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CONGRESSIONAL QUANTIFICATION OF INDIAN RESERVED WATER RIGHTS: A DEFINITIVE SOLUTION OR A MIRAGE?

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INTRODUCTION

Just as early pioneers on the desert were deluded by mirages into believing they saw the answer to their water problems, current residents of the arid Southwest are distracted by illusory solutions to complex water issues. Dwindling water supplies must somehow be stretched to meet uncertain and growing demand. It is said that congressional quantification of Indian reserved water rights will reduce some of the uncertainty.¹ Further, the practice of water "conservation" will reduce overall demands and, thus, serve everyone's interest. While these propositions are superficially appealing, they do not necessarily hold in practice, as illustrated by the Navajo Indian Irrigation Project (NIIP).

Because most Indian water rights have never been quantified, planning future developments in the West that use water is risky.² Indian reserved rights are generally prior to all other rights, need not be exercised to be maintained, and must be sufficient to sustain the reservation population over time.³ As a result, all other water users are vulnerable until the exact magnitude of these rights is determined. One obvious way to reduce ambiguity is to negotiate the rights with the Indian tribes and, by an act of Congress, quantify the precise amount of water to which the Indians are entitled.

Experience has demonstrated that determining the quantity of Indian water rights is not simply a matter of arriving at a number of feet per acre upon which non-Indian water users can rely. Rather, it raises the complicated question of the manner in which the United

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†Research for this article was part of a larger study, "Western Water Institutions in a Changing Environment," sponsored by the John Muir Institute for Environmental Studies, Inc., and supported by grant number PRA 78-17903 from the Division of Policy Research & Analysis, National Science Foundation.
1. See, e.g., Clyde, *Special Considerations Involving Indian Rights*, 8 NAT. RESOURCES LAW. 237, 251 (1975).
2. C. MEYERS & A. TARLOCK, *WATER RESOURCE MANAGEMENT* 156-84 (1971).
3. See generally, I. CLARK, *WATERS AND WATER RIGHTS* 79 (1967); cf. *Conrad Investment Co. v. United States*, 161 F. 829 (9th Cir. 1908).

States should fulfill its long-term trust obligation to provide Indians equal opportunity with other Americans to achieve whatever goals they may set for themselves.⁴ The interests of society and the trust obligation are poorly served when the impetus for quantification comes not from an indigenous decision-making process, but rather from pressures unrelated to that interest. NIIP shows that pressured quantification does not result in answers; rather, it creates more complicated and difficult questions.

NIIP also illustrates that water conservation is not necessarily a neutral activity that distributes benefits equally to all water users. Rather, in some circumstances, water savings are allocated to users other than those engaging in conservation. As a result, the savers become worse off through conservation—hardly a posture which will encourage further water-saving activity.

The discussion that follows recounts the history of NIIP and the current controversy that surrounds the project. Rather than providing answers to questions concerning Indian water rights, NIIP has raised a number of thorny technical, administrative, and legal issues which will be described. In addition, this paper will analyze the way in which conservation attempts by the Navajos may have worked against their own interests.

THE INITIATIVE FOR NIIP

NIIP is the actualization of the much larger vision of two nineteenth-century engineers—the Turley brothers. Their plans were grandiose, encompassing the irrigation of 1.3 million acres.⁵ Over the years, a number of agencies—including the State Engineer of New Mexico, the Bureau of Indian Affairs, and the Bureau of Reclamation—examined the potential for irrigation on the Navajo reservation. The initiative for the current project came in March 1953, when the governor of New Mexico sent a letter to the Secretary of Interior requesting studies and feasibility reports on projects that would utilize New Mexico's entitlement to the San Juan River.⁶ The major focus of attention was on structures that would divert water from the San Juan to water-short areas in the Rio Grande Basin. Because the Navajo Tribe had a senior right on the San Juan, their agreement was a necessary precondition to the authorization of the desired San Juan-Chama Diversion (SJD).⁷

4. See text and accompanying notes at pages _____ through _____, *infra*.

5. U.S. DEPT OF INTERIOR, ISSUE SUPPORTING PAPER No. 70-5, NAVAJO INDIAN IRRIGATION PROJECT 4 (1968).

6. General history of NIIP is recited in Issue Supporting Paper No. 70-5, *id. Supra* note 5.

7. See M. Price and G. Weatherford, *Indian Water Rights In Theory and Practice*, LAW AND CONTEMP. PROB. 118 (1976).

The size, location, and water entitlement of the project that the Navajos were to receive in exchange for their support of the SJD went through a number of changes between 1955 and authorization in 1962.⁸ Originally encompassing two units, the Shiprock Division and the South San Juan Diversion, the title was changed to the Navajo Indian Irrigation Project when it was decided that the project was to serve exclusively Indian land, including some land that was to be brought within the reservation through purchase and land exchanges. The data collection and studies that underpinned the feasibility report of 1957 concentrated mainly upon the physical aspects of the project. The technical information tended to be very preliminary as the size and location shifted from one place to another. Information about social and cultural impacts of the project was non-existent beyond an estimate of potential employment.⁹

On June 13, 1962, President Kennedy signed Public Law 87-483, authorizing the San Juan-Chama Diversion and the Navajo Indian Irrigation Project.¹⁰ NIIP included approximately 110,630 acres and a diversion of 508,000 acre feet. Further, the act provided for a sharing of shortages on the San Juan above Navajo Reservoir by the SJD and NIIP proportionate to their respective diversion requirements. While these provisions compromised to some degree the Navajo's priority rights, minutes of the Tribal Council indicate that the Navajos willingly agreed to them. Indeed, Price and Weatherford concluded that the trappings of Navajo participation in bargaining over the legislation were clearly in evidence.¹¹ At the same time, it must be noted that the timing, design, size, and water use of the project were not determined on the basis of an objective assessment of Navajo development needs by an informed decision-making process within the tribe; rather, Navajo positions were determined by what was regarded by the Indians as a strategic opportunity to get something for themselves out of the situation created by New Mexico's determination to move water from the San Juan into the central part of the state. The main motivation was to put "wet" water (as opposed to the "paper" water provided by legal entitlements) to work on Indian land before the waters of the San Juan were otherwise committed.

8. See text and accompanying notes, *infra* at _____.

9. See U.S. DEPT OF INTERIOR, BUREAU OF INDIAN AFFAIRS, NAVAJO PROJECT, NEW MEXICO, SUPPLEMENTAL REPORT (March 1957, supplementing Feasibility Report, January 1955).

10. Act of June 13, 1962, Pub. L. No. 87-483, 76 Stat. 96 (1962) is omitted from the official compilation of the United States Code. It can however be found at 43 U.S.C.A. § 615ii-yy, 620-620f (Supp. 1979). This statute will hereinafter be referred to as the NIIP Act.

11. Price and Weatherford, *supra* note 7, at 118.

FUNDING, MODIFICATION, AND MANAGEMENT OF THE PROJECT

While the San Juan-Chama Diversion and the Navajo Indian Irrigation Project were authorized together, congressional appropriations for NIIP lagged far behind. By 1970, the SJD was 65 percent complete while NIIP was only 17 percent constructed. This slow progress aroused suspicions that, once the Navajo Tribe had compromised its priority water right on the San Juan by quantification and agreement to share shortages, it lost much of its leverage over water policy.¹² Beginning in 1970, under the prodding of the New Mexico congressional delegation and federal officials, the pace of NIIP funding picked up.

