Transferability Under the Papago Water Rights Settlement

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Indian water rights claims have cast a shadow of uncertainty over the arid West.[1] Water resources planners in the Western states, already pressured by growing non-Indian demand for finite water supplies, are faced with the threat of unquantified, and potentially vast, diversions of water to Indian reservations.[2] Adding to this uncertainty are questions about the uses to which Indians may legally transfer the waters they are claiming.[3]

The Papago Indian Tribe and its neighbors in Southern Arizona have responded to this uncertainty by entering into a legislative settlement of their conflicting claims to water. The Southern Arizona Water Resources Settlement Act of 1982 (SAWRSA)[4] is a comprehensive agreement intended to quantify and define the Papago Tribe's complete entitlement to water.[5] SAWRSA includes a provision that allows the Papagos to transfer their water to any use including sale or lease off-reservation.[6]

The apparent grant of legal permission to transfer will not insure the transferability of the Papagos' water. Legal and economic constraints on transfer found elsewhere in SAWRSA will help to determine whether the right to transfer under it is an empty promise or a real opportunity for the Papago Tribe. This Note explores those constraints and their likely effects on the ability of the Papagos to exercise the right to transfer water to different uses. Before addressing that, the Note discusses the issue of transferability of Indian water rights in general. This is followed with background information on SAWRSA necessary to an understanding of the specific question of the transferability of Papago water. Finally, this Note concludes with some comments about the need for early comprehen-

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1. Note, *Indian Reserved Water Rights: The* Winters *of our Discontent*, 88 YALE L.J. 1689, 1692 (1979).

2. Laird, *Water Rights: The* Winters *Cloud over the Rockies: Indian Water Rights and the Development of Western Energy Resources*, 7 AM. INDIAN L. REV. 155, 160-61 (1979).

3. Note, *supra* note 1, at 1700.

4. Pub. L. No. 97-293 §§ 301-315, 96 Stat. 1261 (1982).

5. During debate leading up to authorization of the settlement, John Rhodes, Congressman from Arizona, testified, "It is my understanding that this will, once and for all, solve the water problems between the Papago Tribe, the United Stated of America, the city of Tucson and some private water users in that part of the State." 128 CONG. REC. H675 (daily ed. March 4, 1982).

6. Pub. L. No. 97-293 § 306(c)(2), 96 Stat. 1261, 1280 (1982).

sive planning in order for the Papagos to best take advantage of their right to transfer.

TRANSFERABILITY OF INDIAN RESERVED WATER RIGHTS

The transferability of Indian reserved water rights[7] is emerging as an important and controversial issue.[8] Rights long established under state water law systems are being brought into question by Indian claims based upon paramount federal rights.[9] Of particular concern is the possibility that Indians will be able to transfer their reserved water rights by sale or lease for use off the reservation.[10]

Judicial standards have not been developed to assess permissible uses of Indian reserved water.[11] Although the purposes for which a reservation was established have been used by courts in determining the quantity of water to which Indians are entitled,[12] it is not known if these purposes also constrain the present and future uses to which the water may be put.[13] Strong arguments have been forwarded for both restricting transferability and freely allowing transfer of Indian reserved water rights.

Those who advocate restricted transferability argue that reserved water rights are by their nature limited to certain uses and that to allow otherwise would wreak havoc on state water management.[14] Reserved water, according to this view, is limited to the minimum quantity needed to satisfy the purposes for which the reservation was created.[15] Water not used for these limited purposes is by definition surplus and should be available for other water users.[16] Because reserved water rights carry a

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7. Federal reserved water rights were first held to exist in the landmark case of Winters v. United States, 207 U.S. 564 (1908). In that case the Supreme Court held that the federal government impliedly reserved water for the benefit of the Fort Belknap Indian Tribe at the time their reservation was created. These *Winters* rights, as they came to be called, gave Indians rights to water dating from the creation of the reservation. These rights were not lost by non-use and were superior to any subsequently created state water right. For a discussion of the development of the federal reserved rights doctrine and its application in non-Indian contexts *see* Ranquist, *The* Winters *Doctrine and How it Grew: Federal Reservation of Rights to the Use of Water*, B.Y.U. L. REV. 639 (1975); Shrago, *Emerging Indian Water Rights: An Analysis of Recent Judicial and Legislative Developments*, 26 ROCKY MTN. MIN. L. INST. 1105 (1980); Trelease, *Federal Reserved Water Rights Since PLLRC*, 54 DENVER L.J. 473 (1977).

8. Palma, *Considerations and Conclusions Concerning the Transferability of Indian Water Rights*, 20 NAT. RESOURCES J. 91 (1980).

9. Note, *supra* note 1, at 1690.

10. Note, *Paleface, Redskin, and the Great White Chiefs in Washington: Drawing the Battle Lines over Western Water Rights*, 17 SAN DIEGO L. REV. 449, 468 (1980).

11. 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, 39-40 (1972).

12. Arizona v. California, 373 U.S. 546, 596 (1963), decree at 376 U.S. 340 (1964) (amount of water reserved based on irrigable acreage on the reservation); United States v. Powers, 305 U.S. 527 (1938) (Congress intended to reserve to reservation and allotted lands water essential to farming and homemaking); Colville Confederated Tribes v. Walton, 647 F.2d 42, 48 (9th Cir.) (adequate water reserved to maintain fish spawning grounds), *cert. denied*, 454 U.S. 1092 (1981).

13. *See* Ranquist, *supra* note 11, at 35-36.

14. Note, *supra* note 10, at 469.

15. Palma, *supra* note 8 at 94. This argument is supported by the holding in United States v. New Mexico, 438 U.S. 696 (1978), where such a limitation was imposed in the context of federal reserved water for a national forest.

16. Palma, *supra* note 8, at 94. *See* U.S. v. Hibner, 27 F.2d 909 (D. Idaho 1928).

priority date as of the establishment of the reservation,[17] it is argued that to allow transfer of this water off the reservation would be unfair to water users with rights vested under state law.[18] In areas where water supplies are fully appropriated, the sale of *Winters* rights[19] could allow a new water user to have rights senior to a user who has made substantial investment based on a state water right held for many years.[20]

Strong arguments also exist in favor of allowing Indians the right to freely transfer their reserved water rights, once quantified, to uses off the reservation. *Winters* rights, according to this view, were reserved so that Indian reservations could function as self-sufficient economic units.[21] Advocates of transferability maintain that, in order to achieve this kind of development, Indians must be permitted to transfer their water to uses with the greatest economic return.[22] In so doing, it is argued, the goal of efficient allocation of water resources will be served.[23]

Present and future needs of the Indians, as provided for in *Winters*,[24] are broad enough, under this view, to encompass new uses, including the marketing of water rights.[25] It has been argued that water resources should be treated like other natural resources existing on the reservation, which the Indians can either develop themselves or sell or lease for outside development.[26]

There is no easy resolution of these difficult issues surrounding transferability of Indian reserved water rights. In specific instances answers may be provided by litigation in which the rights of Indian and non-Indian parties are adjudicated.[27] The scarcity of case law in this area, however, makes such litigation risky as well as costly for all concerned.[28]

Legislative settlements are another avenue by which these issues may be resolved. Such agreements represent an opportunity to spell out clearly the quantity and scope of water rights to be enjoyed by a particular Indian tribe.[29] Unlike litigation, such settlements would not have to rely on interpretation of the language creating the reservation or on uncertain precedents set down in cases decades earlier. At the same time, rights established under such agreements would not be affected by subsequent

17. Winters v. U.S., 207 U.S. 564, 577 (1908).

18. Hostyk, *Who Controls the Water? The Emerging Balance Among Federal, State, and Indian Jurisdictional Claims and its Impact on Energy Development in the Upper Colorado and Upper Missouri Basins*, 18 TULSA L.J. 1, 49 (1982).

19. These are Indian reserved water rights, based on the landmark case Winters v. U.S., 207 U.S. 564 (1908) (discussed *supra* note 7).

20. Hostyk, *supra* note 18, at 49.

21. Note, *supra* note 1, at 1700.

22. *See id.*

23. *Id.* at 1701. *But see* Dunning, *Reflections on the Transfer of Water Rights*, 4 J. CONTEMP. L. 109 (1977) for a critique of arguments calling for economic efficiency in allocating water supplies.

24. 207 U.S. 564, 577 (1908).

