VOLUME 69, NO. 1 WINTER 2008

MONTANA LAW REVIEW

A NON-INDIAN ENTITY IS POLLUTING INDIAN WATERS: "WATER" YOUR RIGHTS TO THE WATERS AND "WATER" YA GONNA DO ABOUT IT?

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A NON-INDIAN ENTITY IS POLLUTING INDIAN WATERS: "WATER" YOUR RIGHTS TO THE WATERS, AND "WATER" YA GONNA DO ABOUT IT?

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> The permanent loss of [a natural resource] irreparably [tears] at the balance of the world.[1]
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> We refer to the earth and sky as Mother Earth and Father Sky. These are not catchy titles; they represent our understanding of our place. The earth and sky are our relatives. Nature communicates with us through the wind and the water and the whispering pines. Our traditional prayers include prayers for the plants, the animals, the water and the trees. . . . Just like our natural mother, our Mother Earth provides for us. It is not wrong to accept the things we need from the earth. It is wrong to treat the earth with disrespect. It is wrong if we fail to protect and defend the earth. It would be wrong for us to rob our natural mother of her valuable jewelry and to go away and leave her to care of herself. It is just as wrong for us to rob Mother Earth of what is valuable and leave her unprotected and defenseless.[2]

I. Introduction

Water is one of our most vital resources. Though often taken for granted by those for whom it is readily accessible,[3] water is a "limited natural resource and public good fundamental for life and health."[4] Unfortunately, water is constantly being threatened by pollution and the expanding human population. As water pollution increases, the demand for energy and food also rises.[5] It is

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1. Rebecca Tsosie, *Tribal Environmental Policy in an Era of Self-Determination: The Role of Ethics, Economics, and Traditional Ecological Knowledge*, 21 Vt. L. Rev. 225, 282 (1996) (quoting Annie L. Booth & Harvey M. Jacobs, *Ties that Bind: Native American Beliefs as a Foundation for Environmental Consciousness*, 12 Envtl. Ethics 27, 38 (1990)).

2. Tom Tso, *The Process of Decision Making in Tribal Courts*, 31 Ariz. L. Rev. 225, 233–34 (1989).

3. Peter H. Gleick, *The World's Water 2004–2005: The Biennial Report on Freshwater Resources* 213 (Island Press 2004) (discussing that "over one billion persons lack access to a basic water supply, while several billion do not have access to adequate sanitation, which is the primary cause of water contamination and diseases linked to water").

4. *Id.*

5. *Id.* at xiii.

estimated that the earth contains a sufficient amount of fresh water "to reliably provide food for 14 billion vegetarians, but given current diets and water-use patterns, we have only enough water to sustainably feed 5 billion. Our population already exceeds 6 billion."[6] As the human population grows with each passing year, the amount of water available to each person diminishes, causing the world to demand additional nourishment in the form of water.[7] The human population attempts to satisfy this demand through "pumping more water from underground sources than will be replenished by rain, snow melt, and seepage in the year ahead. Globally, the deficit may be as high as 20 percent year after year."[8] The resulting environmental impacts that cause our water supply to reach "ecological and economical limits"[9] raise not only moral issues, but survival issues as well.

Why is there seemingly such reckless disregard for this natural resource? One answer stems from the American capitalist economic system and the corresponding desire shared by many American individuals and businesses: the maximization of profits by whatever means necessary. Oft characterized by its obsession with making money, the American capitalist economic system does have certain benefits.[10] Economic and technological advancements, for example, are fostered through free-market competition and entrepreneurial creativity.[11] But the intoxicating desire to maximize profits blurs the reality that many business decisions result in environmental devastation.[12]

The United States poultry industry exemplifies a "profit over environmental consequences"[13] mindset. "The U.S. poultry indus-

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6. *Id.*

7. *Id.* at xiii, 313 (explaining from 1900 to 2000, the population of the United States experienced nearly a four-fold increase, from 76 million to 281 million; however, the amount of water on the earth is static).

8. *Id.* at xiii.

9. Gleick, *supra* n. 3, at xiv.

10. Basil Enwegbara, *Saving American Capitalism*, 122 The Tech ¶¶ 5, 6, 8 (Aug. 7, 2002) (available at http://www-tech.mit.edu/V122/N30/col30basil.30c.html).

11. *Id.*

12. *See* Robert F. Kennedy, Jr., *Crimes Against Nature* 11 (HarperCollins 2004) (discussing the 3,000 acre ExxonMobil facility, which is the world's largest oil refinery. This facility "generates enough wealth for its owners to make the Texas economy bigger than the gross domestic product of most nations." At the facility, "flares rumble, the ground shakes, the air hisses. Plumes of black smoke belch upward and acrid odors permeate the atmosphere. The smell of money, some call it.").

13. *See* Louise Gray, *Shell's Profits Hit Record £25,000 a Minute*, Scotsman 4 (Feb. 3, 2006) (referring to the concept as "profits of pollution": "Roger Higman, of Friends of the Earth, called for the profit to be reinvested in renewables. 'It's outrageous. These are the

try is one of the largest and fastest growing livestock production systems in the world, growing at an annual rate of five percent."[14] The large quantities of waste and nutrients (like nitrogen and phosphorous) generated by the poultry industry's size and "geographically concentrated nature" have resulted in "complex and challenging environmental problems."[15] In 1996, for example, the United States produced nearly 15.2 billion pounds of broiler litter, or "enough to cover a two-lane highway 3 feet deep for 1,619 miles or the distance from New Orleans, Louisiana to Chicago, Illinois and on to Fargo, North Dakota."[16] Vast amounts of concentrated animal manure and other animal waste coming from the livestock production industry's fewer but larger operations are polluting our nation's waters.[17]

Federal, state, and tribal governments face a common challenge of protecting the waters under their care and jurisdiction. The State of Oklahoma has already brought suit against the poultry industry to protect its waters.[18] Likewise, Indian tribes and the federal government must do everything within their powers to protect the reservations' water supplies from degradation and loss. What are the tribes' options?

A State's claim against non-Indian polluters does not preclude tribes located within that State from seeking a similar but separate claim for redress. Inherent tribal sovereignty and Supreme Court jurisprudence arm tribes with civil jurisdiction to pursue legal remedies against a non-Indian entity whose activities have polluted the waters of the reservation.[19] The impairment of tribes' water supplies satisfies the "direct effect[s]" test from *Montana v. U.S.*,[20] which allows tribes to exert civil regulatory jurisdiction over non-Indians on non-Indian fee lands when non-Indians are engaged in activities that threaten or directly affect the political integrity, the economic stability, or the health and wel-

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profits of pollution and it's a tragedy that we live in an age that rewards pollution' . . . ." (emphasis added)).

14. Manjula Guru, *The Case for Acceptable Levels of Environmental Self-Regulation in the Poultry Industry: Policy and Economic Implications* 1 (unpublished Ph.D. dissertation, U. Ark., 2004) (copy on file with *Montana Law Review*).

15. *Id.*

16. *Id.* at 3 (explaining that "[b]roiler litter consists of bedding (wooden shavings, rice hulls, peanut hulls, etc.), manure, and feed spilled by the birds onto the floor of the house").

17. *Infra* nn. 40–45. **R**

18. *Infra* nn. 48–63 and accompanying text. **R**

19. *Infra* pt. IV.A–B and accompanying notes.

20. *Mont. v. U.S.*, 450 U.S. 544 (1981).

fare of the tribe.[21] Furthermore, a tribe's civil jurisdiction in this scenario is underscored if the tribes have obtained treatment-as-states (TAS) status under the Clean Water Act (CWA).[22]

This article discusses the water rights available to Indian tribes and their reservations, and addresses what actions tribes may take to protect those water rights. Part II of this article begins with a look back at the differing cultures and philosophies between American Indians and early white settlers. This background sheds some light on why some industries today profit from pollution, and why the State of Oklahoma filed a federal lawsuit against a polluting industry to protect its waters. Part III provides the necessary background on general water rights in the United States before presenting an overview of reserved Indian rights to water. This overview includes a discussion of whether reserved Indian rights to water include rights to groundwater and water quality. Part IV examines Indian tribes' jurisdiction over non-Indian polluters: do tribes possess civil jurisdiction that is separate from but equal to that of the States? Finally, Part V of the article synthesizes Parts III and IV to demonstrate the ability of the tribes to protect their most vital natural resource.

II. The Evolution of Our Pollution, and Oklahoma's Stand against Polluters

To help shed light on the "profit over environmental consequences" frame of mind, it is useful to take a historical look into the cultural and philosophical differences between Indians and the European settlers they encountered. Commentators have compared the differing economic philosophies evidenced by Indians on one hand, and European settlers on the other, in the late eighteenth century and into the nineteenth century. In the "gift economy" attributed to the Indians,[23] "one attained social position not by accumulation of wealth but through the size of one's

21. *Id.* at 566; *infra* pt. IV.B.1 and accompanying notes.

22. *Infra* pt. IV.B.2 and accompanying notes.

23. *See* Judith V. Royster & Michael C. Blumm, *Native American Natural Resources Law: Cases and Materials* 5 (Carolina Academic Press 2002) (referring to Indians located in the Northwest prior to white settlement); *see generally* Heather Francis, *Native American Culture of Giving* 1 (unpublished masters thesis, Grand Valley St. U., 2005) (available at http://www.learningtogive.org/papers/index.asp?bpid=255); Native Americans in Philanthropy, *About*, *Mission & History*, http://www.nativephilanthropy.org/mission.html (accessed Aug. 31, 2007) ("Native Americans in Philanthropy celebrates the rich history that Native peoples have in sharing their wealth and caring for their communities.").

gifts."[24] In Indian society, gifts served "as the basic source of exchange and commerce."[25] Indians believed natural resources to be inhabited by conscious spirits, making them gifts to be respected and shared with others, not held as exclusive possessions.[26] Because the natural world was full of these spirits, humans needed to afford them the proper respect so natural resources would continue in abundance.[27] The spiritual and cultural reverence toward these natural resources served to control any overuse or mistreatment.[28]

Conversely, the white settlers generally operated under a "market economy" which treated natural resources as "commodities to be captured and sold for profit."[29] These profits resulted from the "demand of distant markets, not local subsistence."[30] While the Indians understood the meaning and value of sustainability and living in harmony with the world around them, the white settlers were much more interested in short-term wealth.[31] As a result, long-term sustainable use of natural resources was certainly not their focus, and may have been disregarded altogether during their quest for profits.[32]

This difference in cultural philosophies is still largely evident today. Many indigenous cultures believe that "reciprocity and balance are required from both sides in the relationships between humans and other living things."[33] Some Americans live consistently with this indigenous belief, adhering to "Teddy Roosevelt's precept: 'The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased, and not impaired, in value.' "[34] For other American individuals and businesses, however, the "Euro-American values stemming from Christianity, capitalism, and technology promote a view of

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24. Royster & Blumm, *supra* n. 23, at 5 (explaining the gift economy of the "pre-white settlement Northwest . . . had evolved over 1,500 years"). **R**

25. *Id.*

26. *Id.*

27. *Id.*

28. *Id.*

29. *Id.*

30. Royster & Blumm, *supra* n. 23, at 5. **R**

31. *Id.*

32. *Id.* at 5, 14 (explaining "the concept of sustainable development encourages a rate of consumption that will ensure a constant supply of resources").

33. Rebecca Tsosie, *supra* n. 1, at 282 (quoting Christopher Vecsey, *Prologue*, *Handbook of American Indian Religious Freedom* 21 (Christopher Vecsey ed., 1991)). **R**

34. Theodore Roosevelt, *The New Nationalism* 52 (Outlook Co. 1910).

nature as a commodity, as wilderness to be tamed, and as a non-living collection of natural resources to be exploited."[35]

The market economy focus of profit over environmental consequences is clearly demonstrated in agricultural operations designated as animal feeding operations (AFOs) and concentrated animal feeding operations (CAFOs).[36] "AFOs congregate animals, feed, manure and urine, dead animals, and production operations on a small land area."[37] It is estimated that the United States has 450,000 AFOs, with a relatively smaller number of AFOs qualifying under the heightened definition of a CAFO.[38] Over the last twenty years, the livestock industry has witnessed a "trend toward fewer but larger operations, coupled with emphasis on more intense production and specialization."[39]

This trend has resulted in some areas becoming highly concentrated with animal manure and other animal waste.[40] This concentration of waste is polluting the waters due to "the runoff of nutrients in the discharges from these facilities."[41] The runoff of nutrients from the manure and wastewater has "the potential to contribute pollutants such as nitrogen and phosphorous, organic matter, sediments, pathogens, heavy metals, hormones, antibiotics, and ammonia to the environment."[42] The excess of nutrients "contribute[s] to low levels of dissolved oxygen (anoxia), eutrophi-

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35. Royster & Blumm, *supra* n. 23, at 12 (internal quotations omitted) (discussing that while "European traditions may speak of the need to maintain a balance in nature, these traditions do not suggest that humans are in a kinship relation with animals, or that humans owe a duty to animals"). **R**

36. 40 C.F.R. § 122.23(b)(1) (2006) (defining "Animal feeding operation" as a "lot or facility (other than an aquatic animal production facility) where the following conditions are met: (i) Animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and (ii) Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility"); *Id.* at § 122.23(b)–(c) (defining "concentrated animal feeding operation" as an agricultural operation that meets the definition for AFO and further satisfies one of the CAFO definitions); Federal Water Pollution Control Act ("Clean Water Act"), *Id.* at 122.23(a), (b)(2) (determining designated CAFOs to be a point source and subjecting the CAFO to National Pollutant Discharge Elimination System (NPDES) permitting requirements).

37. EPA, *National Pollutant Discharge Elimination System (NPDES)*, *Animal Feeding Operations Frequently Asked Questions*, http://cfpub.epa.gov/npdes/faqs.cfm?program_id=7 (accessed Mar. 21, 2008) [hereinafter *NPDES FAQ*].

38. *Id.*

39. EPA, *Fact Sheet: NPDES Permit Regulation and Effluent Limitations Guidelines for Concentrated Animal Feeding Operations*, http://www.epa.gov/npdes/pubs/cafo_short_factsheet.pdf (accessed Mar. 21, 2008) [hereinafter *EPA Fact Sheet*].

40. *Id.*

41. *Id.*

42. *NPDES FAQ*, *supra* n. 37. **R**

cation, and toxic algal blooms."[43] The dangers include, among others, fish kills, food safety concerns,[44] and the impairment of drinking water, rendering it threatening to human health.[45] As a result, the United States Environmental Protection Agency (EPA) is attempting to strengthen the existing National Pollutant Discharge Elimination System (NPDES) requirements to "ensur[e] effective manure management by large operations, including land application."[46] Adherence to a strengthened system of rules "will protect America's waters . . . [by] preventing billions of pounds of pollutants from entering America's waters every year."[47]

A. Oklahoma's Lawsuit against the Poultry Industry

On August 19, 2005, W. A. Drew Edmondson, in his capacity as Attorney General of the State of Oklahoma, and the Oklahoma Secretary of the Environment, C. Miles Tolbert, in his capacity as the Trustee for Natural Resources for the State of Oklahoma under CERCLA,[48] filed a federal lawsuit on behalf of the State of Oklahoma against several poultry industry companies.[49] The lawsuit was initiated to protect Oklahoma's waters against the pollution caused by the "millions of chickens and turkeys, owned by the . . . Defendants [that are] raised annually on hundreds of farms throughout the Illinois River Watershed (the 'IRW')."[50]

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43. *Id.* Eutrophication is "the accelerated 'aging' of waters caused by excessive nutrient loading which causes excessive plant growth, fish kills and reduced aesthetic quality." EPA, *Concentrated Animal Feeding Operations (CAFO) Rule Information Sheet* 2, http://www.epa.gov/npdes/pubs/cafo_themes.pdf (accessed Mar. 21, 2008) [hereinafter *CAFO Rule Info Sheet*].