In 1973, the Bureau of Reclamation reported a modification of the project which had profound implications for the social and cultural impacts of NIIP. An all-sprinkler system replaced the gravity flow system originally planned. The motivations for this change were various: this technology was better suited to high, rolling land; it conserved water; it was more efficient, and there was desire within the Bureau of Reclamation to design a "Cadillac" project for the Navajos. Implicit in this modification, however, were implications for the appropriate mode of project management that were not explicitly examined. The sprinkler system was far more appropriate to large-scale agribusiness enterprise than to the small family farms first envisioned for NIIP. The Bureau of Reclamation's sprinkler report considered the all-sprinkler system to be preferable because Indian labor would be inexperienced with irrigation, and use of a sprinkler system would be easier for them to learn and manage.¹³ There was no study, however, of the management structure the Navajo people would prefer, and of whether or not the sprinkler technology served that preference.

Conversion to the sprinkler irrigation method also raised the issue of who was to benefit from the water savings. The Bureau of Reclamation took the position that sprinkler irrigation required a diversion of 370,000 acre feet rather than 508,000 and a consumptive use of 230,000 acre feet rather than 254,000. In 1974, the Deputy Solicitor of the Department of Interior issued an opinion that the tribe was entitled to divert only the 370,000 acre feet necessary for irrigation, although the 24,000 acre feet of consumptive use saved would be made available to the Navajos.¹⁴ More recently, some Department of

12. *Supra* note 5.

13. U.S. DEPT OF INTERIOR, BUREAU OF RECLAMATION, NAVAJO INDIAN IRRIGATION PROJECT, ALL SPRINKLER IRRIGATION SYSTEM 43 (November 1973).

14. Memorandum to Under Secretary from Deputy Solicitor, "Navajo Indian Irrigation Project—Water Entitlement of the Navajo Tribe (December 6, 1974).

Interior officials have expressed a desire to reconsider that view.¹⁵ The Bureau of Reclamation has agreed to scale aqueducts to carry the full 508,000 acre feet diversion rather than the 370,000 acre feet envisioned for the sprinkler irrigation plan.¹⁶

Under the all-sprinkler plan, irrigated acreage was to be brought into production in huge blocks of 10,000 acres. When only three blocks were under cultivation, serious management problems surfaced. The Navajo Agricultural Products Industries (NAPI), set up to run the huge agribusiness enterprise, had suffered more than \$9.6 million in losses by the end of 1977. Some of the losses were caused by the poor quality of reservation land. The land being irrigated is marginal because it is at a high elevation and has sandy soil and a short growing season. Some of the other NAPI problems were related to bad weather and poor farm prices.¹⁷

Other contributing factors are more troublesome, however. There have been labor problems. While the project was managed to maximize employment, there has been serious absenteeism. Crop yields have sometimes been reduced because over-irrigation has washed away fertilizers. There is evidence of lax administration and assertions of petty graft.¹⁸

In 1979, the Navajo Tribal Council contracted with Ball Agricultural Systems, a Colorado management company, to take over the beleaguered project. Management promises more efficiency, less employment, and more economic returns. Ball Systems is committed to employ Indians throughout the organization. Obviously, however, the day-to-day management of the project is no longer in Indian hands.

ALTERATION OF THE CONTEXT OF THE PROJECT

In the decade and a half since the problem of Navajo reserved water rights on the San Juan River was "solved" by congressional legis-

15. See Memorandum to Dan Beard from John Leshy, "Deputy Solicitors Opinion of December 1974 on Water Entitlements of Navajo Tribe from Navajo Indian Irrigation Project" (September 23, 1977).

16. Construction of the main canal began before 1974 and was sized to carry 508,000 acre feet. A storage facility, Gallegos Reservoir, was also included. With the adoption of the sprinkler technology, sizing of lateral canals and drains dropped to 330,000 acre feet and Gallegos Reservoir was eliminated. The delivery of the full 508,000 acre feet will require some redesign and reconstruction. The construction of Gallegos Reservoir at this writing seems unlikely. The costs of such construction would push the project over the appropriations ceiling and would necessitate congressional action.

17. What kind of crops NAPI can raise and how they are to be marketed also presents problems. By law the project is forbidden to raise surplus commodities.

18. Long, *NAPI Problems Indicated by Allegations, Changes*, Farmington Daily Times (April 23, 1979).

lation, changes have occurred in the context of the project that threaten to undo the agreement. Indian tribes have become much more aggressive and self-conscious about preserving their water rights and their self-determination of how those rights ought to be exercised. They have come to see water as the key to urgently needed development. Unemployment and underemployment on the reservation is between 50 and 60 percent, and Navajo per capita income is declining while that of the United States as a whole is increasing. The 1974 per capita income for the Navajo was only about 19 percent of the national figure. What economic activity there is on the Navajo reservation tends to be based on federally funded service activities rather than on productive occupations.¹⁹

The capitalization of the private productive sector of the reservation economy will inevitably involve energy and mineral development which, of course, requires water. Navajo leaders are determined to see that the necessary water will be available. Tribal Chairman Peter McDonald has asserted a claim to "all of the waters that flow in the San Juan Basin" and stated that if it is just "5 percent of the Navajo Nation which is irrigable—it will take close to 3.5 million acre feet annually"²⁰ to meet reservation needs. This Navajo view is a direct challenge to non-Indian users of San Juan waters.²¹ The "settlement" of Indian water rights on the San Juan, if it ever existed, now appears ephemeral indeed.

The agricultural premises upon which the NIIP project was based are also undergoing change. Becoming a large, rural agricultural community once appeared the logical next step from the Navajo's quasi-nomadic existence. Today it seems more reasonable for the Navajos to invest their water in enterprises that offer better economic return.²² Further, NIIP has evolved far from the family farm ideal it once embodied.²³ At present, NIIP promises not the creation of an independent yeoman class free from dependence on outside food sources, but a large industry managed from the outside and depen-

19. J. Levy, *Who Benefits from Energy Resource Development?* (Unpublished paper, Department of Anthropology, University of Arizona, Tucson, Arizona, August 6, 1979.)

20. *Hearings before the Subcommittee on Energy Research and Water Resources of the Committee on Interior and Insular Affairs, United States Senate, 94th Cong. 1st Sess. 244* (1975) (statement of Tribal Chairman Peter McDonald).

21. For a good explanation of the impact of such a "call" on the river. *see* Letter from Steve Reynolds to Senator Frank Church (July 3, 1975) (on file in the Natural Resources Journal office).

22. Price and Weatherford, *supra* note 7, at 125.

23. It is not at all clear that either Navajo leaders or rank and file members approve of the way NIIP has been developed. Preliminary evaluation of a survey done on the reservation indicates that few Navajos feel adequately informed and involved. Further, most would much prefer family-sized plots to current large-scale development.

dent on national and international markets. This changing role of irrigated agriculture raises the question whether project water should be transferred to other uses. If NIIP is destined toward agribusiness and away from the goal of developing a "small farm" culture, one can analyze the usage of the water in line with strict notions of economic efficiency. Would NIIP water generate more tribal revenues if applied to the "business" of generating electricity or of mining rather than to the "business" of farming? If so, what impact would such uses have upon water supply? These are difficult but inevitable questions.

The increasingly aggressive Indian water claims come at a time of growing water scarcity on the San Juan. Questions have been raised about whether supplies are adequate to meet increasing energy demands. While the state of New Mexico maintains that all present claims can be served, others charge that the San Juan is already over-committed.²⁴ The availability of water for energy is directly linked to Indian water use. While the NIIP legislation was designed to defuse this debate, the arguments that follow demonstrate that this question is far from settled.

CONTESTED LEGAL ISSUES

While changes over time in the goals and objectives of different interest groups and in the political influence they command are bound to occur, one would hope a definitive legal solution of an issue would set the limits and framework within which future conflict, negotiation, and bargaining can occur. In the case of the quantification of Indian water rights through NIIP, no such definitive solution was achieved. For instance, the following questions remain at issue:

1. While the Navajos have a statutory right to receive water for NIIP:

(a) Is Navajo use of San Juan water under this project limited to irrigation?

