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Reservation and Quantification of Indian Groundwater Rights in California

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Abstract

The legalization of tribal gaming has transformed reservations throughout the state of California and the nation. Gaming has meant not only more revenue for tribes, but also increased visitors and residents on tribal land. An inevitable result of this, especially in Southern California, is an increased demand for water at the same time that the water supply is stressed and depleted. This note will lay out arguments the Santa Ynez Chumash Band of Indians could use to secure a right to groundwater on their reservation in Santa Barbara County as their successful casino brings in more and more visitors at the same time that groundwater beneath their reservation is depleted by non-Indian users.

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Indian water rights have been adjudicated in other western states, and the law around both groundwater and surface water rights is, if not established, at least existing. In contrast, Indian water rights have not had a major role in California to date. This note lays out the established federal reserved water rights doctrine as applied in other state courts and argues that tribal water rights should apply to both ground and surface water. The Santa Ynez Chumash are used as a case study to demonstrate how this could be done in California in a way that both promotes tribal sovereignty, and brings California water law in touch with the hydraulic reality that ground and surface water should be considered a common, interconnected source of water. Should the Santa Ynez take on this battle, the result would become important precedent for other Californian tribes.

I. Tribal History

Native Americans in California, like those in all of the United States, have had long and tortured battles over property rights. The property right to water is no exception. As of January 2013, there were 114 federally recognized tribes in California with control over approximately 990,000 acres of trust land.[1] Although much of this land is located in Northern California where there is an ample supply of water, tribes with reservations in Southern California will likely face legal battles as water supply becomes more limited and water quality is threatened. One of these tribes is the Santa Ynez Band of Chumash Indians, who occupy a small reservation in Santa Barbara County.[2] The Santa Ynez Reservation has about 140 acres of land and the 100 developable acres contain "residential housing, the tribal center, a health center, and a casino."[3]

The Santa Ynez Band is the only federally recognized tribe of Chumash Indians, although "at one time, [their] territory encompassed 7,000 square miles that spanned from the beaches of Malibu to Paso Robles."[4] The current tribal Chairman notes that "[t]he Chumash numbered over 25,000

1. List of Federal Recognized Tribes, National Conference of State Legislatures, *available at* http://www.ncsl.org/issues-research/tribal/list-of-federal-and-state-recognized-tribes.aspx#ca; CSAC Fact Sheet on Indian Gaming in California (as of 11/5/2003), California State Association of Counties, *available at* http://www.csac.counties.org/sites/main/files/file-attachments/fact_sheet2.pdf.

2. Pres. of Los Olivos v. U.S. Dept. of Interior, 635 F. Supp. 2d 1076, 1080 (C.D. Cal. 2008).

3. *Id.*

4. *Pres. of Los Olivos*, 635 F. Supp. 2d at 1080 (noting: "The Tribe is the only federally recognized Chumash Tribe in the United States. Today, it occupies the Santa Ynez Indian Reservation, located in Santa Barbara County."). *See also* Chumash History, *available at* http://www.santaynezchumash.org/history.html.

people on the eve of the first Spanish land expedition in 1769" that resulted in the founding of the Catholic Mission Santa Ines in 1772.[5] After the missions were secularized in 1833, "the Chumash population in the Santa Ynez River area alone" had decreased from 1200 "to only 455 Indians."[6] The current tribal Chairman is a descendant of The Chumash of the Village of Kalawashaq, "who found refuge in the Zanja de Cota riverbed" after secularization "mostly because no one else wanted to live in that flood plain."[7] The recent discovery of a Chumash burial site and intact Chumash village on land directly adjacent to the current reservation supports the Chairman's testimony.[8] Although it is not clear if the Chumash lived at the precise site of their current reservation prior to secularization in 1833, current tribal members are descendants of those who lived in the Santa Ynez River area since time immemorial.

Both the Tribe's website and the Department of Commerce's 1974 publication of "Federal and State Indian Reservations" state that the Santa Ynez "[R]eservation was established on December 27, 1901, under authority of the act of 1891."[9] The act referred to was passed by Congress on January 12, 1891, and is "[a]n act for the relief of the Mission Indians in the State of California."[10] This act established the Mission Indian Commission (known as the Smiley Commission) and gave the Commission the authority to select reservations for the Mission Indians in California.[11] Pursuant to this act, the

5. Testimony of Tribal Chairman Vincent Armenta before the House Committee on Natural Resources, Feb. 27, 2008 (citing John R. Johnson, Chumash Social Organization: An Ethnohistoric Perspective. Ph.D. dissertation, University of California, Santa Barbara (1988); John R. Johnson, The Chumash after Secularization (1995), California Mission Studies Association; John R. Johnson, personal communication with Kathleen Conti (Feb. 8, 2008)), *available at* http://www.polosyv.org/images2/pages/index/armenta_testimony.pdf [hereinafter *Armenta Testimony*].

6. *Id.*

7. *Id.*

8. *Pres. of Los Olivos*, 635 F. Supp. 2d at 1080 (Prior to finding these historic resources, the Tribe had submitted an application to the BIA asking it to take the land into trust).

9. Santa Ynez Reservation, http://www.santaynezchumash.org/reservation.html; U.S. Department of Commerce, Federal and State Indian Reservations and Indian Trust Areas (1974), *available at* http://www.gpo.gov/fdsys/pkg/CZIC-e93-u6553-1974/html/CZIC-e93-u6553-1974.htm.

10. An Act For the relief of the Mission Indians in the State of California, 26 Stat. 712 (January 12, 1891).

11. Mesa Grande Band of Mission Indians v. Salazar, 657 F. Supp. 2d 1169, 1171 (S.D. Cal. 2009).

Smiley Commission went to California to "make themselves as familiar with condition of the Indians and their reservations as possible."[12]

The Smiley Commission visited the Santa Ynez Indians, and in their December 1891 report, described them as an "Indian village composed of some fifteen families."[13] The report notes that although the Santa Ynez Indians had occupied the land since about 1835, they did not hold legal title to the land.[14] However, the private land grant holders told the Commission that "these Indians shall never be disturbed in their occupancy and use of the lands on which they now live."[15] It further stated that the preference would be to "deed to the Secretary of the Interior, in trust for them, five acres of good land, to each family; pipe to it a sufficiency of water for agricultural and domestic purposes, and build for each family a comfortable two-room frame house."[16] The Smiley Commission itself did not have the authority to take the land in trust, but recommended that the federal government take the appropriate steps to do so as soon as possible.[17]

What happened with the Santa Ynez land after 1891 is complicated and is currently in dispute.[18] In 1903, a private land company deeded land to the Secretary of the Interior for the benefit of five Chumash families.[19] In 1906, a second federal report was issued on the conditions of the California

12. SMILEY COMMISSION REPORT AND EXECUTIVE ORDER OF DECEMBER 29, 1891, page 1, *available at* http://www.standupca.org/gaming-law/unique-federal-indian-law-california-specific/Smiley%20Commission%20Report.pdf [hereinafter *Smiley Report*).

13. *Id*. at 26.

14. *Id*. at 27.

15. *Id*.

16. *Id*.

17. *Id*. at 27-28.

18. For example, one source maintains that the current Reservation was initially a satellite mission of the Catholic Church called Santa Inés. William Wood, *The Trajectory of Indian Country in California: Rancheras, Villages, Pueblos, Missions, Ranchos, Reservations, Colonies, and Rancherias*, 44 TULSA L. REV. 317, 355-56 (2008) ("The Catholic Church had been issued a patent for the lands, and after the Church transferred the land to the United States government at the request of the Chumash at Santa Ynez, the lands became a trust patented reservation under the Southern California Mission Indian Agency.") However, a local community group that claimed that the Tribe was not placed on a list of federally recognized tribes until 1972. See Preservation of Los Olivos and Preservation of Santa Ynez v. Pacific Regional Director, Bureau of Indian Affairs, Docket No IBIA 05-050-1, Appellant's Opening Brief 13 (February 8, 2010), *available at* http://www.polosyv.org/images2/pages/index/Appellants_Opening_Brief.pdf.