44. *See* Sabin Russell, *Spinach E. Coli Linked to Cattle: Manure on Pasture Had Same Strain as Bacteria in Outbreak*, S.F. Chron. A1 (Oct. 13, 2006) (linking the recent spinach recall due to E. coli contamination to manure waste from a cattle farm. As of October 2006, the E. coli contamination killed three people and sickened over 200 others.); *see also* Dan Vergano, *Source of Outbreak No Easily Solved Mystery*, USA Today 4A (Sept. 25, 2006) (stating that "[t]ypically in outbreaks . . . contaminated cattle manure is used as fertilizer, or irrigation water fouled with runoff from dairy farms is sprayed on a field. 'Once introduced into soil or seedlings, via irrigation water or compost, E. coli 0157:H7 can contaminate the soil and vegetables grown in it for months.' " (quoting Douglas Powell, food safety expert, Kan. St. U.)).

45. *NPDES FAQ*, *supra* n. 37. **R**

46. *CAFO Rule Info Sheet*, *supra* n. 43. **R**

47. *Id.*

48. 42 U.S.C. § 9601 et seq. (2006) (CERCLA refers to the Comprehensive Environmental Response, Compensation and Liability Act.).

49. Pl.'s 1st Amend. Compl. at 1, 36, *Okla. ex rel. Edmonson v. Tyson Foods, Inc.* (N.D. Okla. Aug. 19, 2005) (initial complaint filed in June, 2005).

50. *Id.* at 2. The Illinois Water Rivershed includes "the Illinois River, as well as its major tributaries, the Baron (a/k/a Barren) Fork River, the Caney Creek and the Flint

These farms produce a staggering amount of poultry waste each year.[51] The State of Oklahoma contends that Defendants are legally responsible for the contamination and degradation of the State's waters emanating from this accumulation of poultry waste.[52] The State will have the burden to prove that it has been "the Defendants' practice to store and dispose of this waste on lands within the IRW—a practice that has caused injury to the IRW, including the biota, lands, waters, and sediments therein."[53] The remedies sought by Oklahoma against the Defendants as a result of its practices include "abatement of these practices, expenses for assessing the injury and damage to the IRW . . . , remediation of the injury to the IRW . . . , damages for the lost value and restoration of the natural resources of the IRW caused by these practices, and equitable relief."[54] The sovereign State of Oklahoma is pursuing these claims due to its "interest in the beds of navigable rivers to their high water mark, as well as all waters running in definite streams."[55] Furthermore, "the State of Oklahoma holds all natural resources . . . within the *political* boundaries of Oklahoma in trust on behalf and for the benefit of the public."[56]

Interestingly, Arkansas has twice attempted to intervene in the lawsuit by motion to the United States Supreme Court.[57] On February 21, 2006, the United States Supreme Court denied Arkansas' first attempt to intervene.[58] Despite this ruling, Arkansas attempted to intervene again on May 2, 2006, when Arkansas Attorney General Mike Beebe requested the federal court dismiss

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Creek." *Id.* at 10. "The Illinois River feeds into the 12,900-acre Tenkiller Ferry Lake, which has been described as the emerald jewel in Oklahoma's crown of lakes." *Id.* (internal quotations omitted). "Additionally, the waters of the IRW have been used, and are used, and may in the future be used as a source of drinking water." *Id.* at 11.

51. *Id.* at 2. "These 'poultry growing operations' result in the generation of hundreds of thousands of tons of poultry waste for which the . . . Defendants are legally responsible."

52. *Id.*

53. *Id.*

54. *Id.*

55. Pl.'s 1st Amend. Compl. at 3, *Okla. ex rel. Edmonson v. Tyson Foods, Inc.* (N.D. Okla. Aug. 19, 2005).

56. *Id.* at 3–4 (emphasis added) (this author notes the political boundaries of the State of Oklahoma may not include the Indian reservations located therein).

57. Curtis Killman, *Arkansas Again Seeks Role in Lawsuit*, Tulsa World A9 (May 3, 2006) (explaining that the State of Arkansas believes the case to be "an unconstitutional and misconceived effort." Oklahoma Attorney General Drew Edmondson characterized Arkansas' request as a "blatant request to curry favor with the powerful Arkansas poultry industry.").

58. *Ark. v. Okla.*, 546 U.S. 1156 (2006).

the lawsuit and order Oklahoma to mediate its case with the poultry industry.[59] Former Arkansas Governor Mike Huckabee[60] believes that Edmondson has "unfairly demonized" Arkansas.[61] If the issue between Oklahoma and the poultry industry "continue[d] to 'escalate,' " Huckabee, while acting as Governor, publicly divulged an option for Arkansas to consider.[62] Huckabee stated that "[t]he option, as crazy as it is, we could dam up the Illinois River on the Arkansas side. . . . You won't have any dirty water, but you won't have any water. We'll just divert it. We can live with it. Can Oklahoma live without any of it?"[63]

B. Indian Tribes Located within Oklahoma State Lines

The State of Oklahoma was established in 1907. Prior to that, the land now referred to as Oklahoma was Indian Territory. Today, the State of Oklahoma is home to thirty-nine federally recognized Indian tribes[64] and their Indian country.[65] The road to Indian Territory, however, was a rocky one. The settlers' continued westward expansion and domination over the Indians forced many to Indian Territory. During the period of 1820 to 1850, "all but a few remnants of tribes east of the Mississippi were moved to the West under a program that was voluntary in name and coerced in fact."[66] These journeys were fraught with misery and hardship.[67] The "Trail of Tears," for example, refers to the journey of the Five Civilized Tribes (Cherokee, Choctaw, Creek,

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59. Killman, *supra* n. 57, at A9. **R**

60. Mike Huckabee was considering a 2008 presidential bid by October of 2006. Curtis Killman, *Arkansas Governor Rips AG over Suit*, Tulsa World A1 (Oct. 12, 2006). Huckabee was a 2008 Presidential candidate for the Republican party until dropping out of the race on March 4, 2008 after Senator John McCain clinched the party's nomination. Associated Press, *Huckabee Drops out of Presidential Race*, http://www.msnbc.msn.com/id/23473706/ (accessed Mar. 23, 2008).

61. Killman, *supra* n. 60. at A1. **R**

62. *Id.* at A5.

63. *Id.*

64. 67 Fed. Reg. 46328, 46328–331 (July 12, 2002).

65. The U.S. Code defines Indian Country as follows:

> (a) all land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation, (b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and (c) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through same.

18 U.S.C. § 1151 (2006).

66. William C. Canby, Jr., *American Indian Law in a Nutshell* 18 (4th ed., West 2004).

67. *Id.*

Chickasaw and Seminole) from the Southeast to what would become the State of Oklahoma.[68] During this journey, over 4,000 of 15,000 Cherokee migrants died of hunger, disease, and exhaustion.[69]

Moreover, the General Allotment Act of 1887 (the "Dawes" Act), "authorized the President to allot portions of reservation land to individual Indians."[70] During the allotment era, 90 million acres of Indian lands were taken away.[71] The lands now owned by the Indians were largely considered to be valueless by the settlers, and nearly one-half of the Indian-held lands were desert or semi-desert.[72] In order to succeed with an agrarian way of life, it was and continues to be imperative for Indians to have access to water resources of a sufficient quantity and quality. As a result, not only is it of supreme importance to Indian tribes to protect their waters, but the federal government through its trust relationship with the tribes[73] is also morally and legally obligated to ensure that Indian water resources are not squandered.

III. Indian Water Rights

Because federally reserved Indian rights to water are difficult to understand without first understanding the basic water rights schemes utilized in the United States, a basic summary of riparian and appropriative rights is necessary. Next, an explanation of the landmark cases of *Winters v. U.S.*[74] and *Arizona v. California*[75] will provide the foundation for the doctrine of reserved Indian rights to water, or what is now simply referred to as "*Winters*

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68. *Id.*

69. PBS, *The Trail of Tears*, http://www.pbs.org/wgbh/aia/part4/4h1567.html (accessed Mar. 21, 2008).

70. Canby, *supra* n. 66, at 21. **R**

71. *Id.* at 22 ("Indian held land [went] from 138 million acres in 1887 to 48 million in 1934.").

72. *Id.*; *Ariz. v. Calif.*, 373 U.S. 546, 598 (1963) [hereinafter *Ariz. I*] ("It can be said without overstatement that when the Indians were put on these reservations they were not considered to be located in the most desirable area of the Nation.").

73. Canby, *supra* n. 66, at 34 (describing the relationship between the federal government and the tribes: "At its broadest, the relationship includes the mixture of legal duties, moral obligations, understandings and expectancies that have arisen from the entire course of dealing between the federal government and the tribes. In its narrowest and most concrete sense, the relationship approximates that of *trustee and beneficiary*, with the trustee (the United States) subject in some degree to legally enforceable responsibilities." (emphasis added)). **R**

74. *Winters v. U.S.*, 207 U.S. 564 (1908).

75. *Ariz. I*, 373 U.S. 546 (1963).

rights" or the "*Winters* doctrine."[76] Then, some peripheral and controversial aspects of *Winters* rights will be explored, including whether *Winters* rights include groundwater and a right to water quality.

A. Main Systems of Water Rights in the United States

In order to gain a full understanding of Indian rights to water resources, a basic understanding of the two major systems of water rights in the United States is necessary.[77] These two systems developed based on the historical demand, use, and availability of water and "govern the acquisition, enjoyment, and transfer of property rights to use water."[78] One system—the "riparian" system—is generally utilized in the eastern United States, historically viewed as having plenty of water to go around.[79] Under the riparian system, an owner of real property whose land "borders a lake or stream has the right to the *reasonable use* of the water."[80] What constitutes a reasonable use of the water is highly fact-specific and determined on a case-by-case basis, with "the primary limitation being that it must not interfere unduly with any other riparian owner's reasonable use of the water."[81] Riparian rights exist whether or not the land owner acts on those rights.[82] As a general rule, these rights "cannot be separated from the lands to which they are appurtenant"[83] and "riparian owners are entitled to a continuation of the flow."[84] Because the rights run with the

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76. Felix S. Cohen et al., *Cohen's Handbook of Federal Indian Law* 1171 n. 29, 1173 (Nell Jessup Newton et al. eds., LexisNexis 2005); Canby, supra n. 66, at 431; *see also e.g. Confederated Salish & Kootenai Tribes v. Clinch*, 158 P.3d 377, 399 (Mont. 2007) (Nelson, J., dissenting). R

77. Dan Tarlock, *Law of Water Rights and Resources* § 1:1, 1-1 (Thomson West 2006) (noting also that some states employ a dual regime consisting of riparian rights in some areas and appropriative rights in other areas); Canby, *supra* n. 66, at 426. R

78. Tarlock, *supra* n. 77, at § 1:1, 1-1; Royster & Blumm, *supra* n. 23, at 384–85. R

79. Tarlock, *supra* n. 77, at § 1:1, 1-1; Royster & Blumm, *supra* n. 23, at 384–85; *see also* Judith V. Royster, Winters *in the East: Tribal Reserved Rights to Water in Riparian States*, 25 Wm. & Mary Envtl. L. & Policy Rev. 169, 169 (2000–2001) ("In the eastern United States, the riparian system of state water rights developed on the predicate of sufficient water to go around." Today, the abundance of water in the East may "be more myth than reality."). R

80. Canby, *supra* n. 66, at 426 (emphasis added); Tarlock, *supra* n. 77, at § 3:7. R

81. Canby, *supra* n. 66, at 426; Tarlock, *supra* n. 77, at § 3:7. R

82. Royster & Blumm, *supra* n. 23, at 385 (explaining "[r]iparian rights are not lost through non-use"); Tarlock, *supra* n. 77, at § 3:7. R R

83. Royster & Blumm, *supra* n. 23, at 385; *see generally* Tarlock, *supra* n. 77, at § 3:7. R

84. Canby, *supra* n. 66, at 426; Royster & Blumm, *supra* n. 23, at 385; *see generally* Tarlock, *supra* n. 77, at § 3:7. R R

land and entitle owners to a continuation of the flow, the amount of water a riparian owner can reasonably use is directly related to the water supply. In other words, if the water supply decreases, the riparian owner's right to the reasonable use of the water diminishes in proportion to the other riparian owners' rights to that water supply.[85]

The other major system of water rights—the "appropriative" system—is typically found in the western half of the United States.[86] The appropriative system of water rights developed as a method of distributing the limited water supply commonly found in these often desperately dry states.[87] There are three main aspects to the appropriative system: (1) "water may be appropriated separately from the land;"[88] (2) the priority standard of "first in time, first in right" applies;[89] and (3) "water not put to beneficial use is lost to the appropriator."[90]

All three aspects of the appropriative system are necessarily interconnected based on whether or not the water is being put to a beneficial use. First, water can be appropriated separately from the land because appropriative rights are not based on land ownership, but rather on ensuring the water is put to a beneficial use.[91] When the appropriative system was established in the arid west, putting the water to a beneficial use (for miners and farmers) outweighed the benefit of having water rights run with the land. Second, priority—a major component of the appropriative system—is established based on "the first date the water is put to beneficial use."[92] Priority is especially important in times of a drought. The "first in time, first in right" standard ensures that the first appropriator is allocated the entire amount of entitled water before the next appropriator gets anything.[93] When a water

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85. Canby, *supra* n. 66, at 426; *see also* Tarlock, *supra* n. 77, at § 3:10. **R**

86. Canby, *supra* n. 66, at 426; *see also* Royster & Blumm, *supra* n. 23, at 384 (explaining that the appropriative system of water rights is also referred to as the "prior appropriation system"); Tarlock, *supra* n. 77, at § 1:1. **R**

87. Royster & Blumm, *supra* n. 23, at 384. **R**

88. Canby, *supra* n. 66, at 428; *see generally* Tarlock, *supra* n. 77, at § 5:26. **R**

89. Canby, *supra* n. 66, at 428; *see generally* Tarlock, *supra* n. 77, at § 5:29. **R**

90. Canby, *supra* n. 66, at 428; *see generally* Tarlock, *supra* n. 77, at § 5:66. **R**

91. Royster & Blumm, *supra* n. 23, at 385 ("Historically, a beneficial use is one which removes water from the stream and applies it elsewhere. For example, taking water out of a stream by way of a canal or ditch and using it to irrigate croplands is a traditional beneficial use. Consequently, the water is often used at a location remote from the source of the water."). **R**

92. *Id.*

93. Canby, *supra* n. 66, at 427. **R**

source is fully appropriated, the junior appropriators "are at great risk of losing future supplies in short years, but the [senior] appropriators enjoy a high degree of security."[94] Third, the commonly used slogan for the appropriative system, "use it or lose it," is especially linked to whether the appropriator has put the water to a beneficial use.[95] If the water is not being put to a beneficial use, the appropriator loses the rights to the unrealized water and retains only the amount of water actually utilized.[96] Therefore, failure to use the water constitutes an abandonment of any rights to that water under an appropriative system.[97]

B. Indian Water Rights: The Winters *Doctrine*

Standing alone, neither the appropriative nor the riparian systems[98] apply to the Indians' right to water resources. Rather, certain ingredients from each system have been blended together to confer Indian rights to water arising under federal law.[99] The resulting mixture of ingredients gives Indians reserved rights to water. These reserved rights grant Indian tribes "large, but often still unquantified amounts of water."[100] Indian reserved rights to water are "not dependent on state substantive law," and are thus excepted from the "general rule that allocation of water is the province of the states."[101]

Indian rights to water originate from *Winters v. U.S.*, under which the implied reservation doctrine was created.[102] This 1908 Supreme Court decision clearly established that Indian rights to surface water were impliedly reserved at the time lands were set aside by the United States for Indian reservations.[103] In *Winters*,

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94. *Id.*; *see also* Royster & Blumm, *supra* n. 23, at 385 (Appropriators who put water to beneficial use first in time are referred to as "senior appropriators," and those who put water to beneficial use later in time are called "junior appropriators."). **R**

95. Canby, *supra* n. 66, at 427. **R**

96. *Id.*

97. *Id.*

98. Both the riparian and appropriative systems derive their authority from state law. *Id.* at 428.

99. *Infra* pt. III.E (discussing "*Winters* rights" as a combination of the *Winters* and *Arizona* holdings).

