Federal Indian Reserved Water Rights and the No Harm Rule

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I. INTRODUCTION

Most American Indian rights to water trace their origins to 19th century treaty negotiations with the United States.[1] The 1908 Supreme Court case *Winters v. United States* established that the federal statutes and treaties setting aside land for Indian reservations also impliedly reserved sufficient water to fulfill the purpose of those reservations.[2] In the century since *Winters,* the development of a legal doctrine around reserved water rights has centered largely on defining and quantifying the amount of water to which tribes are entitled.[3] With an increasing number of tribes holding quantified water rights, a more recent project (and the broad focus of this Note) seeks to integrate tribal water use within the dominant system of western water law: state prior appropriation doctrine.

Where water is scarce, even a slight change in practice by one water user may affect the availability of water to other users of a common source.[4] One challenge facing tribes holding reserved rights is that they are typically entitled to much more water on paper than they currently use.[5] This might sound like a good problem to have, however, it is fundamentally at odds with state prior appropriation doctrine, under which water rights are created and maintained exclusively through actual water use.[6] This and other key differences between the two water law regimes raise intractable questions of on-the-ground administration in water systems stressed by environment conditions and human development.[7] The open issues are as basic as who will make the

1. *See infra* note 27 and accompanying text.

2. *See* Winters v. United States, 207 U.S. 564, 576 (1908); *see also* FELIX S. COHEN'S HANDBOOK OF FEDERAL INDIAN LAW § 19.02 (Nell Jessup Newton et al. eds., 2012) [hereinafter COHEN'S HANDBOOK].

3. Tribes have pursued quantification of their water rights through both litigation and negotiated settlement.

4. *See infra* Part IV.A.

5. *See infra* Part II.B. Explaining that, unlike with appropriative rights, perfecting a reserved right does not require actual application of the right to water. The distinction is often referenced as one of "wet rights" (a right reflective of actual appropriation of water) versus "paper rights" (a right to use a certain amount of water irrespective of whether the rightsholder is actually using water).

6. *See infra* Part II.A.

7. There have already been a handful of dramatic clashes between federal reserved rights and state prior appropriation doctrine. As discussed in Part IV.B.1 *infra*, they have done

decisions, and what body of law will apply when reserved rights and state water rights are in conflict.

Harold Ranquist, a lawyer in the United States Department of the Interior ("DOI"), issue-spotted some of these key questions in a short paper published in 1972.[8] This Note uses Ranquist's framing of the issues as a jumping-off point to discuss legal developments in tribal water rights administration in the last fifty years. There are surprisingly few, but two are worthy of attention. First, though administration of tribal rights poses a federal question, for a variety of practical and political reasons the modern trend in the negotiated settlement of reserved rights has been to expressly subject tribal water uses to state administration.[9] The second development is a federal case, *United States v. Orr Water Ditch*,[10] which adopted a useful framework for approaching injury to state water users resulting from a tribe's change in use of its water.

Part II starts with a brief history of the prior appropriation doctrine, then reviews the reserved rights doctrine and the tension in integrating distinct property rights to a common resource. Reserved rights reflect a concept of water acquisition and ownership wholly at odds with prior appropriation doctrine, yet both rights claim a common resource. Part II also discusses how water rights disputes involving tribal rights are resolved, historically through general stream adjudications, and increasingly through negotiated settlement.

Part III addresses potential limitations on the *nature* of tribal water use. Once the basis and measure of the right is established, what flexibility do tribes have to apply the right to various end uses? This Part summarizes scholarship and case law in general agreement (with some notable exceptions) that a tribal reserved right, once quantified, is not restricted to an antiquated agrarian vision of reservations, but can be flexibly applied to contemporary livelihoods and economic development opportunities. Establishing that reserved rightsholders can change the nature of their water use is prerequisite to exploring limitations based on changes to the *character* of use, including the timing and location of diversion from

more to highlight rather than resolve the challenging questions around integrating tribal reserved rights within state law water systems.

8. *See infra* note 65 and accompanying text.

9. *See infra* Part II.C.

10. *See infra* Part IV.B.1.

the source, as well as consumptive use, return flow, and other variables.[11]

Part IV gets to the heart of the question: if a tribe changes the end use of its water right, and consequently affects the rights of other federal or private users in the same system, how will those impacts be adjudicated, according to what law, and by whom? Changing the nature of water use, for instance, from irrigated agriculture to municipal use, may change the amount of water consumed as well as the place, timing and other characteristics of the water right. Any clear answer under controlling federal law is elusive, but might theoretically rest in judge-made law or a legislative solution.

The path of least resistance for state water administrators would be simply to apply state substantive and procedural water law to reserved rights. Part IV addresses how many negotiated settlement agreements quantifying tribes' reserved water rights provide that tribal water use will be administered pursuant to state law. This is not mandated by federal common law, but in ratifying these settlement agreements Congress is creating piecemeal federal authority for application of state law to reserved rights. Also, establishing which body of law applies nonetheless leaves many open questions regarding administration of the unique attributes of reserved rights. Building off the federal district court's reasoning in *Orr Ditch*, this Note concludes that where tribal change in water use is subject to state law, courts should be reluctant to find injury to a state water user until the tribe has exercised the full extent of its water right.

II. BACKGROUND

This Part discusses critical water law basics. It opens with a brief history of the prior appropriation doctrine in western states—the origin of most rights to use surface water in that region. It goes on to discuss the unique characteristics of tribal reserved rights and the serious tensions that arise where both tribal and state appropriative water rightsholders have claims to water from a common source.

11. *See infra* notes 94–95 and accompanying text.

A. Prior Appropriation Doctrine

In western states, water is generally a public resource for all to use, subject to governmental regulation.[12] Though there is considerable variation in specific regulatory approaches, there is a group of western states that consistently follows some form of the "prior appropriation" doctrine,[13] which developed to deal with arid conditions unfamiliar to the common law of England and the moist climate of the eastern states.[14] The basic principle of prior appropriation is that someone may acquire an exclusive right to use a specific quantity of surface water by applying it to a beneficial use.[15] This right does not constitute ownership of the "corpus" of the water, but rather an intangible right to the flow and use of the water.[16]

Another key principle of prior appropriation is that first-in-time is generally first-in-right.[17] This principle arose in California during the mid-nineteenth century gold rush, where custom dictated that putting water to beneficial use established a priority over those seeking access to the same water source at a later time.[18] In periods of shortage, priority among confirmed rights is determined according to the date of initial diversion, or the "priority date." The older the priority date, the closer a user is to the proverbial front of the line for access to surface water. When there is not

12. Robert T. Anderson, *Water Rights, Water Quality, and Regulatory Jurisdiction in Indian Country*, 34 STANFORD ENVTL. L.J. 195, 203 (2015).

13. These states are Alaska, Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington and Wyoming. *See* AMY KELLY, WATERS AND WATER RIGHTS § 12.02(d) (3d ed. 2018).

14. Most water rights are managed according to one of two state defined systems: the riparian doctrine or the prior appropriation doctrine. Riparian rights require a relationship between the source of water and the locus of use, which appropriative rights do not. *See* A. DAN TARLOCK, LAW OF WATER RIGHTS AND RESOURCES § 5:30 (2017) [hereinafter WATER RIGHTS AND RESOURCES].

15. A typical provision of state law reads: "Beneficial use shall be the basis, the measure and the limit of the right to the use of water." *See e.g.*, N.M. CONST. art. XVI, § 3; NEV. REV. STAT. § 533.035 (2017).

16. WATER RIGHTS AND RESOURCES, *supra* note 14, § 5:14; *see also* Joyce Livestock Co. v. United States, 156 P.3d 502, 508 (2007); Samuel C. Wiel, *Origin and Comparative Development of the Law of Water Courses in the Common Law and in the Civil Law*, 6 CAL. L. REV. 245, 254 (1918).

17. WATER RIGHTS AND RESOURCES, *supra* note 14, § 5:31.

18. *See* Irwin v. Phillips, 5 Cal. 140 (1855); *see also* Stephen V. Quesenberry et al., *Tribal Strategies for Protecting and Preserving Groundwater*, 41 WM. MITCHELL L. REV 431, 442 (2015).

enough water for all users, the rights of junior water rights-holders are restricted until the rights of senior holders have been satisfied.[19]

Regulation of water use in prior appropriation states reflects a timeless debate over who has the right to use water and for what purposes.[20] Society considers some applications of water to be more useful than others, and state water law doctrine only provides protection for "beneficial uses" of water. The limitation of appropriative water rights to "beneficial uses" will necessarily evolve over time.[21] "Beneficial uses" traditionally include consumptive uses such as for agricultural, municipal, and domestic supply, but may also include non-consumptive uses such as groundwater replenishment, preservation of rare and endangered species, and instream flow.[22] Where Indian and non-Indian water users share a common source, some of the most dramatic conflicts have arisen where a tribal use is not recognized as "beneficial" under state law.[23]

B. Indian Reserved Water Rights

Indian tribes can acquire water rights through the prior appropriation regime just as other western water users. However, federally recognized tribes typically have a more substantial, higher priority water right based on federal reserved rights doctrine.[24]

Across the west, Congress and the federal government gave states control over private water use for non-navigable waters on lands

19. This is referred to as "priority enforcement" and is generally carried out by the state engineer or other state executive branch agency tasked with water rights administration. Priority enforcement can entail physically shutting the headgate to whatever ditch, pipe, or other technology diverts water to a junior rights holder's point of use.

20. Water users who may establish an appropriative right include private and public entities, cities, units of state and federal government, Indian tribes, individuals, public utilities, corporations, and other entities.

21. *See* Anderson, *supra* note 12, at 203 ("The question inevitably becomes who or what has the right to use water for some purpose considered useful by society. This notion of providing legal protection only for 'beneficial uses' of water remains the touchstone of western water law, but the definition of beneficial use has changed over time.").

22. For a particularly broad swath of defined beneficial uses, see CAL. WATER BOARDS, S.F. BAY–R2, CHAPTER 2: BENEFICIAL USES, available at https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/bp_ch2.html [https://perma.cc/MC2H-YHWV].