25. Leaphart, *Sale and Lease of Indian Water Rights*, 33 MONTANA L. REV. 266, 276 (1972).

26. *Id.*

27. At least 55 lawsuits over Indian water rights were pending in Western courts in 1982. Ognibene, *Indian Water Rights Clouding Plans for West's Economic Development*, 44 ENVTL. REP. 1841 (1982).

28. *Id.* at 1842.

29. *Id.* at 1845.

Supreme Court decisions on reserved water rights favorable to one of the parties.

The Papago Indian Tribe and its non-Indian neighbors in Southern Arizona have opted for a legislative settlement of their conflicting claims to local water supplies. This comprehensive agreement, passed by Congress in 1982 as the Southern Arizona Water Resources Settlement Act (SAWRSA),[30] is intended as a final resolution of all water rights claims of the Papago Tribe.[31]

SAWRSA is the most ambitious of the few such legislative settlements in existence.[32] It is a complex piece of legislation that attempts to address and resolve a number of difficult issues associated with the Papagos' rights to water. Other jurisdictions facing Indian water rights disputes will be watching with interest the success of SAWRSA in resolving these issues.

Transferability of the water awarded the Papagos is one of the important questions addressed in SAWRSA. The Papago Tribe is given the right to devote its water to any use, including sale, exchange, or lease of the water off the reservation, as long as their water rights are not permanently alienated.[33] Despite the clear intent of this language, legislative authorization alone will not insure the transferability of the Papagos' water. Their actual ability to choose among possible uses of water and transfer will accordingly depend on the legal and economic constraints on the exercise of that right.

In order to understand how transferability is handled under

30. Pub. L. No. 97-293 §§ 301-315, 96 Stat. 1261 (1982).

31. BUFFALO BILL DAM, RECLAMATION REFORM, AND PAPAGO INDIAN WATER RIGHTS: CONFERENCE REPORT, H. R. REP. NO. 97-855, 97th Cong., 2d Sess., 37 (1982) [hereinafter cited as CONFERENCE REPORT]. The settlement applies only to Papagos living on the San Xavier Reservation and the Schuk-Toak District of the Sells Papago Reservation.

32. The author is aware of only three other legislative settlements of Indian water claims. These are the Ak-Chin settlement, Pub. L. No. 95-328, 92 Stat. 409 (1978); the Navajo Indian Irrigation Project, Pub. L. No. 87-483, 76 Stat. 96 (1962) (omitted from the official compilation of the United States Code, it can be found at 43 U.S.C.A. §§ 615ii-yy, 620-620f (Supp. 1979)); and the Ute Water Compact, UTAH CODE ANN. § 73-21-2 (1980). For discussion of these settlements, *see* respectively, Shrago, *Emerging Indian Water Rights: An Analysis of Recent Judicial and Legislative Developments*, 26 ROCKY MTN. MIN. L. INST. 1105, 1149-54 (1980); DuMars & Ingram, *Congressional Quantification of Indian Reserved Rights: A Definitive Solution or a Mirage?*, 20 NAT. RESOURCES J. 17 (1980); Fetzer, *The Ute Indian Water Compact*, 2 J. ENERGY L. & POL'Y 181 (1982).

33. Pub. L. No. 97-293 § 306(c)(2), 96 Stat. 1261, 1280 (1982). Several uses for the Tribe's entitlement to water are now being discussed. The Papago Tribe at present has a groundwater lease arrangement with a nearby mining company. This lease involves about 5,000 acre-feet although with the current depression in the mining industry the full amount is not now being used. The Tribe also farms about 1,200 acres, requiring most of the rest of the Tribe's groundwater entitlement under SAWRSA.

There has been discussion about a large-scale planned community on the reservation, covering 18,000 acres and including light industry, a golf course, hotel and residential areas for up to 110,000 non-Indians. It is estimated that this development would use about 15,000 acre-feet of water. Because this exceeds the Papagos' groundwater entitlement, this development would have to be served by the City of Tucson, or provision would have to be made for treating the Tribe's CAP or exchange water to domestic standards. Although this development is still in the preliminary planning stages, the developer has already arranged for the lease of several thousand acres on the San Xavier Reservation.

There is also discussion about an agricultural irrigation project to be constructed on the reservation. The $3.5 million provided in § 303 of SAWRSA and interest from the Trust Fund would be available to help in the development of this project.

SAWRSA, it is necessary first to have a general understanding of the events leading up to the settlement and the major provisions of SAWRSA itself. The next section of this Note provides that background.

THE PAPAGO WATER SETTLEMENT

Background

From time immemorial, Papago Indians have resided in areas of present-day Southern Arizona.[34] Over the last century,the Indians have been joined by a number of thirsty neighbors including farmers, copper mines, and the burgeoning population of the City of Tucson. Competition for water supplies among these neighboring interests has been most acute in eastern Pima County, where the underground water supply shared by all these users is threatened with demands far in excess of natural recharge.[35]

The San Xavier Papago Reservation and the Schuk-Toak District of the Sells Papago Reservation are located in eastern Pima County, adjacent to the Tucson metropolitan area. The San Xavier Reservation, covering approximately 70,000 acres, was established in 1874. The much smaller Schuk-Toak District was established as part of the Sells Papago Reservation in 1917.[36]

The Papago Indians were historically an agricultural people, relying on water from the Santa Cruz River and shallow wells to irrigate their crops. As other people moved into the area and began to pump more and more water, the Indians were forced to abandon land they could no longer irrigate. Groundwater levels decreased to the point that their shallow wells ceased to produce. Water stopped flowing in the Santa Cruz River, except during occasional floods. Marshlands that had supported abundant plant and animal life on the reservation disappeared altogether.[37]

Today, all water users in eastern Pima County must rely on the groundwater contained within two adjacent basins.[38] These basins are at present the sole water source for the Tucson metropolitan area with a population in excess of 500,000.[39] Anglo farmers in eastern Pima County withdraw even more water from this common supply than the residents of Tucson.[40] Copper mines, which use large amounts of water in processing ore, are the third major interest withdrawing water from this common underground supply.[41]

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34. *See* Manuel, Ramon & Fontana, *Dressing for the Window: Papago Indians and Economic Development*, in AMERICAN INDIAN ECONOMIC DEVELOPMENT 511, 518 (Stanley, ed., 1978). There is some debate as to whether the Papagos in fact came into the area in the 16th Century. Regardless, it is certain they predated any Anglo Settlements.

35. *See supra* notes 42-44 and accompanying text.

36. CONFERENCE REPORT, *supra* note 31, at 37-38.

37. Arizona Daily Star, June 6, 1982, at A1. Estimates of marshland on the San Xavier Reservation during the 1800's run as high as 30% of the total reservation. *Id.*

38. CONFERENCE REPORT, *supra* note 31, at 38. These basins are the Santa Cruz and Avra/Altar Valley basins.

39. *Id.*

40. Agriculture accounts for 56% of water pumped in these basins, compared with the municipal and industrial share of 30%. SOUTHERN ARIZONA WATER RESOURCES ASSOCIATION, A WATER ISSUES PRIMER FOR THE TUCSON ACTIVE MANAGEMENT AREA 18 (July 1983).

41. Mines account for 14% of water use in eastern Pima County. *Id.*

Groundwater pumping by these major interests far exceeds the capability of nature to replenish the supply.[42] The overdraft of groundwater from these two basins was estimated at more than 225,000 acre-feet in 1980.[43] This excess withdrawal has resulted in a rapidly declining water table, increased pumping costs, and concern about water quality and land subsidence.[44]

In 1975, the federal government filed suit on behalf of the Papago Tribe against these and other water users in eastern Pima County.[45] The complaint sought a declaration of the Papagos' rights in the waters of the Upper Santa Cruz basin, damages for past withdrawals detrimental to the rights of the Tribe, and an injunction to prohibit future withdrawals of groundwater adverse to the rights of the Papago Indian people.[46] The government asserted both aboriginal[47] and *Winters*[48] rights to the water.[49]

In response to the threat of this lawsuit, a group composed of representatives of the major water-using interests in eastern Pima County was formed. One of the purposes of this group was to provide a forum in which legislative settlement proposals for Papago water rights claims could be fashioned and discussed.[50]

Critical to the business of this group was planning for the arrival and integrated use of imported Colorado River water via the Central Arizona Project (CAP).[51] This massive federal reclamation project is currently under construction and is scheduled for completion early in the next decade.[52] Tucson and Pima County are at the end of the CAP "pipeline," and there has long been a fear that federal support for the enormously expensive project would wane once the politically powerful Phoenix area had been served.[53] Pima County interests saw Indian allocations of CAP water and further federal commitment by way of a legislative settlement based on additional CAP water for the Papago Tribe as a way to insure contin-

42. CONFERENCE REPORT, *supra* note 31, at 38. The ratio of withdrawal to recharge of the aquifer is estimated at more than four to one. *Id.*

43. *Id.*

44. *Id.*

45. *Id.* at 40. The 1975 suit was consolidated with a second suit by the Papago Tribe against the same defendants. The consolidated complaint was filed in United States & the Papago Indian Tribe v. City of Tucson, CIV 75-39 TUC (D. Ariz. 1980), naming approximately 1700 defendants.