24. Under the Upper Colorado River Basin Compact, 63 Stat. 31 (1949), New Mexico has a right to only 11.25% of the annual upper basin flow. This amount must be shared with the "wards" (Indian people) residing in that state. Under the Upper Colorado River Basin Compact, Article VII, New Mexico's share must be taken from the San Juan River. The Navajos have recently claimed a right to millions of acre feet of San Juan water annually. See text accompanying note 17, *supra*. This Navajo view leads inevitably to conflict between the Navajos and existing non-Navajo users of the river. See *Hearings Before the Subcommittee on Energy Research and Water Resources of the Senate Committee on Interior and Insular Affairs, San Juan Chama Project*, 94th Cong., 1st Sess., June 12, 1975. (See particularly, testimony of S. E. Reynolds.)

(b) Is the Navajo right limited to the consumptive use required by modern water conservation technology (sprinkler irrigation), or is it an absolute right to divert 508,000 acre feet irrespective of consumption?

2. If use of NIIP water is limited, do the Navajos nevertheless have a *Winters* right²⁵ to the remaining waters of the San Juan River, or did they waive this right by participating in NIIP?

3. If the Navajos have a *Winters* right on the San Juan, can they use it for non-irrigation purposes?

The next sections of this paper will give illustrative answers to these questions, first from a perspective maximizing Navajo water rights and then from the opposing point of view.²⁶

ARGUMENTS SUPPORTING THE VIEW THAT THE NAVAJOS HAVE AN EXPANSIVE WATER RIGHT ON THE SAN JUAN RIVER

Water Received Under NIIP Need Not be Used Exclusively for Irrigation.

The arguments favoring an expansive Navajo water right under NIIP are based on the contention that congressional intent in adopting NIIP was to fund a project through which the Navajos could begin to develop a viable, self-sufficient economy. In 1961, the governor of New Mexico told Congress:

The chronic economic distress of the Navajo people—the most populous Indian Tribe in the United States—has long been a matter of national concern.

... These people have suffered from privation continuously since their confinement to the barren reservation lands in 1868. . . .

This low standard of living has come about not from lack of industry—for as a people the Navajos are proud, intelligent, independent, and energetic—but from lack of opportunity. . . .

The Navajo's project would give the Indians a chance to earn for themselves a decent standard of living.²⁷

25. See *Winters v. United States*, 207 U.S. 564 (1908) and text accompanying notes at _____ through _____, *infra*.

26. The authors do not purport to list every legal argument that can or should be made on these issues. Rather, it is their goal to present the arguments so as to demonstrate the legal complexity of these issues.

27. This statement and other similar remarks by I. J. Coury and Steve Reynolds, may be found in the *Hearings on H.R. 13001 before the Subcommittee on Irrigation and Reclamation of the House Committee on Interior and Insular Affairs* (on file in the Natural Resources Journal office).

Similarly, on March 15, 1961, Stewart L. Udall, then Secretary of Interior, testified before Congress in support of the project.

The primary justification for the development of the Navajo project stems from the urgent need for expanded economic opportunity for the people living within and immediately adjacent to the project area. . . . The development of the project lands would also bring into the area the associated and allied industries of agriculture . . . which would provide, we calculate, a livelihood for an additional 2,240 Navajo families. Although, it is estimated that the Navajo project would provide the economic livelihood for some 18,000 to 20,000 Navajo people.²⁸

The general purpose of NIIP and the SJD are set forth in the act as follows:

For the purposes of furnishing water for the irrigation of irrigable and arable lands and for *municipal, domestic and industrial uses*, providing recreation and fish and wildlife benefits, and controlling silts, *and for other beneficial purposes*. . . .²⁹

This broad language stating the general purposes of the legislation expresses the idea of water use for multiple purposes.

Section 2 of the act controls the Secretary of Interior in his supervision of the project:

Pursuant to the provisions of Sections 620 and 620 (o) of this title, the Secretary of the Interior is authorized to construct, operate, and maintain the Navajo Irrigation Project *for the principal purpose* of furnishing irrigation water to approximately one-hundred and ten thousand, six-hundred and thirty acres of land, said project to have an average annual diversion of five-hundred and eight thousand (508,000) acre feet of water. . . .³⁰

This section can be read together with the underlying congressional intent to fund a broad rehabilitative project aimed at building a self-sufficient Navajo economy. The wording "for the principal purpose of" can then be read to include use of the water for other purposes if those purposes promote the goal of Navajo economic development. If water uses other than irrigation emerge which better meet the needs for economic development, these goals can and should be pursued.

If Navajos³¹ move into the region, attracted by the economic op-

28. House Hearings on H.R. 2552 11 (March 15, 1961).

29. 43 U.S.C.A. § 615ii (Supp. 1979) (emphasis added).

30. *Id.* § 615jj (emphasis added).

31. *Id.*, *supra*, note 21.

portunities of NIIP, homes, schools, hospitals, and other services will be necessary and "spin-off" industries³² will undoubtedly develop. All of these developments will require water. Legislative history contains assertions that "associated and allied industries of agriculture" and "other enterprises directly supported by the farm activity" were contemplated.³³ "In addition to the depletion of irrigation water on cropped land, allowances were made for consumptive use on incidental areas adjacent to the productive areas. . . ."³⁴ Thus, the act must be read as giving the Navajos the right to use the water principally for irrigation and secondarily for any purpose, "municipal, domestic and industrial," which is related to the project.

Other language of the act supports this view. Section 5³⁵ of the act refers to the "irrigation features" of NIIP, implying there may be other non-irrigation features. Section 11,³⁶ which requires that any water uses be pursuant to "contract satisfactory to the Secretary," refers to "contracts of water for Indian uses." The utilization of the plural rather than the singular may be argued as evidence of congressional contemplation of multiple uses of water.

Water Diverted Under NIIP is Not Limited to the Consumptive Amount Necessary for Sprinkler Irrigation of 110,630 Acres of Land.

If the Navajos are limited in their use of NIIP water for irrigation, are they limited to the "consumptive" use necessary to irrigate 110,630 acres of land by a sprinkler irrigation system or are they entitled to an absolute diversionary right of 508,000 acre feet of water? The act states that the project has the principal purpose of "furnishing irrigation water to *approximately* one hundred and ten thousand six hundred and thirty acres of land, said project to *have* an annual diversion of five hundred and eight thousand acre feet of water."³⁷ One can argue that irrespective of actual consumptive use, the Navajos' right is to "have" and divert 508,000 acre feet. For this reason, the act approximates the acreage to be irrigated and is specific as to the amount diverted. A problem the Navajos face with this argument is the repeated reference in the legislative history to the

32. See P. RENO, *NAVAJO RESOURCES AND ECONOMIC DEVELOPMENT* (1978).

33. H.R. DOC. 424, 86th CONG., 2d SESS. 333 (1960). In addition to those people engaged in farming, about 7,000 will receive the major portion of their livelihood from other enterprises directly supported by the farm activity.

34. *Id.*

35. 43 U.S.C.A. § 615mm (Supp. 1979).

36. *Id.* § 615ss.

37. 43 U.S.C.A. § 615jj (Supp. 1979) (emphasis added).

fact that a diversion of 508,000 acre feet would result in a stream depletion of only 252,000 acre feet based on Bureau of Reclamation estimates.³⁸ But the Navajos can argue that these figures were just estimates and that these estimates were challenged by some who believed that there would be no return flow at all.³⁹ Because of the discrepancies in the experts' testimony on return flow, Congress chose to grant the Navajos an annual average diversion rather than to quantify net stream depletion or consumptive use.