23. See *infra* Part IV.B.1, specifically the discussion of the *Big Horn* litigation.

24. Anderson, *supra* note 12, at 204.

severed from the public domain.[25] Congress and the Executive also routinely "reserve" lands from the public domain for particular purposes such as national parks, forest reserves, national monuments, and Indian reservations. However, in reserving federal land from private settlement, "Congress has seldom expressly reserved" rights to water for those lands even though water would be critical to most productive uses there.[26]

Indian tribes were settled by the federal government on reserved lands, most often by forced removal from their ancestral territories.[27] Though these reservation lands were generally arid, the federal acts creating these reservations were silent as to appurtenant water rights.[28] Tribes were also much slower to put water to use in order to establish appropriative water rights compared to non-Indian irrigators, who feverishly appropriated surface waters in western stream systems.[29]

A turning point for tribes came in 1908, when federal officials filed a lawsuit asserting that Congress, with the treaty creating the Fort Belknap Indian Reservation in Montana, reserved for the Assiniboine and Gros Ventre tribes a right to water from the Milk River.[30] The Supreme Court, in *Winters v. United States*, held that an implied reservation of water for an Indian reservation will be found where it is necessary to fulfill the purposes of the reservation.[31] Congress' silence had not renounced federal water rights for

25. The United States retained rights to the use of water on the public domain until the passage of the Public Land Acts of 1866 and 1870, and the Desert Land Act of 1877, which severed federal ownership of non-navigable waters from the public domain. Water rights which had already developed under the practice and custom of appropriation were confirmed. *See* WELLS A. HUTCHINS ET AL., WATER RIGHTS LAWS IN THE NINETEEN WESTERN STATES 172–75 (1971).

26. *See* United States v. New Mexico, 438 U.S. 696, 699 (1978).

27. *See Addressing the Needs of Native Communities Through Indian Water Rights Settlements: Hearing Before the S. Comm. on Indian Affairs*, 114th Cong. 2–4 (2015) (testimony of Steven C. Moore, Senior Staff Attorney, Native American Rights Fund); *see also* COHEN'S HANDBOOK, *supra* note 2, § 1.03(4)(a) (discussing how Indian treaty making in the mid-19th century was "concerned primarily with removing certain tribes to western territories").

28. "Appurtenant" refers to a right being attached to the land rather than to an individual.

29. *See* CHARLES V. STERN, CONG. RESEARCH SERV., R44148, INDIAN WATER RIGHTS SETTLEMENTS 6 (2017).

30. *See* Winters v. United States, 207 U.S. 564, 565; *see also* JOHN SHURTS, INDIAN RESERVED WATER RIGHTS: THE WINTERS DOCTRINE IN ITS SOCIAL AND LEGAL CONTEXT, 1880S–1930S (2000).

31. *Winters*, 207 U.S. 564; SHURTS, *supra* note 30.

federal retained lands.[32] More than a century later, the enduring legal principle is that where water is necessary to accomplish the purpose of a federal Indian reservation, a reservation of appurtenant water is implied.[33]

Establishing the water right is only a small step towards actual water use, however. Adjudicating water rights for federal reservations is a case-by-case analysis beginning with an examination of the purpose for which the federal land was reserved. In the context of tribal water rights, federal courts became yet another forum to debate (and relive) the federal government's justification for resettling tribes to reservations. Why exactly did we relegate tribes to these sparse pockets of our interior? The answer would be the key variable in establishing tribes' right to an essential resource. Thus, as tribes and their advocates began to adjudicate water rights claims, the "purpose of the reservation" evolved as a strand of reserved rights doctrine.[34]

32. The theory is that when the federal government reserves land from what was once the vast public domain, it is not creating new property rights but maintaining old ones. Reservations of federal land did not create new water rights "any more than a landowner reserving a profit a prendre in land she is donating to another party is creating a new right. She is instead reserving a pre-existing right." *See* Michael C. Blumm, *Federal Reserved Water Rights as a Rule of Law*, 52 IDAHO L. REV. 369, 374 (2016) (explaining that reservations are commonplace in private land transactions, and that a reserved right is a declaration that the landowner intends to hold pre-existing rights).

33. *See* United States v. New Mexico, 438 U.S. 696, 698 (1978) (citing *Winters*, 207 U.S. at 577; Cappaert v. United States, 426 U.S. 128, 143–46 (1976)) ("[W]hatever powers the States acquired over their waters as a result of congressional Acts and admission into the Union . . . Congress did not intend thereby to relinquish its authority to reserve unappropriated water in the future for use on appurtenant lands withdrawn from the public domain for specific federal purposes."); *see also Cappaert*, 426 U.S. at 139.

34. Winters concluded that the purpose of the Fort Belknap reservation was to transform the Indians' "nomadic and uncivilized" habits into "a pastoral and civilized people." *Winters*, 207 U.S. at 576. Without water to irrigate the lands, the reservation would have been "practically valueless" and "'civilized communities could not be established thereon,'" with the effect of "impair[ing] or defeat[ing]" the purpose of reserving land for the Indians. *Id.* at 576–77. In another seminal case, the Court found an implied reservation of water where it was "essential to the life of the Indian people." Arizona v. California, 373 U.S. 546, 599 (1963). In the adjudication of water rights along the Colorado River, the state of Arizona argued that there was "a lack of evidence" showing that the United States had intended to reserve water for several tribes in establishing reservations along the river. *Id.* at 598. The Court, however, found it:

> [I]mpossible to believe that when Congress created the great Colorado River Indian Reservation and when the Executive Department of this Nation created the other reservations they were unaware that most of the lands were of the desert kind—hot, scorching sands—and that water from the river would be essential to the life of the Indian people and to the animals they hunted and the crops they raised.

Winters' lasting influence is its simple affirmation that tribal lands should have water even as non-Indians raced to establish appropriative rights through actual use. As this Note discusses, however, simply recognizing a purposive right to water does little to establish the parameters of that right or integrate the water user into the administrative law system. Beyond simply quantifying reserved rights, which courts tied to the purpose of the reservation, courts have struggled to determine the range of uses to which a tribe can apply its water. For instance, opponents of tribal reserved rights have argued that the purpose of the reservation should serve not only as the basis of the right, but also a limitation on the range of uses to which the water may be applied.[35] In other words, if the court adjudicating the water right finds that the federal purpose in reserving the land was to assimilate a tribe to an agrarian lifestyle, then the tribe would be restricted to agricultural end uses of water. As discussed herein, there is general agreement among scholars and courts (with a few notable exceptions) that tribes should not be so limited by the purpose of the reservation.[36]

Another challenge for courts has been integrating federal reserved water rights of all types into state law water systems. The earliest appropriative rights looked to state law for recognition, and by the time federal courts recognized federal reserved rights, states had developed sophisticated administrative systems for apportioning the resource. Thus, despite the preemptive effect of federal law, for practical purposes the project has been to integrate federal water rights into state legal systems.

In defining the most basic contours of common law reserved rights, federal courts made a few consequential decisions that lessened the blow of integrating these tribal property rights into state systems. The first was to conclude that although the basis and measure of a reserved water right is established long after the reservation itself, reserved rights are present perfected rights vesting on the date the reservation was created.[37] Reserved rights are also assigned a priority date in order to incorporate them into

Id. at 599.

35. In fact, the Supreme Court adopted such a limitation on non-tribal federal reserved rights: the federal government only impliedly reserves water sufficient to establish the primary purpose of its reservation, and must acquire water to satisfy any secondary purpose by other means. *See New Mexico*, 438 U.S. at 715.

36. *See infra* Part III.

37. *See Cappaert*, 426 U.S. at 138.

states' temporal priority schemes for appropriative rights.[38] Since most reservations were established before non-Indians had perfected significant rights to use the water, tribes generally hold a very senior (if not the most senior) right in surface water systems.[39]

The most consequential difference between the prior appropriation regime and the reserved rights doctrine concerns how a water user maintains her water right. The basis of an appropriative right is the amount of water actually and continuously diverted to beneficial use. Future consumption generally may never exceed historic use, and continued beneficial use is required in order to maintain the right. A water rightsholder may lose her right by abandonment, or by forfeiture, which is the unexcused failure to use the water for a specified period of time under state law. In short, appropriative rights are "use it or lose it."

Reserved rights, by contrast, do not arise solely from existing water uses at the time of the reservation. If an appropriative right is a "wet right," requiring continual application to maintain the right, a reserved right is a "paper right" to sufficient water to satisfy future needs.[40] Beneficial use is not the basis, measure, or limit of a federal reserved water right, nor can a reserved right be subject to diminution or loss due to "forfeiture, abandonment, and the failure to perfect."[41] Furthermore, based on the Supreme Court's quantification technique for reserved rights, the amount of water to which a tribe is entitled can be enormous.[42]

38. *See generally* COHEN'S HANDBOOK, *supra* note 2, § 19.03(3) ("The priority date of the tribal water right depends on the type of right involved and whether the use of the water existed prior to the establishment of the reservation. If water was reserved for uses or purposes that did not exist before the reservation was established, the priority date is the date the reservation was created," however, a court may find an implied reservation for uses predating the reservation, such as aboriginal hunting or fishing practices, in which case the assigned priority date is time immemorial.).

39. *See, e.g.*, William H. Veeder, *Indian Prior and Paramount Rights Versus State Rights,* 51 N.D. L. REV. 107 (1974); *see also* COHEN'S HANDBOOK *supra* note 2, § 19.01(1) ("Thus, a reservation established in 1865 that starts putting water to use in 1981 under its reserved rights has, in times of shortage, a priority that is superior to any non-Indian water right with a state-law priority acquired after 1865.").

40. *See supra* note 5.

41. United States v. Orr Water Ditch Co., 309 F. Supp. 2d 1245, 1248 (D. Nev. 2004).

42. With the purpose of the reservation as the basis of the right, the Supreme Court developed a standard for measuring the right based on the "practically irrigable acreage" ("PIA") of the reservation. *See* Arizona v. California, 373 U.S. 546, 600–01 (1963). Since many Indian reservations are enormous in terms of acreage, the quantification of water rights based on the PIA may result in a huge water rights award. *See* COHEN'S HANDBOOK,

Though we have known since 1908 that reservations have a water right, non-Indians have appropriated surface water systems with little practical or hydrologic concern for any tribal entitlement. The result is a situation in which superior tribal legal rights and moral claims must overcome powerful countervailing interests in accessing a scarce resource.[43]

C. Water Rights Decision-Making

In the west, water claims emerged long before state procedures to establish and record legal use rights based on such claims.[44] States generally turned to a judicial proceeding known as a "general stream adjudication" to "correct the deficiencies of a non-centralized system of water rights acquisition and exercise."[45] At the conclusion of a general stream adjudication, existing uses of water from a common source are comprehensively decreed and catalogued by priority date, quantity, point of diversion, permitted uses, place of use, and flow rates. [46]

General stream adjudications are cumbersome and lengthy court proceedings, often involving tens of thousands of claimants and spanning decades.[47] States have initiated these proceedings to

supra note 2, § 19.03(5) (reviewing the so-called "practically irrigable acreage" quantification standard along with other standards of quantification considered by the courts).