46. Complaint, United States & the Papago Indian Tribe v. City of Tucson, CIV 75-39 TUC (D. Ariz. 1980).

47. Aboriginal water rights claims derive from the Indians' occupation of an area prior to the arrival of Europeans and other non-indigenous peoples. These rights predate federal sovereignty and thus are paramount under "first in time, first in right." Aboriginal rights are distinguishable from *Winters* rights in that they rest on Indian history rather than on an implied grant from the United States. *See* Merrill, *Aboriginal Water Rights*, 20 NAT. RESOURCES J. 45 (1980) and Veeder, *Indian Prior and Paramount Rights to the Use of Water*, 16 ROCKY MTN. MIN. L. INST. 631 (1970).

48. *See supra* note 7.

49. Complaint, United States & the Papago Tribe v. City of Tucson, CIV 75-39 TUC (D. Ariz. 1980).

50. CONFERENCE REPORT, *supra* note 31, at 40. This group, the Water Resources Coordination Committee (WRCC), continues to function in eastern Pima County.

51. *Id.*

52. Ariz. Republic, Dec. 18, 1983 (Special Report), at 1, col. 1. The series of articles contained in this special supplement gives a good description and update on most aspects of the Central Arizona Project (CAP).

53. *See* Tucson Citizen, Oct. 17, 1983, at 1, col. 2.

ued federal funding of the final phase of the CAP.[54]

In 1981, four years after negotiations began between the major water users and Papago representatives, and seven years after the lawsuit had first been filed, agreement was reached.[55] A bill containing the requisite federal authorization for implementing that agreement was passed by Congress in the spring of 1982.[56] The following month President Reagan vetoed the bill, calling the federal price tag too high.[57] Over the summer, negotiations resumed and a new agreement was reached. In October 1982, the Southern Arizona Water Rights Settlement Act was signed into law.[58]

Overview of SAWRSA

The main parties to SAWRSA are the Secretary of the Interior, the Congress, the Papago Tribe and the major water-using interests in eastern Pima County.[59] Under the Act, the Papagos are to be provided approximately 76,000 acre-feet of water.[60] Ten thousand acre-feet of this entitlement is groundwater to be pumped from under reservation lands, while the remaining 66,000 acre-feet of water must be acquired and delivered to the reservation by the Secretary.[61] Most, if not all, of this imported water will come from the Central Arizona Project.[62]

The federal price tag for the Papago settlement is substantial.[63] The largest federal expenses will be incurred in getting CAP water to the reservation.[64] These expenses cannot be attributed solely to the settlement, however, since the federal government had already committed to deliver CAP water to the reservation prior to passage of SAWRSA.[65] SAWRSA does create the additional obligation that Congress appropriate up to $3.5 million to be used in the design and construction of on-reservation irrigation works for distribution of settlement water.[66] It requires a $15 million appropriation by Congress to create a trust fund for the benefit of the Papago Tribe.[67] Interest income from this fund is to be used by the Tribe for activities related to receipt of water which are not otherwise provided

54. *Id.*

55. Ognibene, *supra* note 27, at 1843.

56. H.R. 5118, 97th Cong., 2d Sess. (1982).

57. 38 CONG. Q. ALMANAC 24-E (1982). President Reagan called the bill "a multi-million dollar bailout of local public and commercial interests at the expense of Federal taxpayers throughout the nation." *Id.*

58. Ognibene, *supra* note 27, at 1843.

59. Pub. L. No. 97-293, §§ 301-315, 96 Stat. 1261 (1982).

60. Throughout SAWRSA the allocations to the San Xavier Reservation and the Schuk-Toak District are separated. The San Xavier Reservation is entitled to 60,000 acre-feet and Schuk-Toak to 16,000 acre-feet of water from various sources. For purposes of the general analysis in this Note, these amounts will be considered together.

61. *See infra* notes 126-28 and accompanying text.

62. *See infra* notes 163-68 and accompanying text.

63. The Congressional Budget Office estimated expenditures authorized under the settlement of $101 million. 128 CONG. RECORD H673 (daily ed. March 4, 1982) (Remarks by Mr. Bereuter).

64. *Id.* The Congressional Budget Office estimated that at least $85 million of the total cost of the settlement was attributable to CAP costs already authorized under previous legislation.

65. *Id.*

66. Pub. L. No. 97-293 § 303(a)(4), 96 Stat. 1261, 1276 (1982).

67. *Id.* at § 309, 96 Stat. at 1283.

for in SAWRSA or any other Congressional Act.[68]

SAWRSA also creates a cooperative fund for the purpose of providing money for the operation and maintenance of the water delivery systems, for purchasing alternate water sources to meet the Secretary's obligations to the Indians and for paying damages if the Secretary is unable to meet those obligations.[69] Congress is authorized to match local contributions[70] to this fund in the amount of $5.25 million.[71] Additional appropriations to the fund of up to $16 million are authorized to be made by the Secretary, with notice to Congress, as he or she deems necessary to meet obligations under SAWRSA.[72]

A deadline of October 1992 is imposed on the Secretary for delivery of water to the reservation.[73] The Secretary will be liable in damages for failure to meet this deadline.[74] The measure of damages will vary depending upon whether a system to deliver water to the reservation has been constructed. If no such system is completed by 1992, the Secretary will be liable for "replacement cost" of the water.[75] If a delivery system has been completed, the Secretary is required to pay damages based on either the fair market value of the undelivered water or the value of the Tribe's actual or anticipated use of the undelivered water, whichever is greater.[76]

In order to receive the benefits provided in the settlement, the Papago Tribe must agree to a number of conditions. These conditions include a voluntary dismissal with prejudice by the Tribe of the lawsuit pending against other water users in eastern Pima County.[77] The Tribe must also execute a waiver and release of any and all past, present, and future claims of water rights or injuries to water rights, except those arising under SAWRSA.[78] The Tribe must agree to limit its groundwater pumping to 10,000 acre-feet on the San Xavier Reservation and to very low current levels in the Schuk-Toak District.[79] Finally, before the Secretary is obligated to build any on-reservation irrigation systems, the Tribe must subjugate[80] the land and agree to assume responsibility for the operation and

68. *Id.*

69. *Id.* at § 313, 96 Stat. at 1284.

70. *Id.* The City of Tucson, as well as other local interests including several mining companies, a large agri-business concern, and the State of Arizona must all contribute specified amounts totaling $5.25 million.

71. *Id.* Since the Secretary of the Treasury is the trustee of the SAWRSA cooperative fund and only interest income is available for expenditure, the full $5.25 million will not have to be appropriated by Congress. In contrast, the Papago Tribe is made trustee of the $15 million trust fund, all of which must be appropriated by Congress. *Id.* at § 309.

72. *Id.* at § 313.

73. *Id.* at §§ 303(a), 305(a), 96 Stat. at 1275, 1278.

74. *Id.* at §§ 304(c), 305(d), 96 Stat. at 1277, 1279 (1982). It should be noted that there is no provision for payment of money in lieu of water where the Secretary is capable of such delivery. Therefore, if the Tribe does not have the physical capability to accept and use all of its entitlement, or has not made arrangements to lease it to some other user, it will not be compensated.

75. *Id.* Replacement cost is defined as the reasonable costs of acquiring and delivering water, including amortized construction costs. *Id.* at § 302(8).

76. *Id.* at §§ 302(9), 304(c), 305(d), 96 Stat. at 1261, 1275, 1277, 1279.

77. *Id.* at § 307(a)(1)(C), 96 Stat. at 1281.

78. *Id.* at § 307(a)(1)(D), 96 Stat. at 1281.

79. *Id.* at § 306(a), 96 Stat. at 1279-80.