A comparison of the NIIP Act to similar legislation shows the specific language chosen by Congress was not mere oversight. The Boulder Canyon Project Act of December 21, 1928,⁴⁰ apportions water to California using the words "aggregate annual consumptive use (diversions less return to the river . . .)." "Consumptive use" is also used in Article III of the Colorado River Compact of 1922.⁴¹ In 1968, Congress, in authorizing water allocations from the San Juan River in New Mexico to Utah Construction and Mining Company, Public Service Company of New Mexico, and Southern Union Gas Company, stated "but total water depletion shall not exceed the estimates set forth."⁴² It would therefore be absurd to assume that Congress inadvertently said "an average annual diversion of five-hundred and eight thousand acre-feet" but meant to say "a net stream depletion of two-hundred and fifty-two thousand acre-feet." When use of surface water is involved, the exact language used by Congress must be followed.

Additionally, in discussing whether to approve NIIP, the Navajo Tribal Council was concerned about the amount of water the tribe was to receive under the act, not the consumptive use of a specific number of acres of land to be irrigated. The Navajos always treated NIIP as granting them an outright annual diversion of a stated quantity of water.⁴³ If the language of the act can be viewed as ambiguous, Navajo reliance on *Winters v. United States*, would be well placed:

38. See H.R. REP. No. 424, 86th Cong., 2d Sess. (1968).

39. *Id.* at 418, Correspondence to Interior from State of California, Department of Water Resources:

It is probable that the stream depletion occasioned by the Navajo Project would be substantial in excess of the estimated amount; consequently additional studies regarding actual stream depletion should be conducted.

40. 45 Stat. 1057 (1928).

41. 45 Stat. 1064 (1922).

42. That contract was approved by Congress on March 22, 1968. 82 Stat. 52 (1968).

43. See Minutes of Navajo Tribal Council (December 11, 1957) (Binder Tab H at 65) and Navajo Tribal Council Resolution CD-86-57 (December 12, 1957) (on file in the Natural Resources Journal office).

Ambiguities occurring will be resolved from the standpoint of the Indians. And the rule should certainly be applied to determine between two inferences, one which would support the purpose of the agreement, and the other impair or defeat it.⁴⁴

The Navajos Have a Winters Right on the San Juan River

If the Navajos are held to the consumptive use requirement of a sprinkler irrigation system, then their position must be that any water saved (not drawn from the river) belongs to the tribe as a matter of first priority under their *Winters* rights. This argument simply stated is that in addition to their contractual NIIP right under which they agree to share shortages with others who also contract with the Secretary of Interior, they also have a *Winters* right to the waters of the San Juan.

The United States treaty with the Navajos of 1868 contemplated that the Navajos would become an agricultural, pastoral people.⁴⁵ It follows from *Winters v. United States*⁴⁶ and its progeny, including *Arizona v. California*,⁴⁷ that subject to prior vested rights, of which there are few, the Navajos have a prior right to the use of waters traversing, bordering, or underlying the reservation as of the date of

44. 207 U.S. 564, 574-577 (1908). The United States Supreme Court has held that contracts, treaties, and agreements with Indian tribes are to be interpreted as understood by the Indians. *Choate v. Trapp*, 224 U.S. 665 (1912). In *Worcester v. Georgia*, 6 Pet. 515 (1833), the Supreme Court interpreted treaty provisions involving the Cherokees. The words "allocated" and "hunting grounds" were used. The Court stated:

It is reasonable to suppose, that the Indians, who could not write, most probably could not read, who certainly were not critical judges of our language, should distinguish the words "allocated" from the words "marked out"? . . . It may very well be supposed, that they might not understand the term, employed. . . . If the term would admit to no other significance, which is not conceded, its being misunderstood, is so apparent, results so necessarily from the whole transaction; that it must, we think, be taken in the sense in which it was most obviously used.

6 Pet. at 515. In the 1950s, the Navajo Tribal Council held meetings in the Navajo language. Given difficulties of translation, the language of the diversionary figure of 508,000 acre feet of water must be construed in the same sense in which "it was most obviously used."

45. Treaty with the Navajo Indians, Art. VII, 15 Stat. 667, 669 (1868):

When the head of a family shall have selected lands and received his certificate as above directed, and the agent shall be satisfied he intends in good faith to commence cultivating the soil for a living, shall be entitled to receive seeds and agricultural implements for the first year, not exceeding in value one hundred dollars, and for each succeeding year he shall continue to farm, for a period of two years, he shall be entitled to receive seeds and implements to the value of twenty-five dollars.

Most of the articles in the Treaty reflect the understanding that the Navajos would henceforward be primarily engaged in agricultural pursuits.

46. 207 U.S. 564 (1908).

47. 373 U.S. 546 (1963).

its creation.⁴⁸ The measure of the right is to waters sufficient to irrigate all Navajo "practically irrigable acreage."⁴⁹ Article XIX of the Upper Colorado River Basin Compact preserved that right:

Article XIX: Nothing in this compact shall be construed as:

- (a) affecting the obligations of the United States of America to Indian tribes.⁵⁰

Section 13(c) of the NIIP Act also recognizes the potential existence of a remaining unimpaired *Winters* right by stating:

No right or claim of right to the use of the waters of the Colorado River system shall be aided or prejudiced by [this Act] . . . anything in this Act to the contrary notwithstanding.⁵¹

Further, the NIIP Act is specifically made subservient to the Upper Colorado River Basin Compact.⁵²

While in Section 13(c) the act states that "water rights" are not impaired, the act does limit Navajo water rights—but only in their operation of "project works or structures":

None of the [project works or structures] authorized by this Act shall be so operated as to create, implement, or satisfy any preferential right in the United States or any Indian Tribe to the waters impounded, diverted, or used [by means of such project works] or structures, other than contained in those rights to the use of water granted to the states of New Mexico and Arizona pursuant to the provisions of the Upper Colorado River Basin Compact.⁵³

Likewise, the sharing of shortages provision purports only to require that those taking water "to the use of which the United States is entitled under these projects"⁵⁴ must agree to share shortages. The United States is not "entitled" to the Navajos' *Winters* rights.

The act also provides that insofar as NIIP is concerned, the Navajos must execute a contract in which they agree to share in the available supply of water in any year in which the Secretary of Interior anticipates a shortage.⁵⁵ As to rights outside that contract, they are not bound.

48. This is true because the greater part of the reservation was created before the various states beneficially used substantial amounts of water.

49. *Id.* note 51.

50. 63 Stat. 31 (1949).

51. 43 U.S.C.A. §615uu(c) (Supp. 1979) (emphasis added).

52. *Id.* §615uu(a).

53. *Id.* §615tt.

54. *Id.* §615ss(a) (emphasis added).

55. *Id.*

The Navajos Can Use Their Winters Right Water for Purposes Other Than Irrigation.

The Navajos can argue that using Indian water obtained under the *Winters* doctrine for nonagricultural purposes is consistent with the past views of the Secretary of Interior⁵⁶ and with good sense. The shift in national attitudes regarding Indians since most reservations were created has been immense. Present federal policy is that of Indian self-determination—a policy far different from the allotment era when many reservations were created. The congressional declaration of policy accompanying the Indian Self-Determination Act⁵⁷ states:

The Congress declares that a major national goal of the United States is to provide the quantity and quality of educational services and opportunities which will permit Indian children to compete and excel in the life areas of their choice, and to achieve the measure of self-determination essential to their social and economic well-being.⁵⁸

It is inconsistent with the policies embodied in this act to argue that Indian water rights are not available to help the Indians achieve self-determination. The right to self-determination lies for the Navajos in the development of their natural resources. This development may require that Indian water be available for commercial, mining, and other uses incident to the development of those other resources.

The most recent pronouncement from the United States Supreme Court on the issue reflects this modern view. In *Arizona v. California*,⁵⁹ the United States Supreme Court quantified the *Winters* rights of the lower Colorado tribes, adopting the "practically irrigable acreage" standard. In the Supreme Court's supplemental decree,⁶⁰ the Court removed any doubt that those *Winters* water rights were not limited to irrigation:

The foregoing reference to a quantity of water necessary to supply consumptive use required for irrigation . . . shall 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.*⁶¹

56. Memorandum from the office of the solicitor to the Secretary of the Interior dated February 1, 1964, restated in the memo to the regional solicitor of the Department of Interior at Los Angeles dated January 21, 1971, which approved an on-reservation change in place and use of Colorado River water within the Colorado River Indian Reservation.