19. Letter on behalf of the Tribe from California Indian Legal Services to BLM regarding two disputed parcels that the Tribe wants to be taken into trust (May 29, 2002), *available at* http://www.polosyv.org/images2/pages/index/2002_letter.pdf.

Indians.[20] This report noted that although there was Congressional intent to set apart for Indians all lands occupied by them, the Santa Ynez was one of only two out of several hundred cases where this was done.[21] The remainder of land that is now a part of the Santa Ynez Reservation was likely granted to the federal government to hold in trust for the Tribe in 1937 by successors to the same private entity that deeded the original twenty-five acres in 1903.[22] Based on the documents reviewed in researching this Note, it is not clear when all the paperwork formally transferring title to the United States to hold in trust for the Santa Ynez was completed.[23] However, it is apparent throughout both the Smiley Commission and Kelsey reports that the federal government intended to reserve water rights for the Tribe when it acquired land for them in trust from private grantors. As will be described in the following section, reserving land without water in Southern California would be akin to signing a death warrant for the Tribe.

II. Importance of Water to Tribes in Southern California

Without water, a reservation of land in much of Southern California is worth very little, as "the Indian could do nothing but watch his trees die and his garden dry up, and be forced to abandon his holding."[24] As early as 1891, the federal government recognized that "[i]n Southern California, water supply is an important matter."[25] In 1906, Special Agent Kelsey recognized the imperative nature of securing water rights for Indian tribes in Southern California. He noted that "land without water is worth very little" and recommended that in desert areas, the government buy enough lands with

20. C.E. KELSEY REPORT, 1906, *available at* http://www.standupca.org/gaming-law/unique-federal-indianlawcaliforniaspecific/C.%20E.%20Kelsey%20Report%2C%201906.pdf [hereinafter *Kelsey Report*].

21. *Id.* at 5. The report also noted that the terms of the settlement for the Santa Ynez were so uncertain that an action was pending in state court to resolve it.

22. California Indian Legal Services May 2002 letter; Solicitor of the Interior Opinion M. 29739, Sufficiency of deeds and acceptability of title to certain land and certain water rights within the proposed Santa Ynez Indian Reservation in Santa Barbara County, California, being donated to the United States in trust for the Santa Ynez Band of Mission Indians by the Petroleum Securities Company, the Roman Catholic Bishop of Los Angeles and San Diego Harold J. Buell, and Archie M. Hunt, Exhibit 4, p.5 to P.O.L.O brief (October 14, 1940), *available at* http://www.polosyv.org/images2/pages/index/Appellants_Opening_Brief.pdf. [hereinafter *Solicitor of the Interior Opinion*].

23. *Id.*

24. *Kelsey Report*, *supra* note 20, at 13.

25. *Smiley Report*, *supra* note 12, at 4.

adequate water supply to give each family "five acres of good land with water."[26] In securing these property rights, Kelsey hoped to reduce the incidence of cases "where white men have deliberately diverted a stream of water from the Indian with full knowledge of the Indian's priority of right, but secure in the knowledge that the Indian was helpless, and that the offence could be committed with impunity."[27] The land that is now part of the Santa Ynez Reservation is riparian to the Zanja de Cota Creek, and overlays the Santa Ynez Upland Groundwater Basin.[28]

When the Chumash first moved to the Zanja de Cota flood plain, they had essentially unlimited access to water flowing in the creek that meanders its way through the Reservation. Today, the Tribe relies primarily on water purchased from a local water agency. Unknown to the members of the Tribe at the time they established their village on the banks of the Zanja de Cota Creek, the water they relied on was derived from a shallow aquifer that underlies the Reservation. In an attempt to better understand the water resources present on their reservation, the Tribe hired a consultant to quantify the historic and current availability of ground and surface water. The following information comes primarily from the consultant's 2010 report to the Tribe and has not been independently verified.

A. Surface Water

The Zanja de Cota Creek ("Creek") flows through the Reservation and was the Tribe's original source of water. When the Reservation was first established, base flow in the Creek was likely about 1,000 acre-feet per year (ac-ft/yr).[29] Subsequently, the flows have fluctuated dramatically. The Creek was periodically dry every year for more than twenty years between 1968 and 1992,[30] and in 1969, the Tribe ceased using its water both because fecal coliform contamination was discovered, and because the volume of water

26. *Kelsey Report*, *supra* note 20, at 12.

27. *Id*. at 13.

28. G. Yates,. *Assessment of Groundwater Availability on the Santa Ynez Chumash Reservation. Prepared for the Santa Ynez Band of Chumash Indians*, TETRA TECH, (March 2010), *available at* http://syceo.org/wp-content/uploads/2010/10/Final-Ground-Water-Assessment-Report-Mar2010.pdf.

29. *Id*. at 12, 15 ("None of the creeks were gauged during 1900-1906. Instead, baseflow was estimated as the residual in the water budget, assuming that inflows and outflows were balanced and basin storage remained more or less constant. The resulting estimate of creek baseflow volume (2,006 ac-ft/yr) corresponds to a sustained flow of 2.8 cfs, approximately half of which would have been in Zanja de Cota Creek.").

30. *Id*. at 12.

available was so low.[31] Although flows in the Creek have increased since then (base flows in 2008 were about 537 ac-ft/yr),[32] the Creek remains an unreliable source of water because of continued threats to both its quality and quantity. Increased urbanization in the surrounding valley and climate change are future threats that have led the Tribe to consider another on-reservation source of water—that which is found underground.

B. Groundwater

The Santa Ynez Upland Groundwater Basin (Upland Basin) underlies the Santa Ynez Reservation. This shallow aquifer extends well beyond the boundaries of the Reservation and is several hundred feet thick.[33] Water is found in the interstitial pore space between sands and gravels that were deposited by ancient river systems. The plane beneath which all pore spaces are filled with water rather than air is called the groundwater table; and below the groundwater table, water can be accessed through vertical wells that are drilled into the aquifer. These wells can be used to monitor how fast the groundwater moves, the quality and quantity of the water available, and also to pump the water out for use above ground. Groundwater in shallow aquifers is most often replenished or recharged by water on the surface of the Earth, either from rain, snow melt, rivers, or sometimes artificially by injecting water underground through the same type of vertical well as described above. In addition, groundwater can come to the surface naturally through springs if the groundwater table intersects the surface of the Earth. This occurs on the Santa Ynez Reservation.

The Upland Basin thins out as it nears the Reservation and discharges groundwater into the Creek. The Creek's base flow is in fact "sustained by discharge of groundwater"[34] and in the early 1900s "groundwater seepage created perennial base flow in the streams."[35] This situation is described as a 'hydraulic connection' between the ground and surface water and means that changes to one source of water will affect the other. It also means that the water the Tribe used from the Creek from at least 1835 until 1969 originated from below ground and was, in fact, groundwater from the Upland Basin.

Increased groundwater withdrawals from the Upland Basin have resulted in less discharge to the Creek and subsequently less water flow. Although not described as such in the consultant's report, the local water agency that also withdraws water from the aquifer described the Upland

31. *Id.* at 4.
32. *Id.* at 12.
33. *Id.* at 1.
34. *Id.*
35. *Id.* at 6, 28.

Basin as overdrafted in a 2011 document.[36] This means that more groundwater is removed from the aquifer than is added through recharge. The Tribe maintains that "finding ways to treat and use the groundwater beneath the Reservation may become more important to the Tribe in the future" because of climate change and associated uncertainties in water supply.[37] Whatever the reason, the Tribe will be more autonomous if it can secure a recognized right to withdraw groundwater from beneath their reservation.