43. Water projects can require millions of dollars in investment. There is a fear that, should tribes use the full extent of their reserved water rights, non-Indian capital investments depending on the same water supply will be impaired. A recurring theme in early literature regarding reserved rights was the sense that reserved rights represent a "cloud" of uncertainty on water-dependent western economies, and that uncertainty reduces incentives to develop and invest in water resources. *See* Charles J. Meyers, Book Review, 77 YALE L.J. 1036, 1042 n.15 (1968) (reviewing WATER AND WATER RIGHTS: A TREATISE ON THE LAW OF WATER RIGHTS AND ALLIED PROBLEMS (Robert Emmet Clark ed., 1967)) (noting that if the full allotment were used, Los Angeles would receive no Colorado River water, even though it had invested $500 million on an aqueduct to import 1.3 million acre-feet per year); Note, *Indian Reserved Water Rights: The Winters of Our Discontent*, 88 YALE L. J. 1689, 1693 n.30 (1979) (citing the decree in *Arizona v. California*, as demonstrating "the extent of the problem").

44. *See* KELLY,, *supra* note 13, § 11.02.

45. A. Dan Tarlock, *The Illusion of Finality in General Water Rights Adjudications*, 25 IDAHO L. REV. 271, 281 (1988).

46. *See generally* Lawrence J. MacDonnell, *Rethinking the Use of General Stream Adjudications*, 15 WYO. L. REV. 347 (2015) (reviewing the origins and development of general stream adjudications as part of a symposium dedicated to the Big Horn General Stream Adjudication, a proceeding originally filed in 1977 which reached a final decree on September 5, 2014); *see also* John E. Thorson et al., *Dividing Western Waters: A Century of Adjudicating Rivers and Streams, Part II*, 9 U. DENV. WATER L. REV. 299, 331, 335 (2006).

47. *See* MacDonnell, *supra* note 46, at 347–61 (providing a recent overview of general stream adjudications).

bring pre-permit uses into their administrative water rights systems, as have senior water users seeking a determination of priority so that junior uses could be curtailed in times of shortage. In recent decades, states have initiated general stream adjudications most commonly to obtain a determination of federal and Indian reserved water rights.[48]

For nearly seventy-five years, however, state courts lacked jurisdiction to determine tribal reserved rights.[49] Then in 1952, Congress enacted the McCarran Amendment to waive federal sovereign immunity for the adjudication and administration of federal water rights.[50] In 1976, the Supreme Court extended this waiver to determination of tribal reserved rights.[51] With the ability to clear up both non-Indian and "ubiquitous"[52] tribal rights to western river systems, the McCarran Amendment has driven water rights adjudications for the last four decades.[53] And while states commenced general stream adjudications with the "grim conviction" that federal reserved rights did in fact exist, this concern was somewhat softened by the fact that most of these rights would be determined in a forum perceived to be more favorable to state water users.[54]

Obtaining jurisdiction to determine federal and tribal reserved rights, however, did not change the fact that the rights are

48. Thorson et. al, *supra* note 46, at 304–05, 336.

49. For a comprehensive overview of jurisdiction to adjudicate Indian claims to water rights, see COHEN'S HANDBOOK, *supra* note 2, § 19.05(1). Until 1976, tribal water rights were primarily determined in federal court adjudications.

50. The McCarran Amendment, 43 U.S.C. § 666(a) (2012), expressly authorized joinder of the United States as a party to state general stream adjudications, and with the belief that water rights administration should be undertaken by state administrative bodies. The rationale for the Amendment was set forth in the Committee Report. *See* State Eng'r v. S. Fork Band of Te-Moak Tribe of W. Shoshone Indians, 339 F.3d 804, 812 n.1 (9th Cir. 2003) (quoting S. REP. NO. 82-755, at 5–6 (1951) ("Since it is clear that the States have the control of the water within their boundaries, it is essential that each and every owner along a given water course, including the United States, must be amenable to the law of the State, if there is to be a proper administration of the water law as it has developed over the years.").

51. Colo. River Water Conservation Dist. v. United States, 424 U.S. 800, 810–12 (1976).

52. *Id.* at 811 ("Thus, bearing in mind the ubiquitous nature of Indian water rights in the Southwest, it is clear that a construction of the Amendment excluding those rights from its coverage would enervate the Amendment's objective.").

53. Tarlock, *supra* note 45, at 280 ("The Act was passed in 1952, but it did not begin to drive water rights adjudications until the Supreme Court interpreted it to apply to Indian and non-Indian water rights."); *see also* Thomas H. Pacheco, *How Big Is Big? The Scope of Water Rights Suits Under the McCarran Amendment*, 15 ECOLOGY L.Q. 627 (1988) (summarizing the purpose and nature of McCarran Act adjudications).

54. Thorson et al., *supra* note 46, at 337.

predicated on federal law and not dependent on state substantive law.[55] As the Supreme Court has stated, "[s]tate courts, as much as federal courts, have a solemn obligation to follow federal law."[56] There is hardly any federal law to follow, however, when it comes to administration of reserved rights. Reserved rights are judicially created, undefined, and in most cases, remain unquantified. By comparison, state water law is statutory and constitutional, oft-litigated and well known, with clear rules for establishing a right and administering stream conditions based on priority.

Maybe unsurprisingly, the result of turning tribal water rights determinations over to state courts has resulted in variable and often incompatible applications of federal law.[57] The biggest challenge is adjudicating water rights disputes in a way that fully accounts for any unrealized tribal rights to that water source, whether an adjudicated paper right or a right that has yet to be quantified. Indeed, there are more than 300 land areas in the United States administered as federal Indian reservations,[58] any of which theoretically includes an implied right to sufficient water to satisfy the purpose of the reservation. Meanwhile, there have been only a handful of adjudications of tribal rights, and thirty-six settlements of these rights in recent decades.[59]

55. For a detailed discussion of the issue, including where state law has been applied to the determination of some Indian reserved water rights, see *infra* Part IV. Tribes are also increasingly consenting to the application of state law in settlement terms. *See* COHEN'S HANDBOOK, *supra* note 2, § 19.01(1) ("Because of the inevitable interplay between reserved rights and state rights, however, Indian rights to water cannot be understood apart from state water-law regimes, in particular the prior appropriation system of the western states."); *see also Colo. River Water Conservation Dist.*, 424 U.S. 800; Winters v. United States, 207 U.S. 564, 577 (1908).

56. Arizona v. San Carlos Apache Tribe of Ariz., 463 U.S. 545, 571 (1983). The McCarran Amendment "in no way changes the substantive law by which Indian rights in state water adjudications may be judged." *Id.*; *see also* Montana *ex rel.* Greely v. Confederated Salish & Kootenai Tribes of Flathead Reservation, 712 P.2d 754, 765–66 (Mont. 1985).

57. *Compare In re* Gen. Adjudication of All Rights to Use Water in the Gila River Sys. & Source, 989 P.2d 739, 748 (Ariz. 1999) [hereinafter *Gila River I*], *with* Confederated Salish & Kootenai Tribes of the Flathead Reservation v. Stults, 59 P.3d 1093, 1098–99 (Mont. 2002), *and In re* Gen. Adjudication of All Rights to Use Water in the Big Horn River Sys. & All Other Sources, 753 P.2d 76, 100 (Wyo. 1988) [hereinafter *Big Horn I*], *aff'd by an equally divided court*, Wyoming v. United States, 492 U.S. 406 (1989) (mem.).

58. *Frequently Asked Questions*, U.S. DEP'T INTERIOR: BUREAU INDIAN AFFS., https://www.bia.gov/frequently-asked-questions [https://perma.cc/P4NQ-YHJK] (last visited Mar. 12, 2018).

59. STERN, *supra* note 29, at 10–12.

The legal and practical challenges surrounding reserved rights has driven resolution of tribal water claims away from general stream adjudication and towards settlement. Since the early 1990s, most reserved rights determinations have arisen from negotiated settlements involving a variety of stakeholders, including tribes and tribal advocates, the DOI, state water officials, and appropriative rightsholders, among others.[60] Settlement can provide a workaround to ill-defined common law attributes of reserved rights, and parties have often stipulated to terms regarding administration of the right going forward.[61] The settlements will also typically provide economic assistance to tribes in developing water resources, sometimes amounting to tens or hundreds of millions of dollars, in which case Congress must approve the terms and provide for the appropriation.[62] As discussed below, Congress' ratification of these agreements makes settlement an indirect and piecemeal legislative solution in areas where federal law is otherwise silent.

This Part reviews the origins of both state appropriative and tribal reserved water rights and the tensions that arise in adjudicating reserved rights claims in western water systems. Tribes with a federal reservation have a reserved right to surface water resources, though establishing the right requires adjudication or settlement. Furthermore, establishing the measure and priority of a water right only scratches the surface of the water rights legal system with which a rightsholder must engage. It is in the permitting of new water uses, review of water use changes, and other on-the-ground administrative issues that the gaps in federal law become unworkable.[63]

60. *See id.* at 6–7.

61. Common settlement terms outside the scope of this Note include clarifying the source of the right, such as confirming the tribal right to groundwater, application of the right to non-consumptive uses such as instream flow, and providing for water marketing in some form. *See generally infra* notes 163–179 and accompanying text (referencing the terms of settlement agreements).

62. *See* STERN, *supra* note 29, at 10–12 tbl.1.

63. For a state-by-state review of each western state's water rights legal system, including adjudication, permitting and change review, record keeping, and distribution and enforcement functions, see Michelle Bryan, *At the End of the Day: Are the West's General Stream Adjudications Relevant to Modern Water Rights Administration?*, 15 WYO. L. REV. 461, 464–506 (2015).