100. Cohen et al., *supra* n. 76, at 1168.

101. *Id.*

102. *Winters v. U.S.*, 207 U.S. 564, 577 (1908); *but see* Royster & Blumm, *supra* n. 23, at 384 (asserting that *U.S. v. Winans*, 198 U.S. 371 (1905), which came before *Winters*, "may serve as a source of tribal implied rights to water outside reservation boundaries" for enabling specific purposes, such as fishing). **R**

103. *Winters*, 207 U.S. at 576–77.

the United States brought suit on behalf of the Fort Belknap Indian Reservation in Montana to restrain upstream appropriators from diverting water from the Milk River and thus significantly diminishing the flow of water to the reservation.[104] The reservation was created in 1888 by statute which ratified the agreement between the tribe and the United States.[105] The agreement established that the northern boundary of the reservation was the middle of the Milk River, but, surprisingly, the "agreement was entirely silent as to water."[106] Some time later, non-Indian settlers built dams upstream of the reservation, diverting the natural flow of Milk River and significantly compromising the Indians' agricultural pursuits.[107]

The Supreme Court held that the Fort Belknap tribes held the "prior and paramount" right to the water, construing "the 1888 agreement in light of the purposes of the reservation system, the practical need for water in the arid West, and the canons of construction for Indian treaties and agreements."[108] The Court reasoned that if the purpose of the reservation system was to convert the nomadic hunters and gatherers into a society that is "pastoral and civilized," there must have been an implied reservation of water in order to support that agrarian lifestyle.[109] The small amount of dry land afforded to the Fort Belknap tribes would be valueless without an implied reservation of water for irrigation purposes.[110] As such, water became the single most important part of the equation. Furthermore, the canons of construction of federal Indian law provide that all ambiguities are to be interpreted in favor of the tribes.[111] The agreement's silence as to water did not preclude the Indians from water rights because the Indians would not have agreed to cede their vast amounts of former lands if the relatively small reservation granted to them did not include water, without which the land would have been a "barren waste" totally inadequate to provide for the tribe.[112] Consequently, the Court ruled that at the moment of a reservation's cre-

104. *Id.* at 565.
105. *Id.*
106. Cohen, *supra* n. 76, at 1172. **R**
107. *Winters*, 207 U.S. at 567.
108. Cohen, *supra* n. 76, at 1172; *Winters*, 207 U.S. at 575–78. **R**
109. *Winters*, 207 U.S. at 576.
110. *Id.*; *see also infra* nn. 132–133 and accompanying text. **R**
111. *Winters*, 207 U.S. at 576.
112. *Id.* at 577; Judith V. Royster, *A Primer on Indian Water Rights: More Questions Than Answers*, 30 Tulsa L.J. 61, 66 (1994–1995).

ation, the Indians who occupy the reservation hold an implied reservation of water rights.[113] This holding meant that the Fort Belknap tribes' water rights vested in 1888, setting the priority date years before the upstream diversion of water by non-Indians.[114]

Therefore, the foundation of Indians' reserved rights to water was set forth by *Winters*—upon the moment the reservation is created, water rights are impliedly reserved to the tribe or tribes residing within the boundaries of that reservation.[115] The reservation's water rights are "reserved in order to carry out the purposes for which the lands were set aside, and the rights are paramount to later-asserted water rights perfected under state law."[116]

Despite the unequivocal recognition of Indian tribes' water rights, assertions of these rights were largely absent during the five decades following the Court's decision in *Winters*.[117] In 1973, the National Water Commission helped explain why actions taken to realize the water rights owed to Indian tribes were slow-going:

> During most of this 50-year period, the United States was pursuing a policy of encouraging the settlement of the West and the creation of family-sized farms on its arid lands. In retrospect, it can be seen that this policy was pursued with little or no regard for Indian water rights and the *Winters* doctrine. With the encouragement, or at least the cooperation, of the Secretary of the Interior—the very office entrusted with protection of all Indian rights—many large irrigation projects were constructed on streams that flowed through or bordered Indian Reservations, sometimes above and more often below the Reservations. With few exceptions the projects were planned and built by the Federal Government without any attempt to define, let alone protect, prior rights that Indian tribes might have had in the waters used for the projects. . . . In the history of the United States Government's treatment of Indian tribes, its failure to protect Indian water rights for use on the Reservations it set aside for them is one of the sorrier chapters.[118]

Though seemingly disregarded for a period of time, it is unmistakable that *Winters* stands for the determination that an In-

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113. *Winters*, 207 U.S. at 576–77.

114. *Id.* at 577–78 (explaining the "construction of the agreement [made] it unnecessary to answer the [appellants'] argument" that the agreement creating the reservation was repealed "by the admission of Montana into the Union and the power over the waters of Milk River which the State thereby acquired to dispose of them under its laws").

115. Royster, *supra* n. 112, at 66. **R**

116. *Id.*

117. Canby, *supra* n. 66, at 429. **R**

118. Royster & Blumm, *supra* n. 23, at 386 (quoting National Water Commission, *Water Policies for the Future—Final Report to the President and to the Congress of the United States* 474–75 (Water Info. Ctr. 1973)). **R**

dian tribe, at the moment its reservation was created, has reserved rights to water resources in order to fulfill the purposes of that Indian reservation. But the *Winters* Court did not address how the water is measured or allocated. As a practical matter, how is the reserved water to be quantified? In 1963, the United States Supreme Court provided an answer to this question in *Arizona v. California*,[119] and thus advanced the *Winters* doctrine.

C. Quantification of Indian Water Rights: Arizona *and PIA*

Since Indian water rights are reserved to fulfill the purposes of the Indian reservation,[120] and all tribes declare agriculture to be a purpose (and sometimes the sole purpose) of their reservations,[121] it follows that the "primary measure of tribal water rights is an agricultural measure."[122] Therefore, the Supreme Court[123] in *Arizona v. California* found that the suitable method for quantifying Indian water rights is the amount of water necessary for the reservation's "practicably irrigable acreage,"[124] or what is now commonly known simply as "PIA." In *Arizona*, the Court adjudicated competing claims by several parties asserting water rights to the lower Colorado River and its tributaries.[125] In its role as trustee for the tribes,[126] the United States entered the litigation between various states[127] to assert claims on behalf of five Indian reservations located in Arizona, California, and Ne-

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119. *Ariz. I*, 373 U.S. 546 (1963).

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

121. Royster, *supra* n. 112, at 74 n. 78 (explaining that "[n]o case has rejected an agricultural purpose for any reservation. In addition, no court is likely to reject farming as a purpose, since one of the goals of the reservation policy was to establish agrarian communities."). **R**

122. *Id.* at 74.

123. *See Ariz. I*, 373 U.S. at 546, 551 (The United States Supreme Court referred the case to a Special Master to "take evidence, find facts, state conclusions of law, and recommend a decree," all subject to the Court's ultimate discretion. The Special Master conducted a 2-year trial in the court, reviewed substantial amounts of evidence, heard testimony from hundreds, and recorded over 25,000 pages of transcript.).

124. *Id.* at 600 (affirming the Special Master's method of using PIA as a means to determine the quantity of water reserved to reservations).

125. *Id.* at 551.

126. Canby, *supra* n. 66, at 34, and accompanying text. **R**

127. *Ariz. I*, 373 U.S. at 546, 551 (The various states included Arizona, California, Nevada, New Mexico, and Utah. Arizona invoked the Supreme Court's original jurisdiction over the matter, and "[the other states] and the United States were added as parties either voluntarily or on motion.").

vada.[128] Each of the Indian reservations had a stake in the Colorado River litigation.[129]

The Colorado River is located "in a natural basin almost surrounded by large mountain ranges and [the Colorado River and its tributaries] drain 242,000 square miles, an area about 900 miles long from north to south and 300 to 500 miles wide from east to west."[130] This vast basin has long been plagued by perpetual aridity—in other words, it is hydrologically challenged. From times long ago to the present it "always has been largely dependent upon managed use of the waters of the Colorado River System to make it productive and inhabitable."[131] In recognition and support of this proposition, the United States Supreme Court's opinion in *Arizona* quotes a delegate's statement from the debate that led to approval of "the first congressional appropriation for irrigation of the Colorado River Indian Reservation."[132] The following statement was made by the delegate from the Territory of Arizona demonstrating the tribes' irrigational necessity:

> Irrigating canals are essential to the prosperity of these Indians. Without water there can be no production, no life; and all they ask of you is to give them a few agricultural implements to enable them to dig an irrigating canal by which their lands may be watered and their fields irrigated, so that they may enjoy the means of existence. You must provide these Indians with the means of subsistence or they will take by robbery from those who have. During the last year I have seen a number of these Indians starved to death for want of food.[133]

Remarkably, the trial also produced "archeological evidence that as long as 2,000 years ago the ancient Hohokam tribe built and maintained irrigation canals near what is now Phoenix, Arizona, and that American Indians were practicing irrigation in that region at the time white men first explored it."[134]

Objecting to the quantity of water allocated to the tribes, Arizona argued that the PIA standard yielded an overly excessive

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128. *Id.* at 595–96 (The five Indian reservations were Chemehuevi, Cocopah, Colorado River, Fort Mohave, and Yuma. Of the five reservations, the largest was the Colorado River Reservation, which straddles the Arizona-California border.).

129. *Id.*

130. *Id.* at 552 (The expansive natural basin containing the flow of the Colorado River and its tributaries is "practically one-twelfth the area of the continental United States excluding Alaska.").

131. *Id.*

132. *Id.* at 599.

133. *Ariz. I*, 373 U.S. at 599 (quoting Cong. Globe, 38th Cong., 2d Sess. 1321 (1865)).

134. *Id.* at 552.

amount of water to the reservations.[135] Arizona believed that the proper method of quantifying reserved Indian water rights should turn on the number of Indians on the reservation, which would more accurately portray a reservation's "reasonably foreseeable needs."[136] The Supreme Court rejected Arizona's proposed method of quantifying Indian water rights, reasoning that the number of Indians residing on a reservation in the future and attempting to predict their future water needs would be too speculative.[137] Instead, the Supreme Court established the PIA standard as the "only feasible and fair way by which reserved water for the reservations can be measured."[138] The burden of proving PIA lies with the Tribes.[139] In addition to requiring proof of the technical and engineering feasibility of irrigating the reservation's acreage, the PIA standard was amended by the Supreme Court in 1983 to require proof of economic feasibility as well.[140]

D. Other Issues Arising out of Arizona

Aside from the method of quantifying reserved Indian rights to water, there are other aspects arising out of *Arizona* that warrant mentioning. These include: (1) *Winters* rights extending to reservations regardless of whether the reservation was created by treaty, statute, or executive order; (2) *Winters* rights surviving the admittance to the Union of the State whose boundary lines surround the reservation; (3) reserved Indian water rights are generally not limited solely to agricultural uses; (4) the rise of settlements with regard to water rights issues and the importance of

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135. *Id.* at 598.

136. *Id.* at 600–01.

137. *Id.* at 601.

138. *Id.*

139. *State ex rel. Martinez v. Lewis*, 861 P.2d 235, 245–46 (N.M. App. 1993).

140. *Ariz. v. Calif.*, 460 U.S. 605, 641 (1983) [hereinafter *Ariz. III*]; Dana Smith, *Doctrinal Anachronism?: Revisiting the Practicably Irrigable Acreage Standard in Light of International Law for the Rights of Indigenous Peoples*, 22 Ariz. J. Intl. & Comp. L. 691, 692 (2005); *see also* David H. Getches, Charles F. Wilkenson & Robert A. Williams, Jr., *Federal Indian Law: Cases and Materials* 833–35 (4th ed., West 1998) (discussing four disciplines involved in proving PIA: soil science, hydrology, engineering, and economics. The first three relate to *technical* and *engineering* feasibility while the last encompasses the *economic* feasibility of quantifying water rights under the PIA standard.); *In re Gen. Adjudication of All Rights to Use Water in the Big Horn River Sys.*, 753 P.2d 76, 101 (Wyo. 1988), *aff'd sub nom.*, *Wyo. v. U.S.*, 492 U.S. 406 (1989) [hereinafter *Big Horn*] (defining PIA as "those acres susceptible to sustained irrigation at reasonable costs" and stating that "[t]he determination of practicably irrigable acreage involves a two-part analysis, i.e., the PIA must be susceptible of sustained irrigation (not only proof of the arability but also of the engineering feasibility of irrigating the land) and irrigable 'at reasonable cost' ").

PIA during settlement negotiations; and (5) the future of the PIA standard.

First, the Court in *Arizona* was faced with Arizona's argument relating to the manner in which the reservation was created.[141] Arizona argued that "water rights cannot be reserved by Executive Order."[142] Indian Reservations have historically been created in one of three ways. Until 1871, it was typical to create reservations by treaties.[143] After 1871, reservations were created either by statute—which generally ratified the agreements reached with the tribes, like the Fort Belknap reservation from *Winters*[144]—or by executive order, until 1919 when Congress ended the practice.[145] The *Arizona* Court held that the *Winters* doctrine applies to Indian reservations whether they were created by treaty, statute, or executive order.[146] And the priority date is set as of the moment the reservation was created.[147]

Second, the Court in *Arizona* addressed Arizona's argument that the federal government, and thus federally-created reservations, relinquished rights to the water upon Arizona's admittance as a State into the Union.[148] Arizona contended that "lands underlying navigable waters within territory acquired by the Government are held in trust for future States and that title to such lands is automatically vested in the States upon admission to the Union."[149] The Court rejected this contention, pointing out that the cases Arizona relied upon

> involved only the shores of and lands beneath navigable waters. They do not determine the [rights to the waters] and cannot be accepted as limiting the broad powers of the United States to regulate navigable waters under the Commerce Clause and to regulate government lands under Art. IV, s 3, of the Constitution.[150]

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141. *Ariz. I*, 373 U.S. at 598.

142. *Id.*

143. Royster, *supra* n. 112, at 64 n. 8. **R**

144. *Id.*; *Winters v. U.S.*, 207 U.S. 564, 567–68, 575 (1908).

145. Canby, *supra* n. 66, at 19 (citing 43 U.S.C. § 150 (stating "[n]o public lands of the United States shall be withdrawn by Executive Order, proclamation, or otherwise, for or as an Indian reservation except by act of Congress")). **R**

146. *Ariz. I*, 373 U.S. at 598.

147. *Winters*, 207 U.S. at 577; *compare with* Royster, *supra* n. 112, at 70–71 (providing "[i]n general, if a tribe was using water in its aboriginal territory prior to the creation of the reservation and those uses were confirmed by the treaty, agreement, or executive order creating the reservation, the water rights continue with a 'time immemorial' priority date"). **R**

148. *Ariz. I*, 373 U.S. at 596.

149. *Id.* at 597.

150. *Id.* at 597–98.

Winters rights are not governed by state substantive law but "are creatures of federal law, which defines their extent."[151] Therefore, reservations' *Winters* rights survived admission into the Union by the states in which the reservations were located.