III. Users of Water on and under the Santa Ynez Reservation

When the Smiley Commission first visited the Chumash in California, there were fifteen families living on the Santa Ynez Reservation and it found that "[f]or many years, few tribal members lived on the Reservation" because "[i]t was difficult to live a modern existence on the Reservation without running water or electricity."[38] Up until 1969, "the tribe met all of its water needs for domestic and irrigation purposes by diversions from Zanja de Cota Creek,"[39] after which the Tribe became a customer of a local water agency called Santa Ynez River Water Conservation District, Improvement District No. 1 (hereinafter referred to as "ID-1").[40]

Although the Tribe has had gaming operations on the Reservation since 1983, the Chumash Casino Resort opened in 2003 with "2,000 slot machines, a 106-room luxury hotel and an auditorium where Jay Leno, Fleetwood Mac and Whoopi Goldberg have performed."[41] Today there are 249 residents on the Reservation, "[t]hanks to the revenue generated from the Tribe's Chumash Casino Resort."[42] Importantly, the Casino brings about 6,000 additional visitors to the Reservation per day.[43] To mitigate the increased water demand from visitor facilities, the Tribe constructed a

36. Exhibit to February 2011 Santa Barbara County LAFCO meeting 6, *available at* http://www.sblafco.org/docs/2011/02/Item10_Exhibit-B.pdf.

37. Water Resources, SANTA YNEZ CHUMASH ENVIRONMENTAL OFFICE, http://syceo.org/programs/water-resources/ (last visited Mar. 27, 2013).

38. *Santa Ynez Reservation*, *supra* note 9.

39. Yates, *supra* note 28, at 4 (citing Greggs, 1969).

40. *Id.* at 1.

41. Glenn F. Bunting, *The Chumash Sudden Wealth: A Life of Payouts, Not Handouts*, LA TIMES (December 3, 2004) available at https://eee.uci.edu/clients/tcthorne/chumashconflict2004.htm (Casino riches recast the Chumash landscape. Tribal members, with spending power like never before, confront new challenges.).

42. *Santa Ynez Reservation*, *supra* note 9.

43. *Id.*

wastewater treatment plant in conjunction with its new Casino Resort "that supplies recycled water for irrigation and toilet flushing."[44] However, even with these conservation methods, it is not surprising that "water use on the Reservation has increased dramatically in the past 10-20 years."[45]

California groundwater law allows an overlying landowner to withdraw groundwater without obtaining a permit.[46] If the Tribe was the sole user of groundwater from the Upland Basin, it could start pumping water tomorrow with very little legal risk. However, as will be discussed in the following section, many other users have been pumping water from the aquifer for years. If the Tribe were to start withdrawing significant quantities of groundwater, other users would be impacted through a lowering of the groundwater table. The impacts may be noticed when nearby wells cease to produce water, or the production of water slows. As a result, it is likely that the Tribe would face a legal challenge from a number of parties should they decide to use groundwater to supply potable water needs on the Reservation from an already overdrafted aquifer.

A. Current Groundwater Use by the Santa Ynez Chumash

There are currently five groundwater wells on the Reservation, four of which are test wells (rather than production wells).[47] There is one production well located at the wastewater treatment plant from which the Tribe has recently pumped 12.6 ac-ft/yr.[48] Less than 1 ac-ft/yr is occasionally pumped from one of the test wells and together "these extractions amount to 0.1 percent of basin-wide groundwater use."[49] However, the Tribe's consultant found that "[t]he combined production capacity of the four test wells on the Reservation could easily supply the 96 ac-ft/yr of water presently used on the Reservation for potable purposes."[50] Moreover, the consultants concluded that even if the wells operated only "50 percent of the time at their expected capacities, they could produce a total of 302 ac-ft/yr."[51] As the Casino Resort attracts more visitors and casino revenues attract more tribal members to the Reservation, water demand will continue to increase and it is likely that the Tribe will tap into this resource. Based on current

44. Yates, *supra* note 28, at 1.

45. I*d*. at 4.

46. A. LITTLEWORTH & E. GARNER, CALIFORNIA WATER II, 74 (2d ed. 2007).

47. Yates, *supra* note 28, at 6.

48. I*d*. at 14.

49. I*d*.

50. I*d*. at 30; In addition, it is notable that the use of recycled water in the Casino "decreases the demand on ID-1 by 46 ac-ft/yr." I*d*. at 7.

51. I*d*. at 25.

extraction from the aquifer, 302 ac-ft/yr is 2.3 percent of basin-wide groundwater use. In a basin that is already stressed, other users such as ID-1 will be sure to notice this volume of extraction.

B. Water District

ID-1 was formed in 1959 and currently supplies water to 2,553 municipal and industrial customers, and to approximately 118 agricultural customers.[52] ID-1 gets 27 percent of its water from the Upland Basin, and states that the basin "has been in a known overdraft condition since 1968."[53] "In the meantime, the District mitigates the impact of that pumping by importing significant amounts of water into the basin, which results in reducing pumping both by the District and by overlying owners who are customers of the District and by increasing non-native return flows into the basin."[54]

C. Private Landowners and City of Solvang

ID-1 and the Tribe are not the only users of groundwater from the Upland Basin. Overlaying the aquifer are numerous ranches, vineyards, and other agricultural users who have historically derived their water supply from groundwater.[55] Currently, about two-thirds of all withdrawals from the Upland Basin are from private agricultural and nonagricultural wells, in addition to wells used by the City of Solvang.[56] These users are ranchers and private landowners, many of whom are members of the community group Preservation of Los Olivos (P.O.L.O.). This citizen group has a stated mission to preserve the "highest quality of life in [their] rural community"[57] and has the Santa Ynez Band of Chumash Indians in its crosshairs.

P.O.L.O. believes that "one of the biggest challenges [they] face today to the quality of life [they] all enjoy in the Santa Ynez Valley" is the Tribe's application to have an additional 6.9 acres of land taken into trust as part of

52. Santa Ynez River Water Conservation District Improvement District 1, Water Facts and Figures, *available at* http://www.syrwd.org/view/39 [Hereinafter *Santa Ynez* ID-1].

53. *Id.*; Exhibit to February 2011 Santa Barbara County LAFCO meeting 6, *available at* http://www.sblafco.org/docs/2011/02/Item10_Exhibit-B.pdf.

54. *Id.*

55. *Id.* at 101. Prior to the formation of ID-1, the entire municipal supply for the Los Olivos area was assumed to derive from wells in the Upland Basin.

56. *Id.* at 14.

57. PRESERVE OUR LOS OLIVOS, http://www.polosyv.org (last visited Mar. 27, 2013).

the Reservation.[58] Central to this concern is the presence of the Chumash Casino Resort and the alleged increase in crime that is associated with its presence in the Santa Ynez Valley.[59] Because of the existing tension between the Tribe and its neighbors, any attempt to withdraw groundwater from the same aquifer that they rely on will be opposed vigorously.

In fact, local water users fought a recent legislative attempt by ID-1 to redefine its structure because it allowed the district to "contract with any public agency or tribal government for a water supply."[60] While many cited concerns over accountability,[61] an underlying worry was that "bill could give water rights to the band."[62] Although Governor Schwarzenegger vetoed the legislation after it passed both the Assembly and Senate in 2008,[63] efforts to defeat the legislation were misguided. The Tribe already has a federal reserved right to water and State legislation would have merely recognized this right.

IV. Tribal Water Rights

It is well established that "when the Federal Government withdraws its land from the public domain and reserves it for a federal purpose, the Government, by implication, reserves appurtenant water then unappropriated to the extent needed to accomplish the purpose of the reservation."[64] Termed the "Winters doctrine," this idea was first recognized in an Indian Law case in 1908 that established that tribal rights to water are held from at least the initial date of federal reservation.[65]

In W*inters v. U*nited *States*, Indians of the Fort Belknap Indian Reservation in Montana sought to enjoin the Matheson Ditch Company and Cook's

58. PRESERVE OUR LOS OLIVOS, Website Hot Topics, http://www.polosyv.org/hotTopics/acquisition.htm and http://www.polosyv.org/hotTopics/ourStory/property AndCrime.pdf (last visited Mar. 27, 2013).