III. PERMISSIBLE END USES FOR INDIAN RESRERVED WATER RIGHTS

Though water conservation is making a difference, growing populations, and particularly growing cities across the west are pressuring scarce water resources.[64] Legal certainty under these conditions is crucial, particularly as a precursor for the types of capital-intensive water projects needed to achieve economic development goals and the basic needs of communities. How tribal reserved rights fit into sophisticated state water legal systems is uncertain, and of major concern not only for tribes as rightsholders, but also state water users and administrators of the common resource.

Harold Ranquist, an attorney in the DOI Office of the Solicitor, Division of Indian Affairs, addressed this uncertainty in a 1972 memorandum concerning application of a tribal reserved right:

> After [the purpose of the reservation has been established and a measure used], by decree or otherwise, to determine the amount of water impliedly reserved for an Indian reservation . . . what may the tribe do with the water? Is the tribe's use of the water restricted to that use impliedly contemplated at the time of the creation of the reservation, or may the Indians change the place and nature of use of their reserved water the same as other water users?[65]

The question seems straightforward: what may the tribe do with its water right? The same question, directed at a state appropriative rightsholder, has a simple answer under state law. One can use the water in the manner that originally established the right, with minimal flexibility.[66] For tribal rightsholders, however, there is no clear answer. State law should not apply without tribal consent,[67] and federal law is silent as to administration of the right. Thus, nearly a half century after the issue was raised by an attorney in the agency with trust obligation to Indian tribes, the parameters of this critical tribal property right remain unsettled.

64. DAVID H. GETCHES ET AL., WATER LAW IN A NUTSHELL 149–66 (5th ed. 2015) [hereinafter WATER NUTSHELL]; *see also* Hans Poschman, *Water Usage in the West*, COUNCIL STATE GOV'TS, http://www.csgwest.org/policy/WesternWaterUsage.aspx [https://perma.cc/4UER-HKAU] (last visited Mar. 13, 2018).

65. Harold A. Ranquist, *The Effect of Changes in Place and the Nature of Use to Water Reserved Under the "Winters" Doctrine*, 5 NAT. RESOURCE. LAW. 34, 35–36 (1972).

66. *See infra* Part IV.A (discussing the "no harm rule" under state law).

67. *See supra* note 55 and accompanying text.

This Part addresses the first prong of Harold Ranquist's question: whether a tribe's use of water under a reserved right is restricted to that use impliedly contemplated at the time of the creation of the reservation. The use contemplated by federal officials in creating Indian reservations in the mid-to-late nineteenth century was irrigated agriculture.[68] Thankfully, there is general agreement that in our contemporary society, Indian tribes will not be restricted to agricultural applications of their water.[69] That is not to say water is not needed for irrigation and other agricultural applications on reservations.[70] Tribal communities are growing,[71] increasing municipal water load. And industrial and other applications, such as marketing water to an off-reservation community, are often superior economic opportunities compared to agriculture. This Part briefly discusses the legal consensus, albeit with a few eyebrow-raising exceptions, that tribes have at least as much flexibility as state water users to shift water among end uses. Addressing this range of permissible end uses is an important threshold issue to understanding how a tribe might be limited in changing the *character* of its water use for a particular end use.

Approaching quantification of a tribal reserved right as a matter of first impression, the Supreme Court in *Arizona v. California* based its calculation of the water right on the reservation's agricultural potential—it's practically irrigable acreage.[72] In that case, a special water master tasked with making the initial determination articulated the federal government's purpose in creating the reservation as to provide a viable agricultural economy for the tribe's benefit.[73] The water master also opined that, despite a

68. *See* Arizona v. California, 373 U.S. 546, 600 (1963).

69. *See* United States v. Washington, 375 F. Supp. 2d 1050 (W.D. Wash. 2005).

70. *See* Judith Royster, *Climate Change and Tribal Water Rights: Removing Barriers to Adaptation Strategies*, 26 TUL. ENVTL. L.J. 197, 198 ("Water drives the economy for many tribes, supporting agriculture, energy production, fisheries, grazing, towns, and communities.")

71. *See* TINA NORRIS ET AL., U.S. CENSUS BUREAU, THE AMERICAN INDIAN AND ALASKA NATIVE POPULATION: 2010, at 1 (2012) (describing the "rapid growth" in population of thirty-nine percent from 2000 to 2010); *see also Indian Country Demographics*, NAT'L CONGRESS AM. INDIAN, http://www.ncai.org/about-tribes/demographics [https://perma.cc/4C6L-HBLB] (last visited Mar. 12, 2018) (describing that the number of American Indian-and Alaska Native-owned businesses were up 17.9 percent between 2002 and 2007).

72. *Arizona v. California*, 373 U.S. at 600.

73. *Id.* A court adjudicating water claims often appoints a "water master" to oversee on-the-ground determinations of water claims, stipulated to by the parties to the litigation and submitted to the court for approval.

quantification methodology based on agricultural potential, the tribe should not be limited to irrigation in putting its water right to use.[74] Opponents of tribal reserved rights have argued, unsuccessfully, to the contrary: that agricultural development is both the basis of the right, and a limitation on application of the right.[75]

A 1964 opinion of the Solicitor of the DOI relies heavily on the special master's report to argue that changes in end use of a reserved right are permissible.[76] The issue arose in the department's review of a tribal proposal to lease land and water rights to a non-Indian corporation for non-agricultural purposes including a resort and housing development. The Solicitor advised the Interior Secretary to approve the lease, writing:

> We know of no reason for holding that the Indians' water rights must be used only for agriculture any more than for holding that their

74. *See* Report of the Special Master at 265–66, Simon Rifkind, *Arizona v. California*, 373 U.S. 546 ("The reservations of water were made for the purpose of enabling the Indians to develop a viable agricultural economy; other uses, such as those for industry, which might consume substantially more water than agricultural uses, were not contemplated at the time the reservations were created. Indeed, the United States asks only for enough water to satisfy future agricultural and related uses. *This does not necessarily mean, however, that water reserved for Indian Reservations may not be used for purposes other than agricultural and related uses. The question of change in the character of use is not before me.* I hold only that the amount of water reserved, and hence the magnitude of the water rights created, is determined by agricultural and related requirements, since when the water was reserved that was the purpose of the reservation. . . . *[T]he decree establishes a property right which the United States may utilize or dispose of for the benefit of the Indians as the relevant law may allow.*") (emphasis added).

75. *See generally* COHEN'S HANDBOOK, *supra* note 2, § 19.03(4). Courts have considerable flexibility in determining the purpose of the reservation as the basis for the reserved right, and not all cases have interpreted the purpose to be irrigated agriculture. For instance, the Arizona Supreme Court once declined to apply the PIA quantification standard and found an implied "homeland" purpose. *See In re* Gen. Adjudication of All Rights to Use Water in the Gila River Sys. & Source, 35 P.3d 68, 76 (Ariz. 2001) [hereinafter *Gila II*] (basing its reasoning on simple fairness, the court noted that no other water rights users are confined to nineteenth century uses and that "nothing should prevent tribes from diversifying their economies if they so choose and are reasonably able to do so"). There is a thread of the purpose-of-the-reservation doctrine which could work against tribes, however. For non-Indian federal reserved water rights, the Supreme Court adjudicates the right based on the purpose of the reservation, but distinguishes between a primary and secondary purpose. *See* United States v. New Mexico, 438 U.S. 696, 702 (1978). The federal water right is calculated only from the primary purpose, and the government must acquire appropriative rights to fulfill any secondary purpose of the reservation. *Id.* The Supreme Court has not addressed arguments that the primary/secondary purpose distinction should apply to Indian water rights.

76. *See* Ranquist, *supra* note 65, at 36–37.

> lands themselves must be so used. The water right itself is but a special type of real property which is a part and parcel of the Reservation.[77]

For the most part, both federal and state courts hold that once the tribal reserved right has been quantified, the water may be used for any purpose.[78] Based on the small number of cases that have addressed the issue, this is most settled for consumptive water uses, for instance agricultural, municipal, and industrial uses.[79]

Several outlier cases emerge from instances where a tribe establishes a non-consumptive use of its water.[80] A non-consumptive use refers to when the water right is applied to a purpose without diversion from the water source, or diminishment of the source. The most relevant example of a non-consumptive use is for instream flow, which involves keeping the volumetric measure of the water right in the source, typically for conservation purposes. There are important environmental and cultural reasons why tribes might prefer to maintain the flow level of a river.

The general stream adjudication on Wyoming's Big Horn River illustrates the controversy surrounding change in end use of reserved rights, as well as concerns regarding state courts as forums for the adjudication of Indian reserved water rights.[81] In 1985, based on the Fort Bridger treaty, the Shoshone and Arapaho tribes were decreed approximately 189,000 acre-feet per year of "future

77. *Id.* (quoting Memorandum for the Sec'y of the Interior (Feb. 1, 1964)).

78. *See* Colville Confederated Tribes v. Walton, 647 F.2d 42, 49 (9th Cir. 1981) ("We note that permitting the Indians to determine how to use reserved water is consistent with the general purpose for the creation of an Indian reservation providing a homeland for the survival and growth of the Indians and their way of life."); United States v. Washington, 375 F. Supp. 2d 1050, 1070 (W.D. Wash. 2005) ("Once the water rights of the Lummi have been quantified, the water may be used for any purpose, including domestic, commercial and industrial purposes.").

79. *See Colville Confederated Tribes*, 657 F.2d at 49; *United States v. Washington*, 375 F. Supp. 2d at 1070.

80. *See supra* notes 119–120 and accompanying text (discussing the *Big Horn* litigation).