Third, while the method of quantifying reserved Indian water rights is based on agricultural use—the amount of water necessary for the reservation's PIA—that method generally does not work to limit the ways the Indians actually put the water to use. The Supreme Court clarified this in *Arizona v. California II*,[152] stating that PIA "is the means of determining quantity of adjudicated water rights but shall not constitute a restriction on the usage of them to irrigation or other agricultural application."[153] Following the lead from *Arizona II,* the Ninth Circuit declared in *Colville Confederated Tribes v. Walton*[154] that, "[w]hen the Tribe has a vested property right in reserved water, it may use it in any lawful manner. As a result, subsequent acts making the historically intended use of water unnecessary do not divest the Tribe of the right to the water."[155] This right may be limited, however, if courts award a tribe a quantity of water for a specific non-consumptive use.[156] A non-consumptive use, such as an instream flow right for a reservation whose purpose is for fisheries protection, may not be changed to a consumptive use.[157] Yet most of the time, the quantity of water reserved for the tribe is based on the reservation's PIA, in which case a tribe may "use its quantified share of agricultural water for industrial or other purposes."[158]

Fourth, the PIA standard can serve as a nice bargaining chip in favor of Indian tribes during negotiated settlements of reserved Indian water rights. Since the 1970s, there has been a growing trend toward resolving these water disputes by way of negotiated settlements. This trend has been powered by several factors: (1) the exorbitant costs of time and money affecting all parties involved in litigation and adjudication of reserved Indian water rights; (2) the Indians' reluctance to have Indian reserved rights

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151. Canby, *supra* n. 66, at 431. **R**

152. *Ariz. v. Calif.*, 439 U.S. 419 (1979) [hereinafter *Ariz. II*].

153. *Id.* at 422; Royster & Blumm, *supra* n. 23, at 438. **R**

154. *Colville Confederated Tribes v. Walton*, 647 F.2d 42 (9th Cir. 1981), *cert. denied*, 454 U.S. 1092 (1981).

155. *Id.* at 48.

156. Royster, *supra* n. 112, at 78 (referring to the decision in *Big Horn*, 753 P.2d 76, 99–100 (Wyo. 1988)). **R**

157. *Id.*

158. Canby, *supra* n. 66, at 434. **R**

determined through the state court system;[159] (3) the realization that litigation and adjudication will determine the quantity of water owed to the Indians based on the PIA standard, but often will not provide "funding for water development projects or delivery systems, and sometimes [limit] water use;"[160] and (4) during the lengthy period of litigation and adjudication, the water in dispute generally continues to be used by non-Indians.[161]

Under the *Winters* doctrine, an Indian reservation's right to water arms the Indians with a superior claim to waters because of early priority dates, and the right to water despite lack of use.[162] The PIA standard from *Arizona* bolsters this right by providing a method for quantification of the waters owed.[163] While this right may appear to be superior on paper, in reality, converting it into "wet" water can be a long and arduous process.[164] "Most tribal water rights are quantified through litigation and adjudication, processes that have lasted decades and which will continue on for many decades to come."[165]

Nevertheless, the current case precedent in favor of the PIA standard provides sufficient bargaining power for the Indians, creating an incentive for non-Indian parties to settle. During many settlements, tribes often "waive both their *Winters* rights to water, and their claims against the United States with respect to water in exchange for guarantees of smaller quantities of water and economic assistance in developing water resources."[166]

Fifth, the future of the PIA standard is unknown. This "uncertainty over the future of the PIA standard may undermine the predictability that is a necessary prerequisite to successful settle-

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159. Cohen et al., *supra* n. 76, at 1210–11 (explaining that for many tribes, the state court system may be a potentially hostile forum in which to determine their rights to water because the "pre-adjudication administrative determinations are often made by state agencies, and judicial determinations are made by state judges ultimately answerable to the voters"); *see also* 43 U.S.C. § 666 (2006) (providing states subject matter jurisdiction over Indian water rights which they lacked prior to Congress's enactment of the McCarran Amendment in 1952). **R**

160. Cohen et al., *supra* n. 76, at 1211. **R**

161. *Id.*

162. *Winters v. U.S.*, 207 U.S. 564, 576–77 (1908); *Ariz. I*, 373 U.S. 546, 599–600 (1963).

163. *See Ariz. I*, 373 U.S. at 600.

164. Smith, *supra* n. 140, at 692. **R**

165. Merianne A. Stansbury, *Negotiating* Winters*: A Comparative Case Study of the Montana Reserved Water Rights Compact Commission*, 27 Pub. Land & Res. L. Rev. 131, 132, 132 n. 4 (2006) (explaining that, for example, the Big Hole River basin adjudication "has been going on since the early 1980s and an estimated $50–80 billion has been spent. The tribal water rights have still not been quantified.").

166. Cohen et al., *supra* n. 76, at 1213–14 (footnotes omitted). **R**

ments."[167] In 1989, *Wyoming v. U.S.*[168] placed the PIA standard before the Supreme Court. While the Court "upheld the PIA standard in a four-to-four memorandum opinion," the PIA standard was very close to being drastically changed.[169] Justice O'Connor drafted the would-be majority opinion prior to recusing herself due to a conflict of interest—"her family's ranching corporation was a party to an adjudication involving Indian water rights."[170] In O'Connor's draft majority opinion the basic PIA standard would have remained intact, but augmented by a "sensitivity" analysis to account for the "impact on non-Indian appropriators" who had been putting the waters to beneficial use for some time.[171]

The PIA standard has not been addressed by the United States Supreme Court since its four-four split in *Wyoming*, but in 2001, the Arizona Supreme Court decided to reject the PIA standard in *In re the General Adjudication of All Rights to Use Water in the Gila River System & Source* (hereinafter *Gila River V*).[172] The Arizona Supreme Court "became the first court in the United States to formally reject the PIA standard [and] instead created a homeland standard to be used in quantifying Indian water rights."[173] Although at first glance the PIA standard appears to

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167. Royster & Blumm, *supra* n. 23, at 392 (quoting 4 Waters and Water Rights § 37.02(c)(3) (Robert E. Beck ed., Lexis 1991)). R

168. *Wyo. v. U.S.*, 492 U.S. 406 (1989).

169. Smith, *supra* n. 140, at 692. R

170. Royster & Blumm, *supra* n. 23, at 391. R

171. *Id.* Justice O'Connor's draft majority opinion in *Wyoming* is reprinted in the appendix to Andrew C. Mergen & Sylvia F. Liu, *A Misplaced Sensitivity: The Draft Opinions in* Wyoming v. United States, 68 U. Colo. L. Rev. 683, 725–40 (1997).

172. *In re the Gen. Adjudication of All Rights to Use Water in the Gila River Sys. & Source*, 35 P.3d 68, 76 (Ariz. 2001) [hereinafter *Gila River V*]. In 1974, the Salt River Valley Water Users Association filed a petition in the Arizona state court system to determine the rights to the Salt, Verde, San Pedro, Gila, Santa Cruz and Agua Fria Rivers. This petition led the Arizona Supreme Court to issue five significant decisions. The four *Gila River* decisions leading up to *Gila River V* have been nicely summarized as follows:

> The 1992 decision (*Gila River I*) involved a question of acceptable methods of service for notifying the 849,000 people who had potential claims in the Gila River water rights adjudication. A 1993 decision by the court (*Gila River II*) dealt with whether the "subflow" was to be considered surface water or groundwater. The third major decision by the court, in 1999, was the first one to deal directly with Indian reserved water rights. In *Gila River III*, the court addressed the question of whether Indian reserved water rights included rights not only to surface water, but to groundwater, as well. . . . In *Gila River IV*, the court re-examined the definition of "subflow" it crafted in *Gila River II*.

Smith, *supra* n. 140, at 710. R

173. Smith, *supra* n. 140, at 692 (referring to *Gila River V*). R

be objective and fairly straightforward,[174] the *Gila River V* Court rejected it as a means of quantification after identifying several problems.[175] First, "an across-the-board application of PIA" may result in an unfair allocation of waters to a tribe's reservation due to its geographical location.[176] The Court gives an example contrasting the effects of PIA on a tribal reservation inhabiting "flat alluvial plains," with a tribal reservation "dwell[ing] in steep, mountainous areas."[177] The PIA standard is an advantage to the former, particularly if the reservation land is adjacent to water systems. But it creates a severe disadvantage to the latter, which may be unable to prove that its lands are practicably irrigable from both a technically and economically feasible standpoint.[178] Second, PIA adopts a method whereby tribes must "pretend to be farmers" and prove the economic feasibility of a large agricultural project that "is simply no longer economically feasible in the West."[179] The Court recognized that a tribe's reservation, as a permanent homeland, "requires water for multiple uses, which may or may not include agriculture."[180] Third, the PIA standard has the effect of tempting tribes to "concoct inflated, unrealistic irrigation projects," diminishing the chance of a true "consideration of actual water needs based on realistic economic choices."[181] PIA awards may provide "an overabundance of water" by factoring every single acre of irrigable land into the equation, rather than "focusing on what is necessary to fulfill a reservation's overall design."[182]

Noting in the dissent that they were entering "uncharted territory," the *Gila River V* Court replaced the PIA standard with a multi-faceted approach—evaluated on a reservation-by-reservation basis—designed to determine the amount of federally re-

174. *See Gila River V*, 35 P.3d at 77–78 (explaining the PIA standard "implies a two-step process. First, it must be shown that crops can be grown on the land, considering arability and the engineering practicality of irrigation. Second, the economic feasibility of irrigation must be demonstrated." (internal citations omitted)).

175. *Id.* at 78.

176. *Id.*

177. *Id.*

178. *Id.* (explaining that tribes failing to show "either the engineering or economic feasibility of proposed irrigation projects run the risk of not receiving any reserved water under PIA").

179. *Id.*

180. *Gila River V*, 35 P.3d at 78; *but see supra* nn. 153–158 and accompanying text demonstrating that the PIA standard is a method of quantifying; however, once quantified the Indian reservation may use that water for purposes other than agricultural uses. **R**

181. *Id.*

182. *Id.* at 79.

served waters necessary to satisfy a reservation's minimum need to accomplish its purpose.[183] The tribes should present evidence of actual and proposed uses of water, "accompanied by the parties' recommendations regarding the feasibility and the amount of water necessary to accomplish the homeland purpose."[184] When evaluating this evidence, courts should consider certain key factors including, among others: (1) the tribe's history, rituals, culture, and traditions involving water use;[185] (2) "the tribal land's geography, topography, and natural resources, including groundwater availability";[186] (3) the tribe's "economic base";[187] (4) the tribe's past water use;[188] and (5) the tribe's present and projected population.[189]

Despite the uncertainty of the PIA standard's future created by Justice O'Connor's draft majority opinion[190] and the Arizona Supreme Court's 2001 decision in *Gila River V*,[191] "the demise of the PIA standard is not inevitable."[192] The Supreme Court established the PIA standard in *Arizona I* because it was "unwilling[ ] to tolerate the uncertainties inherent in a 'reasonably foreseeable needs' standard, and . . . has reaffirmed the need for certainty in water rights adjudications repeatedly."[193] While the Supreme Court has reaffirmed *Arizona I* on more than one occasion,[194] the multi-faceted approach promulgated by the Arizona Supreme Court in *Gila River V* could be viewed as a "reasonably foreseeable needs" standard, thus establishing uncertainty in future water rights adjudications. Whether the PIA standard survives into the future, is modified, or is replaced by another quantification method, one thing is certain—Indian reservations are entitled to a reserved amount of water necessary to fulfill the purposes of the reservation.

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183. *Id.* (Thomas, J., dissenting).

184. *Id.*

185. *Id.* at 79–80.

186. *Gila River V*, 35 P.3d at 80.

187. *Id.* (explaining the tribes' "[p]hysical infrastructure, human resources, including present and potential employment base, technology, raw materials, financial resources, and capital are all relevant in viewing a reservation's economic infrastructure").

188. *Id.*

189. *Id.* (noting that this "should never be the only factor" but is necessary to fully evaluate the quantity of water necessary to meet the human needs).

190. *Supra* nn. 167–171 and accompanying text. R

191. *Supra* nn. 172–189 and accompanying text. R

192. Royster & Blumm, *supra* n. 23, at 392 (quoting 4 Waters and Water Rights § 37.02(c)(3) (Robert E. Beck ed., Lexis 1991)). R

193. *Id.*

194. *Id.*

E. "Winters *Rights": The Combination of* Winters *and* Arizona

Today's "*Winters* rights"—the phrase often used to describe reserved Indian rights to water—are formulated from a synthesis of the *Winters* and *Arizona v. California* cases.[195] *Winters* rights can be summed up into five primary characteristics.[196] First, *Winters* rights are "not dependent on [state] substantive law," and are thus excepted from the "general rule that allocation of water is the province of the states."[197] The admission into the Union of the State whose boundary lines surround the reservation neither evaporates *Winters* rights nor grants states the authority over this reserved right.[198] Second, a reservation of water rights is implicit in the establishment of the Indian reservation, whether the reservation was created by treaty, executive order, or statutory agreement.[199] Third, the priority date upon which the *Winters* rights attach is the date the Indian reservation was created. The importance of this cannot be overestimated because most reservations were established long before non-Indian settlers began putting the water to beneficial use.[200] This gives Indian reservations superior water rights to most users under the appropriative system.[201] Fourth, *Winters* rights will be quantified using the PIA standard, which is the "amount sufficient to irrigate all the practicably irrigable acreage of the reservation."[202] The PIA standard "implies a two-step process: First, it must be shown that crops can be grown on the land, considering arability and the engineering practicality of irrigation. Second, the economic feasibility of irrigation must be demonstrated."[203] Importantly, the PIA standard, while quantifying water rights based on the amount of acres which can be practicably irrigated, generally does not restrict the Indian reservation from using the water for non-agricultural uses.[204] Fifth,

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195. Canby, *supra* n. 66, at 431. **R**

196. *Id.* at 431–32.

197. Cohen et al., *supra* n. 76, at 1168; *see also* Canby, *supra* n. 66, at 431. **R**

198. *Supra* nn. 147–150 and accompanying text. **R**

199. Canby, *supra* n. 66, at 431. **R**

200. Royster, *supra* n. 112, at 70. **R**

201. *Id*. For a thorough discussion of the effect *Winters* rights would have under a riparian water system (generally used in the eastern states), see Judith V. Royster, *supra* n. 79, at 169. **R**

202. Canby, *supra* n. 66, at 431; *but see supra* nn. 172–189 and accompanying text describing the Arizona Supreme Court's rejection of the PIA standard in *Gila River V*. **R**

203. *Gila River V*, 35 P.3d 68, 77–78 (Ariz. 2001).

204. *Supra* nn. 153–158 and accompanying text. **R**

Winters rights are not dependent on use, but rather run with the reservation.[205]

In addition to synthesizing the holdings of *Winters* and *Arizona v. California*, *Winters* rights can also certainly be viewed as an advantageous combination of the riparian and appropriative systems, the two primary state water systems in the United States.[206] On one hand, the appropriative system works to the advantage of one who has an early appropriation date.[207] Those with an early appropriation date have tremendous security in the waters, even in the event of a drought, because the senior appropriators will be entitled to their entire share of the water before junior appropriators can get any.[208] But under the appropriative system, one must continuously put the appropriated water to beneficial use to avoid losing the unused portion—if you don't use it, you lose it.[209]

On the other hand, riparian rights apply to waters appurtenant to the land, and the water rights run with the land.[210] The rights are not lost through non-use, but exist for the owner's use at any time.[211] In the event of a drought, however, the riparian owner's "reasonable use" of the water diminishes proportionately to other riparian owners' "reasonable use" of the water.[212]

Winters rights utilize the benefits of both the appropriative and riparian systems, seemingly without running into any of the associated pitfalls. Utilizing the priority standard of "first in time, first in right" from the appropriative system, the Indian reservations are given a priority date equivalent to the date the Indian reservation was established. Consequently, *Winters* rights almost guarantee that the reservations have superior rights to the waters because these dates generally precede even the earliest appropriation of water in the West. Borrowing from the riparian system, *Winters* rights "apply most clearly to water bordering, crossing or within (i.e., appurtenant to) the Indian land,"[213] and remarkably, "*Winters* rights to water are not lost by non-use."[214] The resulting

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205. Canby, *supra* n. 66, at 432. **R**
206. *Id.*
207. *Supra* nn. 86–90 and accompanying text. **R**
208. *Supra* n. 93 and accompanying text. **R**
209. *Supra* n. 95 and accompanying text. **R**
210. *Supra* nn. 79–85 and accompanying text. **R**
211. *Id.*
212. *Id.*
213. Canby, *supra* n. 66, at 432. **R**
214. *Id.*

mixture of appropriative and riparian elements grants the Indian reservation superior rights to waters.[215]

On January 6, 2008, *Winters* celebrated its 100th birthday. The PIA standard from *Arizona* was established over 40 years ago. Yet "[m]any tribes are just beginning to assert their unexercised water rights."[216] Because *Winters* rights to water are not lost by non-use, these long dormant claims can create a tremendous amount of tension and controversy. In the arid West, the assertion and quantification of *Winters* rights will certainly wreak havoc on non-Indian prior appropriators, placing them at substantial risk. The PIA standard, when quantified, can yield a vast amount of water. The Indian reservation's rights to this water will, in most cases, come before even the earliest non-Indian appropriators. The Indians' superior rights to water have the potential to deplete previous, but junior, users of their entire water source. It is a sticky situation, to say the least.