59. I*d*.

60. AB-2686 line 170, Santa Ynez Valley Water District (2008) *available at* http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080AB2686. S*ee* Today's bill as amended, art. 2, line 170.

61. Open letter to Gov. from Mike Hadley, President Meadowlark Ranches Mutual Water Co. Santa Ynez, THE SANTA YNEZ VALLEY JOURNAL, Sept. 25, 2008, *available at* http://www.syvjournal.com/archive/6/39/2906.

62. P.O.L.O. president Doug Herthel, quoted, THE SANTA YNEZ VALLEY JOURNAL, Oct. 2, 2008, *available at* http://www.syvjournal.com/archive/6/40/2934.

63. AB-2686 Santa Ynez Valley Water District (2008), *available at* http://leginfo.legislature.ca.gov/.

64. Cappaert v. U. S., 426 U.S. 128, 138 (1976).

65. Winters v. U.S., 207 U.S. 564 (1908); S*ee also* F.COHEN, HANDBOOK OF FEDERAL INDIAN LAW §19.03 [2][a] at 1176 (2005).

Irrigation Company from interfering with the Tribe's use of water from the Milk River.[66] The Reservation was established in May 1888 as a "permanent home and abiding place," and at that time the land was used for grazing and farming.[67] The Indians relied on water from the Milk River for both irrigation and domestic purposes because "portions [of the Reservation] are of dry and arid character, and, in order to make them productive, require large quantities of water."[68] After the Reservation was established, the Matheson Ditch Company and Cook's Irrigation Company started diverting from the Milk River, which interfered with the Indians' use of water.[69] In resolving the dispute, the U.S. Supreme Court found that the case "turns on the agreement of May, 1888, resulting in the creation of Fort Belknap Reservation."[70] Although there was no express reservation of water rights made at the time the Reservation was established, the Court interpreted the silence in favor of the Indians and held that the federal government reserved the waters on the date the Reservation was created.[71] The Court further held that water was reserved "for a use which would be necessarily continued through years."[72]

The Santa Ynez Reservation is similar to that at Fort Belknap in that areas of the Reservation are dry and arid.[73] In fact, when flows in the Creek cease periodically, as they did between 1968 and 1992, the entire Reservation is a desert. It is clear from historical documents that the federal government intended to grant the Indians at Santa Ynez "good land with water."[74] It therefore follows that the Santa Ynez have at least an implied, perhaps explicit, federal right to water.

A. Priority Date of Reserved Water Right

The date the water right was created can become important in over-subscribed surface and groundwater systems. The Court in *Winters* held that the water was reserved for the Tribe no later than the date the Reservation was created.[75] The date the land was reserved is typically equated with the priority date of the water right that is used when determining relative rights

66. *Winters*, 207 U.S. at 565.
67. *Id.* at 565-66.
68. *Id.* at 566.
69. *Id.* at 568-570.
70. *Id.* at 575.
71. *Id.* at 577.
72. *Id.*
73. *Winters*, 207 U.S. at 566.
74. *Kelsey Report*, *supra* note 20, at 12.
75. *Winters*, 207 U.S. at 577.

to water in a stream system or groundwater basin. This reserved right is separate from state-law riparian or appropriative rights and it adds an additional layer of complexity to disputes over hydraulically connected water systems such as that in the Santa Ynez Valley.[76] It is not clear if a priority based analysis would be used in such a complex groundwater dispute, or whether the 'first in time, first in right' rule would work at all.[77]

California's state surface water law relies on both 'first in time, first in right' (prior appropriation) and riparian systems, with riparian landowners holding the superior water right.[78] Groundwater rights are similar, with overlying landowners having superior rights over appropriators (entities that use water off the land on which it is pumped) of water.[79] The federal reserved water right typically only preempts water rights that were created after the reservation of the land and associated water right.[80] As such, other users of water in the Santa Ynez area could have their water rights preempted by the Tribe, depending on when they started using water. It is therefore important to determine when the Tribe's federal reserved right was created.

Most courts follow W*inters* and hold that water rights are reserved on the date the land was taken into trust by the federal government for the benefit of the tribe. The W*inters* Court, however, used standard methods of treaty interpretation and recognized that the federal government had taken from the Indians the "means of continuing their old habits," and through the reserved water right left "them the power to change to new ones."[81] Citing U*nited States v. Winans*, a foundational Indian law case, the Ninth Circuit explained in U*nited States v. Adair* that a "treaty is not a grant of rights to the Indians, but a grant of rights from them—a reservation of those not

76. COHEN §19.01, *supra* note 65, at 1171.

77. LITTLEWORTH AND GARNER, *supra* note 46, at 76.

78. Lux v. Haggin, 69 Cal. 255 (1886); GETCHES, D.H., WILKINSON, C.F., WILLIAMS, R.A., FLETCHER, M.L., CASES AND MATERIALS ON FEDERAL INDIAN LAW 766 (6th ed. 2011); State of Ariz. v. State of Cal., 373 U.S. 546, 555 (1963) [hereinafter "A*rizona* I"] (Under the law of prior appropriation that prevails in most Western states "the one who first appropriates water and puts it to beneficial use thereby acquires a vested right to continue to divert and use that quantity of water against all claimants junior to him in point of time. 'First in time, first in right' is the short hand expression of this legal principle").

79. City of Barstow v. Mojave Water Agency, 23 Cal. 4th 1224, 1240 (2000). Note that municipal users of groundwater are treated somewhat differently in California water law.

80. Arizona v. California, 460 U.S. 605, 641 (1983) (herein after referred to as "A*rizona* II").

81. W*inters*, 207 U.S at 577.

granted."[82] An Indian reservation is very different from a reservation of other federal land. As the owner of public land, the federal government can set aside some of that land for public purposes, reserving it from future private development. In comparison, Indian tribes, who controlled vast swaths of land, agreed by treaty or executive order to give up most of that land in exchange for sovereign control of a small piece of land we call a reservation. Because of this, the right to water and other natural resources should remain with the tribe, unless explicitly ceded by treaty (or executive order). Tribal water rights should then be thought of as preserved, rather than reserved, rights. Unfortunately for the Santa Ynez Chumash, courts have recognized preserved water rights in only limited situations.

The Klamath Indians secured a water right with a priority date of "time immemorial" based on a 1983 decision by the Ninth Circuit in U*nited States v. Adair*.[83] In A*dair*, the court noted that the

> Klamath Indians had lived in Central Oregon and Northern California for more than a thousand years. This ancestral homeland encompassed some 12 million acres. Within its domain, the Tribe used the waters that flowed over its land for domestic purposes and to support its hunting, fishing, and gathering lifestyle. This uninterrupted use and occupation of land and water created in the Tribe aboriginal or "Indian title" to all of its vast holdings.[84]

The Klamath entered a treaty in 1864 and, consistent with the fundamentals of Indian Law, the Ninth Circuit held that their "1864 Treaty is a recognition of the Tribe's aboriginal water rights and a confirmation to the Tribe of a continued water right to support its hunting and fishing lifestyle on the Klamath Reservation."[85]

Similarly, the Chumash have lived in Southern California for more than a thousand years. Their ancestral homeland encompassed almost 4.5 million acres and included the waters of the Zanja de Cota Creek. The only federal reserved land and water rights that they now hold is the 139 acres near Santa Ynez. However, it is not clear that the Chumash actually lived next to the Creek until 1835, and there is no evidence that they relied on the Creek for fishing or other food supply. In addition, the federal government's

82. United States v. Adair, 723 F.2d 1394, 1412-13 (9th Cir. 1983) [hereinafter "A*dair*"], citing United States v. Winans, 198 U.S. 371, 381 (1905).