81. The concluding phase of the general stream adjudication is *In re* Gen. Adjudication of All Rights to Use Water in the Big Horn River Sys. & All Other Sources, 835 P.2d 273 (Wyo. 1992) [hereinafter *Big Horn III*]; *see also* Peggy Sue Kirk, Casenote, *Water Law – Indian Law – Cowboys, Indians and Reserved Water Rights: May a State Court Limit How Indian Tribes Use their Water?*: In re General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources, 28 LAND & WATER L. REV. 467 (1993) (providing a comprehensive summary of the Big Horn litigation shortly after it was resolved).

projects water" with an 1868 priority date.[82] The water right was computed by a special water master on the basis of the reservation's practicably irrigable acreage in a report that also stated the tribes may use the right for any purpose.[83]

With its decreed right, the tribes adopted a Wind River Interim Water Code, created the Wind River Water Resources Control Board, and in 1990 granted themselves an instream flow permit for that irrigation season for "fisheries restoration and enhancement, recreational uses, ground water recharge downstream benefits to irrigators and other water users."[84] Shortly after issuance of the permit, the tribes complained to the Wyoming state engineer that the diversion of state water users was causing Wind River flows to dip below the amount mandated by the instream flow permit.[85] The state engineer refused to curtail state water users, and the tribes filed suit in state court to enforce their rights as a senior priority user in the water system.[86]

The Wyoming Supreme Court held that application of the tribal water to instream flow could only be done in accordance with state law.[87] Because Wyoming law does not recognize instream flow as a beneficial use, the court would not enforce the priority of the tribe's water right.[88] The decision is questionable for ignoring that a tribe's reserved water right is a federal right arising under federal

82. Amended Judgment and Decree at 3–16, *In re* Gen. Adjudication of All Rights to Use Water in the Big Horn River Sys. & All Other Sources, No. 101-234 (1st Jud. Dist. Ct., Wyo., May 24, 1985).

83. Report of the Special Master at 267–274, Teno Roncalio, *In re* Gen. Adjudication of All Rights to Use Water in the Big Horn River Sys. & All Other Sources, Civil No. 4993 (5th Jud. Dist. Ct., Wyo., Dec. 5, 1982).

84. *See Big Horn III,* 835 P.2d at 276 (quoting Instream Flow Permit No. 90–001 (1990)). "The tribal water code and tribal water planning efforts" for the Eastern Shoshone and Northern Arapaho tribes reflect "attention not only to familiar consumptive uses (agricultural, domestic, municipal, and industrial), but also to an array of non-consumptive uses, including cultural, religious, recreational and instream flow for fisheries, wildlife, pollution control, aesthetic, and cultural purposes." Anne MacKinnon, *Eyeing the Future on the Wind River*, 15 WYO. L. REV. 517, 517 (2015).

85. *See Big Horn III*, 835 P.2d at 276. The Tribes' challenge focused on non-Indian farmers who had been using water on allotted lands within the reservation boundary for many years. The United States had actually "expended over $77 million to develop non-Indian" irrigation works on the reservation, "as compared with only $4 million expended for the Indian farms." Susan M. Williams, *Indian Winters Water Rights Administration: Averting New War*, 11 PUB. LAND L. REV. 53, 54 (1990).

86. *See Big Horn III*, 835 P.2d at 276.

87. *Id.* at 279.

88. *Id.*

law.[89] The Wyoming judges wrote separate opinions offering little cohesive rationale for their application of state law principles and confirming the fears of many tribal advocates that the waiver of tribal sovereign immunity to state general stream adjudications would yield variable and unfair interpretations of reserved rights.[90]

Even though it is generally accepted that a tribe is not limited to the purpose of the reservation in establishing an end use for its water, the *Big Horn III* litigation is a cautionary tale. The PIA standard quantifies reserved water rights without concern for how much water, if any, is unspoken for in systems already overburdened by state users. Utilizing its right to 189,000 acre-feet of water in an already water-short system was going to be a battle for the Wind River tribes, and the conflict could become a familiar one as more tribes perfect their water rights and make plans for water use. The case also illustrates the backlash a tribe might face in developing a water code which deviates from state water law, particularly one which permits end uses of water not recognized as beneficial use by the state. As long as tribes can change end uses, the question becomes what administrative restrictions will apply, borrowed from state law or otherwise.

IV. CHANGING THE CHARACTER OF USE FOR RESERVED RIGHTS

The permitting of new water uses and change of use review is at the core of state water rights legal systems. The previous Part touches on why flexibility is desirable for water rights and discusses whether some inherent limit as to permissible end uses is built into a reserved right. This Part addresses how, even if there is no limitation on end uses under federal common law, subjecting reserved rights to state water law administration will practically limit tribal water use and potentially restrict tribes to less socially or economically desirable uses. The principal question is whether

89. COHEN'S HANDBOOK, *supra* note 2, § 19.03(2).

90. One justice argued that the tribes could use their water for agricultural and subsumed uses only. A second argued that the tribes could not devote water to an instream flow because that use was prohibited by state law. The third argued that tribes could only change the use of their water right after they had put it to agricultural use. None addressed that the United States Supreme Court in *Arizona v. California* had expressly rejected any connection between an agricultural quantification and restriction to agricultural use. The court blurred the line between state substantive and procedural water law. *See generally Big Horn III*, 835 P.2d 273.

change in use of a reserved right will be subject to the "no harm" principle from state water law.

A. State Law Change of Use Restrictions: The No Harm Rule

To effect a change of end use or transfer of her water right, a state water user must generally apply to a state administrative body for approval. The approval will depend on the proposed change meeting certain conditions. The condition recognized in all prior appropriation states is that junior users are entitled to the maintenance of water conditions substantially as they existed on the date they first exercised their rights.[91] Any change in water use by a senior rightsholder must not cause material harm to other appropriators in their water use.[92] This principle is often referred to as the "no injury" or "no harm" rule.

The transfer of water from agricultural to a municipal or industrial use provides a helpful illustration. Many of the most senior appropriative water rights were established for agriculture.[93] These rights might include a large quantity of water with an early priority, but might also be limited to the unique use profile of irrigated agriculture, for instance a specific point of diversion from the water source, as well as the locus of use,[94] timing of use, and return flow.[95] These various characteristics of the original appropriation are part in parcel of the right, and will limit the

91. The prior appropriation doctrine recognizes a right of junior appropriators "in the continuation of stream conditions as they existed at the time of their respective appropriations." Farmers Highline Canal & Reservoir, Co. v. City of Golden, 272 P.2d 629, 631 (Colo. 1954); *see also* HUTCHINS ET AL., *supra* note 25, at 577.

92. *Id.*

93. *See supra* Part II.A.

94. A change in the place of use is obviously implicated where a water right is transferred apart from the land. While transfer of a water right along with the land is a routine manner, water rights may also be granted separately from the land, or by a reservation of the water right by the grantor upon conveyance of the land. *See* WATER NUTSHELL, *supra* note 64, at 151–55. Changing the place of use becomes particularly controversial where a transfer would involve water leaving the watershed of the source, or crossing state lines. If, for example, water diverted from a source is subsequently transferred out of a watershed, then there will be no return flow and the consumptive use will double or even triple. There are many state law restrictions on transfers apart from the land, in particular trans-basin diversions. *See id.* at 151–55.

95. Many changes of water use will implicate more than just consumptive use. Changing from any direct use to a storage of water may affect both the timing of use and the amount of consumptive use. *See* WATER NUTSHELL, *supra* note 64, at 158–163. A seasonal agricultural right switched to a continuous diversion to cool a steam generator is a major change.

rightsholder's flexibility if the change in use would harm other appropriators either by depriving them of the quantity or quality of water that was available before the change.

The baseline concern for any change is consumptive use. Consumptive use refers to water that is removed from a watershed, making it unavailable for other uses. A right to divert a quantity of water may differ greatly from the consumptive use of its application.[96] The amount that does return to the stream, or "return flow," becomes available at certain times and places for others to divert, and is a major factor in a junior appropriator's expectations for water availability for her own use. By contrast to irrigation, municipal uses are usually more consumptive because returns (usually sewage effluent) are a small percentage of the quantity diverted. Using water for cooling steam generators, or for hydroelectric power generation, on the other hand, is "less consumptive than irrigation,"[97] returning a greater percentage of the diversion.

State water administrators will often permit a change, but only for a lesser quantity of water. For a change in use from irrigation to municipal use, for instance, the water administrator or a court might stipulate that "[t]he portion which would have returned to the stream must be left in the stream, and only the balance can be stored or taken into the municipal system."[98] The general principle is that changes in the nature or character of use must not increase consumption so as to interfere with other users.[99]

96. Irrigation is a good example—only a portion of water diverted for irrigation is actually consumed by evaporation from water distribution infrastructure as the water travels from the source to the point of use, or by being taken up by the plants to be retained or transpired into the atmosphere. For instance, the consumptive use of a wheat farm will be a volume of water including loss of water from direct evaporation and a specific transpiration profile of the wheat plant, which is also characterized by a time of use profile. *See Consumptive Water Use*, U.S. DEP'T INTERIOR, http://eros.usgs.gov/lir/consumptive-water-use [https://perma.cc/4P7C-M4WB] (last visited Mar. 12, 2018) (discussing "evapotranspiration"). Irrigation practices typically result in a non-trivial quantity of the diverted surface water percolating into the groundwater system, returning to the source via ditches or fields, or being caught in ponds or sumps.

97. *Id.* at 160.

98. Edward W. Clyde, *Current Developments in Water Law*, 53 NW. U. L. REV. 725, 743 (1959).

99. *Id.*

Not all actions that injure junior users are subject to the no harm rule.[100] The prevailing rule is that changes in the purpose of use that necessitate permission of an administrative agency or court and invocation of the no harm rule occur only when water is put to a different type of beneficial use.[101] Furthermore, a change in use might be approved if conditions can be imposed that are sufficient to protect junior appropriators from harm.[102] However, the amount diverted to accomplish the changed use can never exceed the diversion right stated in the permit or decree.[103] Commonly, the new use will be limited not to the historical diversion right, but the historical consumptive use, or maybe even the more restrictive "reasonably necessary" historical consumptive use.[104]

B. Indian Reserved Rights and the No Harm Rule

There is a strong intuition among some appropriative rightsholders, water administrators, and jurists that state law-based prior appropriation principles should apply to administration of

100. *See* WATER NUTSHELL, *supra* note 64, at 156 ("Reuse or more intensive consumptive use of the water on the same land for the same general purposes (*e.g.* irrigation), changes in use of imported water, and, in some jurisdictions, certain changes. . . . [I]n the use of relatively small quantities of water may be allowed where the change meets certain minimal criteria.").

101. Planting crops that consume more water or using different facilities to irrigate (*e.g.*, sprinklers instead of flood irrigation) are not usually considered changes in purpose, though the manner of use is different and others may be harmed by a reduction in seepage or elimination of return flows resulting from reduced application or increased consumption. Montana v. Wyoming, 563 U.S. 368 (2011). This apparent loophole in the no harm rule is built on traditional assumptions of water users, especially irrigators, that they should be able to plant whatever they want and irrigate as necessary so long as the amount of water used does not exceed the amount allowed by a permit or decree.