80. Subjugation of the land is defined in SAWRSA as preparation of the land for the growing of crops through irrigation. *Id.* at § 302(5), 96 Stat. at 1275.

maintenance of the system.[81]

Many questions are likely to arise in interpreting and implementing each of these obligations and conditions imposed by SAWRSA.[82] The foregoing discussion only highlights some of SAWRSA's more important provisions. A significant provision not yet discussed is that permitting the Tribe to sell or exchange its water rights. That transferability provision is the subject of the last section of this Note.

TRANSFERABILITY UNDER SAWRSA

Background to Its Adoption

The idea of granting the Papagos the right to transfer water awarded them under SAWRSA to different uses on the reservation and to lease the water for use off the reservation was a matter of some controversy.[83] Many people were concerned that the settlement might set a precedent for allowing other tribes to transfer their reserved water rights to uses off the reservation.[84] There was also concern about the implications of permitting Indians to market their water.[85]

The Papago Tribe had obvious reasons for supporting the idea of transferability. The right to transfer their water rights would give them more flexibility in their use of water and a better chance of actually bene-

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81. *Id.* at § 306(b), 96 Stat. at 1280.

82. Another very important issue not discussed above relates to the treatment of allotted lands and allottees under SAWRSA. Pursuant to the General Allotment Act of 1887, 25 U.S.C. §§ 331-34, 339, 341, 342, 348, 349, and 381 (1982), some 41,622 acres of the 71,095-acre San Xavier Reservation were assigned in trust status to individual Papagos. Heirs of the original allottees currently share in lease revenues when these allotted lands are leased. Manuel, Ramon & Fontana, *supra* note 34, at 540. Although allotted lands have been recognized to have their own reserved water rights (*see* Getches, *Water Rights on Indian Allotments*, 26 S.D.L. REV. 405 (1981)), no special consideration is given Papago allottees under SAWRSA except to provide that the "settlement provided in this title shall be deemed to fully satisfy any and all claims of water rights or injuries to water rights (including water rights in both groundwater and surface water) of all individual members of the Papago Tribe that have a legal interest in lands of the San Xavier Reservation. . . . Any entitlement to water of any individual member of the Papago Tribe shall be satisfied out of the water resources provided in this title," Pub. L. No. 97-293 § 307(e), 96 Stat. 1261, 1282 (1982). Questions about the equitable apportionment of water and revenues from the development and transfer of water among the Tribe and allottees are obvious. Less apparent, but no less important, are questions about the application of federal subsidies and incentives for the development of agriculture on these allotted lands.

83. Interview with Deborah Sliz, Counsel, Subcommittee on Energy and Environment, Committee on Interior and Insular Affairs, U.S. House of Representatives (January 12, 1984).

84. 128 CONG. RECORD § 4826 (May 11, 1982) (Remarks by Senator DeConcini). In debate prior to authorization of SAWRSA, Senator DeConcini assured his colleagues that "this legislation will not set a precedent of any kind. It does not affect in any way the many remaining water rights claims in Arizona or elsewhere." *Id.* This is reinforced by language in the Act itself following the transferability provision. "Nothing in section 306(c) shall be construed to establish whether or not reserved water may be put to use, or sold for use, off of any reservation to which reserved water rights attach." Pub. L. No. 97-293 § 306(d), 96 Stat. 1261, 1280 (1982).

85. Pima County Supervisor Katie Dusenberry expressed concern during a hearing on the proposed settlement that the Papagos would use surplus water to set themselves up in the water business. Ariz. Daily Star, August 28, 1981, at B1, col. 5. Gubernatorial candidate Leo Corbett praised President Reagan's veto of the original Papago bill, expressing the belief that "Everybody knows they [the Papagos] can't use the water they would have received." Pointing to the transferability provision, Corbet predicted that the Papagos would sell their CAP allocations to cities at a profit and "[w]ater is too valuable in this state for us to be creating a commercial enterprise for somebody." Ariz. Daily Star, June 2, 1982, at A5.

fitting from all the water to which they had acquired legal rights. Without the right to transfer, the Indians' ability to use their water rights would be dependent upon obtaining adequate capital to develop extensive farming operations. Water not actually diverted by the Indians would remain available for other non-Indian users under existing allocation schemes.[86] The Tribe was careful, however, to maintain the posture of wanting wet water[87] for agricultural development and not water rights for sale to non-Tribal interests.[88]

The real push for the transferability provision in SAWRSA came from the local Pima County interests.[89] The major goal of those local interests was to insure that Colorado River water would be imported into the area via the Central Arizona Project (CAP).[90] SAWRSA represented a strong federal commitment to bring CAP water to the reservation and therefore into eastern Pima County.[91] Once that water was in the area, local interests were anxious to have the option of buying water from the Papagos and using it for different purposes.[92]

The City of Tucson was already buying farmland merely for the purpose of retiring it and acquiring its water rights.[93] Buying water from the Papagos represented another, possibly less expensive source of water for the City. The mines similarly regarded the transferability of Papago water as providing them with an alternative source of water for the future.[94] Since most of the Papago water would be imported, local interests examined transferability issues in the context of dividing a larger pie, in which case everyone would be better off.

In the end, the local interests prevailed and a provision in SAWRSA allowing that:

> The Papago Tribe shall have the right to devote all water supplies under this title, whether delivered by the Secretary or pumped by the tribe, to any use, including but not limited to agricultural, municipal, industrial, commercial, mining, or recreational use whether within or outside the Papago Reservation. . . . The Papago Tribe may sell, exchange, or temporarily dispose of water, but the tribe may not per-

86. This idea was explored in a study by Price & Weatherford, *Indian Water Rights in Theory and Practice: Navajo Experience in the Colorado River Basin*, 40:1 LAW & CONTEMP. PROBS. 97 (1976). The authors point out that "A right to water does not necessarily include a right to the capital investment necessary to realize the economic benefit of an entitlement. . . ." *Id.*

87. "Wet" as opposed to "paper" water has long been an issue for Indian tribes that have the legal right to vast quantities of water but not the ability to actually divert and use that water.

88. Interview with William Strickland, Attorney for the Papago Tribe (Jan. 10, 1984).

89. Interview with Deborah Sliz, Counsel, Subcommittee on Energy and Environment, Committee on Interior and Insular Affairs, U.S. House of Representatives (January 12, 1984).

90. STATEMENT OF THE WATER RESOURCES COORDINATION COMMITTEE TO THE WATER AND POWER RESOURCES SUBCOMMITTEE OF THE U.S. HOUSE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS (March 13, 1981) [hereinafter cited as STATEMENT].

91. Tucson Citizen, October 17, 1983, at A1, col. 1.

92. STATEMENT, *supra* note 90.

93. Prior to 1983 the City had acquired 11,000 acres of farmland in Avra Valley for which it had the right to pump 30,000 acre-feet of water annually. Arizona Daily Star, August 5, 1983, at B4, col. 1.

94. Interview with Deborah Sliz, Counsel, Subcommittee on Energy and Environment, Committee on Interior and Insular Affairs, U.S. House of Representatives (January 12, 1984).

manently alienate any water right . . .[95]

This section further provides that the sale or exchange of water must be pursuant to a contract ratified by the Papago Tribal Council and approved by the Secretary of the Interior.[96]

Constraints on Transferability

Despite this clear statutory mandate, the Papagos' ability to transfer water under SAWRSA is conditioned on a number of factors. In identifying and evaluating these possible constraints, it is important to keep in mind that the decision to transfer water rights to new uses is essentially an economic one.[97] Requirements imposed by the settlement may not legally affect the right to transfer water but may make the exercise of that right economically impracticable. Before the sale of water can be viewed as a real alternative open to the Papago Tribe, it must be shown to be economically as well as legally available to them.

Secretarial Approval

The requirement for approval by the Secretary of Interior of any contract to sell or exchange water by the Papagos injects a measure of uncertainty into the transferability of their water rights. The language of SAWRSA provides that the Secretary shall approve and execute any such contract "as agent and trustee for the tribe,"[98] but it does not provide clear standards to limit the discretion of the Secretary in making those determinations.[99]

The vesting of this kind of discretionary power in the Secretary of Interior under SAWRSA is not unique. The leasing of lands on Indian reservations has long required Secretarial approval.[100] The general statute regulating such leases provides that land may be leased for "public, religious, educational, recreational, residential or business purposes."[101] This very broad language does not impose limits on the Secretary's discretion beyond what can be ascertained from his or her role as trustee.[102]

As the importance and magnitude of leasing of tribal lands has increased,[103] the absence of real standards to govern Secretarial discretion

95. Pub. L. No. 97-293 § 306(c), 96 Stat. 1261, 1280.

96. *Id.*

97. *See* Ross, *Valuation of Water Right for Acquisition, Condemnation, and Taxation Purposes*, 18 ROCKY MTN. MIN. L. INST. 563, 574 (1972).