83. A*dair*, 723 F.2d at 1414.

84. I*d*. at 1413.

85. I*d*. at 1414; W*inans*, 198 U.S. 371 at 381 (Establishing the reservation of rights doctrine in holding "the treaty was not a grant of rights to the Indians, but a grant of right from them,–a reservation of those not granted").

interaction with Indians in Southern California was much different from that in Oregon. The Chumash did not sign a treaty that retained their inherent rights, but rather accepted a deed of occupancy that was granted to them through the federal government. The language referred to in the 1891 Smiley Commission report does not help, as it shows an intent to deed "a sufficiency of water for agricultural and domestic purposes."[86] This language is problematic for a 'time immemorial' right to water.

The Ninth Circuit's holding for a priority date of "first or immemorial use" was limited to "aboriginal use of water to support a hunting and fishing lifestyle."[87] Relying on W*inters*, the court held that "[t]he priority date of Indian rights to water for irrigation and domestic purposes" was the date the treaty was signed, in that case, 1864.[88] Based on current law, this could be problematic should the Santa Ynez Cumash wish to secure a time immemorial water right. The Tribe did not sign a treaty and the water granted to it by the deed was specifically for domestic and irrigation purposes.[89] The Klamath's right to water for hunting and fishing with a priority date of time immemorial is for instream use and not consumptive use. Specifically, the court held that "[t]he holder of such a right is not entitled to withdraw water from the stream for agricultural, industrial, or other consumptive uses (absent independent consumptive rights)."[90] Because the Santa Ynez Indians wish to withdraw water for consumptive use, the time immemorial priority date as articulated by the Ninth Circuit will not apply and the priority date for this water right is the date the land taken in trust for the Tribe by the United States.

Either a federal or California state court could extend the time immemorial concept to all uses of water by a tribe by relying on W*inans* and fundamentals of treaty interpretation alone. However, it would be difficult for a California court to extend the time immemorial priority date to all uses of water in the case of a tribe without a treaty. Because few tribes in California have ratified treaties with the federal government,[91] it is unlikely that either a federal or California state court will recognize a preserved right to water for tribes.

86. S*miley* R*eport*, *supra* note 12, at 27.

87. A*dair*, 723 F.2d at 1414.

88. I*d*. at 1415.

89. S*ee generally* S*miley* R*eport*, *supra* note 12, and Kelsey Report, *supra* note 20.

90. A*dair*, 723 F.2d at 1411.

91. S*ee* e.g. THE BUREAU OF INDIAN AFFAIRS' PACIFIC REGIONAL OFFICE, http://www.bia.gov/WhoWeAre/RegionalOffices/Pacific/WeAre/index.htm (last visited Mar. 27, 2013).

B. Application of Winters Rights to Groundwater

It is important to note that both W*inters* and subsequent U.S. Supreme Court cases involving tribal claims dealt only with surface water rights. Based on this precedent, it appears clear that the Santa Ynez have a federally reserved right to surface water. But, by the 1960s the Tribe's surface water source (the Creek) was essentially unusable, and it is unlikely that the Tribe could have withdrawn any water from it. Because that surface water supply is fed by groundwater and is no longer reliable, it would be logical to transfer the surface water right to the groundwater.

Yet, the U.S. Supreme Court has never explicitly extended W*inters* rights to groundwater, and not all states recognize the hydrologic reality that groundwater is connected to surface water.[92] In the case most often used to link W*inters* rights to groundwater, the Court found in C*appaert* that the government had intended to reserve enough water so as to preserve a pool of underground water that supported endangered fish in Devil's Hole.[93] The Cappaerts were neighboring landowners who were pumping groundwater that was hydraulically connected to the pool of water.[94] Their withdrawal of groundwater caused the water level in Devil's Hole to lower, impacting the endangered fish.[95] The Court noted that "[n]o cases of this Court have applied the doctrine of implied reservation of water rights to groundwater," but then characterized the "the water in the pool [as] surface water."[96] The Court enjoined the Cappaerts from pumping the connected groundwater and held "that the United States can protect its water from subsequent diversions, whether the diversion is of surface or groundwater."[97]

The C*appeart* reasoning was later applied to an Indian law case in a dispute involving the Pyramid Lake Tribe. In U*nited* S*tates v*. O*rr* W*ater* D*itch* C*o*. the Ninth Circuit held "that the Orr Ditch Decree forbids groundwater allocations that adversely affect the Tribe's decreed rights to water flows in the river."[98] The Santa Ynez can likewise apply C*appaert* to enjoin users of hydraulically connected groundwater from pumping water because it causes lowering of the surface water in the Creek. By doing so, they could ensure a minimum flow of water in the Creek that could be withdrawn for consumptive purposes. Because groundwater is hydraulically connected to

92. John D. Leshy, I*nterstate* G*roundwater* R*esources*: T*he* F*ederal* R*ole*, 14 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 1475, 1480 (2008).

93. C*appaert*, 426 U.S. at 139.

94. I*d*. at 136.

95. I*d*.

96. I*d*. at 142.

97. I*d*. at 143.

98. United States v. Orr Water Ditch Co., 600 F.3d 1152, 1154 (9th Cir. 2010).

surface water in the Upland Basin, it should not matter if the Tribe withdraws their legal water appropriation from the groundwater or from the Creek. However, based on *Cappeart*, it is not clear if the Tribe can only enjoin other users of groundwater from affecting the flows in the Creek, or if the Tribe can instead claim a right to withdraw water from the ground for consumptive purposes.

The first western state to address this issue was Wyoming in a dispute over water in the Big Horn River. The *Big Horn* case involved the Shoshone Indians and their Wind River Indian Reservation that was established by treaty on July 3, 1868.[99] Consistent with *Winters*, the court in *Big Horn* found that there was a reserved water right for the Wind River Indian Reservation.[100] Although the court acknowledged that "the logic which supports a reservation of surface water to fulfill the purpose of the reservation also supports reservation of groundwater," it stressed "that, nonetheless, not a single case applying the reserved water doctrine to groundwater is cited to us."[101] Relying on *Cappeart* and the fact that the U.S. Supreme Court characterized the water in the Devil's Hole as surface water, the court held "that the reserved water doctrine does not extend to groundwater."[102] Wyoming therefore interpreted *Cappeart* narrowly, even though it agreed with the logic of extending the reserved water doctrine to groundwater.

While the Arizona Supreme Court "appreciate[d] the hesitation of the Big Horn court to break new ground," it did not "find its reasoning persuasive."[103] Specifically, it emphasized the fact "[t]hat no previous court has come to grips with an issue does not relieve a present court, fairly confronted with the issue, of the obligation to do so." [104] In a battle over water rights in the Gila River system, Arizona became the first western state to recognize a federal reserved right to groundwater.

99. In re Gen. Adjudication of All Rights to Use Water in the Big Horn River Sys., 753 P.2d 76, 83 (Wyo. 1988) [hereinafter "*Big Horn*"].

100. *Id.* at 94

101. *Id.* at 99.

102. *Id.* at 100.

103. In re Gen. Adjudication of All Rights to Use Water in Gila River Sys. & Source, 195 Ariz. 411, 417 (1999) [hereinafter "*Gila River* III"]. Note that this case is the third in a series of many cases: In the Matter of the Rights to the Use of the Gila River ("*Gila River* I"), 171 Ariz. 230 (1992); In re the General Adjudication of All Rights to Use Water in the Gila River Sys. ("*Gila River* II"), 175 Ariz. 382 (1993).

104. *Gila River* III at 417.

Arizona's water law "is administered based on a bifurcated system where surface water is regulated separately from ground water."[105] Relying on a 1988 law review article, the Arizona Supreme Court noted in *Gila River* III that "[t]he hydrological connection of groundwater and surface water is sometimes such that groundwater pumped more distantly within an aquifer may" significantly diminish surface flow.[106] The court acknowledged that in "[c]onforming their law to hydrological reality, most prior appropriation jurisdictions by now have abandoned the bifurcated treatment of ground and surface waters and undertaken unitary management of water supplies."[107] However, because in *Gila River* II it had refused recognize this "hydraulic reality,"[108] the court instead interpreted the foundational U.S. Supreme Court cases as guideposts that justified the inclusion of groundwater in the reserved water doctrine.