102. For example, a seasonally used direct-flow irrigation right may be transferred to a continuous storage use provided diversions are restricted to the irrigation season. *See* Brighton Ditch Co. v. City of Englewood, 237 P.2d 116 (Colo. 1951).

103. Schuh v. Wash. Dep't of Ecology, 667 P.2d 64, 68 (Wash. 1983); *see also* Santa Fe Trail Ranches Prop. Owners Ass'n v. Simpson, 990 P.2d 46, 54 (Colo. 1999). For example:

> [I]f the historical consumptive use of a decreed right of 200 [cubic feet-per-second] c.f.s. was 100 c.f.s. (50% consumptive), the new user is entitled to consume 100 c.f.s. If the new use is only 40% efficient, however, the new user would have to divert 250 c.f.s. in order to consume 100 c.f.s. Since the changed use or transferred right is also limited to the original decreed diversion right of 200 c.f.s., the new user will only be able to use 80 c.f.s (200 c.f.s. x 40% consumption).

WATER NUTSHELL, *supra* note 64, at 163–64.

104. WATER NUTSHELL, *supra* note 64, at 164.

Indian reserved rights.[105] Indeed, the nuance of state law pertaining to the change or transfer of water rights underscores why tribal reserved rights can be so controversial to begin with. Any water decreed to the tribe threatens to alter stream conditions on some later date. The consumptive use, point of diversion, use or return, evaporation losses, and other characteristics of the right will not be known until the water is actually put to use. For state water users, who closely monitor stream conditions and police any deviation, newly decreed reserved water rights are a big potential for harm.

As of 1972, Harold Ranquist was aware that "no body of law has been determined to be applicable to changes in the use of federally created rights to the use of water."[106] He assumed that the right to change the character of use "is or will be established," and foresaw several issues which remain unresolved to this day.[107] How will the effect of changes to the character of on-reservation water use be decided relative to the rights of other federal and private water users? Who will regulate such changes, and what body of law will apply? In broad terms, Ranquist suggested several possible solutions: (1) case-by-case judicial determinations; (2) state control of all water use, or (3) some corrective act of Congress.[108] While none of these "solutions" has come to bear in the intervening decades, they provide a useful framing to discuss recent legal developments and policy considerations going forward.

1. Judicial Approaches to Tribal Change in Use Scenarios

In the early 1970s, it was conceivable that federal courts would continue to determine the basis and measure of reserved rights for Indian reservations. Whichever court adjudicated the right could retain jurisdiction over "all the questions that arise"[109] from a change in use, such as whether a change in the nature of the use

105. The Conference of Western Attorneys General suggest that "once quantified, reserved water rights should be subject to the same rules as all other water rights in the western United States." CONFERENCE OF W. ATTORNEYS GEN., AMERICAN INDIAN LAW DESKBOOK § 8:9 (2017) [hereinafter AMERICAN INDIAN LAW DESKBOOK]; *see also Indian Reserved Water Rights: The Winters of Our Discontent*, *supra* note 43, at 1701 (arguing that "the same flexibility, subject to the protection of others in the watershed, must be available to Indian reservations to ensure efficient allocation of water resources").

106. Ranquist, *supra* note 65, at 39.

107. *Id.* at 38.

108. *Id.* at 40–41.

109. *Id.* at 40.

would alter stream conditions to the detriment of junior appropriators. Ranquist saw the ongoing role of the courts as a balancing act in which adjudicating reserved water rights served the dual purpose of preserving water for Indian tribes' benefit while clarifying in a legal forum what water remained available for public appropriation.[110] Subsequent water decrees would be living documents, a reference for current or prospective water users regarding the "present status of water in any given stream."[111]

For the most part, this vision of water rights administration did not come to bear. In 1976, the McCarran Act was extended to state court adjudication of Indian rights.[112] The decrees resulting from water rights adjudications are not the living documents Ranquist envisioned. The decree underlying the *Arizona* and *Orr* cases was central to resolving a dispute between state and Indian rights, but decrees are not a living picture of water use on those stream systems. On-the-ground administration is left to state agencies.

The *Arizona* line of cases was the last of the handful of Supreme Court cases quantifying the use of waters passing through Indian lands.[113] The case approved a stipulated supplemental decree that specifically set forth conditions to be applied "[i]f all or part of the adjudicated water rights of any of the five Indian Reservations is used other than for irrigation or other agricultural application."[114] The supplemental decree treats reserved water rights similarly to appropriative rights for the purpose of a change by specifying that

110. *See id.* at 38–39

111. *Id.* at 40–41 ("A record having been made in the court, an amendment to the decree would issue giving notice to the general public of the effect the change had caused. Under such a system, the present status of water in any given stream would be obtained by checking with the State Engineer's Office of the state involved and with the various court decrees and all amendments thereto, affecting that particular stream.").

112. *See supra* Part II.C.

113. *See* Arizona v. California, 439 U.S. 419 (1979) [hereinafter *Arizona IV*], *amended by*, 466 U.S. 144 (1984) (the Arizona line of cases dealt primarily with the division of the waters of the Colorado River, but also quantified the water rights of several Indian reservations along the river); *see also* United States v. Powers, 305 U.S. 527 (1939) (construing water rights related to Indian allotments under 25 U.S.C. § 381); COHEN'S HANDBOOK, *supra* note 2, § 19.06.

114. *Arizona IV*, 439 U.S. at 422–23. As a threshold matter, the parties stipulated that the rights could be used for non-agricultural purposes and the Court agreed. Provisions setting forth limiting conditions to be applied if all or part of tribal reserved water rights were to be used for other than agricultural purposes were also included in the final settlement agreements approved by the Supreme Court. Arizona v. California, 547 U.S. 150, 167–69 (2006).

a consumptive use limitation applies.[115] The actual measure of the tribes' water rights is expressed as a "unit diversion quantity" per irrigable acre.[116] This amount, ranging from 5.97 to 6.67 acre-feet per irrigable acre, is deemed the "quantity of water necessary to supply consumptive use required for irrigation."[117] The decree clarifies that water use other than for agriculture shall not exceed the consumptive use had the water been used to irrigate the number of practically irrigable acres specified for the reservation.[118]

The supplemental decree is helpful, in that it clarifies that between the "unit diversion quantity," the amount of water the tribe would divert off the river to satisfy use, and the consumptive use of an irrigation project, the consumptive use will be the limitation for non-agricultural uses. Application of this rule is complicated somewhat by any future rights award, because one cannot be sure of consumptive use until the water is actually put to use. This raises the absurd possibility that a tribe may only change the end use of the right after it has been applied to an agricultural use, and its consumptive use determined.

In *Big Horn III*, Justice Cardine would have held that "future project water"[119] must first be put to use for agricultural purposes before being transferred to other uses.[120] As a matter of law, Justice Cardine was trying to reconcile the contemporary water needs of tribes with his conviction that irrigated agriculture was the sole purpose for the federal reservation of the water. As a practical

115. *See Arizona IV*, 439 U.S. at 422–23 ("If all or part of the adjudicated water rights . . . is used other than for irrigation or other agricultural application, the total consumptive use . . . shall not exceed the consumptive use that would have resulted if the diversions listed in [the decree] had been used for irrigation of the number of acres specified [therein].").

116. *Id.* at 422.

117. *Id.*

118. *Id.*

119. Justice Cardine understands "'future project water'" to be "water that is quantified and included in the reserve right but not yet put to beneficial use." *Big Horn III*, 835 P.2d 273, 285 (Wyo. 1992) (Cardine, J., concurring in part and dissenting in part).

120. *Big Horn III* considered an application of future project water to instream flow—a non-consumptive use. Part of the debate concerned whether the tribe could apply its right to instream flow at all, let alone what quantity of water available. Justice Cardine writes, concurring in part and dissenting in part, that "once a paper right has been converted to beneficial use by actually being applied to the practicably irrigable acreage, I would allow the Tribes to apply to change their use of the water." *Id.* at 287. He advocates that Indian water rights "be interpreted with sufficient flexibility to allow for change in use which may be needed when the needs of the Tribes also change," but "would make this change subject to a reasonable set of procedures, which may be more liberal than those contained in Wyoming law." *Id.*

matter, however, a tribe desiring to divert water to a growing municipality would first need to invest in an irrigation project simply to establish the baseline consumptive use. The reason that tribes are not making use of paper water rights at all is that they do not have sufficient funds for *any* water infrastructure, let alone an irrigation project as a tool for perfecting consumptive use for a water right.

Furthermore, establishing consumptive use addresses only one of several consequential characteristics of a water right for the purpose of administration. In protecting her interest, a junior user might also police the deviations of senior users with respect to the place of use, means of diversion, timing of use, and site of return flow to the source, if any. If a tribe were to develop an irrigation project in order to determine the consumptive use for the right, would the tribe also be restricted to these other characteristics of water use for that project going forward? It is an intractable question, certainly not addressed in *Big Horn III*, a case which better illustrates the pitfalls of judicial resolution in this area than it does any principle around beneficial use, consumptive use, or other characteristics of reserved rights.

There is only one federal case arising from a state water user's challenge to the change in use of a tribal water right: *United States v. Orr Water Ditch Co.*[121] In 2001, the Pyramid Lake Paiute Tribe of Indians filed two applications with the Nevada State Engineer to temporarily transfer the use of about 25,000 acre-feet of water from the irrigation of reservation lands to maintaining instream flows in the Truckee River.[122] Both transfer applications were opposed by the Truckee-Carson Irrigation District and City of Fallon, Nevada. In a 2002 ruling, the state engineer granted both applications, albeit for a slightly smaller amount of water than requested, and the parties in opposition appealed to federal district court.[123]

121. *See* United States v. Orr Water Ditch Co., 309 F. Supp. 2d 1245 (D. Nev. 2004).

122. *See id.* at 1254–57. The tribe filed similar applications for two distinct water rights decreed by the Orr Ditch Decree: (1) a water right to a maximum of 14,742 acre-feet of water per year to irrigate 3,130 acres of reservation bottom lands; and (2) a right to a maximum of 15,344.55 acre-feet of water per year to irrigate 2,745 acres of reservation bench lands. *Id.* at 1247.