57. 25 U.S.C. § 450-450n (1976).

58. *Id.* § 450a(c).

59. 373 U.S. 546 (1963).

60. *Arizona v. California*, 439 U.S. 419 (1979).

61. *Id.* at 422 (emphasis added).

Consequently, for on-reservation use, the Supreme Court has adopted an extremely liberal position.

Navajos may use this same self-determination argument to justify leasing their water rights for use off the reservation. If Indian water rights are the property of the tribes, those tribes should, with the consent of their federal trustee, be able to utilize the water however they wish. If there are insufficient funds available for development of on-reservation uses for Indian water, the denial of the Indians' right to lease or assign water rights to off-reservation users would be particularly harmful. It would deny the tribes the use of a property interest and deprive them of needed income for economic enrichment programs. It may ultimately prevent the water from ever being put to its maximum beneficial use because of a lack of capital.

The oil, coal, and uranium resources found on many Indian reservations need not be utilized only on the reservations.⁶² If, as *Winters* held, water resources became the property of the Indian tribes upon the creation of their reservations as did the oil, coal, and uranium present, it should be assumed that the creators of the reservations intended the water to be used with the same freedom as these other minerals.⁶³ Any attempt to limit Indian water utilization to on-reservation uses would be similar to arguing that reservations can use their other energy resources only for personal use.

There do not appear to be specific federal laws or regulations dealing with the subject of leasing Indian water rights.⁶⁴ Statutory authority has been thought to exist under the general law which gives the Commissioner of Indian Affairs "management of all Indian affairs and all matters arising out of Indian relations."⁶⁵ Indeed, the scope of this authority has been held to include "the management of water and water projects on a reservation."⁶⁶ At best, however, this is tenuous authority, since Congress has *specifically* legislated on the

62. See 25 U.S.C. § 397, 398 (1976).

63. For a contrary view see J. Palma, *Considerations and Conclusions Concerning the Transferability of Indian Water Rights* (in this issue *supra* at _____).

64. 25 U.S.C. § 177 (1976) provides that:

No purchase, grant, lease, or other conveyance of lands, or of any title or claim thereto, from any Indian nation or tribe of Indians, shall be of any validity in law or equity, unless the same be made by treaty or conventional into pursuant to the Constitution (emphasis added).

Though not clearly applicable, this statute may cast doubt upon any transaction which does not depend upon some act of Congress for authority.

65. A good discussion of this issue as well as other practical issues can be found in S. Boyden and S. Pugsley, *Use of Indian Water in Developing Mineral Properties* ROCKY MOUNTAIN MINERAL LAW FOUNDATION, WATER ACQUISITION FOR MINERAL DEVELOPMENT (March 6, 1978).

66. *Armstrong v. United States*, 306 F.2d 520, 522 (10th Cir. 1962). The context of this statement, however, casts some doubt on its validity in as regards a water lease.

leasing of various types of Indian lands for various purposes. Specific statutory authority would help all parties interested in the leasing of Indian water rights.⁶⁷

ARGUMENTS SUPPORTING THE VIEW THAT NAVAJO WATER RIGHTS
ARE LIMITED TO THE CONSUMPTIVE AMOUNT NECESSARY TO
IRRIGATE 110,630 ACRES USING THE MOST MODERN METHODS OF
IRRIGATION TECHNOLOGY

NIIP Water Can be Used Only for Irrigation.

The arguments supporting the view that the Navajos have a strictly limited water right and that the water diverted for NIIP can only be used for irrigation purposes are much narrower and more specific than the Navajo arguments. These arguments are based in part, on the face of the statute.

Section 2 of the NIIP Act lists irrigation as the "principal purpose" of NIIP.⁶⁸ Section 8, on the other hand, refers to the "principal purposes" of the San Juan-Chama Diversion and lists a number of purposes including irrigation, domestic, and municipal and industrial uses.⁶⁹ If Congress had intended other purposes for NIIP, it would have enumerated them as it did for the SJD. Moreover, NIIP is called an "irrigation" project, while the name of the San Juan-Chama

67. 25 U.S.C. §81 (1976), dealing with "contracts with Indian Tribes or Indians" has been argued to apply to Indian water agreements. It provides that:

No agreement shall be made by any person with any tribe . . . for the payment or delivery of any money or other thing of value . . . or for the granting or procuring of any privilege to him . . . unless such contract or agreement be executed and approved as follows . . .

Thereafter follow certain procedural requirements, including obtaining the approval of the Secretary of Interior and the Commissioner of Indian Affairs. A further reference for the leasing of Indian water may be found in 25 U.S.C. §476 (1976), which deals with the organization of Indian tribes. This section, a part of the Indian Reorganization Act of 1934, provides that tribes organized thereunder shall continue to possess "all powers vested in any Indian tribe or tribal council by existing law" and confirms in such tribes other powers, including the power "to prevent the sale, disposition, lease or encumbrance of tribal lands." The Department of Interior in interpreting these provisions has recognized broad powers over tribal property, subject only to the approval of the Secretary of Interior. See 26 U.S.C. §85 (1976).

It should also be noted that Congress has specifically authorized the leasing of Indian lands for mining and oil and gas development. One might argue in principle that Indian water rights essential to that development could be leased in connection therewith.

In 25 C.F.R. §131.1-20 (1979), the definition of "tribal land" includes "any interest" in land, a phrase which can arguably include water interests. *Id.* §131.1(c). The safest approach to the utilization of Indian water rights would, of course, involve entering into joint venture-type arrangements for mineral development directly with the Indian tribes, thereby obviating the problem of lack of clear statutory authority.

68. 43 U.S.C.A. §615jj (Supp. 1979).

69. *Id.* §615pp.

project is not so qualified. While Section 17⁰ of the act describes numerous purposes for the overall legislative plan, these purposes are apportioned between NIIP and the SJD by Sections 2 and 8. In Section 11(a)⁷¹ of the act, Congress limits contracts for water "except contracts . . . for the purposes specified in Section (2) and (8) of the Act," indicating that the enumerated purposes in the respective sections are to be read as limitations on use.⁷²

Section 4 of the act provides for increasing the capacity of NIIP facilities to supply water for other purposes, "over and above the diversion requirements for irrigation stated in Section (2)."⁷³ This language implies that Section 2 use is exclusively for irrigation, and if water for other purposes is to flow through NIIP, provision for it must be specifically made. The possibility that excess capacity could be built into NIIP to serve other purposes accounts for Congress' reference to the "principal" purpose of NIIP as irrigation and to the project's "irrigation features." These references do not give the Navajos the right to use water supplied under Section 2 for non-irrigation purposes. Rather, they indicate that, in addition to the Navajos' exclusive irrigation uses, other persons may contract to receive water through the project works.

Finally, the Navajos are entitled to defer repayment of the cost of constructing facilities to provide water under Section 2 of the act by the incorporation into that section of the Leavitt Act, which defers repayment of construction costs only for projects irrigating Indian lands.⁷⁴

The basis for the argument in the federal legislative history⁷⁵ is found in the testimony before Congress. Since Section 1 of the act

70. *Id.* § 615ii.

71. *Id.* § 615ss(a).

72. Compare text and accompanying notes at pages _____ through _____, *supra*.

73. 43 U.S.C.A. § 615ii (Supp. 1979).

74. 43 U.S.C.A. § 615jj (Supp. 1979) refers to 43 U.S.C. 620(c) (1976) which in turn incorporates the Leavitt Act of July 1, 1932, 47 Stat. 564 (1932).