The court found "one guidepost in *Winters*, where the Court stressed that the arid lands of the Fort Belknap Reservation could not be made 'inhabitable and capable of growing crops' without an implicit reservation of Milk River waters."[109] Another was found in *Arizona* I, "where the Court declared it 'impossible to believe' that those who created the Colorado River Indian Reservation 'were unaware that most of the lands were of the desert kind—hot, scorching sands—and that water from the [Colorado River and its tributaries] would be essential to the life of the Indian people and to the animals they hunted and the crops they raised.'"[110] Contrary to the court in Wyoming, the Arizona Supreme Court interpreted *Cappeart* as standing for the proposition:

> That federal reserved rights law declines to differentiate surface and groundwater—that it recognizes them as integral parts of a hydrologic cycle—when addressing the diversion of protected waters suggests that federal reserved rights law would similarly decline to differentiate surface and groundwater when identifying

105. WESTERN STATES WATER LAW – ARIZONA, BUREAU OF LAND MANAGEMENT, http://www.blm.gov/nstc/WaterLaws/arizona.html (last visited Mar. 27, 2013).

106. *Gila River* III at 415 (citing John D. Leshy & James Belanger, *Arizona Law Where Ground And Surface Water Meet*, 20 ARIZ. ST. L.J. 657 (1988)).

107. *Gila River* III at 416.

108. *Id.* at 414. In *Gila River* II, the court "affirmed the conclusion that water constituting 'subflow' is the only underground water subject to appropriation under Arizona law, but disapproved the standard that the trial court adopted to distinguish subflow from non-appropriable 'percolating groundwater,' remanding the standard to be reshaped after further hearings."

109. *Id.* at 418.

110. *Id.* (citing *Arizona* I at 599).

> the water to be protected."[111] The court noted that "[t]he significant question for the purpose of the reserved rights doctrine is not whether the water runs above or below the ground, but whether it is necessary to accomplish the purpose of the reservation."[112]

In this favorable holding to the Tribe, the court concluded that because Arizona law allows "all landholders to pump as much groundwater as they can reasonably use," the state law does not "adequately serve to protect federal rights."[113] Therefore, it held that "the federal reserved water rights doctrine applies not only to surface water but to groundwater" as well.[114] This strong holding was limited somewhat, in that it applies only "where other waters are inadequate to accomplish the purpose of a reservation."[115]

Because the Arizona decision was based primarily on federal law and not Arizona state law, this holding may be very persuasive to a California state court. Land in Southern California, like land in much of Arizona, is arid and worth little without adequate water. Like the Gila River, the Zanja De Cota Creek does not provide enough water to accomplish the purpose of the Santa Ynez Reservation, namely making the Reservation livable for the Chumash people. And finally, similar to Arizona water law, California's water law allows all landowners to pump as much water as they reasonably need.[116] Therefore, California courts should have no trouble extending W*inters* rights to groundwater in a situation such as that faced by the Chumash on the Santa Ynez Reservation.

Following the Arizona decision, both Montana and Washington followed suit. The Montana Supreme Court held in 2002 that that there was "no reason to limit the scope of our prior holdings by excluding groundwater from the Tribes' federally reserved water rights."[117] It also recognized the appropriate role of the state in "quantifying and negotiating Indian reserved water rights," noting that "[q]uantifying the amount of groundwater available to the Tribes is simply another component of that inquiry."[118] In 2005, a federal district court in Washington State affirmed an earlier decision that "held that reserved W*inters* rights on the Lummi Reservation extend to

111. I*d*. at 419.

112. I*d*.

113. I*d*. at 420.

114. I*d*.

115. I*d*.

116. LITTLEWORTH AND GARNER, *supra* note 46, at 73-75.

117. The Confederated Salish & Kootenai Tribes of the Flathead Reservation v. Stults, 312 Mont. 420, 430 (2002).

118. I*d*. at 430.

groundwater, and that the Lummi hold rights to the groundwater under the Lummi Peninsula."[119] This trend comports with the scientific reality that when groundwater is hydrologically connected to surface water, it is only logical to treat them as one and the same. This is especially true if a surface water source has been depleted due to excessive groundwater withdrawals and has, as a result, diminished a tribe's federally reserved water rights.

Although Nevada has not yet explicitly extended W*inters* rights to groundwater, it has not precluded the possibility. In the latest installment of a decades old battle over water in Pyramid Lake, the Nevada Supreme Court held that the Paiute Tribe could not assert an implied right to groundwater based on W*inters*.[120] However, the rationale for this decision was that the Tribe had no right to pump groundwater after its water rights had been previously adjudicated.[121] Unlike California, Nevada requires a permit to withdraw groundwater, and the court reasoned that "[b]ecause the Tribe lacks a permit for the water, it also does not have an express right to the water."[122] California water law is different than Nevada's in that the State does not have legislative authority to permit groundwater withdrawals. In addition, the Chumash have never had any of their water rights adjudicated and would therefore not be precluded from having groundwater considered at the same time as surface water.

The clear trend in western states is to extend W*inters* rights to groundwater. This makes sense not only legally as analyzed by the Arizona Supreme Court in the G*ila* case, but also scientifically. When a tribe is given the right to divert water for the purpose of making their reserved land livable, it should not matter that it comes from a horizontal ditch or a vertical well. This is especially true when the water source is in fact the same, as is the case on the Santa Ynez Reservation where groundwater actually feeds the Creek. When it comes time for California to decide this question, it will not have to break new ground to recognize the "hydrologic reality" and extend W*inters* rights to groundwater.

Similar to other western states, the California Supreme Court is receptive to the scientific reality of the hydraulic connection between groundwater and surface water. As early as 1903, the California Supreme Court recognized potential problems associated with the "exhaustion of the underground sources from which the surface streams and other supplies

119. United States v. Washington, 375 F. Supp. 2d 1050, 1058 (W.D. Wash. 2005).

120. Pyramid Lake Paiute Tribe of Indians v. Ricci, 245 P.3d 1145, 1147 (Nev. 2010), *reh'g denied* (Apr. 19, 2011).

121. I*d*. at 1147.

122. I*d*. at 1149.

previously used have been fed and supported."[123] In 1975, the court found that the City of Los Angeles had water rights to all groundwater that was hydraulically connected to the Los Angeles River based on the doctrine of Pueblo rights.[124] And in a more recent case, the court found that "[t]he ground and surface water within the entire Mojave River Basin constitute a single interrelated source."[125] The court also noted that the water table had been lowered due to increased extractions of groundwater, and as a result less surface water reached the downstream parts of the Mojave River.[126]

If the California Supreme Court were to find that the ground and surface water of the Upland Basin was a "single interrelated source," it follows that the Tribe should have a right the volume of groundwater underlying the Reservation that is equal to the reserved federal right to water in Creek. If the water on the Reservation is actually coming from the same source, it should not matter how the Tribe withdraws it, be it through a ditch or a groundwater well. Federal and state law both support a recognition of the hydrologic connection between ground and surface water and extending W*inters* rights to groundwater. California should therefore follow Arizona's lead and recognize both as well. However, mere recognition of a right to groundwater is not the end of the analysis. An important final step is to determine how much water the Tribe is entitled to withdraw from the Upland Basin.

V. Quantification of Reserved Water Right

As part of its water supply analysis, the Tribe's consultant estimated base flows in the creek in the 1900s based on predevelopment conditions, but emphasized that "the Reservation's water rights to flow in Zanja de Cota Creek are not clear."[127] However, and with no discussion of how these rights were determined, the report concluded that the Tribe has a right to a flow of 450 to 1,810 ac-ft/yr.[128] Although the Creek may have this level of flow at some point, it is greater than both the simulated amount of baseflow under

123. Katz v. Walkinshaw, 141 Cal. 116, 126 (1903).

124. City of Los Angeles v. City of San Fernando, 14 Cal. 3d 199 (1975) (disapproved of on other ground by City of Barstow v. Mojave Water Agency, 23 Cal. 4th 1224 (2000)).

