendment as it applies to Indian water.

Practical considerations, particularly fairness to the parties, indicate hazards in either agency or court adjudication. But if Colorado River is construed narrowly, the courts offer a more promising alternative for defining the content of Indian reserved rights. Once substantive standards gain content, the time and expense of reserved rights water litigation should encourage the parties to pursue the national policy preference for negotiating, and both private and public decisions on water investment and planning will be better informed.

Conclusion

To the Indians, their water in the twentieth century resembles their land in the nineteenth. The inexorable pressures of white settlement restricted Indian access to much desirable land and ultimately confined

122. Interview with Steve Carroll, staff attorney, Indian Resources Section, Department of Justice, Feb. 27, 1979 (notes on file with Yale Law Journal) (Indian Resources Section staff reviewed all 26 pending cases for author to determine that only five may be subject to dismissal in favor of state court adjudication).

The United States has brought two actions to adjudicate Indian water rights in Montana. United States v. Bighorn Low Line Canal, No. CV-75-34 (D. Mont., filed April 17, 1975); United States v. Tongue River Water Users Ass'n, No. CV-75-20 (D. Mont. filed March 7, 1975). The State of Montana moved for dismissal of both cases on grounds that concurrent state proceedings to adjudicate the waters are pending. The federal court has not ruled on these motions even though they were filed in 1977. Resolution of these motions could help determine the scope of the Colorado River holding.

123. Doubts about the availability of state jurisdiction over Indian reserved rights were dispelled to some extent when the State of Wyoming sued in its own courts for a general adjudication and named the United States as defendant trustee for two Indian tribes. In re the General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources, No. 4993 (5th Jud. Dist. Wyo. 1977). The United States removed the case to federal district court under 28 U.S.C. § 1441 (1976), but the district court granted a motion to remand, relying on the McCarran Amendment and Colorado River. Wyoming v. United States, No. C77-039K (D. Wyo. May 31, 1977) (order remanding to state court pursuant to 28 U.S.C. § 1447 (1976)).


125. The Bureau of Indian Affairs has been unable to pursue comprehensive inventory and quantification in part because available funds have been siphoned off to support litigation. See U.S. General Accounting Off., supra note 101, at 22-23.

126. See note 36 supra.
the tribes to carved out reservations. Today, rapid economic and population growth grasps at Indian water. To the western states, water is the limiting resource on economic vitality, and the national importance of western water grows with reliance on western energy supplies. The uncertain status of the Indian reserved right impedes management of dwindling available water supplies. As a first step in resolving the Indian water dilemma, the nature of the contending interests and the institutional possibilities calls for the federal courts to protect Indian interests and to reduce uncertainty through definition of the scope of Indian reserved water rights.

127. See D. BROWN, BURY MY HEART AT WOUNDED KNEE (1970) (describing severe deprivations of Indian land in late 1800's that were resisted only by late and often ineffective federal action). See also Arizona v. California, 373 U.S. 546, 598 (1963) ("It can be said without overstatement that when the Indians were put on these reservations they were not considered to be located in the most desirable area of the Nation.")

128. CRITICAL WATER PROBLEMS, supra note 1, at 5-6, 9-10.