98. Pub. L. No. 97-293 § 306(c), 96 Stat. 1261, 1280 (1982).

99. *See infra*, notes 185-86 and accompanying text.

100. Chambers & Price, *Regulating Sovereignty: Secretarial Discretion and the Leasing of Indian Lands*, 26 STANFORD L. REV. 1061 (1974).

101. 25 U.S.C. § 415(a) (1982).

102. The trust relationship between the federal government and Indians has been recognized beginning with the first Congress, which declared that the federal government was to protect the property rights and liberty of Indians and to show "utmost good faith" in dealing with them. Act of Aug. 7, 1789, Ch. 8, 1 Stat. 50, 52.

103. "The use of Indian land by non-Indian lessees is now very substantial. Indian trust land totals slightly over 50 million acres, of which about 7 million acres are leased to non-Indian farmers or are used under permit by non-Indian ranchers for grazing. Another 8 million acres are covered by mineral leases. . . ." Chambers & Price, *supra* note 100, at 1062.

has become a matter of concern.[104] The regulations governing leases[105] and actual practice by the Secretary have tended to emphasize the production of income in the form of lease revenues.[106] Concern has arisen because long-term leases of tribal lands have implications for tribal control over its resources and the vitality of the tribal culture itself which are not reflected in the price paid for the lease.[107]

Leasing of land on the San Xavier Reservation is specifically addressed by federal statute.[108] This statute provides that land may be leased on the San Xavier Reservation for "public, religious, educational, recreational, residential, business, farming or grazing purposes, including the development or utilization of natural resources in connection with operations under such leases . . ."[109] These purposes are even broader than those provided under the general statute governing leasing of Indian lands.[110]

The San Xavier leasing statute expands the time limitations imposed on leases by allowing for long-term, ninety-nine year leases.[111] Farming leases requiring substantial investment in improvements on the land are also longer under the specific San Xavier leasing statute.[112] The Secretary is cautioned generally not to "approve any lease with a term that is longer than is necessary in his judgment to obtain maximum economic benefits for the Indian owners."[113] If the Secretary determines that the leasing of San Xavier land will substantially affect the interests of the City of Tucson, the statute also requires that the Secretary notify the municipality.[114]

These legislative directives do not provide much guidance for those concerned with the exercise of Secretarial discretion in approving leases of Indian lands. In disputes arising out of the exercise of that discretion, courts have given considerable latitude to the Secretary.[115] The standard of review applied to leasing decisions made by the Secretary as trustee of the Indians has generally been limited to "arbitrary, capricious or clearly erroneous."[116]

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104. *Id.* at 1063-64.
105. 25 C.F.R. § 162 (1982).
106. Chambers & Price, *supra* note 100, at 1064.
107. *Id.*
108. 25 U.S.C. § 416, 416a-416i (1982).
109. *Id.* at § 416.
110. *See supra* text accompanying note 101.
111. 25 U.S.C. § 416 (1982). Under the general leasing statute, leases may not exceed 25 years with one renewal possible. 25 U.S.C. § 415 (1982). The 99-year leasing allowance is "clearly designed to deal with residential leasing." Chambers & Price, *supra* note 100, at 1063 n.9.
112. Under the general leasing statute, these farming leases may not exceed 25 years. 25 U.S.C. § 415 (1982). Farming leases on San Xavier land may be for 40 years. 25 U.S.C. § 416 (1982).
113. 25 U.S.C. § 416 (1982).
114. *Id.* at § 416b(a).
115. *See* Lawrence v. United States, 381 F.2d 989 (9th Cir. 1967) (Congress intended broad discretion for the United States in issuing permits for the use of Indian lands); Yavapai-Prescott Indian Tribe v. Watt, 528 F. Supp. 695 (D. Ariz. 1981) (in conflict between decision by Secretary and choice of tribe in terminating lease, Secretary prevailed), *cert. denied*, 104 S. Ct. 548 (1983); Coomes v. Adkinson, 414 F. Supp. 975 (D.S.D. 1976) (plaintiffs contesting leasing decision by Secretary had to show determination constituted willful and unreasoning action, without consideration and in disregard of facts of case).
116. *See* Kenai Oil & Gas, Inc. v. Department of Interior, 671 F.2d 383, 386 (10th Cir. 1982) (court's function in reviewing oil and gas lease decisions on Indian lands was to determine if they

Problems created by the broad discretionary powers enjoyed by the Secretary are exacerbated by the conflicting duties associated with that office.[117] As trustee for the Indians, the Secretary is obligated to consider the best interests of the Tribe in approving leases of their natural resources.[118] As head of a federal agency, the Secretary is responsible for implementing national policy and for getting the best deal possible for the federal taxpayer.[119] In some circumstances it may not be possible for the Secretary to adequately fulfill both of these roles.[120] Vague statutory standards leave discretion, and therefore uncertainty, in how the Secretary may balance competing loyalties.

Cost Factors Affecting Transferability

The ability of the Papagos to lease their water will depend on more than Secretarial approval. Papago water must also be able to compete in the marketplace if transfer agreements are to be reached. The price local users will be willing to pay for Papago water to replace or supplement their other sources of water will depend on market forces.[121] SAWRSA may impose certain costs on the transfer of Papago water that are not affected by conditions in the local market for water.[122] To the extent these cost factors result in prices that are too high relative to the prevailing market, transferability of Papago water will be constrained.

In permitting the transfer of Papago water, SAWRSA does not address the pricing of that water; it sets out only indirectly and incompletely the costs to be imposed on the transfer of Papago water. Congressional intent to impose certain costs on water that is transferred by the Papagos can be implied from language in SAWRSA providing that "net proceeds from any sale, exchange, or disposition of water by the Papago Tribe shall be used for social or economic programs or for tribal administrative purposes which benefit the Papago Tribe."[123] Although "net proceeds" is nowhere defined in SAWRSA, presumably it will be derived by subtracting certain costs from the gross proceeds realized under a lease agreement.[124] Determination of the relevant costs to be considered by the Secretary in arriving at "net proceeds" requires close analysis of the entire Act as well

were arbitrary, capricious, an abuse of discretion or contrary to law); Gray v. Johnson, 395 F.2d 533, 537 (10th Cir.), *cert. denied*, 392 U.S. 906 (1968) (standard applied to Secretary's cancellation of lease on Indian land was arbitrary, capricious, plainly erroneous or inconsistent with the regulations). *See also* Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971) (review of Secretarial discretion, in non-Indian lands context, guided by standard of whether action was arbitrary, capricious, an abuse of discretion of unlawful).

117. *See* Price & Weatherford, *supra* note 86, at 116.

118. Chambers & Price, *supra* note 100, at 1063.

119. *See* 3 U.S.C. § 301 Delegation of Functions to the Secretary of Interior (1982).

120. Price & Weatherford, *supra* note 86, at 117.

121. *See* Burness & Quirk, *Water Law, Water Transfers, and Economic Efficiency: The Colorado River*, 23 J.L. & ECON. 111 (1980).

122. *See infra* notes 142-77 and accompanying text.

123. Pub. L. No. 97-293 § 306(c)(2), 96 Stat. 1261, 1280 (1982).

124. In the Conference Report accompanying the final version of SAWRSA, this provision is explained by the following terse explanation: "Sale of water to non-Indians would be subject to recovery of appropriate charges." CONFERENCE REPORT, *supra* note 31, at 45-46.

as some speculation. Thus, costs attributable to water under SAWRSA are subject to a great deal of uncertainty.

Three different kinds of water will be available to the Papagos on an annual basis under SAWRSA. First, the Tribe is given the right to pump about 10,000 acre-feet of groundwater.[125] Second, the Secretary is to deliver to the reservation 37,800 acre-feet of CAP water allocated to the Tribe under an earlier agreement.[126] Third, an additional 28,200 acre-feet of "water suitable for agricultural use" is also to be delivered to the reservation by the Secretary.[127] Although this third type of water will probably be CAP water, it is handled separately from the Tribe's regular CAP allocation under SAWRSA.[128] To avoid confusion, this third type of water will be referred to as "exchange water" in the following discussion.

Different cost factors will be associated with the transfer of each of these three types of water.[129] The "net proceeds" realized from the lease of Papago water will vary depending upon the type of water involved and the use to which it is transferred. For that reason, each of the three types of water awarded the Papagos under SAWRSA will be considered in turn.