Non-Indians argue that satisfaction of a reservation's *Winters* rights "defeats the entire purpose of the appropriative system, which was to create certainty that would stimulate beneficial use."[217] Many of the non-Indian appropriators have spent substantial amounts of money, time, and effort creating transportation and irrigation systems to make beneficial use of unused water.[218] On the other hand, Indians argue that "the reason for their non-use of the water was the failure of the United States to fulfill its responsibility as trustee in developing and protecting water resources, and that it would only compound injury to deprive the tribes of their water forever."[219]

F. Peripheral Issues Related to Reserved Indian Water Rights

Beginning with the decisions from *U.S. v. Winans*[220] and *Winters*, and continuing to the present time, United States Supreme Court jurisprudence has crafted clear and superior *Winters* rights entitling Indian reservations to a reserved amount of water to ful-

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215. *See e.g.* John B. Carter, *Indian Aboriginal and Reserved Water Rights, An Opportunity Lost*, 64 Mont. L. Rev. 377, 377–78 (2003) ("[D]ivisive state and federal litigations . . . have consistently confirmed the dominance of federally-protected Indian reserved water rights over rights asserted under Montana state law.").

216. Canby, *supra* n. 66, at 436. **R**

217. *Id.* at 436–37.

218. *Id.* at 437.

219. *Id.*

220. *U.S. v. Winans*, 198 U.S. 371 (1905).

fill its purposes. These rights, however, are only clear and superior on paper. Converting these superior rights to "wet" water has proven to be quite an obstacle for tribes and their reservations. Today, many *Winters* rights have yet to be quantified and thus remain unrealized.

As difficult as it is to convert the clearly established rights to water into actual water, there are other issues that have not been clearly dealt with by the Supreme Court. These issues include whether *Winters* rights (1) apply to groundwater and (2) include a right to water quality. As one can imagine, the answers to these questions are in a state of flux. Yet there appear to be sound arguments in favor of determining each of the above issues in the affirmative. While a full discussion of these issues is beyond the scope of this article, some basic arguments in support of this proposition are offered below.

1. Whether Winters *Rights Apply to Groundwater*

Winters rights, or reserved rights, entitle Indian reservations to a sufficient amount of water to fulfill the purposes of the reservation. The application of *Winters* rights to surface waters is well accepted, but "whether Indian tribes will successfully secure reserved rights to groundwater remains an open question."[221] Before examining whether *Winters* rights apply to groundwater, the scientific reality of the hydrological connection between surface water and groundwater will be presented. A brief summary of how the courts have handled this issue will follow.

a. Hydrological Connection between Surface Water and Groundwater

Today, billions of people around the world depend on groundwater to meet basic needs.[222] For millions of people globally, accessibility and consumptive use of groundwater is essential.[223] To demonstrate, seventy-five percent of many European nations' drinking water comes from groundwater.[224] Fifty percent of all

221. Debbie Shoesteck, *Beyond Reserved Rights: Tribal Control over Groundwater Resources in a Cold* Winters *Climate*, 28 Colum. J. Envtl. L. 325, 326 (2003).

222. Gabriel Eckstein & Yoram Eckstein, *A Hydrogeological Approach to Transboundary Ground Water Resources and International Law*, 19 Am. U. Intl. L. Rev. 201, 202 (2003).

223. *Id.* at 201–02.

224. *Id.* at 202. "In Austria, Croatia, Denmark, Hungary, Italy, Lithuania, and Slovenia," at least 90% of drinking water comes from groundwater. *Id.*

drinking water in the United States comes from groundwater, and "in rural areas of the country, the percentage is as high as ninety-seven percent." The expanding population coupled with the substantial growth in industry and agriculture over the last two decades has caused many to rely on groundwater "as a chief source of fresh water."[225] The groundwater that is "technically and economically reachable" constitutes "more than thirty-three times the volume of water found in the world's lakes and streams."[226] Amazingly, "[t]he total volume of readily usable groundwater, *i.e.*, accessible and not saline, is estimated at approximately 4.2 x 106 km^3, while lakes and streams contain only about 0.126 x 106 km^3 of fresh water."[227]

The regulation of water differs from state to state in the treatment of surface water and groundwater. Some states regulate water in a conjunctive fashion without distinguishing between surface water and groundwater.[228] Other states "conjunctively manage their water resources only in specific critical areas, not the entire state."[229] Several states, however, regulate water—including use and ownership rights—by regarding surface water separately from groundwater. These states, such as Arizona, manage surface water wholly apart from groundwater with no directive to coordinate with the management of groundwater.[230]

These systems, treating surface water as distinct from groundwater, have been legislatively or judicially created without an understanding of scientific realities.[231] Surface water is inseparably interconnected with groundwater as part of the overall hydrologic cycle, where water in all of its forms (solid, liquid, gas, or vapor) "travels from the atmosphere to the Earth and back again in a constant cycle of renewal."[232] The water contained in the atmosphere returns to the Earth by precipitation in the form of rain, snow, and sleet.[233] This precipitation either runs "over

225. *Id.* at 202–03.

226. *Id.* at 204.

227. *Id.*

228. Joe Gelt, *Managing the Interconnected Waters: The Groundwater-Surface Water Dilemma*, http://ag.arizona.edu/AZWATER/arroyo/081con.html (accessed Mar. 21, 1008) [hereinafter *Groundwater-Surface Water Dilemma*].

229. *Id.*

230. *Id.*

231. Shoesteck, *supra* n. 221, at 335 (stating "[e]ither lack of knowledge about the movement of water underground or an unwillingness to tackle hydrologic reality within a legal scheme has led courts to develop a dual regime of water law"). **R**

232. Eckstein & Eckstein, *supra* n. 222, at 207. **R**

233. *Id.*

the land into streams, rivers, and lakes, or it percolates into the earth."[234] The sun evaporates the water remaining on the surface of the Earth and the cycle continues.[235] The water that percolates into the earth's crust continues downward "until it reaches the ground water table, where it flows in a more lateral direction through the porous spaces of the geologic formation, thereby forming an aquifer."[236] It is a scientific fact that

> [g]round water is a significant component of the hydrologic cycle. This is especially evident given the exponentially vast quantity of water found under the ground. From a hydrological point of view, however, one should view ground water as neither similar nor dissimilar to surface water resources. *Ground and surface waters are, in fact, part and parcel of the same thing; namely, water moving through the various stages of the hydrologic cycle*. Accordingly, it is inappropriate for optimal productivity and sustainable use . . . to bifurcate the management and regulation of ground and surface water resources.[237]

b. Court Treatment of Winters *Rights Extending to Groundwater*

To date, *Cappaert v. U.S.*[238] has been the only United States Supreme Court case involving *Winters* rights and groundwater. Instead of resolving this groundwater question, the Court "artfully skirted the issue by determining that the underground water in question was in fact surface water."[239] This holding overturned the Ninth Circuit's decision which expressly found that *Winters* rights extend to groundwater.[240] While the Court did not specifically address whether *Winters* rights extend to groundwater, "its holding acknowledged the hydrological connection between surface water and groundwater, thereby creating a significant foundation for future doctrinal exploration of the groundwater issue."[241]

Subsequently, most post-*Cappaert* courts directly addressing the issue "have determined that the tribal reserved right extends

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234. *Id.* at 207–08.

235. *Id.* at 208.

236. *Id.*

237. *Id.* at 209 (emphasis added).

238. *Cappaert v. U.S.*, 426 U.S. 128, 142 (1976).

239. Shoesteck, *supra* n. 221, at 330. **R**

240. *U.S. v. Cappaert*, 508 F.2d 313, 317 (9th Cir. 1974), *overruled*, *Cappaert v. U.S.*, 426 U.S. 128 (1976).

241. Shoesteck, *supra* n. 221, at 331. **R**

to groundwater resources."[242] The Wyoming Supreme Court is the only state court addressing this issue that did not extend *Winters* rights to groundwater.[243] After acknowledging that "[t]he logic which supports a reservation of surface water to fulfill the purpose of the reservation also supports reservation of groundwater," the Wyoming Supreme Court refused to extend *Winters* rights to groundwater.[244] The Wyoming Supreme Court based its decision on the unconvincing argument that "not a single case applying the reserved water doctrine to groundwater is cited to us."[245] In contrast, the Arizona Supreme Court's reasoning blended the jurisprudence contained in *Winters* and *Cappaert* to find: "The 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."[246]

Although "rooted in favorable Supreme Court jurisprudence and conform[ing] to hydrologic reality," the Arizona Supreme Court's conclusion that *Winters* rights extend to groundwater is not likely to stand, according to one commentator, due to "political and doctrinal support confining the scope of reserved rights to surface water."[247] If this commentator is correct and—despite the "modern trend" of recognizing *Winters* rights to groundwater[248]—political pressures are allowed to cloud sound judgment and reasoning, an Indian reservation's claim to a water source that is becoming increasingly important will tragically be cut off.

2. Whether Winters *Rights also Encompass a Right to Water Quality*

Although generally litigated as a right to a certain *quantity* of water, water *quality* in its natural state must certainly be implicit under the *Winters* doctrine.[249] In *Winters*, Justice McKenna pro-

242. Cohen et al., *supra* n. 76, at 1178. **R**

243. *Id.*; *see Big Horn*, 753 P.2d 76, 99 (Wyo. 1988).

244. *Big Horn*, 753 P.2d at 99.

245. *Id.*

246. *In re the Gen. Adjudication of All Rights to Use Water in the Gila River Sys. & Source*, 989 P.2d 739, 747–48, 750 (Ariz. 1999), *cert. denied*, 530 U.S. 1250 (2000) [hereinafter *Gila III*]; *see e.g. U.S. v. Wash. Dept. of Ecology*, No. C01-0047Z, slip op. at 12–13 (W.D. Wash. May 20, 2005); *Confederated Salish & Kootenai Tribes of the Flathead Reservation v. Stults*, 59 P.3d 1093, 1099 (Mont. 2002).

247. Shoesteck, *supra* n. 221, at 368. **R**

248. Cohen et al., *supra* n. 76, at 1178. **R**

249. Royster, *supra* n. 112, at 85; Cohen et al., *supra* n. 76, at 1199–1201. **R**

vided a statement of the case prior to his majority opinion.[250] Within this statement, Justice McKenna recognized the assertion that "it is essential and necessary that all of the waters of the river flow down the channel uninterruptedly and undiminished in quantity and *undeteriorated in quality*."[251]

The *Winters* Court went on to hold that Indian reservations are entitled to a reserved amount of water in order to fulfill the purposes of the reservation. The Court held that this water was impliedly reserved at the time lands were set aside by the United States for Indian reservations.[252] The reserved water was implied because the statutory agreement between the Fort Belknap tribes and the United States government was silent as to water rights.[253] Like the statutory agreement establishing the Indian reservation, the *Winters* majority opinion was also silent as to whether the implied reserved right to water includes a right to water *quality*.[254]

Does this mean no such right exists? On the contrary, there is only one logical explanation, which this article will refer to as "Indian Reserved Rights to Water, Twice Implied." A right to sufficient water quality must be implied from the *Winters* holding. Indian reserved rights to water are "twice implied" because (1) the *amount* of water was impliedly reserved by the United States upon the establishment of Indian reservations, and (2) it is implicit within the implied reservation doctrine created by the *Winters* Court that those reserved waters be of a sufficient *quality* to fulfill the purposes of the Indian reservation.

Whether those purposes involve the non-consumptive use of maintaining fisheries or the consumptive uses of "irrigation, livestock watering, and household use," a certain quality of water is absolutely necessary.[255] While the water quality necessary may vary depending on the use,[256] each use clearly demands water

250. *Winters v. U.S.*, 207 U.S. 564, 565–73 (1908).

251. *Id.* at 567 (emphasis added).

252. *Id.* at 576–78.

253. Cohen et al., *supra* n. 76, at 1172. **R**

254. Water quality was not at issue in *Winters*. The water from the Milk River was not being polluted, it was being diverted. It is reasonable to conclude that if the Milk River had been polluted or otherwise contaminated by the upstream appropriators, *Winters* would have expressly stood for a reserved right to both a certain quantity and quality of the water.

255. *Id.* at 1200.

256. *Id.* (explaining that human consumption would demand a high quality of water; fish and wildlife habit preservation could use water of lesser quality; and irrigation would be possible with an even lower quality of water).

that is "clean enough to support that use."[257] The *Winters* doctrine would not be satisfied if the reserved water provided to the reservation to fulfill its purposes was polluted or otherwise unusable or unnatural.

Alternatively, if there is no right to water quality under the *Winters* doctrine, then tribes must simultaneously seek water quality protection under the applicable federal environmental statutes while pursuing their other *Winters* rights. Under these statutes, tribes may gain "program authorization for the environmental programs mandated under the acts" in order to assert concerns related to water quality of the reservation.[258] The Clean Water Act (CWA), for example, states a shared objective of the States and the Federal Government "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[259] In 1987, the Congress amended the CWA to "extend this cooperative federalism framework to include Indian tribes."[260] This amendment provides that upon application and approval by the Environmental Protection Agency (EPA), an Indian tribe may receive a "Treatment as State" (TAS) designation.[261] Once a tribe is granted TAS status by the EPA, it "will have the same regulatory opportunities as a state under the CWA."[262] To date, however, only thirty tribes have earned TAS status, and thus manage approved water quality standards under the CWA.[263] The programs available under the federal environmental statutes are "not available to all tribes and do not cover all water resources."[264]

Since TAS status is not automatic, a *Winters* right to water quality "would provide tribes with an additional and important means of ensuring clean water resources in Indian country."[265] With increasing numbers of water disputes entering into negotiated settlements, a *Winters* right to water quality would serve as a

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257. *Id.*

258. Royster, *supra* n. 112, at 85 n. 142. **R**

259. 33 U.S.C. § 1251(a) (2006).

260. Paul M. Drucker, Wisconsin v. EPA*: Tribal Empowerment and State Powerlessness under § 518(E) of the Clean Water Act*, 5 U. Denver Water L. Rev. 323, 340 (2002).

261. *Id.*

262. *Id.* at 341.

263. EPA, *Tribal Water Quality Standards*, http://www.epa.gov/waterscience/standards/wqslibrary/tribes.html (accessed Mar. 21, 2008); *see also* William H. Rodgers, *Treatment as Tribe, Treatment as State: The Penobscot Indians and the Clean Water Act*, 55 Ala. L. Rev. 815, 825 (2004). As of 2003, only 23 tribes had TAS status with "[s]everal more tribes . . . in various stages of the delegation process." *Id.* at 819.