75. See H.R. REP. No. 685 87th CONG., 2d SESS., reprinted in [1962] U.S. CODE CONG. & AD. NEWS 1681 and H.R. REP. No. 424 86th CONG., 2d SESS. (1968). The latter document contains prior feasibility studies on NIIP and the SJD, together with comment by federal agencies and by the states on the proposed projects and a letter of transmittal from the Secretary of Interior recommending construction of the projects. Among the materials reproduced are:

(1) 1955 BIA Feasibility Report on NIIP (289 ff.) calling for irrigation of 137,250 acres on and off the reservation. Depletion estimates vary around 341,000 acre feet. Diversion estimates vary around 629,700 acre feet. Discussion of importance of return flow to serve downstream users is highlighted. There is extensive discussion of water rights split between quantified rights of various ditches and unquantified Navajo *Winters* rights. Statements are made that (a) NIIP is not a multipurpose project; (b) for this reason no provision is made in design to supply water for municipal and industrial use.

incorporates by reference the feasibility study for construction of the project, that document must be examined.⁷⁶ When the bill authorizing the feasibility study was enacted and when the study was done, no thought was given to a sprinkler irrigation system. As a result, there was complete unanimity in the hearings that the water would all be used entirely for surface irrigation.⁷⁷ If the Navajos want water for some other purpose now, they must go to Congress with that purpose, not attempt to convert an irrigation project into a municipal or industrial one. In addition, the House reports show a consistent congressional concern over availability of an adequate water supply in the Upper Colorado Basin. Consequently Congress, not the Navajos, should decide whether some new water consumptive project is to be developed.⁷⁸

The Amount of Navajo Water Rights Under NIIP is the Consumptive Amount Necessary for the Sprinkler Irrigation System.

Since the water diverted through NIIP can only be used for irrigation, the water right is necessarily limited to the consumptive amount needed for irrigation. If less irrigation water is required for sprinkler irrigation, the surplus will be available for other persons who choose to contract with the Secretary of Interior to receive it.⁷⁹

When a shift is made to a sprinkler irrigation system, the water right is still measured by the amount that can be applied to "beneficial consumptive use."⁸⁰ If this amount is less, the water right is less. This is specifically mandated by the Upper Colorado River Com-

(2) 1957 BIA Supplement to feasibility report (271 ff.) incorporating revisions suggested by New Mexico making NIIP an all-Indian project of 110,630 acres. Agreement by Navajo Tribal Chairman, orally and in letter reproduced in Appendix C, that water requirements will be five acre feet per acre. Diversion requirements are then 508,130 acre feet for 105,099 productive acres (5% less than irrigable area). Depletion estimated at 281,000 acre feet.

(3) Letter from Gov. Mechem to Secretary of Interior (398 ff.) (Jan. 13, 1958), recommending that the Secretary seek congressional authorization of NIIP as described in BIA supplemental study of 1957, because of need to relieve economic distress of the Navajos by developing an irrigation economy and providing facilities to supply water for domestic and industrial use.

76. 43 U.S.C.A. § 615ii (Supp. 1979).

77. See [1962] U.S. CODE CONG. & AD. NEWS at 1681 (purpose of NIIP is irrigation), 1682 (plans for NIIP anticipate facilities to provide irrigation water for Navajos), 1687 (cost of NIIP allocated to irrigation benefits calculated assuming irrigation use, in determining cost/benefit ratio).

78. See *Id.* at 1686-87. Congressional concern for adequacy of the water supply is evident in § 11-14 of the Act (43 U.S.C.A. § 165ss-615vv) (Supp. 1979).

79. See discussion in text and accompanying notes at pages _____ through _____, *supra*.

80. See discussion in text and accompanying notes at pages _____ through _____, *supra*.

pact,⁸¹ which is not amended by the NIIP Act,⁸² nor by the New Mexico Constitution.⁸³

Acceptance of the argument that the NIIP Act contemplates a total diversionary and consumptive right of 508,000 acre feet would be inconsistent with the measurement of water rights in virtually every western state,⁸⁴ with measurement of water rights throughout the entire Colorado River system,⁸⁵ with *Arizona v. California*,⁸⁶ and with the language of the feasibility report specifically referenced in the statute.⁸⁷ In addition, a total consumptive use water right of 508,000 acre feet would force existing water supply contracts into a condition of perpetual shortage. To create a shortage for other projects would contradict the Navajo officials' own correspondence with Congress urging that water supply contracts be issued to Utah Construction Company and El Paso Natural Gas Company based on assurances by the Navajos that water would be available in addition to NIIP's share calculated on a consumptive use basis.⁸⁸

The Navajos Waived Their Winters Rights by Acceptance of NIIP.

Finally, the state can refute the argument that the Navajos have retained all of their *Winters* rights by relying on tribal minutes and resolutions as well as federal legislative history.

Tribal council minutes from 1951 contain several instances in which the Navajo position on proposed federal irrigation projects involving San Juan River water is considered. The council members discussed the pressing need for irrigation of tribal land. They were advised by their attorney that they might have water rights to irrigate up to 175,000 acres, but that these rights were meaningless without delivery of the water where needed. The members discussed the need to compromise—to share their water with non-Indians—in order to get Congress to fund any irrigation project for the benefit of the Navajos.⁸⁹

The spirit of compromise was manifested in a tribal resolution the following year. The Navajos claimed a prior preferential right to all

81. 63 Stat. 31 (1949).

82. 43 U.S.C.A. §615uu (Supp. 1979).

83. N.M. CONST. art. 16, §5.

84. See I. W. Hutchins, *WATER LAW IN THE NINETEEN WESTERN STATES* (1974).

85. See Myers, *The Colorado River*, 19 STAN. L. REV. 1 (1966-67).

86. 373 U.S. 546 (1963).

87. *Supra* note 82.

88. Letter to Senator Clinton P. Anderson from Paul Jones (February 18, 1958) (on file in the Natural Resources Journal office).

89. Minutes of Navajo Tribal Council (Binder Tab D, esp. at 56 and 61) (on file in the Natural Resources Journal office).

the waters of the San Juan and its tributaries. But in view of congressional contemplation of the Colorado River Storage Project, the Shiprock Indian Irrigation Project, and other uses, the Navajos would limit their demands to 610,000 acre feet per year to irrigate 122,000 acres under the Shiprock Project; the remaining water apparently was to be left for use by others.⁹⁰

As plans for NIIP were developed in subsequent years, the tribe by resolution urged enactment of the project with the following parameters: 115,000 acres maximum irrigated area, 508,000 acre feet maximum annual diversion.⁹¹ When a proposed NIIP bill was drafted, the tribal council approved the legislation in principle. The draft bill provided for 508,000 acre feet per year diversion to irrigate 110,630 acres, and it contained a provision for sharing shortages between the Navajos *and all other users of San Juan water*.⁹²

In 1964, the tribal council approved a proposed contract under which the Navajos were to obtain NIIP water from the federal government.⁹³ This contract marked the maximum of Navajo concessions.⁹⁴ Paragraph 10(e) of the contract gave the Navajos the right to use the project water for irrigation. In Paragraph 10(f), the United States reserved the right to use the return flow. Under Paragraph 10(g) the Navajos not only agreed to share shortages but expressly waived the priority of their *Winters* rights to all San Juan waters, not just to project waters.⁹⁵

The Navajo tribe did not fully reassert its *Winters* rights until 1966—some four years after the NIIP legislation. A resolution of the tribal council in April of 1966 opposed a re-evaluation of NIIP by the federal government, reiterated its demand for 110,000 acres of irrigated land and 508,000 acre feet of annual diversion, and announced that its compromise of Navajo *Winters* rights would be re-

90. Resolution of the Navajo Tribal Council No. CJ-4-52 (January 18, 1952) (Binder Tab E) (on file in the Natural Resources Journal office).