Groundwater

Groundwater will be the only water available to the Papagos for at least ten years following the enactment of SAWRSA.[130] Under SAWRSA, the Tribe is given the right to pump 10,000 acre-feet of groundwater annually.[131] The Papagos currently have very little well capacity for pumping groundwater.[132] Therefore, expansion of actual uses of groundwater will require capital investment for new wells and delivery systems. Two likely sources of capital for the development exist.

The first source of capital is provided under SAWRSA by the creation

125. Pub. L. No. 97-293 § 306(a), 96 Stat. 1261, 1279-80 (1982). Wells with a capacity of less than 35 gallons per minute which are used for domestic and livestock purposes are exempted from this limitation. Pumping from beneath the Schuk-Toak District is limited to those quantities being withdrawn on January 1, 1981. *Id.* That amount is negligible, according to William Strickland, Papago Tribal Attorney (interviewed Jan. 10, 1984).

126. Pub. L. No. 97-293 at § 303, 96 Stat. 1261, 1275-76 (1982). This amount reflects the allocation given the Papago Tribe pursuant to an earlier contract for CAP water entered into with the Secretary in 1980.

127. *Id.* at § 305, 96 Stat. at 1278.

128. *See infra* notes 170-73 and accompanying text.

129. *See infra* notes 130-77 and accompanying text.

130. SAWRSA provides that CAP and exchange water are to be delivered by 1992. *See supra* note 73 and accompanying text. Presumably, the groundwater is available to be pumped at any time by the Tribe.

131. This is really a limitation on the rights of the Papagos rather than a granting of new rights. In the absence of a legislative settlement, the Papagos' *Winters* and aboriginal water rights claims would attach to groundwater. *See* Complaint, United States & the Papago Indian Tribe v. City of Tucson, CIV 75-39 TUC (D. Ariz. 1980). *See supra* notes 7 and 47 for a brief discussion of *Winters* and aboriginal rights.

The Papagos had claimed irrigable acreage of up to 45,000 acres on the reservation, implying a reservation of several hundred thousand acre-feet of water. Arizona Daily Star, August 22, 1981, at B2, col. 6.

132. Interview with William Strickland, Attorney for Papago Tribe (Jan. 10, 1984). Farming on the entire San Xavier and Sells Reservations at present consists of about 1200 acres. Ariz. Daily Star, Aug. 23, 1981, at C2, col. 1.

of a $15 million trust fund.[133] Interest and dividends from this fund are available to the tribe for "the subjugation of land, development of water resources, and the construction, operation, maintenance, and replacement of related facilities on the Papago Reservation which are not the obligation of the United States under this or any other Act of Congress."[134] It is not clear from this language whether monies from the trust fund would be available for developing groundwater for off-reservation uses, or only for uses "on the Papago Reservation."[135]

Where transfer of groundwater off the reservation is involved, the second source of development capital is more likely to be utilized. This source involves payment by the lessees themselves for the development of the water they are leasing.[136] The cost of pumping and transporting the water would become the responsibility of the lessee, so that the price charged by the Tribe reflects only the value of the resource, not the cost of development.[137]

The transferability of groundwater to different uses does not appear to be a problem, either legally or economically. Unlike CAP water and exchange water, no federal development costs are associated with the Tribe's groundwater.[138] The groundwater will be subject to the rather vague strictures of Arizona's groundwater management plan,[139] but this should not pose significant problems for transfer.[140] The most significant constraint associated with transfer of the Papagos' groundwater is that the quantity of their groundwater right is relatively small.[141] Thus, the Tribe will need to choose carefully among possible uses of its limited groundwater entitlement.

Central Arizona Project Water

Much more difficult cost issues are raised by the transfer of Central Arizona Project (CAP) water under SAWRSA. Substantial federal invest-

133. Pub. L. No. 97-293 § 309, 96 Stat. 1261, 1283 (1982).

134. *Id.*

135. *Id.* Because of the emphasis in SAWRSA on the development of agriculture on the reservation, this provision was probably written with that type of development in mind. The modifying phrase "on the reservation" would not have to preclude development for transfer off the reservation because that development would necessarily involve wells and delivery systems on the reservation where the water was to be pumped.

136. In the analogous area of leasing of mineral rights on the reservation, this is the usual method of development. Note, *Indian Tribes: Self-Determination Through Effective Management of Natural Resources*, 17 TULSA L.J. 507, 523 (1982).

137. For a discussion of different factors affecting market price of water, see Ross, *supra* note 97.

138. The groundwater is available to be pumped from reservation land, while CAP water must be imported into the area at great expense to the federal government. The only groundwater development costs involve wells, distribution facilities and the electrical power to operate them.

139. Pub. L. No. 97-293 § 303(a)(3), 96 Stat. 1261, 1276 (1982).

140. Interview with Michael McNulty, Director, Tucson Active Management Area, Arizona Department of Water Resources (March 6, 1984). Mr. McNulty cautioned that particular requirements of the area water management plan, if applied to the Tribe, would impose certain restrictions, such as well spacing limits.

141. *See supra* note 131 and accompanying text.

ments will be required to bring CAP water to the reservation.[142] Under SAWRSA, the federal costs that are chargeable against this water depend on the use to which the water is put.[143]

SAWRSA was written, and its terms negotiated, with the goal of getting water to the reservation for agricultural development.[144] It is not surprising, then, that irrigation on the reservation is the most highly subsidized use of the water. It is the use against which the fewest costs are charged.[145]

The federal costs associated with getting CAP water to the reservation are of two main types. The first, operation and maintenance costs, will include the day-to-day expenses of operating and maintaining the CAP.[146] These costs are likely to be quite substantial, as they will include payment for the energy required to lift Colorado River water more than 2000 feet in elevation before it reaches the reservation.[147] SAWRSA provides that these operations and maintenance costs will not be charged against the Papago CAP allocation under any circumstances.[148]

The second type of federal costs is construction costs for building the main CAP facilities and delivery system to the reservation.[149] Whether the Papagos will be required to reimburse the federal government for these costs will depend upon the use to which they put the water. If the CAP water is used for irrigating of Indian lands, the Leavitt Act[150] applies and the collection of any construction costs attributable to irrigation of Indian lands is deferred until Indian title to the land has been extinguished.[151] If, however, the water is used for some purpose other than irrigation of Indian lands, the Leavitt Act does not apply and construction costs must be repaid to the federal government.[152]

The price that the Papagos must charge for the transfer of CAP water to a non-agricultural use on the reservation, or to any off-reservation use, must therefore include these amortized construction costs. This will re-

142. The share of construction costs attributable to delivery of CAP water to the reservation has been put at $60 million. Ariz. Daily Star, June 3, 1982, at B1, col. 4.

143. *See infra* notes 149-52 and accompanying text.

144. Interview with William Strickland, Attorney for the Papago Tribe (Jan. 10, 1984).

145. *See infra* notes 149-52 and accompanying text.

146. Ariz. Republic, Dec. 18, 1983 (Special Report), at 8.

147. *Id.* at 2.

148. Pub. L. No. 97-293 § 304(e)(1)(A), 96 Stat. 1261, 1278 (1982).

149. Ariz. Republic, Dec. 18, 1983 (Special Report), at 5.

150. 25 U.S.C. 386(a) (1982).

151. *Id.*

152. Pub. L. No. 97-293 § 304(e)(2), 96 Stat. 1261, 1278 (1982) provides:

> There is hereby authorized to be appropriated by this title in addition to other sums authorized to be appropriated by this title, a sum equal to that portion of the total costs of phase B of the Tucson Aqueduct of the Centeral Arizona Project which the Secretary determines to be properly allocable to construction of facilities for the delivery of water to Indian lands. . . . Sums allocable to the construction of such facilities shall be reimbursable as provided by [the Leavitt Act] as long as such water is used for irrigation of Indian lands.