264. Royster, *supra* n. 112, at 85 n. 142. **R**

265. *Id.*

powerful bargaining chip, bolstering tribes' positions in their efforts to protect reservation waters.

IV. Jurisdictional Awareness, Including Where a Tribe May Seek Redress

As previously discussed, the State of Oklahoma is suing several Arkansas poultry companies whose activities are believed to be destroying the waters in the Illinois River Watershed (IRW).[266] The Attorney General of the State of Oklahoma and the Oklahoma Secretary of the Environment filed a federal lawsuit on behalf of Oklahoma to protect the waters.[267] The complaint states that the "State of Oklahoma holds all natural resources . . . within the *political* boundaries of Oklahoma in trust on behalf and for the benefit of the public."[268] It is quite possible that the *political* boundaries of the State of Oklahoma would not include tribal reservations located within Oklahoma's state lines. What can Indian tribes located within the State of Oklahoma do to protect their waters from non-Indian private parties whose activities are polluting the precious waters necessary for the tribe to maintain its health and welfare? Does a tribe have jurisdiction over these parties when they are located not only off reservation, but outside the State where the reservation is located? Does it matter whether the State is already pursuing an action against the polluters? If so, must the tribe join that action? Can they join? Do they want to join? And if the tribe can successfully exert jurisdiction over the polluters, where should the adjudication take place—tribal court, state court, or federal court?

To understand the answers to the above questions, four jurisdictional areas must be explored: (1) the basic characteristics of civil jurisdiction as it relates to Indian Law; (2) the importance of the second exception provided in *Montana v. U.S.*, the CWA, TAS status, and analogous case law; (3) whether jurisdiction lies in tribal, state, or federal court; and (4) objections to jurisdiction defendants could raise in this situation.

A. Civil Jurisdiction: Basic Application to Indian Law

An understanding of Indian Law routinely involves the intellectual juggling of complex legal theory that is hard to get one's

266. *Supra* nn. 48–63 and accompanying text. **R**
267. *Supra* n. 49 and accompanying text. **R**
268. *Supra* n. 56 and accompanying text. **R**

hands around. It may be comforting to note, however, that most "controversies in Indian Law usually have at their core a jurisdictional dispute."[269] If a governmental body possesses jurisdiction, it has the authority "to exercise power over persons or property."[270]

In order to have civil jurisdiction, civil law must "determine if there existed a legal relationship that has been violated, who is to blame for that violation, and how the offender can remedy the loss suffered by the harmed individual."[271] Civil jurisdiction can be divided into two categories: (1) legislative or regulatory jurisdiction; and (2) adjudicative jurisdiction.[272] Legislative or regulatory jurisdiction grants a government the "power to regulate or tax persons or property"[273]—in effect, the authority to "make laws over people and things."[274] For example, legislative or regulatory jurisdiction would "include hunting and fishing laws, *environmental laws*, and zoning laws."[275] On the other hand, adjudicative jurisdiction "concerns the power of a court to decide a case or to impose an order."[276] Determining whether adjudicative jurisdiction exists necessarily depends on an analysis of both subject matter jurisdiction and personal jurisdiction.[277]

Subject matter jurisdiction is "the ability of a court to hear a particular kind of case, either because it involves a particular subject matter or because it is brought by a particular type of plaintiff or against a particular type of defendant."[278] For issues affecting tribes, the determination of subject matter jurisdiction—in tribal, state, or federal courts—typically turns on two issues: "(1)

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269. Canby, *supra* n. 66, at 2 (stating the scope of Indian law reaches "those situations in which a legal outcome is affected by the Indian status of the participants or the subject matter"). R

270. Cohen et al., *supra* n. 76, at 597. R

271. Justin B. Richland & Sarah Deer, *Introduction to Tribal Legal Studies*, 163 (Altamira Press 2004).

272. *Id.*; Canby, *supra* n. 66, at 124; Cohen et al., *supra* n. 76, at 597. R

273. Cohen et al., *supra* n. 76, at 597 (stating "[t]he scope of legislative jurisdiction is determined by a variety of sources of law, including treaties, constitutions, statutes, and regulations"). R

274. Richland & Deer, *supra* n. 271, at 164 (emphasis omitted). R

275. *Id.* (emphasis added). "Congress and administrative agencies like the [EPA] have passed laws and policies authorizing tribes to make laws regulating pollution and polluters within tribal territorial borders." *Id.* Importantly, under these federal environmental laws and policies, "tribes are authorized to set standards *at or above* the standards set by the federal government, but never below, regardless of land-ownership patterns." *Id.* at 185 (emphasis in original).

276. Cohen et al., *supra* n. 76, at 597. R

277. *Id.*

278. *Id.*

whether the parties involved are Indians or, in some applications, tribal members, and (2) whether the events in issue took place in Indian country."[279]

Personal jurisdiction is "the ability of a court to require a particular defendant to defend a lawsuit and be bound by the court's judgment."[280] It is possible for a court to have adjudicative jurisdiction while lacking legislative jurisdiction over the defendant, and, although not as common, it is possible for a court to have legislative jurisdiction but not adjudicative jurisdiction.[281]

Importantly, as to non-Indians or nonmembers, a tribe's assertion of adjudicative jurisdiction "does raise questions of federal law . . . reviewable in federal court."[282] While the Supreme Court has on numerous occasions "suggested that adjudicative and legislative jurisdiction are separate inquiries" for tribal, state, and federal courts, two recent Supreme Court cases have stated, "[a]s to nonmembers, a tribe's adjudicative jurisdiction does not exceed its legislative jurisdiction."[283] Therefore, absent congressional authorization, a tribal court will not have adjudicative jurisdiction over non-Indians or nonmembers if the tribal court does not have legislative jurisdiction.[284] Yet, determining legislative jurisdiction over non-Indians or nonmembers is very difficult, mainly because the terminology employed by the Supreme Court in distinguishing tribal members and nonmembers on one hand, and Indians and non-Indians on the other hand, has not been consistently applied.[285]

B. Montana*'s Second Exception, the CWA, TAS, and Analogous Case Law*

Who has jurisdiction over a non-Indian entity whose activities are polluting the water flowing within a state's boundaries? The state certainly has jurisdiction, as evidenced by the recently filed

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279. Canby, *supra* n. 66, at 125; *see supra* n. 65 (providing the text of 18 U.S.C. § 1151 (2006), defining Indian country). **R**

280. Cohen et al., *supra* n. 76, at 597. **R**

281. *Id.* at 598.

282. *Id.* at 599.

283. *Id.* at 598–99 (quoting *Strate v. A-1 Contractors*, 520 U.S. 438, 453 (1997)); *see also Nev. v. Hicks*, 533 U.S. 353, 357–58 (2001) (relying on the Supreme Court's statement made in *Strate*).

284. Cohen et al., *supra* n. 76, at 600. **R**

285. *Id.* at 600 n. 23.

Oklahoma v. Tyson Foods.[286] But what about the tribes located on reservations within that state? Now enter *Montana*, the CWA, and TAS—along with some helpful court opinions—to shed light on this scenario.

1. Montana v. U.S.

It is clearly established that a tribal government has exclusive jurisdiction over a claim between an Indian and another Indian when the source of the claim arose in Indian country.[287] This exclusive power granting tribes the ability to "make and apply civil law to people and things in its territory is a fundamental part of their inherent sovereign power as nations."[288] Tribal jurisdiction over non-Indians, however, is much less clear, and has been substantially limited by the United States Congress and the Supreme Court over the years.[289]

In 1981, *Montana v. U.S.* severely limited tribal civil jurisdiction over non-Indians.[290] In *Montana*, the Crow Tribe of Montana was attempting to exert its civil regulatory jurisdiction over non-Indians on non-Indian fee land within the reservation.[291] Believing it had the power to do so based on "its purported ownership of the bed of the Big Horn River, on treaties which created its reservation, and on its inherent power as a sovereign," the Crow Tribe enacted a regulation prohibiting nonmembers from hunting and fishing while on any land found within the reservation, including the non-Indian land held by non-Indians in fee simple.[292] The State of Montana asserted that it had that regulatory power, not the Tribe.[293]

When analyzing how far the tribe's inherent sovereignty would extend, the Court borrowed reasoning from its opinion in *U.S. v. Wheeler*.[294] The Court recognized that Indian tribes are

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286. *Okla. ex rel. Edmonson v. Tyson Foods, Inc.* (N.D. Okla. Aug. 19, 2005); *see supra* nn. 48–63 and accompanying text. R

287. Canby, *supra* n. 66, at 225 (providing a useful chart for determining civil jurisdiction involving particular parties and the location of the claim); *see also* Richland & Deer, *supra* n. 271, at 165. R R

288. Richland & Deer, *supra* n. 271, at 165. R

289. *Id.*

290. *Mont. v. U.S.*, 450 U.S. 544, 563–64 (1981).

291. *Id.* at 548–49.

292. *Id.* at 547.

293. *Id.* at 549.

294. *U.S. v. Wheeler*, 435 U.S. 313 (1978) (*superseded by statute*, *U.S. v. Lara*, 541 U.S. 193 (2004)).

"unique aggregations possessing attributes of sovereignty over both their members and their territory,"[295] but noted that certain historical events—such as the Indians' "original incorporation into the United States [and] specific treaties and statutes"—have worked to curtail many of their inherent sovereign powers.[296] The Court in *Montana* further drew from *Wheeler* to explain the areas of sovereignty that have been divested, and those inherent powers that remain:

> The areas in which such implicit divestiture of sovereignty has been held to have occurred are those involving *the relations between an Indian tribe and nonmembers of the tribe*. . . .
>
> These limitations rest on the fact that the dependent status of Indian tribes within our territorial jurisdiction is necessarily inconsistent with their freedom *independently to determine their external relations*. But the powers of self-government, including the power to prescribe and enforce internal criminal laws, are of a different type. They involve *only the relations among members of a tribe*. Thus, they are not such powers as would necessarily be lost by virtue of a tribe's dependent status.[297]

The Court found that without express congressional delegation, "the inherent sovereign powers of an Indian tribe do not extend to the activities of nonmembers of the tribe."[298] As a result, the Court ruled that the "general principles of retained inherent sovereignty did not authorize the Crow Tribe to" regulate "hunting and fishing by nonmembers of a tribe on lands no longer owned by the tribe."[299]

This holding—viewed as a substantial limitation on tribal civil jurisdiction—did not, however, completely divest tribal power to assert civil jurisdiction over non-Indians. Importantly, the Court in *Montana* carved out two exceptions[300] that would enable tribes to "retain inherent sovereign power to exercise some forms of civil jurisdiction over non-Indians on their reservations, even on non-Indian fee lands."[301] The first exception turns on whether the non-Indian has entered into "consensual relations" with the tribe (most notably in the form of business contracts, commercial trans-

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295. *Mont.*, 450 U.S. at 563 (quoting *Wheeler*, 435 U.S. at 323 (internal quotations omitted)).

296. *Id.*

297. *Id.* at 564 (quoting *Wheeler*, 435 U.S. at 326 (emphasis added; internal quotations omitted)).

298. *Id.* at 565.

299. *Id.* at 564–65.

300. *See e.g. Nord v. Kelly*, 474 F. Supp. 2d 1088, 1093 (D. Minn. 2007) (referring to these exceptions as the "*Montana* exceptions").

301. *Mont*., 450 U.S. at 565.

actions, and leases), and does not apply to the scenario posed by this article.[302] The second exception, however, is of extreme importance to the issue at hand. This exception, the "direct effects" test, allows a tribe to "retain inherent power to exercise civil authority over the conduct of non-Indians on fee lands within its reservation when that conduct threatens or has some direct effect on the political integrity, the economic security, *or* the health and welfare of the tribe."[303] Under the "direct effects" test, this inherent power of tribal civil jurisdiction will be evident if *any* of the three factors—political integrity, economic security, or health or welfare—is threatened or directly affected.[304] A strong argument can be made that a non-Indian individual or entity whose activities are polluting the tribe's water supply will not only threaten, but have some direct effect on the political integrity and the economic security of the tribe. But an even stronger argument under the "direct effects" test is that contamination of the tribe's waters will have a "serious and substantial effect" on the health and welfare of the tribe.[305]

In *Montana*, however, the non-Indians involved were located *within* the reservation's borders. How can *Montana*'s second exception extend to confer the tribe with personal jurisdiction over a non-Indian entity situated off the reservation? Cohen's *Handbook of Federal Indian Law* suggests "a non-Indian defendant whose conduct threatens or directly affects tribal interests within the meaning of *Montana*'s second exception, is very likely to have minimum contacts with the forum sufficient to justify the tribal court's personal jurisdiction."[306]

Therefore, the tribal government would have neither regulatory nor adjudicative jurisdiction over off-reservation, non-Indian polluters when that polluted water is located outside the boundaries of the reservation. But as soon as that polluted water flows

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302. *Id.* (stating under the first exception "[a] tribe may regulate, through taxation, licensing, or other means, the activities of nonmembers who enter consensual relationships with the tribe or its members, through commercial dealing, contracts, leases, or other arrangements"); *see also* Richland & Deer, *supra* n. 271, at 166. **R**

303. *Mont*., 450 U.S. at 566 (emphasis added).

304. *Id.*

305. *See Brendale v. Confederated Tribes & Bands of the Yakima Nation*, 492 U.S. 408, 431 (1989) (modifying the second exception under *Montana*, requiring that the regulated activity's effect be "demonstrably serious" before a tribe's inherent sovereign authority applied); *see also* Drucker, *supra* n. 260, at 352 (explaining that to reflect the jurisprudence found in *Montana* and *Brendale*, the EPA will "require a showing that the potential impacts of regulated activities on the tribe are *serious and substantial*" (emphasis added)). **R**

306. Cohen et al., *supra* n. 76, at 605. **R**

into the reservation and threatens or directly affects the health or welfare of the tribe, civil jurisdiction over the off-reservation, non-Indian polluters would attach.

2. The Clean Water Act and a Tribe's Treatment as a State

But for the two exceptions carved out of the majority opinion, *Montana* (as well as other Supreme Court cases in this area) drastically undercuts Indian sovereignty by limiting tribal powers of civil jurisdiction over non-Indians. Paradoxically, and fortunately for Indian tribes, the federal government has also enhanced this power through certain federal environmental laws like the Clean Water Act (CWA), which have been amended to give tribes "Treatment as State" (TAS) status. The CWA's objective is "restoration and maintenance of chemical, physical, and biological integrity of the Nation's waters."[307] The CWA has been described by the Supreme Court as "an all encompassing program of water pollution regulation . . . [whose] major purpose . . . was to establish a comprehensive long range policy for the elimination of water pollution."[308] The CWA lists two national goals and five national policies to reach its objective, including: (1) eliminating the discharge of pollutants into navigable waters; (2) ensuring water quality that "provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water"; and (3) prohibiting "the discharge of toxic pollutants in toxic amounts."[309]

Water quality under the CWA is determined using two different measures. The first uses "effluent limitations guidelines," which are "uniform, technology-based standards promulgated by the EPA, which restrict the quantities, rates and concentrations of specified substances discharged from point sources."[310] The National Pollutant Discharge Elimination System (NPDES) falls under this measure. The NPDES requires that "a permit be obtained before any 'point source' may discharge pollutants into navigable waters."[311] The second measure uses "water quality stand-

307. 33 U.S.C. § 1251(a) (2006).

308. Drucker, *supra* n. 260, at 326 (quoting *City of Milwaukee v. Ill.*, 451 U.S. 304, 318 (1981) (internal citations omitted; brackets in original)). R

309. 33 U.S.C. § 1251(a).