91. Resolution of the Advisory Committee of the Navajo Tribal Council No. ACJ-1-57 (January 9, 1957) (Binder Tab G) (on file in the Natural Resources Journal office).

92. Resolution of Navajo Tribal Council No. CD-86-57 (December 12, 1957) (on file in the Natural Resources Journal office).

93. Resolution of Navajo Tribal Council CMA-14-64 (March 2, 1964) (Binder Tab J) (on file in the Natural Resources Journal office).

94. The contract which was drafted by a Field Solicitor for the Department of Interior, is Exhibit A to the resolution cited in n. 40, *supra*. It was modified in a minor way by Resolution of the Navajo Tribal Council No. ACAU-129-64 (August 24, 1964) (Binder Tab K) (on file in the Natural Resources Journal office) and signed by the Tribal Chairman on July 1964. This contract did not reach fruition. Existing NIIP contracts contain a totally contrary provision.

95. A copy of that contract is on file in the Natural Resources Journal office.

voked if the project were not completed as planned.⁹⁶ It was in these relatively recent council discussions that the Navajos began expressing concern that the re-evaluation would reduce irrigable acreage and thus reduce the amount of water available to them—indicating that they considered water allotted to the tribe but not used for irrigation to be theirs for other purposes both under the NIIP Act and under *Winters*. Graham Holmes of the Bureau of Indian Affairs then began explaining that the Navajos could use that portion of their 508,000 acre foot entitlement not needed for agriculture for mining and industry purposes on the reservation; the Indians had a right to a diversion of 508,000 acre feet per year, and it would take an act of Congress to change that figure.⁹⁷

The current Navajo view can be argued to be a late creation, appearing most recently in a resolution designed to set forth the Navajo position on tribal water rights in view of New Mexico's legal action to adjudicate rights in the San Juan Basin.⁹⁸ There the Navajos for the first time claimed that (1) their *Winters* rights embrace water for domestic, mining, industrial, and recreational uses as well as for agriculture; (2) the tribe waived none of its *Winters* rights in connection with NIIP; (3) NIIP water is not chargeable to Navajo *Winters* rights; (4) Navajo *Winters* rights are transferable and the reserved water may be used within or beyond the Navajo reservation. The resolution declared all prior inconsistent actions to be void. The state may argue that the Navajos cannot rewrite the tribal history leading up to the passage of the NIIP Act by declaring historical fact void.⁹⁹

Legislative history at the federal level that can be cited by the state will include the statement of Mr. Paul Jones, chairman of the Navajo Tribal Council, before Congress:

96. Resolution of the Navajo Tribal Council No. CAP-56-66, April 28, 1966 (Binder Tab L) (on file in the Natural Resources Journal office).

97. Minutes of Navajo Tribal Council (April 28, 1966) (on file in the Natural Resources Journal office). In October of the same year, the Council demanded that the project be sized so that anticipated mining and industry uses could be supplied without reducing the 508,000 acre feet allotted to the Navajos for irrigation. The same demands were repeated in a tribal council resolution the following year. Resolution of the Navajo Tribal Council No. CO-106-66 (October 6, 1966) (Binder Tab M); Resolution of the Navajo Tribal Council No. CJA-5-67 (January 23, 1967 (Binder Tab O); Minutes of Navajo Tribal Council (January 23, 1967) (Binder Tab O at 670-71) (all on file in the Natural Resources Journal office).

98. Resolution of the Navajo Tribal Council No. CAU-52-76 (August 26, 1976) (on file in the Natural Resources Journal office).

99. The state's point will not be that the Navajos cannot now change their mind. Rather, to implement that change they will have to go to Congress and seek to amend the NIIP Act to conform to their new point of view.

All water uses from Navajo Dam would have equal priority. The Navajo Tribe has consented to this and relinquished its rights under the Winters doctrine for the water necessary to irrigate the Navajo Indian Irrigation Project.¹⁰⁰

A similar view can be found in the statement of Maurice McCabe, executive secretary of the Navajo Tribal Council, in his testimony to Congress.¹⁰¹ A similar statement was also made by Governor Burroughs¹⁰² at the House hearings on H.R. 2352. Finally, a letter from Tribal Chairman Jones to Clinton Anderson dated February 18, 1958, urges the sharing of shortages by all water users including the Navajos of the "900,000 annual acre feet of water on the San Juan River above Navajo Dam" and states:

As you can see, the Navajo tribe was represented by competent independent engineering and legal advisers. The decision of the tribal council to support *across-the-board sharing* made by resolution No. CE 86-57 was based on the recommendations of these independent advisers of ours.¹⁰³

The final argument of those opposing *Winters* rights on the San Juan is pragmatic. Assuming the Navajos had a *Winters* right with a priority date such that they could make a "call" on the river in time of shortage, such a right could not be exercised. To do so would short the tribe's own irrigation project (NIIP) because the balance of river water, after withdrawal, would have to be shared by NIIP and other project users. If the Navajos attempted to use their *Winters* right to supplement NIIP in times of shortage this would violate the statute which requires that shortages be shared.

A recent statement of the State of New Mexico's view regarding NIIP water rights helps place the alleged waiver of *Winters* rights in perspective. The state does not take the position that the acceptance of NIIP by the Navajos goes any further than an agreement to share shortages of water stored in Navajo Reservoir or of any other waters of the San Juan River and its tributaries *originating above Navajo Reservoir to the use of which the United States is entitled*. Nor does it apply to groundwater hydrologically unrelated to the river sys-

100. *San Juan Chama Reclamation Act: Hearings on H.R. 2352*, 86th Cong., 2d Sess. (May 20, 1960) (statement of Mr. Paul Jones, chairman of the Navajo Tribal Council) (on file in the Natural Resources Journal office).

101. *San Juan Chama Reclamation Act: Hearings on H.R. 2552*, 87th Cong., 1st Sess. (April 1961) (statement of Maurice McCabe) (on file in the Natural Resources Journal office).

102. *Hearings on H.R. 2352*, *supra* note 107 (statement of Governor Burroughs, Governor of New Mexico).

103. *Supra* note 95 (emphasis added).

tem.¹⁰⁴ Thus under the New Mexico view, the sharing of shortages provision leaves unencumbered any Navajo *Winters* rights to ground-water stocks as well as to waters originating in the Colorado mainstream in Arizona and Southern Utah, the San Juan basin in Southern Utah, and the San Juan Basin in Arizona and Utah.

WATER CONSERVATION IS NOT ALWAYS A NEUTRAL OBJECTIVE

Even though NIIP casts doubt on the viability of congressional quantification absent real commitment to compromise, one still has the principle of conservation on which to rest his faith. Unfortunately, NIIP also illustrates the vulnerability of that "Kantian good."

In any controversy, Indian tribes, the State of New Mexico, the Bureau of Indian Affairs and the Bureau of Reclamation all can be expected to act in a manner that will best support their own position. Strategic considerations will weigh heavily on the decisions as to what technical analysis is accepted, the timing of water development, and the purposes for which water is allocated. A good lawyer will adopt whatever national goals or objectives place his case in the best light. Water conservation is just such a national objective. Like motherhood, who can be against it?

Water conservation was recently embodied in national water policy as an objective equal to all others.¹⁰⁵ Presumably, this means using water efficiently, not using more water than necessary for any use, and not allocating scarce water to low-value uses. It is generally assumed that water conservation benefits the entire community because it makes more water available for use. Yet pursuit of the objective of water conservation by the Navajos in NIIP has worked against Navajo interests.

Water conservation provided part of the incentive for conversion to the sprinkler irrigation technology in 1974. The new technology imposed cultural and social costs but provided limited benefits. The most important present cost is that their conservation efforts may preclude the Indians from diverting their full 508,000 acre feet from the San Juan. While the project is once again being constructed to divert this amount, controversy continues within the Department of Interior, and as our legal arguments make clear, New Mexico is not in agreement. There is not even a consensus that the Navajos can re-

104. Letter from Richard A. Simms, General Counsel State of New Mexico Natural Resources Department, Water Resources Division, to Charles DuMars (September 10, 1979) (on file in Natural Resources Journal office).