123. In his ruling granting the applications, the State Engineer held that the water rights . . . were federal reserved water rights; that is, water rights that were implicitly reserved as part of the creation of the Tribe's Reservation. As such, the State Engineer held that the transfer applications could not be challenged on the state law basis that the underlying water rights were not perfected, or were abandoned or forfeited. The

The District of Nevada found, as a threshold matter, that the applied-for use was a primary purpose of the reservation and that accordingly, the tribe did not need to acquire a new water right to fulfill that purpose.[124] The court went on to analyze the injury caused by the tribe's change in use. The tribe is subject to Nevada water law pursuant to its decree, and Nevada law incorporates the no harm rule, providing that a change in place or manner of use must not impair existing water rights held by other persons.[125] To this end, the state engineer ruled that "[j]unior appropriators are entitled to maintenance of the conditions as they existed on the date they first exercised their rights,"[126] and that "potential impairment to junior appropriators is analyzed by comparing the impact of a proposed change against a baseline of existing conditions."[127]

The novelty of *Orr Ditch* lies in the state engineer's interpretation of this "baseline of existing conditions."[128] The Irrigation District and City of Fallon argued that the relevant existing conditions against which the state engineer must determine potential impairment was the tribe's actual use (or non-use) of Truckee River water.[129] The state engineer disagreed, reasoning that when the challengers first established their water right, the then-existing conditions included the tribe's superior right to use the water in the place, manner, and amount decreed.[130] Even though its full potential impact on stream conditions was not felt at the time, the

> State Engineer further ruled that the transfer applications sought to apply the water to a primary purpose (fishery) of the Tribe's Reservation. As such, the State Engineer held that the Tribe did not need to "apply" for the water as if it was a new water right, but that the Tribe merely needed to satisfy the "transfer" requirements of state water law.

Id. at 1247.

124. *Id.* at 1252–53. As to the issues whether the place and manner of use of the right could appropriately be changed, the state engineer further concluded that the transfer would not be detrimental to existing users and would not be against public interest. The state engineer granted the application under the first right in the amount of 8,420 acre-feet annually, and the application under the second right in the amount of 11,254.5 acre-feet annually. *Id.* at 1247.

125. NEV. REV STAT. § 533.345(2) (2017); *see Orr Ditch*, 309 F. Supp. 2d at 1253.

126. *Orr Ditch*, 309 F. Supp. 2d at 1253 (alteration in original) (quoting HUGH RICCI, OFFICE OF THE STATE ENG'R OF THE STATE OF NEV., RULING NO. 5185, at 64 (2002)).

127. *Id.*

128. *Id.*

129. *Id.*

130. *Id.*

tribe's decreed right to water was "an existing condition" for the purpose of measuring future injury.[131]

The court sided with the state engineer's interpretation of the Orr Ditch Decree.[132] To show an injury to their existing water rights, other Truckee River water users would have to establish that the proposed application of tribal water would have constituted an injury compared to the decreed right, not present actual use of the right.[133] The case boldly legitimizes tribal reserved rights, the majority of which still exist by implication, in a water rights system grounded in "use it or lose it."

Ranquist's "judicial solution," where courts would not only establish the basis and measure of reserved rights but also serve as the arbiters for integration of the rights among state water users, has not come to bear. Judicial determinations of Indian reserved rights are rare. Cases such as *Orr Ditch*, which go beyond establishing the basis and measure of the right to consider a change in use and the character of reserved rights, are even rarer.[134] Hardly a judicial solution, we have a handful of case-by-case determinations from which it is nearly impossible to draw core principles. Needless to say, it is not an encouraging legal environment for tribes or other entities which may be considering investment in a project involving reserved water rights.

The relative lack of federal common law regarding administration of reserved rights also fuels the intuition among western water users and courts that state law should control. The

131. *Id.* at 1254 ("[T]he Decree established, as a matter of law, that the Tribe would not injure other person's water rights when it began using its entire water duty in the place and manner described in Claims No. 1 and 2. Further, because the Tribe's water rights have not been extinguished, the Tribe can still begin to use its full water rights as decreed without injuring other person's water rights. Accordingly, the relevant 'existing conditions' against which to determine potential injury are the Tribe's decreed rights, rather than the Tribe's actual water usage.").

132. *Id.*

133. *Id.* ("At most [other Truckee River water users] have shown only that their water usage would be impacted if the Tribe starts to use its full water rights, regardless of whether the Tribe applies the water pursuant to the proposed change or the [Orr Ditch] Decree. Such impact to water usage, however, is not an *injury* to the water rights of either entity. Accordingly, the State Engineer did not err in finding that the proposed change will not injure either the Irrigation District's or Fallon's water rights.").

134. *Arizona IV* is the only United States Supreme Court case which discusses the character of a reserved right at all, in that case approving a supplemental decree as to a consumptive use limitation on the right. *Big Horn III* and *Orr Ditch*, in state and federal court respectively, are the only cases interpreting limitations on the right on appeal from administrative proceedings regarding a tribe's change in use.

no harm rule recognized by all western states is a concrete and familiar fallback for reconciling competing claims for scarce resources; however, there is no state law precedent for handling claims of injury where one of the water rights exists mostly on paper. *Orr Ditch* managed to reconcile the concept of a tribe's future right to use decreed water with the expectations of junior appropriators. It should serve as a model for future cases in which a tribal right is subject to state law, and a tribe's attempt to change the use of its water is challenged.

2. Application of State Law to Reserved Rights

The second "solution" Ranquist envisioned was, quite simply, that state law change of use principles could apply.[135] He was writing at the advent of concurrent state court jurisdiction over general stream adjudications, and recognized that although both state and federal water rights claims would be dropped into "'one bucket'" for the purpose of adjudication, the state law water rights framework does not apply to federal reserved rights.[136] Thus, it would be a "solution" if states, presumably as parties to water rights litigation in either state or federal court, could successfully argue that states control the manner of water use within their boundaries whether arising under federal or state law.[137]

In some cases, there is real ambiguity as to which law applies. The decree governing the reserved rights in the *Orr Ditch* case provides that any proposed change to the place or manner of use would be accomplished "in the manner provided by law."[138] Though the tribe and the United States argued in *Orr Ditch* that

135. *See* Ranquist, *supra* note 65, at 40.

136. *Id.* at 38, 40 (citing William H. Veeder, Note, *Winters Doctrine Rights Keystone of National Programs for Western Land and Water Conservation and Utilization*, 26 MONT. L. REV. 149, 160–61 (1965)) ("Reference to existing rules under state water laws does not appear to be the solution because much of the legal framework created by state laws does not apply to the federally reserved right of the Indian reservations.").

137. *Id.* at 40. ("The states may desire to try to breathe new life into the proposition that Congress has, by the various public land laws . . . already given the states control over the manner of *use* of waters within their boundaries, including the right to administrative control over *the exercise of rights to water* whether created by federal law or state law.").

138. *Orr Ditch*, 309 F. Supp. 2d at 1251 (quoting 1944 Orr Ditch Decree) ("[P]ersons whose rights are adjudicated hereby, their successors or assigns, shall be entitled to change, in the manner provided by law the point of diversion and the place, means, manner or purpose of use of the waters to which they are so entitled or of any part thereof, so far as they may do so without injury to the rights of other persons whose rights are fixed by this decree.").

federal reserved rights are not subject to state law,[139] the district court followed Ninth Circuit precedent interpreting the "manner provided by law" to be state substantive and procedural law except to the extent there is a preempting federal law.[140] The court went on to apply state law requirements regarding impairment to existing rights, evidently finding no controlling federal law on the matter.[141]

The Ninth Circuit case on which the district court relied to apply state law had not adjudicated a tribal reserved right.[142] The case involved interpreting the Orr Ditch Decree, but regarding quiet title to water for municipal sewage treatment.[143] The Ninth Circuit concluded it must look to state substantive law in adjudicating non-tribal federal water rights, following precedent which construed the 1902 Reclamation Act and other federal law as embodying a policy of deference to state water law principles.[144] It is beyond the scope of this Note to dissect the court's reasoning other than to say it is concerning to see a federal circuit court rely on case law outside of federal Indian law to justify an outcome with such broad implications for tribal sovereignty. The opinion also ignores Ninth Circuit precedent predating the Orr Ditch Decree which holds that state water laws are not applicable within Indian reservations absent a showing that Congress made such statutes controlling there.[145]

139. *Id.* at 1250.

140. *Id.* at 1251. The Ninth Circuit interpreted the phrase "in the manner provided by law" to mean "[n]ot only state water law substance . . ., but procedure as well" regarding Orr Ditch water rights. *See id.* (alteration in original) (quoting United States v. Orr Water Ditch Co., 914 F.2d 1302, 1307–08 (9th Cir. 1990)). Elsewhere, however, the Ninth Circuit has recognized that "state water law will control the distribution of water rights to the extent that there is no preempting federal directive." *Id.* (quoting United States v. Alpine Land & Reservoir Co., 697 F.2d 851, 858 (9th Cir. 1983)).

141. *Orr Ditch*, 309 F. Supp. 2d at 1253. The court did, however, find that state law principles of forfeiture, abandonment, and lack of perfection of water rights were preempted by "the federal exemption from appropriation of the Tribe's water rights." *Id.* at 1251.

142. *Orr Ditch*, 914 F.2d at 1304, 1307.

143. *Id.* at 1304.

144. *Id.* at 1307 (quoting California v. United States, 438 U.S. 645, 653 (1978)) (for the "purposeful and continued deference to state water law by Congress"), *and* (quoting *Alpine Land & Reservoir Co.*, 697 F.2d at 858) (for the proposition that "state law will control the distribution of water rights to the extent that there is no preempting federal directive"). This reasoning is contrary to Supreme Court precedent that "[f]ederal water rights are not dependent on state law or state procedures." *See, e.g.*, Cappaert v. United States, 426 U.S. 128, 145 (1976).

145. *See* United States v. McIntire, 101 F.2d 650, 654 (9th Cir. 1939).