310. Drucker, *supra* n. 260, at 327 (quoting *City of Albuquerque v. Browner*, 97 F.3d 415, 419 n. 4 (10th Cir. 1996)). R

311. Royster & Blumm, *supra* n. 23, at 228; 33 U.S.C. § 1362(14) (2000) (defining "point source" as "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, R

ards" that "are not based on pollution control technologies, but express the desired condition or use of a particular waterway."[312] The second measure supplements the first "so that numerous point sources, despite individual compliance with the effluent limitations, may be further regulated to prevent water quality from falling below acceptable levels."[313] Practically "all water pollution control under the CWA" derives from these two measures.[314]

A framework of cooperative federalism exists under the CWA, giving states the option of allowing the federal government to regulate the waters located within the states' boundaries pursuant to the standards set forth by the EPA, or choosing to self-regulate, subject to federal approval.[315] Most states have chosen to self-regulate and, "in addition to setting water quality standards as required by the CWA, have availed themselves of the opportunity to administer their own NPDES programs."[316] This system of cooperative federalism allows the EPA-approved and self-regulating states to set water quality standards that meet or exceed the federal standards.[317]

In 1987, the CWA was amended to treat certain Indian tribes as states, or give them TAS status.[318] To receive TAS status under the CWA, an Indian tribe must prove it is

> federally recognized, has a government that exercises substantial governmental powers, is reasonably capable of carrying out the program for which it seeks TAS, and the functions that it will exercise pertain to water resources held by the tribe, held by the United States in trust for the tribe or its members, or "otherwise within the borders of an Indian reservation."[319]

When TAS status is conferred upon a tribe, it will have (as "treatment as states" suggests) the "same regulatory opportunities as a state under the CWA."[320] Like states, Indian tribes with TAS status have the ability to set water quality standards that exceed those mandated by the federal government. One commentator

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concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural storm water discharges and return flows from irrigated agriculture." (emphasis added)).

312. Drucker, *supra* n. 260, at 327 (quoting *Browner*, 97 F.3d at 419 n. 4). **R**

313. *Id.* (quoting *Browner*, 97 F.3d at 419).

314. *Id.* at 328.

315. *Id.* at 340 (noting that "all but six states have EPA approved NPDES programs").

316. *Id.*

317. 33 U.S.C. § 1370 (2006).

318. *Id.* at § 1377(e).

319. Cohen et al., *supra* n. 76, at 784 (quoting 33 U.S.C. § 1377(e)). **R**

320. Drucker, *supra* n. 260, at 341. **R**

notes that "[i]t is generally recognized that not only do Indian tribes commonly adopt water quality standards requiring more stringent effluent limitations than federally required, but also tribal water quality standards are usually more restrictive than even the state standards in which the reservations are located."[321] The magnitude of a tribe's ability to set water quality standards cannot be understated. For example, "a downstream TAS tribe's water quality standards may, in effect, bar upstream activity subject to federal licenses or permits."[322]

An Indian tribe's TAS status under the CWA should not be understood as an alternative to meeting *Montana*'s second exception discussed above. Satisfying *Montana*'s second exception is a necessary component, and probably outcome-determinative, for tribes seeking environmental protection and regulatory authority under the CWA. The EPA has determined that a tribe must "have inherent authority over the waters it desire[s] to regulate" in order to receive TAS status under the CWA.[323] The EPA has incorporated *Montana*'s second exception into this determination. A tribe's satisfaction of *Montana*'s second exception will demonstrate its inherent authority over the waters. A tribe's inherent sovereignty "is particularly relevant to the protection and enhancement of the natural resources on which many tribes depend for economic subsistence and cultural continuity. Water is perhaps the most fundamental of such resources."[324] In fact, the EPA presumes that pollutants entering its water supply will have a serious and substantial impact on the health and welfare of the tribe, and the tribe, therefore, "possess[es] the authority to regulate activities affecting water quality on the reservation."[325] This

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321. *Id.* at 342.

322. *Id.* at 343.

323. *Id.* at 355.

324. *Id.* at 349–50 (quoting Edmund J. Goodman, *Indian Tribal Sovereignty and Water Resources: Watersheds, Ecosystems, and Tribal Co-Management*, 20 J. Land, Resources, & Envtl. L. 185, 191–92 (2000)).

325. *Id.* at 356. The EPA's reasons for this presumption are found in the EPA's generalized findings regarding the relationship of water quality to tribal health and welfare:

> (1) the Agency has special expertise in recognizing that clean water . . . is absolutely crucial to the survival of many Indian reservations; (2) the enactment of CWA itself constitutes a legislative finding that activities which affect water quality may have serious and substantial impacts; (3) the mobile nature of pollutants may cause serious and substantial impacts even if they do not originate on Indian owned lands; (4) Congress expressed a preference for tribal regulation of reservation water quality; and (5) water quality management protects public health and safety, and therefore, is critical to self-government.

Id. (internal emphasis and quotation marks omitted).

presumption allows a tribe seeking TAS status to satisfy *Montana*'s second exception rather easily.

While it is believed that "any opposition by a state to the grant of TAS status is futile,"[326] a recent Oklahoma legislative rider drastically limited the ability of tribes in Oklahoma to gain TAS status from the EPA.[327] Due to this rider, Oklahoma tribes must now get approval from the state if they want to "administer their own environmental regulation programs."[328] The rider "requires tribes to obtain a 'cooperative agreement' with the state before administering water or air quality programs."[329] Notably, no other state requires tribes to obtain a cooperative agreement before gaining TAS status.[330] The CWA provides that "an Indian tribe and the State or States in which the lands of such tribe are located *may* enter into a cooperative agreement, subject to the review and approval of the [EPA], to jointly plan and administer the requirements [of the CWA]."[331] Whether Oklahoma can unilaterally require tribes located in the state to obtain cooperative agreements is beyond the scope of this article. It is clear, however, that once tribes obtain TAS status under the CWA, the "water quality standards set by tribes for waters within their reservation boundaries will have impacts on water use outside reservation boundaries."[332]

3. Court Treatment: Tribes' Jurisdiction over Their Waters

For tribes and their reservations, water is likely to be the most fundamental natural resource.[333] Since water systems often cross political boundaries, many jurisdictional questions arise, and "tribal authority over rivers and other transboundary waterways [has been] and remains one of the most hotly contested areas."[334] Emerging from the flames of this fire is the important

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326. *Id.* at 393.

327. Indianz.Com, *Bill Limits Treatment as State for Oklahoma Tribes* (Aug. 1, 2005), http://www.indianz.com/News/2005/009569.asp [hereinafter *Bill Limits TAS for Tribes*] (explaining the rider was "tucked into [a] $286.5 billion highway transportation bill that passed the House and Senate").

328. *Safe, Accountable, Flexible, Efficient Transportation Equity Act*, Pub. L. No. 109-59, § 10211 (2005) [hereinafter *SAFETEA*]; *Bill Limits TAS for Tribes*, *supra* n. 327. **R**

329. *SAFETEA*, Pub. L. No. 109-59, § 10211; *Bill Limits TAS for Tribes*, *supra* n. 327. **R**

330. *Bill Limits TAS for Tribes*, *supra* n. 327. **R**

331. 33 U.S.C. § 1377(d) (2006) (emphasis added).

332. Goodman, *supra* n. 324, at 213.

333. *Id.* at 192.

334. *Id.* at 185–86.

concept that when a tribe's "sovereign authority is exercised to protect the health and welfare of Indian people and the natural resources upon which such health and welfare depends . . . [that authority] is not strictly circumscribed by traditional notions of sovereign territoriality."[335] A non-Indian entity whose off-reservation activities threaten or directly impair a tribe's water supply will undoubtedly trigger *Montana*'s second exception, the "direct effects" test, which in turn grants the tribe civil jurisdiction over that entity.

The importance of the "direct effects" test is made further evident when a tribe submits the required application to obtain TAS status under the CWA. For instance, a showing by the tribe that *Montana*'s second exception is satisfied is inherent in the EPA's analysis of the application. The EPA presumes that *Montana*'s second exception will apply to a tribe protecting its waters.[336] Once TAS status is established, there is no doubt as to a tribe's civil jurisdiction over entities polluting its waters due to the regulatory powers CWA confers upon the tribe. When jurisdiction is challenged, tribes that have obtained TAS status will have a stronger position than tribes that have not obtained TAS status, because obtaining that status includes a determination that *Montana*'s second exception has been satisfied. The three cases below demonstrate the importance of TAS status to tribes protecting their waters.

First, in *City of Albuquerque v. Browner*,[337] Albuquerque challenged the EPA's approval of the Isleta Pueblo tribe's water quality standards that were not only more stringent than the federal mandates, but more stringent than the standards set by the State of New Mexico.[338] Albuquerque also argued that the tribe did not have the authority to enforce its standards with regard to "upstream point source dischargers outside of tribal boundaries."[339] The Isleta Pueblo tribe sits five miles downstream from where Albuquerque dumps 55 million gallons of wastewater each day.[340] The tribe had obtained TAS status under the CWA and

335. *Id.* at 186.

336. *Supra* n. 325 and accompanying text. **R**

337. *City of Albuquerque v. Browner*, 97 F.3d 415 (10th Cir. 1996).

338. *Id.* at 421.

339. *Id.* at 423.

340. *Id*. at 419; Jason Lenderman, *A Tiny Tribe Wins Big on Clean Water*, High Country News (Feb. 2, 1998) (available at http://www.hcn.org/servlets/hcn.URLRemapper?date=/1998/feb02/dir/Western_A_tiny_tri.html).

adopted water quality standards to protect its waters.[341] The court upheld the EPA's approval of the Isleta Pueblo water quality standards, holding that "tribes may establish water quality standards that are more stringent than those imposed by the federal government."[342] The court supported the EPA's interpretation and application of the TAS provision under the CWA "because it is in accord with powers inherent in Indian tribal sovereignty."[343] Furthermore, in addressing whether the tribe could enforce its water quality standards against upstream point source dischargers, the court held that "tribes are not applying or enforcing their water quality standards beyond reservation boundaries."[344] The court noted instead that the CWA is a "comprehensive regulatory scheme" and the "EPA has the authority to require upstream NPDES dischargers . . . to comply with downstream tribal standards."[345]

Second, in *Montana v. EPA*,[346] the court upheld the EPA's approval and implementation of water quality standards adopted by two tribes located on the Flathead Indian Reservation in Montana.[347] In the tribes' application for TAS status, "the Tribes identified several facilities on fee lands within the Reservation that have the potential to impair water quality and beneficial uses of tribal waters . . . includ[ing] *feedlots*, *dairies*, mine tailings, auto wrecking yards and dumps, construction activities and landfills."[348] The tribes also identified "[o]ther actual or potential point sources includ[ing] wastewater treatment facilities, commercial fish ponds and hatcheries, *slaughterhouses*, hydroelectric facilities and wood processing plants."[349] The State of Montana, along with private individuals owning land within the reservation, argued that the "EPA got the scope of inherent authority wrong, and that the Tribes should be able to engage in nonconsensual regulation of non-tribal entities only when all state or federal remedies to alleviate threats to the welfare of the tribe have been exhausted and have proved fruitless."[350] The court rejected this

341. *City of Albuquerque*, 97 F.3d at 419.
342. *Id*. at 423.
343. *Id.*
344. *Id.* at 424.
345. *Id.*
346. *Mont. v. EPA*, 137 F.3d 1135 (9th Cir. 1998).
347. *Id.* at 1141.
348. *Id.* at 1139–40 (emphasis added).
349. *Id.* at 1140 (emphasis added).
350. *Id.*

argument and upheld the EPA's determination that "activities of the non-members posed such serious and substantial threats to Tribal health and welfare that Tribal regulation was essential."[351] Relying on a former Ninth Circuit opinion, the court reasoned that "threats to water rights may invoke inherent tribal authority over non-Indians."[352]

Third, and most applicable to the scenario posed by this article, *Wisconsin v. EPA*[353] stands for the proposition that a tribe's power to regulate water quality on the reservation is proper even if it means extending that authority to off-reservation activities.[354] In *Wisconsin*, the State of Wisconsin argued that the tribe had no inherent authority over off-reservation activities.[355] Under the CWA, "the EPA requires tribes to show that they already possessed inherent authority over the activities undoubtedly affected by the water regulations."[356] Tribes may prove their inherent authority upon a showing that the impacted water of the reservation affects " 'the political integrity, the economic security, or the health or welfare of the tribe.' "[357] This regulatory language, of course, directly follows the language espoused by the Supreme Court when establishing *Montana*'s second exception.[358] Furthermore, the Supreme Court noted in *Wisconsin* that a tribe's authority attaches because " 'water quality management serves the purpose of protecting public health and safety, which is a core governmental function, whose exercise is critical to self-government.' "[359] The court in *Wisconsin* found that when a tribe obtains TAS status, "it has the power to require upstream off-reservation dischargers, conducting activities that may be economically valuable to the state . . . to make sure that their activities do not result in contamination of the downstream on-reservation waters."[360] The court recognized that this may impose higher costs on the up-

351. *Id.* at 1141.

352. *Id.* (citing *Colville Confederated Tribes v. Walton*, 647 F.2d 42, 52 (9th Cir. 1981) ("A tribe retains the inherent power to exercise civil authority over the conduct of non-Indians on fee lands within its reservation when that conduct threatens or has some direct effect on the health and welfare of the tribe. This includes conduct that involves the tribe's water rights.")).

353. *Wis. v. EPA*, 266 F.3d 741 (7th Cir. 2001).

354. *Id.* at 750.

355. *Id.* at 748.

356. *Id.*

357. *Id.* (quoting 56 Fed. Reg. 64876, 64877 (Dec. 12, 1991)).

358. *Mont. v. U.S.*, 450 U.S. 544, 565 (1981).

359. *Wis.*, 266 F.3d at 748 (quoting 56 Fed. Reg. 64879 (Dec. 12, 1991)).

360. *Id*.

stream dischargers, and may even require the activities to cease altogether.[361] The court posed a hypothetical situation involving a transboundary water dispute between the State of Wisconsin and the downstream regulator, the State of Illinois.[362] In that situation, the court noted that "the need for the two states to coordinate their standards, or for the upstream company to comply with the more stringent rules, would be clear."[363] Once a tribe has TAS status, it has the same right afforded to other states "to object to permits issued for upstream off-reservation activities."[364] The court upheld the EPA's determination "that, since the Supreme Court has held that a tribe has inherent authority over activities having a serious effect on the health of the tribe, this authority is not defeated even if it exerts some regulatory force on off-reservation activities."[365] Because the EPA has a supervisory role, "[t]he tribe cannot impose any water quality standards or take any action that goes beyond the federal statute or the EPA's power."[366] Finding that the EPA acted properly under the CWA and *Montana* jurisprudence in allowing "the tribe to regulate water quality on the reservation, even though that power entails some authority over off-reservation activities," the court concluded with this remark:

> Since a state has the power to require upstream states to comply with its water quality standards, to interpret the statutes to deny that power to the tribes because of some kind of formal view of authority or sovereignty would treat the tribes as second-class citizens. Nothing in § 1377(e) indicates that Congress authorized any such hierarchy.[367]

C. Tribal, State, or Federal Court

If a tribe is seeking legal redress because its waters are being polluted by a non-Indian entity whose activities occur outside the boundaries of its reservation, where should the litigation occur? The answer is not limited to any individual court system, but spans all three: tribal, state, and federal court.