Id. This language would seem to provide, by implication, that charges for allocated construction costs will be levied against water not used for irrigation of Indian lands. This interpretation was agreed to in conversations with a number of officials involved with negotiating and implementing SAWRSA.

duce Papago profits, but it will not necessarily make the water unmarketable because all non-Indians with CAP water allocations will have to pay some construction costs.[153] These costs vary with the type of user; farmers pay a low, subsidized rate and municipal and industrial users pay a much higher share of the actual construction costs.[154] The marketability of Papago CAP water will depend in part on the construction charge levied against that water when it is transferred to different uses.[155]

In addition to the subsidy provided under the Leavitt Act, SAWRSA goes further to encourage on-reservation agricultural use of the Papagos' CAP water. If the Tribe agrees to prepare land for farming and to assume responsibility for later operation and maintenance,[156] the Secretary is authorized to spend up to $3.5 million for the construction of irrigation systems on the reservation.[157] This amount is over and above any monies provided by the trust fund[158] or the cooperative fund.[159]

Although not legally precluded, transfer by the Papagos of CAP water to uses other than irrigation on the reservation is severely discouraged. The fact that the Secretary is empowered to levy construction charges against the water when it is used for purposes other than Indian agriculture may increase the cost of the water to a price above that which potential transferees would be willing to pay. When these costs are considered, along with the positive incentives in SAWRSA for the development of Indian agriculture, agricultural use of CAP water on the reservation appears likely.

Exchange Water

Exchange water awarded the Papagos under SAWRSA may represent their best opportunity for transfer. Unlike the CAP water discussed above, no strong incentives exist for using this exchange water only for Indian agriculture.[160] In fact, the exchange water may be less costly for the Indians to sell than to use themselves on the reservation.

SAWRSA does not actually spell out the source of the exchange water. In a confusing turn of phrase, it provides that "the Secretary shall acquire reclaimed water [from the City of Tucson] . . . and deliver annually twenty-three thousand acre-feet of water suitable for agricultural use

153. Ariz. Republic, Dec. 18, 1983 (Special Report), at 5.

154. Figures now used for planning purposes, but subject to adjustment are $2 per acre-foot for non-Indian farmers and $32.50 per acre-foot for municipal and industrial users. *Id.* at 8.

155. Marketability of the Papagos' CAP and exchange water will be enhanced by the fact that no operation and maintenance costs are charged against the water.

156. Pub. L. No. 97-293 § 306(b), 96 Stat. 1261, 1280 (1982). Money for this is available from the SAWRSA trust fund created in § 309. For a discussion of various aspects of financing, budgeting, and selecting and developing farmland see N. WRIGHT, A. SPENCE & M. ESCHER, LAND AND WATER ON INDIAN RESERVATIONS: A FARMING OPPORTUNITY (1983) (Published by the Office of Arid Lands Studies, Univ. of Ariz., Tucson, Ariz.).

157. Pub. L. No. 97-293 § 303(a)(4), 96 Stat. 1261, 1276 (1982).

158. *See supra* notes 67-68 and accompanying text.

159. *See supra* notes 69-72 and accompanying text.

160. *See infra* notes 169, 176 and accompanying text.

to the San Xavier Reservation. . . ."[161] On first reading, this sounds as if the Indians will be getting reclaimed water treated to agricultural use standards.

When this phrase is put in the context of other provisions of SAWRSA, however, it is clear that the reclaimed water given to the Secretary by the City of Tucson is not likely to be the exchange water he or she delivers to the Papagos. Although the Secretary is authorized to build and maintain facilities to deliver the exchange water,[162] he or she is specifically prohibited from building a separate system to deliver reclaimed water.[163] SAWRSA provides that the Secretary's obligation to deliver the exchange water may be fulfilled by voluntary exchange of that reclaimed water for any other water suitable for agricultural use.[164] The Secretary is further authorized to enter into agreements with individuals or entities for the purpose of acquiring rights to CAP or other water to meet his or her obligation to deliver exchange water to the reservation.[165]

SAWRSA's provisions relating to exchange water do not mention costs. The Secretary is given reclaimed water free of charge[166] and in turn is obligated to deliver an equivalent amount of agricultural water to the reservation.[167] SAWRSA provides that, in delivering the exchange water, the Secretary is to utilize unused capacity of the main project works of the CAP without reallocation of costs.[168]

A reasonable interpretation of SAWRSA's failure to specify costs for exchange water is that the water is to be given to the Papagos free and clear to do with as they choose.[169] This interpretation is supported by the fact that money from the SAWRSA cooperative fund may be used by the Secretary in acquiring and delivering exchange water.[170] SAWRSA deals with the Papagos' exchange water[171] in an entirely different section than its regular CAP allocation.[172] This seems to signify that exchange water is distinguishable from CAP water even if, in reality, both came from the same source.[173]

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161. Pub. L. No. 97-293 § 305(a), 96 Stat. 1261, 1278 (1982). The provision goes on to provide for delivery of 5,200 acre-feet of water to the Schuk-Toak District. *Id.*

162. *Id.* at § 305(b)(1), 96 Stat. at 1278.

163. *Id.* at § 305(b)(2), 96 Stat. at 1278. This provision resulted from the compromise reached following President Reagan's veto. The veto was based, in part, on Office of Management and Budget estimates that a separate delivery system for effluent might add $100 million to the federal costs of the settlement. As a result of criticism over high federal costs, this prohibition was included in SAWRSA. Ariz. Daily Star, August 20, 1982, at A14.

164. Pub. L. No. 97-293, § 305(b)(1), 96 Stat. 1261, 1278 (1982).

165. *Id.* at § 307(b), 96 Stat. at 1282.

166. *Id.* at § 307(a)(1)(A), 96 Stat. at 1281.

167. *Id.* at § 305(a), 96 Stat. at 1278.

168. *Id.* at § 305(b)(3), 96 Stat. at 1279.

169. This is the understanding of William Strickland, Papago Tribal Attorney (Interviewed Jan. 10, 1984).

170. Pub. L. No. 97-293, § 313(a)(B), 96 Stat. 1261, 1284 (1982). The costs paid to acquire water from other users would be expected to include their costs, including any applicable CAP assessments. Once these costs are paid for by the cooperative fund, assessing additional costs would arguably be double charging.

171. *Id.* at § 305, 96 Stat. at 1278-79.

172. *Id.* at § 304, 96 Stat. at 1276-78.

173. Exchange water may be surplus CAP water, privately contracted agricultural CAP water, privately held groundwater or reclaimed water. *Id.* at § 305(c), 96 Stat. at 1279. CAP water is

If the foregoing analysis is correct, the Papagos' exchange water will be much more marketable than its CAP water. Unlike the Tribe's CAP water, which must remain in agricultural use on the reservation for the protection of the Leavitt Act to apply,[174] the exchange water is not tied to any particular use.[175] If anything, agricultural use of the exchange water is discouraged by a provision in SAWRSA which makes the construction and operation of any on-reservation irrigation system for exchange water the sole responsibility of the Papago Tribe.[176] Transfer of exchange water to uses other than Indian agriculture could avoid this expense while providing higher "net proceeds" than would be possible from the sale of CAP water.[177]

Substitute Water and Secretarial Discretion

In the event the Secretary is unable to deliver to the Papagos all of their CAP allocation, he or she is authorized to obtain substitute water.[178] This substitute water is treated much the same as exchange water under SAWRSA. Like exchange water, it may be obtained from among specified alternative sources including surplus CAP water, privately contracted agricultural CAP water, privately held groundwater, and reclaimed water.[179] Monies from the SAWRSA cooperative fund are available to aid the Secretary in obtaining and delivering this water,[180] as was the case with exchange water.[181]

SAWRSA does not specify what costs are to be associated with this substitute water. Since it will replace the Tribe's regular CAP allocation, the Secretary may decide to impose the same costs as would be levied against that CAP water.[182] If monies from the SAWRSA cooperative fund are used to acquire this water, the imposition of such costs may not be justified even if CAP water is obtained.[183] If the substitute water is actually groundwater purchased by the Secretary, the imposition of these costs is even harder to justify.[184]

These issues point again to the considerable discretion left to the Secretary by SAWRSA's failure to clearly define what costs are to be considered in arriving at "net proceeds from any sale, exchange or disposition of water by the Papago Tribe . . ."[185] Conceivably, these costs could range

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most likely to be acquired as exchange water because it will be easier for the Secretary to acquire and deliver to the reservation.

174. *See supra* notes 150-52 and accompanying text.
175. *See supra* note 169 and accompanying text.
176. Pub. L. No. 97-293 § 305(b)(1), 96 Stat. 1261, 1278 (1982).
177. *See supra* notes 150-52 and accompanying text.
178. Pub. L. No. 97-293 § 304(b), 96 Stat. 1261, 1277 (1982).
179. *Id.*
180. *Id.* at § 313(a)(B), 96 Stat. at 1284.
181. *See supra* note 170 and accompanying text.
182. *See supra* notes 150-52 and accompanying text.
183. *See supra* note 170 and accompanying text.
184. Groundwater would not have associated with it any federal development costs as is the case with CAP water, and the costs of acquiring the groundwater would presumably be borne by the SAWRSA cooperative fund.
185. *See supra* notes 123-24 and accompanying text.

from the barest amount necessary to cover direct administrative expenses in approving the contract to reimbursement for all related federal expenditures unless specifically exempted in SAWRSA.[186] Transferability of the Papagos' water will depend, in part, on how broadly the Secretary chooses to define these costs.