125. C*ity of* B*arstow*, 23 Cal. 4th at 1224.

126. I*d*.

127. Yates, *supra* note 28, at 17, 29. ("As a point of reference for interpreting future water budget scenarios, a simulation was completed that assumed a reversion to land use patterns and population that existed in 1900. This represents the state of the basin at the time the Reservation was founded and is close to a natural, undeveloped condition.")

128. I*d*. at 29.

existing conditions and the amount of baseflow expected in all years under 2040 conditions.[129] Unfortunately for the Tribe, a determination of rights to water is not as simple as estimating the amount of water flowing in an available surface water source at the time the Reservation was established.

The current status of quantification of tribal water rights is based on an antiquated test that looks to the purposes of federal reservation of land. The primary purpose of a reservation of tribal land can almost always be interpreted as agricultural, even though many reservations are located in arid areas with marginal land. This has lead to a disconnect between the amount of water reserved for a tribe and how much water is actually used by the tribe on its reservation.

The origins of quantification based on agriculture started in 1963 when the U.S. Supreme Court developed two important doctrines. The first was that a federally reserved water right is "intended to satisfy the future as well as the present needs of the Indian Reservation[];" and the second is that "enough water was reserved to irrigate all the practicably irrigable acreage on the reservations."[130] Although Practicably Irrigable Acreage (PIA) has been used since in quantifying federally reserved water rights on Indian reservations, the methods used to calculate it are not straightforward.[131] In addition, some state courts that have the authority under the McCarran Amendment to adjudicate tribal water claims, have moved away from the PIA as a method of quantification. As argued below, a more modern approach to quantification of tribal rights should be applied today.

A. Where we are today: Practicably Irrigable Acreage

The basic controversy addressed by the U.S. Supreme Court in *Arizona v. California* (*Arizona* I) was "how much water each State has a legal right to use out of the waters of the Colorado River . . . ."[132] Five Indian tribes, represented by the federal government, asserted rights to water, and the Court agreed with a Special Master's determination that "the only feasible and fair way by which reserved water for the reservations can be measured is irrigable acreage."[133] The analysis of the Indian claims, and the PIA in particular, was cursory. Using PIA as a means to quantify tribal rights in this case was presented by the Court with no accompanying analysis or justification. However, this now-standard method of quantification of tribal water rights has been much analyzed since.

129. *Id.* at 29-30.

130. *Arizona* I at 600.

131. GETCHES ET AL., *supra* note 78, at 810-814.

132. *Arizona* I at 551.

133. *Id.* at 601.

There are many benefits to the PIA. For one, it is a relatively straightforward way to quantify a water right. It does not depend on complicated variables such the tribe's (often) undocumented history, the number of current or past tribal members, or a prediction of future population or economic growth. Rather, it is based on agricultural science that, while perhaps not precise, is much easier to put numbers to. The PIA then provides a fixed quantity of water that can be used by the tribe, and more importantly, not used by others in the system. This provides a level a certainty that is important in adjudication of water disputes. In general, tribes are in favor of using PIA to calculate their water rights because it typically grants more water than the tribe could ever use. For example, based on the PIA, the Navajo could have the right to more water from the Colorado River than Las Vegas.[134]

The fact that the PIA calculation means tribes can get enormous volumes of water is one of many disadvantages of using the PIA. However, a more fundamental problem is that the PIA has created a presumption that agricultural use is the only way tribes can get a reserved water right. What this means is that tribes with marginal land (mountainous and not practical for agriculture) will get much less water than tribes with reservations in flat alluvial plains. As will be discussed in detail later, the Arizona Supreme Court noted that this inequality was one of reasons it declined to use PIA in adjudication of the Gila River cases.[135] Although many treaties that created reservations mention agriculture, and the general consensus of Congress at the time was to turn Indians into farmers, the reality is that few Indians can sustain themselves on farming now.

Quantification of water rights today should not hinge on the use of water for agrarian purposes and the PIA of a reservation. Instead, it is better to encourage water use for other more lucrative and sustainable forms of economy. Gaming, high tech, and other industries are all much less water intensive and will allow the tribes to make more money. Many tribes, such as the Santa Ynez Band of Chumash Indians, no longer rely on agriculture to sustain themselves, and quantification of current water needs based upon an antiquated calculation is not reasonable. A new method of

134. Matt Jenkins, *Seeking the Water Jackpot*, HIGH COUNTRY NEWS (March 17, 2008), *available at* http://www.hcn.org/issues/366/17573.

135. In re Gen. Adjudication of All Rights to Use Water in Gila River Sys. & Source, 201 ARIZ. 307, 317 (2001) [hereinafter "*Gila River* V"] ("The first objection to an across-the-board application of PIA lies in its potential for inequitable treatment of tribes based solely on geographical location. Arizona's topography is such that some tribes inhabit flat alluvial plains while others dwell in steep, mountainous areas. This diversity creates a dilemma that PIA cannot solve"). Note that In re the General Adjudication of all Rights to Use Water in the Gila River System and Source, 198 ARIZ. 330 (2000) is referred to as *Gila River* IV.

quantification of tribal water rights is needed to comport with the social, economic and hydrologic realities of the present day.

B. Specific Purposes Test

Fifteen years after the PIA was endorsed by the U.S. Supreme Court as a method to quantify tribal water rights, the Court developed in U*nited States v. New Mexico* what is referred to as the specific purpose test:[136]

> Each time this Court has applied the "implied-reservation-of-water doctrine," it has carefully examined both the asserted water right and the specific purposes for which the land was reserved, and concluded that without the water the purposes of the reservation would be entirely defeated.[137]

In A*dair*, the Ninth Circuit applied the N*ew Mexico* test to an Indian law case and noted that "water rights may be implied only '[w]here water is necessary to fulfill the very purposes for which a federal reservation was created,' and not where it is merely 'valuable for a secondary use of the reservation.'"[138] N*ew Mexico* dealt with a reservation of land from the public domain with the purpose of creating a National Forest.[139] As explained above, federal reservation of land from the public domain is quite different from the creation of a reservation through executive order or treaty that is not a "grant of rights to the Indians, but a grant of rights from them—a reservation of those not granted an Indian reservation through a treaty."[140] Looking at the "specific purposes for which the land was reserved" may make sense in the context of a National Forest or National Park with a Congressional Act that declares its purpose. However, "[t]he specific purposes of an Indian reservation [] were often unarticulated."[141] Although it is not logical to look back through a muddy history to determine the purpose of an Indian reservation, most state courts now use N*ew Mexico*'s primary purpose test to find that agriculture was the primary purpose of an Indian reservation, and then use the PIA to quantify amount of water the tribe has a right to use. A fundamental problem with this approach is that courts are looking only at Congress' intent and are not considering present and future needs of the

136. United States v. New Mexico, 438 U.S. 696, 698 (1978) (hereinafter referred to as "N*ew Mexico*").

137. N*ew Mexico* at 700.

138. A*dair* at 1408-09 (citing N*ew Mexico* at 702).

139. N*ew Mexico*, at 705.

140. W*inans*, 198 U.S. at 381.

141. Colville Confederated Tribes v. Walton, 647 F.2d 42, 47 (9th Cir. 1981).

tribe. Arizona is a welcome exception to this trend and sets an example that California should follow.