105. 42 Fed. Reg. (1977).

cover savings in consumptive use. The Department of Interior claims the right to allocate the 25,000 acre feet consumptive savings to the tribe.¹⁰⁶ However, the State Engineer of New Mexico may dispute this allocation.¹⁰⁷

So long as their right to divert 508,000 acre feet is in question, there is an incentive for the Navajos to maximize the prospective water requirement of NIIP. The Navajo Tribe and the Bureau of Indian Affairs argue that the Bureau of Reclamation has underestimated the water needs of the project. The BIA contracted studies by Morrison Maierle of Helena, Montana, who used a different methodology from that of the Bureau of Reclamation to compute diversion and consumptive use by irrigated agriculture. As Table 1 indicates, diversion requirements for the 110,630 acres would exceed the amount in the Bureau of Reclamation study. The last column in Table 1 shows requirements if 508,000 acre feet is assumed to be the

TABLE 1
Navajo Indian Irrigation Project Water Requirements
Comparison of 1974 BR Study and 1975 BIA Study

	<i>BR Study (Blaney- Criddle)</i>	<i>BIA Study (Jensen- Haise)</i>	<i>BIA Study (Limited to 508,000)</i>
Consumptive use (ft)	2.49	4.03	3.47
Effective precipitation (ft)	0.61	0.72	0.72
Irrigation requirement (ft)	1.88	3.31	2.75
Farm Loss (25%) (ft)	0.63	-----	-----
Farm turnout requirement (ft)	2.51	-----	-----
Canal and Lateral loss (20%) (ft)	0.63	-----	-----
Project loss (40%) (ft)	-----	2.21*	1.84*
Diversion requirement (ft)	3.14	5.52	4.59
Project irrigable acres	110,630	-----	-----
Project productive acres	105,000	110,630	110,630
Average annual diversion (AF)	330,000	610,000	508,000

*The BIA study treated farm losses, canal, and lateral losses as a lumped project loss of 40 percent. This is equivalent to the combined farm loss of 25 percent and canal and lateral loss of 20 percent used in the BR study.

106. Memo from D. E. Lindgren, Deputy Solicitor, U.S. Department of the Interior to Undersecretary 10 (December 6, 1974).

107. *Supra* note 111.

Identified Differences

The following differences were identified between the BR and BIA studies:

1. Methods of computing consumptive use.
 BR—Blaney-Criddle method using seasonal "k" values
 BIA—Jensen-Haise method using monthly time periods
2. Periods of record for basic data:
 BR—1906-63
 BIA—1956-72

3. Crop distributions:

	<i>BR percent</i>	<i>BIA percent</i>
Alfalfa	34.2	41.1
Pasture	15.4	-----
Corn	21.2	28.4
Sugar beets	-----	20.0
Orchard	9.5	-----
Potatoes	6.8	2.3
Small truck crops	12.9	8.2
	<u>100.00</u>	<u>100.00</u>

4. Effective precipitation:
 BR—0.61 foot
 BIA—0.72 foot
5. Productive acreages:
 BR—105,000 acres
 BIA—110,630 acres

It appears that the difference in methods for computing consumptive use is the most significant and has the major influence on the difference in resulting unit water requirements between the BR and BIA studies.

SOURCE: Memo from Otto K. Weaver, Navajo Areas Resources Manager, BIA, and W. W. Reedy, Chief, Division of Planning Coordination, BR, Joint Meeting to Discuss Technical Derivation of Unit Water Requirements for NIIP, June 30, 1976.

average annual diversion. So far, attempts within the Department of Interior to come to a common agreement on requirements have not succeeded.

Just as the incentives have been for the Navajos to argue for larger diversion and consumptive use by irrigated agriculture to maintain their water right, strategic considerations have also discouraged the search for higher value uses of Navajo water. So long as there is no clear answer to the question whether the tribe will be legally permitted to use NIIP water for municipal and industrial uses, there is little to be gained by developing these prospects. To go forward and contract for other uses may be tacit approval of the argument that the full 508,000 acre feet might *not* be usefully employed by irrigated agriculture and may make the Navajo case more vulnerable. As a consequence, the tribe has been very reluctant to discuss publicly any alternative to full development of 110,630 acres or higher eco-

conomic uses other than those closely associated with agriculture. By following this strategy, the tribe improves its chances of diverting and consuming the actual quantities of water envisioned by the NIIP legislation. Unfortunately, it carries with it the cost of uncertainty in upper basin development and promotes goals antithetical to conventional notions of conservation.

CONCLUSION

Historically, questions of Indian water rights on the Colorado River have been treated as a diverting side issue. All parties who had an interest in the Colorado River Compact of 1922 participated in its formulation with one exception—the Indians. Norris Hundley observes:

[L]ittle was said about the Indians or their water rights in any discussion of the Colorado River, including the deliberations at league meetings. Indians were a forgotten people in the Colorado Basin, as well as in the country at large; and their water needs, when not ignored, were considered negligible.¹⁰⁸

The compact recognized Indian rights only as an afterthought. A clause stated, "Nothing in this compact shall be construed as affecting Indian Water Rights."¹⁰⁹

While massive federal financial and other resources were committed to the development of water resources on non-Indian lands in the West, tribal resources were, up until recently, neglected. Even where natural resources on tribal lands have been developed, the greatest benefits have often accrued to non-Indians.¹¹⁰ Only now that limitations upon supply are evident and demands for water are pressing close upon those limits have questions of Indian water rights become more urgent.

The Navajo Indian Irrigation Project illustrates that the quantification of Indian water rights does not necessarily dispose of all troublesome issues involving Indian water rights. More than 15 years after the Indian question was supposedly settled on the San Juan, thorny

108. N. HUNDLEY, WATER AND THE WEST 80 (1975).

109. *Id.*

110. For instance, Jerrold Levy, *supra* note 19, at 4, observes: "Although it has been the responsibility of the federal government to preserve Indian resources for use at such time that Indians could handle their own affairs, whenever these resources were discovered they were exploited for the benefit of non-Indians. Between 1887 and 1934, for example, the Indians were separated from some 86 million acres, over 62 percent of all Indian lands. At the present time, natural resources are generally sold on the basis of royalties and very few jobs."

legal and technical questions remain. Non-Indian water users on the San Juan have not escaped the uncertainties that were supposed to be avoided. Whether the best interests of all parties have been served by the bargain struck in the San Juan-Chama Diversion/NIIP agreement depends in large part on the outcome of these legal issues. A very strong Indian water right has been compromised for an irrigation project with serious economic and management problems.¹¹¹ If the water cannot now be applied to other more beneficial uses, it will be a questionable bargain indeed.

The "settlement" on the San Juan has not furthered rational development of water allocation in the Colorado River Basin. Strategic considerations now encourage Indians to divert and consumptively use as much water as possible on irrigated lands, and not to investigate other higher value uses.

NIIP also demonstrates that water conservation cannot be considered apart from the physical and institutional context in which it occurs. Conservation on NIIP threatens to decrease the amount of water the Indians can divert and consume.

The NIIP experience shows most clearly that unless congressional compromises are hammered out in a way that truly reflects the interest of *all* the parties, there is in fact no compromise. The dispute is not put to rest even though its epitaph may be written in the United States Code. In the case of the Navajos, it appears that any further attempts at congressional quantification of their water rights will have to be based on plans originating with the Indians and possessing the flexibility to adapt to future changes in economic conditions. Anything less will be merely a mirage that turns out to be nothing but sand when the parties reach the point at which they are ready to consume the water.

111. Price and Weatherford, *supra* note 7, at 131.