Geographic Constraints on Transfer

Under SAWRSA, the Papagos are prohibited from transferring their water outside of the eastern Pima County area.[187] This prohibition reflects the intention of those involved in negotiating the settlement that it be a local resolution of water conflicts between the Papagos and their non-Indian neighbors.[188] Those interests favoring transferability of Papago water were motivated by the idea of getting more water into eastern Pima County and keeping it there for local users.[189]

The effect of this restriction is to place artifical limits on the potential market for Papago water. If demand for additional water in the local market is adequate, this limitation on the size of the market may not operate as a constraint on transfer. Certainly, in an avowedly water-short area like eastern Pima County, the expectation of adequate demand is reasonable.

There are indications, however, that this expectation of adequate local demand should not be accepted without looking into the forces that will be operating in the local market.[190] Papago water will be available for transfer at the same time a lot of other imported water will be coming into the area via the CAP.[191] Local users will have had to make extensive capital investments in preparation for receipt of their own allocations of CAP water.[192] Unless the Papagos can provide them with water that is less expensive than their own entitlements, these local users may not be in the market for Indian water.

While these issues are far from resolved, they raise the possibility that restrictions to a local market may operate as a real constraint on the transfer of Papago water. When the Central Arizona Project comes on line, California may lose over six hundred thousand acre-feet of Colorado

186. Specific exemptions would include operation and maintenance costs for the delivery of CAP water, Pub. L. No. 97-293 at § 304(e)(1)(A), 96 Stat. at 1278, and construction costs for irrigation of Indian lands. *Id.* at § 304(e)(2), 96 Stat. at 1278.

187. Pub. L. No. 97-293 § 306(c)(1), 96 Stat. 1261, 1280 (1982). This area is defined by the state-created water management area designated as the Tucson Active Management Area encompassing the upper Santa Cruz and Avra Valley sub-basins. ARIZ. REV. STAT. ANN. § 45-411 (Supp. 1983).

188. *See supra* note 5 and accompanying text.

189. *See supra* notes 90-92 and accompanying text.

190. Such an analysis is beyond the scope of this Note. The following brief discussion is intended only to highlight an issue worthy of further investigation.

191. Initial allocations of CAP water for all users in eastern Pima County total 168,159 acre-feet, of which the Papagoes are allocated 37,800 acre-feet. Non-Indian allocations will increase by almost 100,000 acre-feet by the year 2034. SOUTHERN ARIZONA WATER RESOURCES ASSOCIATION, A WATER ISSUES PRIMER FOR THE TUCSON ACTIVE MANAGEMENT AREA 15 (July 1983). Concern is being expressed that the "CAP may have much more water than customers in its early years." Tucson Citizen, Aug. 29, 1983, at A1.

192. *See* Arizona Republic, December 18, 1983 (Special Report), at 8, 9.

River water that is now being diverted and used in southern California.[193] The actual market for Papago water might otherwise extend into California if SAWRSA did not impose geographic restrictions.

CONCLUDING COMMENTS

Indian water rights, an already unsettled area of the law, have been made more uncertain by unanswered questions about their transferability. The Papago Indian Tribe and its neighbors in Southern Arizona have attempted to resolve that uncertainty by agreeing to a legislative settlement of their respective rights to water. As part of the settlement, the Papagos have been given the legal right to transfer their water to different uses, including sale or exchange off the reservation.

As the discussion in this Note has shown, however, the issue of transferability of Papago water is too complex to be resolved by a simple grant of legal permission to transfer. The costs incurred and the benefits received by the Papagos in transferring their water will depend upon the type of water involved and the use to which it will be put. The Tribe's groundwater allocation appears to be readily transferable except for constraints imposed by the limited quantity available. Papago CAP allocations are much less transferable because federal construction costs will be levied against that water when it is transferred away from heavily subsidized Indian agriculture. Exchange water appears to represent the Tribe's best opportunity for profitable transfer as its costs are not affected by type of use and there are fewer financial incentives for its use in agriculture. In any event, the right to transfer any of these types of water will be of very little value unless a local market of buyers exists when the water becomes available in 1992.

All of the water awarded the Papagos under SAWRSA need not be equally transferable in order for their right to transfer to be effective. Planning now for the future uses of their water may allow the Papago Tribe to take advantage of the varying restrictions on the transferability of different types of water. It may be that CAP water can be used to develop agriculture on the reservation while exchange water may provide a source of outside income for the Tribe. The different costs and incentives attributable to each type of water, while providing a potential opportunity for the Papagos, make planning at an early stage a complex and critical task.

The importance of careful planning for all water use alternatives prior to commitment to any particular capital-intensive use can be illustrated by referring to preliminary figures available on the costs of developing different sized farms on the Papago Reservation.[194] It is estimated that a farm on the San Xavier Reservation large enough to utilize the San Xavier por-

193. Telephone conversation with W. Don Maughan, Deputy Director, Arizona Department of Water Resources (March 21, 1984). According to Mr. Maughan, 662,000 acre-feet of water will be lost by California.

194. These figures were provided by the Arizona Projects office of the U.S. Bureau of Reclamation in Phoenix as preliminary, appraisal-level estimates. The numbers given include what are termed "field costs" as well as "construction costs" that reflect salaries and overhead. Additional costs for interest payments during the two to three year construction period are not included.

tion of the Tribe's total CAP and exchange water entitlements[195] would involve federal costs of approximately $22.5 million.[196] In addition, subjugation of land,[197] which is a responsibility of the Papago Tribe,[198] is estimated to require over $16 million. A farm capable of using only the 27,000 acre-feet San Xavier CAP water entitlement[199] would still involve estimated federal costs of $11.5 million and Papago land preparation costs of $8.75 million.

Although these figures are only preliminary estimates, they clearly convey the magnitude of financial commitment involved in using the Papagos' CAP and exchange water entitlements for Indian agriculture. Capital intensive uses of Papago water, undertaken without sufficient regard for all of the available alternatives, could create greater impediments to future transfer than any constraints imposed by SAWRSA. Once a large investment is made in reliance on the availability of Papago water, it will be very difficult later to transfer that water to other uses that may offer greater returns.

A determination that a total commitment to agriculture on the reservation will best serve the needs of the Papago people may be made in spite of the high capital expense.[200] Such a conclusion should be reached, however, only after adequate consideration of the options available to the Papagos under SAWRSA to transfer some or all of their water entitlements to different uses.

Comprehensive planning for the best uses of the Papagos' water in the future must be based on an understanding of the legal, economic, and geographic constraints on transfer. Without adequate planning, many options for exercising their right of transfer may be foreclosed. Moreover, such planning is best done now while support is strong for the Papago settlement. Commitments made to the Tribe today may serve to limit the exercise of Secretarial discretion as SAWRSA is implemented in future years.

SAWRSA represents both uncertainty and opportunity for the Papagos. The legislative settlement may have resolved questions associated with the Papagos' reserved water rights claims, but ambiguous language in the Act raises a host of other issues. Congressional authorization was only the first step toward a viable long-term water supply solution for the Papago people. Formulating strategy for resolving legislative ambiguities and planning adequately to realize the potential benefits of SAWRSA

195. This would be a 9,300 acre farm.

196. Two different federal costs are included in this amount. The cost of building canals to deliver the water down to 160 acre plots is part of the general federal CAP obligation and accounts for $13.75 million of $22.5 million. The remaining $8.75 million is the cost of putting in sublaterals and irrigation systems authorized by SAWRSA.

197. *See supra* note 80 and accompanying text.

198. Interest income from the SAWRSA trust fund may be used for this purpose. *See supra* notes 67-68 and accompanying text.

199. This would be a 5,000 acre farm.

200. An interesting idea, which has at present been tabled because of jurisdictional and other difficulties, is to develop Papago agriculture on the farmland bought by the City of Tucson for water rights and retired from agricultural production. Since this land is already prepared for agriculture, subjugation costs would be minimal and additional desert on the reservation would be spared from being cleared.

will require resources in terms of political skill and knowledge that may be in as short supply as water.