A tribe may certainly choose to litigate the matter in tribal court. According to the Supreme Court, "a tribe's adjudicative ju-

361. *Id.*
362. *Id.*
363. *Id.*
364. *Id.* at 749.
365. *Wis.*, 266 F.3d at 749.
366. *Id.*
367. *Id.* at 750.

risdiction does not exceed its legislative jurisdiction."[368] As previously discussed, impairment of a tribe's water supply directly affects the health or welfare of a tribe, triggering *Montana*'s second exception. *Montana*'s second exception grants tribes civil jurisdiction to regulate the conduct that is threatening or directly affecting the health or welfare of the tribe. Furthermore, tribes that have obtained TAS status under the CWA have an even stronger position because the application process essentially requires that tribes satisfy *Montana*'s second exception before obtaining TAS status. Once TAS status is obtained, the tribe has authority to regulate the reservation's water quality, even if it imposes regulatory authority on upstream off-reservation entities, backed by federal approval.

Once in tribal court, the non-Indian defendant must, pursuant to the "exhaustion doctrine," exhaust all available tribal remedies.[369] In fact, "[e]ven when a federal court has jurisdiction over a claim involving Indians, if the claim arises in Indian country, the court generally will be required to stay its hand until the plaintiff exhausts available tribal remedies."[370] This principle has been extended by the Ninth Circuit to "diversity cases involving Indian plaintiffs and non-Indian defendants."[371] The Ninth Cir-

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368. *Strate v. A-1 Contractors*, 520 U.S. 483, 453 (1997). For a discussion on a tribe's civil jurisdiction, including its legislative jurisdiction and adjudicative jurisdiction, consult *supra* notes 269–285 and accompanying text. **R**

369. *See generally* Melissa L. Koehn [Tatum], *Civil Jurisdiction: The Boundaries between Federal and Tribal Courts*, 29 Ariz. St. L.J. 705 (1997) (providing a thorough treatment of the "exhaustion doctrine"). Professor Koehn [Tatum] offers the following propositions on the exhaustion doctrine:

1) a court may raise the issue of exhaustion sua sponte;
2) a court should not allow anyone other than the tribe to waive the exhaustion requirement (this authority can, of course, be delegated to a tribally owned business or to certain tribal officials);
3) exhaustion should be required regardless of whether an action is concurrently pending in tribal court;
4) exhaustion should be required whenever tribal authority is challenged, regardless of whether the challenge is to tribal judicial or legislative jurisdiction;
5) exhaustion should be required not only when a case "arises in" Indian Country, but also whenever a tribe, a tribally-owned business, a tribal employee, or a tribal member is a party to the litigation;
6) if none of the parties are Indian, then exhaustion is not appropriate unless the defendant can make a colorable argument as to why the case satisfies the *Montana* test;
7) the "bad faith" and "patently violative" exceptions should be eliminated; and
8) exhaustion should be deemed futile only if no tribal forum exists.

Id. at 762–63.

370. Cohen et al., *supra* n. 76, at 630. **R**

371. *Id.* (citing *Wellman v. Chevron, U.S.A., Inc.*, 815 F.2d 577 (9th Cir. 1987)).

cuit continues to require "exhaustion in all cases relating to tribal affairs, including those that arise off-reservation and outside Indian country, even if no tribal court proceedings are pending, as long as there is a colorable argument that the tribal court has jurisdiction over the case."[372] Therefore, applying this principle to the scenario posed by this article, the non-Indian defendants would have to exhaust all tribal court remedies before taking the matter to the federal or state courts. Moreover, most non-Indian entities who find themselves subject to a tribe's higher water quality standards will challenge the authority of the tribe. When tribal authority is challenged, whether legislative or adjudicative, exhaustion of all tribal court remedies is required.[373] Those defendants would be obligated to do so even if diversity exists between the Indian plaintiff and the non-Indian defendants. On the other hand, upon proper motion to the court, the Indian tribe could opt to move the matter to another court system before all tribal court remedies are exhausted.[374]

At first blush, it seems obvious that the federal court system would have jurisdiction over any federal Indian issue. Federal court jurisdiction, however, only exists if authority is granted "both by constitutional requirements and by federal statute."[375] A determination of a tribe's water rights is a federal question, and falls under 28 U.S.C. § 1331. Section 1331 grants the federal court system jurisdiction over actions "arising under the Constitution, *laws*, or *treaties* of the United States."[376] As such, federal question jurisdiction applies "because of the large number of federal laws and treaties concerning Indian matters."[377] A tribe's *Winters* rights certainly invoke a federal question because *Winters* rights are not governed by state substantive law but "are creatures of federal law, which defines their extent."[378] Tribes that have obtained TAS status under the CWA are granted regulatory authority to regulate water quality through federal law.[379]

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372. *Id.* (citing *Stock W. Corp. v. Taylor*, 964 F.2d 912, 919–20 (9th Cir. 1992); *Burlington N. R.R. v. Crow Tribal Council*, 940 F.2d 1239, 1246 (9th Cir. 1991)).

373. Koehn, *supra* n. 369, at 762. **R**

374. *Id.*

375. Cohen et al., *supra* n. 76, at 610. **R**

376. 28 U.S.C. § 1331 (2006) (emphasis added).

377. Cohen et al., *supra* n. 76, at 611. **R**

378. Canby, *supra* n. 66, at 431. **R**

379. *Mont. v. EPA*, 137 F.3d 1135, 1138 (9th Cir. 1998) (citing 33 U.S.C. § 1377(e) (1986)).

Furthermore, "28 U.S.C. § 1362 authorizes federal courts to exercise jurisdiction over 'civil actions, brought *by any Indian tribe or band with a governing body duly recognized by the Secretary of the Interior*' if 'the matter in controversy arises under the Constitution, laws, or treaties of the United States.' "[380] This statute "does not apply to actions brought against tribes or to actions brought by individual tribal members."[381] Consequently, federal jurisdiction will apply to a tribe who brings an action against off-reservation entities whose conduct is polluting the tribe's water.

The trust relationship between the tribes and the federal government allows the United States to bring federal actions on behalf of tribes.[382] Interestingly, "the United States can properly invoke the original jurisdiction of the Supreme Court on behalf of a tribe" when the tribe is unable to do so itself.[383] The United States becomes the holder of "the legal title to *Winters* rights as trustee for the tribes. It consequently is an indispensable party to any adjudication of those rights."[384]

Despite the above reasons for federal court jurisdiction, the Supreme Court has indicated that when the United States is a party to any adjudication involving the determination of *Winters* rights, the federal courts should abstain in favor of concurrent comprehensive state proceedings.[385] In *Colorado River Water Conservation District v. U.S.*,[386] the "Supreme Court held that the McCarran Amendment rendered the United States, as trustee for Indian water rights, subject to suit in state court."[387] This waiver of the United States' sovereign immunity only occurs "if a state court water rights proceeding is a general *inter sese* water rights

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380. Cohen et al., *supra* n. 76, at 613 (quoting 28 U.S.C. § 1362 (2006)) (emphasis added). R

381. *Id.* (emphasis omitted).

382. *Id.* at 615.

383. *Id.*

384. Canby, *supra* n. 66, at 441. R

385. Cohen et al., *supra* n. 76, at 618. R

386. *Colo. River Water Conserv. Dist. v. U.S.*, 424 U.S. 800 (1976) [hereinafter *Colo. River*].

387. *Id.* at 809 (interpreting the McCarran Amendment, 43 U.S.C. § 666); Canby, *supra* n. 66, at 442. Importantly, the McCarran Amendment only applies to the adjudication of water rights, and will not cause an Indian tribe to pursue its water quality claims against polluting entities in state court. Rather, as to litigation over the water quality, the tribal or federal court systems are the only appropriate avenues. 43 U.S.C. § 666(a) (limiting consent for U.S. to be joined as a party to cases involving the adjudication or administration of water rights); Canby, *supra* n. 66, at 442–45. R R

adjudication of all claimants on the whole hydrologic system at issue."[388]

Despite the federal court's concurrent jurisdiction over the water rights issue, the Supreme Court established "a policy preference that comprehensive water rights adjudication should take place in state courts rather than federal courts."[389] Though technically silent as to federally reserved Indian water rights, the McCarran Amendment's sovereign immunity waiver has been interpreted by the United States Supreme Court as "extend[ing] to the Indian tribes, providing consent to determine in state court federal reserved water rights held on behalf of Indians."[390] For now, future adjudications of *Winters* rights will occur in state court due to the McCarran Amendment, but the "nature and extent of reserved Indian water rights remain matters of federal law."[391] In other words, federal substantive law will govern these state adjudications. The assurance of federal substantive law governing the issue does not comfort most tribes. In fact, "the prospect of state adjudication of their water rights causes great apprehension on the part of Indian tribes."[392] To protect against state court bias, the Supreme Court in *Colorado River* stated "that it stands ready to correct abuses in reserved water rights cases adjudicated in state courts by exercising its certiorari jurisdiction."[393]

Therefore, tribal and federal courts will have jurisdiction over the adjudication of water quality issues, with deference to the exhaustion of all tribal court remedies before pursuing the matter in federal court. The quantification of tribes' *Winters* rights, however, will be adjudicated in state court, but governed by federal substantive law.

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388. Carter, *supra* n. 215, at 379 (noting that "[t]ribal [sovereign] immunity per se is not waived by McCarran, but many Tribes see the value of affirmatively waiving immunity to actively join in the defense of their aboriginal and reserved rights, rather than to leave it to their trustee alone"). **R**

389. *Confederated Salish & Kootenai Tribes v. Clinch*, 158 P.3d 377, 382–83 (Mont. 2007) (citing *Colo. River*, 424 U.S. at 813; *Ariz. v. San Carlos Apache Tribe*, 463 U.S. 545, 572 (1983) ("Although adjudication of those rights in federal court instead might in the abstract be practical, and even wise, it will be neither practical nor wise as long as it creates the possibility of duplicative litigation, tension and controversy between the federal and state forums, hurried and pressured decisionmaking, and confusion over the disposition of property rights.")).

390. *Id.* at 381 (citing *Colo. River*, 424 U.S. at 809).

391. Canby, *supra* n. 66, at 443. **R**

392. *Id.* (Most Indian tribes "believe that the state forum is likely to be unsympathetic to Indian rights, and that the applicability of federal law does not provide great protection against bias.").

393. Cohen et al., *supra* n. 76, at 1210 (referring to *Colo. River*, 424 U.S. at 812–13). **R**

D. Possible Objections to Tribal Jurisdiction

Using the State of Oklahoma's lawsuit against the poultry industry companies as an example, there are some objections the defendants in the current poultry litigation would likely make if sued by an Oklahoma tribe. Following the logic of *Dawavendewa v. Salt River Project*,[394] the defendants may argue that the Indian tribe is an indispensable party to the state's current lawsuit in federal court, requiring compulsory joinder of the tribe.[395] The defendants could then further argue that, if the tribe does not waive its sovereign immunity to join the lawsuit, the case should be dismissed because of the absence of an indispensable party.[396] In *Dawavendewa*, an Indian brought suit in his individual capacity against the Salt River Project for failure to preferentially hire Navajos pursuant to Salt River Project's lease agreement with the Navajo Nation.[397] The tribe was found to be a necessary party to the lawsuit, but could not be joined due to its tribal sovereign immunity.[398] The Court further categorized the tribe as an indispensable party such that " 'in equity and good conscience' " the action should be dismissed in the absence of the tribe.[399] The determination of whether the court should dismiss the action because the tribe was an indispensable party included the balancing of four factors: "(1) the prejudice to any party or to the absent party; (2) whether relief can be shaped to lessen prejudice; (3) whether an adequate remedy, even if not complete, can be awarded without the absent party; and (4) whether there exists an alternative forum."[400]

Indian tribes located within the borders of Oklahoma would not be indispensable parties to the State of Oklahoma's lawsuit against the poultry industry companies. Unlike *Dawavendewa*, there is nothing in the poultry litigation case binding the State of Oklahoma to the interests of the tribes. It is the federal government, and not the individual states, that has a trust relationship with the tribes. Furthermore, an adequate remedy can be awarded to the State of Oklahoma without the tribe's presence in the lawsuit, saving the specific damages sustained by the tribes

394. *Dawavendewa v. Salt River Project*, 276 F.3d 1150 (9th Cir. 2002).
395. *Id.* at 1155–56
396. *Id.* at 1163.
397. *Id.* at 1153.
398. *Id.* at 1161.
399. *Id.* (quoting Fed. R. Civ. P. 19(b)).
400. *Dawavendewa*, 276 F.3d at 1161–62.

for another day. Since a state located downstream from Oklahoma would not be required to join, it logically follows that an Indian tribe would be afforded the same treatment.[401] An Indian tribe should have a separate but equal claim against the non-Indian entities whose conduct is polluting its waters. The Indian tribes, on the other hand, could likely intervene in the lawsuit under Rule 24 of the Federal Rules of Civil Procedure.[402] This permissive intervention would not likely be pursued by the tribe, however, because the tribe's interests in the water may be in conflict with those of the State of Oklahoma.

If the tribe attempts to seek legal redress against the same poultry industry defendants after a final judgment has been issued in the State of Oklahoma's case, the defendants may raise objections relating to claim preclusion (res judicata) or issue preclusion (collateral estoppel). While the essence of a judgment is its finality, the defendants' claim preclusion objection would not be successful. "A valid and final personal judgment is conclusive *between the parties*" to the judgment.[403] Further, this only applies to a final judgment of a matter actually litigated. Since the Indian tribe was not a party to the judgment, claim preclusion will have no effect.

The defendants may assert, however, that issue preclusion must affect nonparties in addition to parties involved in the lawsuit. For an issue to be precluded, the issue must have been "actually litigated," and the determination of the issue must have been "essential to the final judgment."[404] A judgment may only bind a nonparty if there is a special relationship, or "privity," between the person to be bound and the party to the earlier action. No privity exists between the State of Oklahoma and the tribe with respect to the tribe's water supply. As such, an assertion of issue preclusion will also fail.

Yet, in the tribe's hypothetical lawsuit against the polluting defendants, a nonparty—the tribe—may invoke issue preclusion

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401. *See generally Ark. v. Okla.*, 503 U.S. 91, 94–95 (1992) (discussing whether the EPA could require the State of Arkansas to comply with the higher water quality standards imposed by the State of Oklahoma, though no mention of Indians or tribes exists anywhere in the opinion).

402. Fed. R. Civ. P. 24 (providing "[u]pon timely application anyone may be permitted to intervene in an action: (1) when a statute of the United States confers a conditional right to intervene; or (2) when an applicant's claim or defense and the main action have a question of law or fact in common").

403. *Restatement (Second) of Judgments* § 17 (1982) (emphasis added).

404. *Id.* at § 17(3).

against a party to an earlier action, unless the party lacked a full and fair opportunity to litigate the issue in the original action. If Oklahoma is successful in proving that the poultry companies have polluted the waters flowing into Oklahoma, the Indian tribe may be able to preclude that particular issue from being re-litigated.

V. Conclusion

Water is undoubtedly our most vital natural resource. Today, water is constantly being threatened by pollution and the expanding human population. Tribal reservations must do everything within their powers to protect this important but diminishing natural resource. In order to fully protect the tribe's water supply, Indians must understand the intricacies of their federally created reserved rights to water—otherwise known as their *Winters* rights—to obtain a sufficient quantity of water to fulfill the purposes of the reservation. While an argument can be asserted that *Winters* rights include a right to water quality, the importance of obtaining TAS status under the CWA cannot be understated as a superior means of protecting the quality of a reservation's water supply. Tribes without TAS can undoubtedly show that any impairment to the tribe's water source will cause a serious and substantial effect on the health or welfare of the tribe. This showing will trigger *Montana*'s second exception which confers civil jurisdiction upon the tribes, even extending off-reservation over non-Indians. Obtaining TAS status, however, bolsters this important jurisdictional power attributed to inherent tribal sovereignty in that it allows tribes to regulate their water quality, backed by federal approval and authority. While the United States, through its trust relationship with Indian tribes, is morally and legally obligated to ensure that Indian water resources are not squandered, Indian tribes should not sit on idle hands. Indian tribes should actively assert their authority to protect the waters they so desperately need and deserve.