C. The Homeland Theory

When the Ninth Circuit applied N*ew M*exico to Indian reservations in A*daiar*, it found that the two primary reasons to reserve water to tribes were "to provide a homeland for the Indians to maintain their agrarian society," and to preserve the "tribes' access to fishing grounds."[142] The Arizona Supreme Court extended this 'provide a homeland' concept to quantification of water rights in 2001. Under the Arizona 'homeland theory,' maintaining a homeland is a primary purpose of the reservation, and as such, tribes are entitled to the amount of water necessary to achieve this purpose.[143] The court explained that although

> [t]he W*inters* doctrine retains the concept of 'minimal need' by reserving "only that amount of water necessary to fulfill the purpose of the reservation, no more," . . . [t]he method utilized in arriving at such an amount . . . must satisfy both present and future needs of the reservation as a livable homeland . . . .[144] Tribes would be entitled to the full measure of their reserved rights because water use necessary to the establishment of a permanent homeland is a primary, not secondary, purpose.[145]

This is a very broad interpretation of the primary purpose of the reservation and may allow tribes to claim a reserved water right for unlimited purposes.

In order to secure a right to the maximum amount of water possible, the Santa Ynez Chumash would be wise to follow the lead of tribes in Arizona and other states who have used the homeland theory. The Santa Ynez Reservation is the only federally reserved land for all the Chumash in Southern California. They have not only maintained a homeland, but have created a vibrant and economically stable community for their tribe. There are now almost twenty times more people living on the Reservation than when the Reservation was created. At a minimum, they deserve a federal right to water that allows for those people to live on the Reservation at the same standard that other non-Indians in the community live. Furthermore, the homeland argument should extend in this instance beyond mere residential use and account for commercial uses as well, including gaming.

142. I*d*. at 47-48.

143. G*ila R*i*ver* V at 316.

144. G*ila R*i*ver* V at 316 (citing C*appaert*, 426 U.S. at 141).

145. I*d*. at 316.

Based on the 1987 U.S. Supreme Court decision in *California v. Cabazon*, and the subsequent Congressional act to regulate Indian gaming, gambling is legal on tribal land.[146] Accordingly, the Santa Ynez Chumash entered a compact with the state of California in 1999 that allowed them to operate 2000 slot machines and other Class III gaming activities.[147] There does not appear to be any case law related to quantification of water rights based on gaming uses, in any jurisdiction. As a legal commercial enterprise that generates both revenue and pride for the Tribe, gaming operations create a viable homeland for the Chumash. The water demand to achieve this primary purpose should therefore be included in the quantification of federally reserved water rights. However, P.O.L.O. and other water users who will be adversely affected by the Tribe's withdrawal of water will argue that a casino is merely a "secondary use of the reservation" and that the Tribe must "acquire water in the same manner as any other public or private appropriator."[148]

It is important to note that the expansive homeland theory has not been followed by any courts outside Arizona and has not been considered by any federal court. In quantifying the rights to waters of the Big Horn River, the Wyoming Supreme Court rejected a 'homeland' argument—"[t]he district court correctly found that the reference in Article 4 to 'permanent homeland' does nothing more than permanently set aside lands for the Indians; it does not define the purpose of the reservation."[149] The court there instead relied on the *New Mexico* specific purposes test, and found that the although the primary purpose of the reservation was agricultural, the Tribe also had "a reserved water right for municipal, domestic, and commercial use."[150] Although the Wyoming analysis would limit the Santa Ynez to water that was needed only for municipal, domestic, and commercial purposes, this does not foreclose the right to use it for gaming. Gaming is clearly a commercial use that has revitalized the Tribe and has made the Reservation livable.

Although Montana has not explicitly rejected the homeland theory, it has not adopted it either. Its supreme court distinguished how the specific purpose test was applied to the reserved water rights in the *New Mexico* case (land reserved for a National Forest) from how it should be applied to

146. California v. Cabazon Band of Mission Indians, 480 U.S. 202 (1987); 25 U.S.C. § 2701.

147. C. SIMMONS, GAMBLING IN THE GOLDEN STATE,1998 FORWARD 63 (May 2006), *available at* http://www.ag.ca.gov/gambling/pdfs/GS98.pdf (Prepared for Attorney General Bill Lockyer).

148. *New Mexico* at 702.

149. *Big Horn* at 97-98.

150. *Big Horn* at 99.

federal Indian reservations. The court noted that "the purposes of Indian reserved rights, on the other hand, are given broader interpretation in order to further the federal goal of Indian self-sufficiency."[151] Montana allows for water for secondary purposes to be factored into the quantification of water rights because "Indian reserved rights . . . include water for future needs and changes in use."[152]

The Chumash in Santa Ynez no longer farm on their desert tract of land and have instead changed their land use to account for the current needs of their people. That those current uses involve gaming should be of no consequence to the calculus of reserved rights. It is unlikely that vineyards, swimming pools and golf courses existed when the neighboring landowners starting withdrawing groundwater from the Upland Basin. Needs in the surrounding area have changed over the years and as such, the purpose of water withdrawals have also changed. The same is true for the Chumash. Neither their water right, nor that of the neighboring landowners, should be quantified based on an antiquated use of the land. Instead, as held by the Montana Supreme Court, the Chumash's water right should include water for future needs and uses.

A federal district court in Washington State rejected the homeland argument more explicitly in a dispute over groundwater in the Lummi Peninsula, holding that "Plaintiffs' 'homeland' theory of reserved water rights must fail as a matter of law."[153] Notably, it did not agree that "water was reserved for a myriad of "homeland" purposes at the time the Reservation was created," in part because "[t]he effect of Plaintiffs' position would be the quantification of a water right for a broad and almost unlimited range of activities."[154] Emphasizing the limited nature of W*inters* rights, the court held that "[t|he appropriate inquiry under federal law requires a primary purpose determination based on the intent of the federal government at the time the reservation was established."[155] The Ninth Circuit affirmed the 2007 settlement agreement of this case but did not comment on the homeland theory.[156]

Based on other states' interpretation of quantification of federal water rights, the Santa Ynez can try to include water needs for gaming using the homeland theory. At a minimum, quantification of rights should include that which is needed for domestic and agricultural uses. However, they may

151. State ex rel. Greely v. Confederated Salish & Kootenai Tribes of Flathead Reservation, 219 MONT. 76, 98 (1985).

152. I*d*. at 97.

153. W*ashington*, 375 F. Supp. 2d at 1065.

154. I*d*. at 1062.

155. I*d*. at 1065.

156. U.S. ex rel. Lummi Nation v. Dawson, 328 F. App'x 462, 463 (9th Cir. 2009).

need more water in the future and should therefore argue for water use necessary to support a homeland for their tribe that accounts for future needs uses, whatever those uses may be.

VI. Conclusion

The Santa Ynez Band of Chumash Indians is a federally recognized tribe, living on land that was reserved for its members by the federal government. It therefore has a federal reserved right to water with a priority date that coincides with when the land was reserved. The surface water that was present at the time the land was reserved for the Tribe is no longer available and was in fact derived from groundwater that lies beneath the Reservation. The Tribe could withdraw this groundwater to meet its current needs. If it does, other groundwater users in the area will likely challenge the withdrawal in court. Because California has not explicitly addressed this question, the Chumash can look to cases from other states that interpreted the same federal law that applies in all states.

The Santa Ynez's argument in a groundwater adjudication should follow the logic employed by the Arizona Supreme Court. Because the surface water that was reserved for the Santa Ynez is no longer available, groundwater is "necessary to accomplish the purpose of the reservation." Although details on the establishment of the Reservation are murky, the fact that the Santa Ynez Indians needed water on that land has been crystal clear since at least 1891. The hydrologic reality, especially on the Santa Ynez Reservation, is that water in the Creek and in the Upland Basin is one and the same. Therefore, the Tribe should have the right to withdraw as much groundwater as is necessary for the Reservation and its people to survive and prosper.

Resolution of the Santa Ynez Chumash's water rights will likely come from either a federal or California state court. Should this occur, it has the potential not only to explicitly extend the federal reserved water right to groundwater, but it could also firmly establish that hydrologically connected ground and water should be adjudicated jointly. Either result would become important and necessary precedent in California water and Indian law.