The Supreme Court seems willing to defer to state water principles if presented with a conflict between state law and a tribal reserved right. With respect to the water use of federal agencies, there is a consistent congressional policy of accommodating state systems of water allocation.[146] This policy animates a Supreme Court case holding that Congress had impliedly reserved water only to support the *primary* purpose of a federal reservation.[147] The Supreme Court admonished that reserved water rights are to be narrowly drawn, since they not only are based on implication but also are an exception to the otherwise consistent thread of state primacy regarding the allocation of water.[148] Congress must have known that "federal reserved water rights will frequently require a gallon-for-gallon reduction" of water available for state and private appropriators.[149] Thus, with regard to *secondary* uses, the court ruled that Congress had intended the United States to "acquire water in the same manner as any other public or private appropriator," meaning, pursuant to state law.[150]

Among tribal advocates' many fears in appealing federal Indian law cases to a conservative Supreme Court, it is conceivable that the Court could apply this primary/secondary purpose limitation to tribal water rights the next time it hears a reserved rights case. Federal courts have hinted at a "sensitivity" rationale and several courts have suggested an economic feasibility requirement, where quantification of the reserved right could be limited based on the likelihood that the tribe could afford to do anything with the

146. United States v. New Mexico, 438 U.S. 696, 702 n.5 (alteration in original) (quoting *Hearings on S. 1275 before the Subcommittee on Irrigation and Reclamation of the Senate Committee on Interior and Insular Affairs*, 88th Cong., 2d Sess., 302–310 (1964) (App. B, supplementary material submitted by Sen. Kuchel)) (In at least 37 statutes, "Congress has expressly recognized the importance of deferring to state water law, from the Mining Act of 1866, § 9, 14 Stat. 253, to the Act of Aug. 28, 1958, § 202, 72 Stat. 1059, stating Congress' policy to 'recognize and protect the rights and interests of the State of Texas in determining the development of the watersheds of the rivers . . . and its interests and rights in water utilization and control.'"). However, Congress' accommodation of state water law is not invariable. *See* Reed D. Benson, *Deflating the Deference Myth: National Interests vs. State Authority under Federal Laws Affecting Water Use,* 2006 UTAH L. REV. 241, 268–85.

147. *See United States v. New Mexico*, 438 U.S. at 701–02.

148. *Id.*

149. *Id.* at 705 ("[T]his reality has not escaped the attention of Congress and must be weighed in determining what, if any, water Congress reserved for use in the national forests").

150. *Id.* at 702.

water.[151] The unpublished United States Supreme Court opinion, on appeal from the Wyoming Supreme Court's *Big Horn III* ruling, revealed five justices leaning towards a "sensitivity doctrine" to quantify reserved rights in a way that would better accommodate the impact of Indian reserved rights on prior appropriators.[152]

This concept of "sensitivity" to state interests, however, is not the greatest threat to Indian tribes realizing their reserved rights. For one, the sensitivity concept is directly rebutted by *Winters* in that the practical implication of recognizing a reserved right was an absolute loss to non-Indian water users. Subsequent federal cases affirm that reserved rights "arise without regard to equities that may favor competing water users."[153]

Of greater concern is the inference that sensitivity to state interest means operating under state law. The Conference of Western Attorneys General suggest that "once quantified, reserved water rights should be subject to the same rules as all other water rights in the western United States."[154] And while most state[155] and federal[156] courts have followed federal law in reserved rights cases,

151. *See, e.g.*, Arizona v. California, 460 U.S. 605 (1983); New Mexico *ex rel.* Martinez v. Lewis, 861 P.2d 235 (N.M. Ct. App. 1993).

152. Justice Brennan's draft dissenting opinion in the case challenges the proposed sensitivity doctrine as penalizing tribes for the lack of government investment in irrigation works on reservations and undermining the protections afforded by the *Winters* doctrine. For a detailed discussion of the draft Supreme Court opinions in *Wyoming v. United* States, see Andrew C. Mergen & Sylvia F. Liu, *A Misplaced Sensitivity: The Draft Opinions in* Wyoming v. United States, 68 U. COLO. L. REV 683, 685 (1997).

153. *See* Colville Confederated Tribes v. Walton, 752 F.2d 397, 405 (9th Cir. 1985) (citing Cappaert v. United States, 426 U.S. 128, 138–39 (1976)) ("Where reserved rights are properly implied, they arise without regard to equities that may favor competing water users."); *see also* United States v. Adair, 723 F.2d 1394, 1411 (9th Cir. 1983) (To the extent that the tribes enjoy treaty-protected aboriginal fishing rights, they can "prevent other appropriators from depleting the streams [sic] waters below a protected level . . . .").

154. AMERICAN INDIAN LAW DESKBOOK, *supra* note 105, § 8:9 (relying on *United States v. New Mexico*, the case that introduced the primary/secondary purpose distinction for non-Indian reserved rights, without mention of Indian reserved rights).

155. *See In re* Determination of the Rights to Use the Surface Waters of the Yakima River Drainage Basin, 850 P.2d 1306, 1316–17 (Wash. 1993); Montana *ex rel.* Greely v. Confederated Salish & Kootenai Tribes of the Flathead Reservation, 712 P.2d 754, 765–66 (Mont. 1985); *see also Gila River I*, 989 P.2d 739, 747 (Ariz. 1999).

156. *See, e.g.*, California v. Cabazon Band of Mission Indians, 480 U.S. 202, 207 (1987) ("[S]tate laws may be applied to tribal Indians on their reservations if Congress has expressly so provided."), *superseded by statute*, Indian Gaming Regulation Act, 25 U.S.C. §§ 2701–2721 (2012), *as recognized in* Michigan v. Bay Mills Indian Cmty., 134 S. Ct. 2024 (2014); Arizona v. San Carlos Apache Tribe of Ariz., 463 U.S. 545, 571 (1983) ("State courts, as much as federal courts, have a solemn obligation to follow federal law. Moreover, any state court decision alleged to abridge Indian water rights protected by federal law can expect to receive, if

there are some concerning deviations. The most infamous is *Big Horn III*, in which two of the three Wyoming Supreme Court justices writing for the majority would have applied state law to the question of tribal water use.[157] Justice Brennan also once pronounced that "Indian interests may be satisfactorily protected under regimes of state law," though, he did clarify that the McCarran Amendment "in no way abridges any substantive claim on behalf of Indians" and that the volume and scope of reserved rights remain federal questions.[158]

They receive less attention from courts, but there are also federal and state policies which acknowledge the unique status of tribal reserved rights, as well as the preemptive effect of federal law. For instance, even where Congress has authorized the limited exercise of state civil jurisdiction in Indian Country, it has expressly withheld jurisdiction over Indian water rights.[159] At the state level, several western states disclaim interest in (or control over) Indian

brought for review before this Court, a particularized and exacting scrutiny commensurate with the powerful federal interest in safeguarding those rights from state encroachment."); Gobin v. Snohomish Cty., 304 F.3d 909, 914 (9th Cir. 2002) ("State laws are not applicable to tribal Indians on an Indian reservation except where Congress has expressly intended that state laws shall apply."), *cert. denied*, 538 U.S. 908 (2003) (mem.); Colville Confederated Tribes v. Walton, 647 F.2d 42, 51–53 (9th Cir. 1981) (citing United States v. McIntire, 101 F.2d 650 (9th Cir. 1939)) ("[S]tate water laws are not controlling on an Indian reservation."), *cert. denied*, 454 U.S. 1092 (1982) (mem.); *Adair*, 723 F.2d at 1411, 1419 n.19 (citing United States v. New Mexico, 438 U.S. 696, 715 (1978); *Cappaert*, 426 U.S. at 145) ("[R]eserved rights doctrine is an exception to Congress' explicit deference to state water law in other areas" and federal water rights are not dependent upon state law.); *McIntire*, 101 F.2d at 654 (finding that state laws regarding water rights are not applicable within Indian reservations because "Congress at no time has made such statutes controlling in the reservation").

157. *Big Horn III*, 835 P.2d 273, 279 (Wyo. 1992) ("We hold that the Tribes, like any other appropriator, must comply with Wyoming water law to change the use of their reserved future project water from agricultural purposes to any other beneficial use."). For a discussion of the *Big Horn III* controversy, see *supra* Part IV.B.1.

158. Colo. River Water Conservation Dist. v. United States, 424 U.S. 800, 812–13 (1976) (construing the McCarran Amendment to reach Indian reserved rights).

159. *See* Reclamation Projects Authorization and Adjustment Act of 1992, Pub. L. No. 102-575, § 3002(8), 106 Stat 4600, 4694 ("[T]he Federal Government has recognized and continues to recognize the primary jurisdiction of the several States over the allocation, priority, and use of water resources of the States, except to the extent such jurisdiction has been preempted in whole or in part by the Federal Government, including, but not limited to, express or implied Federal reserved water rights either for itself or for the benefit of Indian Tribes, and that the Federal Government will, in exercising its authorities, comply with applicable State laws.").

reserved rights in their organic acts, enabling acts, and constitutions.[160]

It is difficult to justify the varying judicial outcomes for tribal reserved rights other than to acknowledge a gap in federal law in a property rights system which demands granularity and certainty. The *Orr Ditch* case takes a big step forward in developing federal common law with practical implications for state water users alleging injury by tribal water use. It will be important to monitor how that precedent evolves as more tribes put reserved water rights to use, particularly rights that are explicitly subject to state law pursuant to negotiated settlements. *Orr Ditch* is also a cautionary note that ambiguity in choice of law in this area will likely be resolved in favor of state water principles.

3. Negotiated Settlements and Other Legislative Solutions

Often grasping at implications from legislation and persuasive authorities, the cases also speak to the outsized role Congress could play with any policy directly addressing tribal reserved rights. Congress has plenary authority over Indian tribes and could theoretically establish a system of federal water law with its own bureaucracy, administrative rules, and legal procedures for determining federal reserved rights and the interaction of these rights with state appropriators.[161] Congress could also pronounce all tribal reserved rights to be subject to state law administration. In his 1972 memorandum, Ranquist envisioned a hybrid, where a federal water code would describe the "source, measure, and extent of the federal water rights" including how changes in the character of use would be handled, while providing that state administrative procedures and machinery would be utilized, "provided they were updated where necessary to meet a minimum standard."[162]

Congress has not seriously pursued any of these options applicable to all federal Indian tribes. However, Congress has resolved some choice of law and administrative questions in a piecemeal fashion through its approval of water rights settlement

160. *See* Harold A. Ranquist, *The Winters Doctrine and How it Grew: Federal Reservation of Rights to the Use of Water*, 1975 BYU L. REV. 639, 705.

161. Needless to say, Congress has never seriously considered establishing a federal system of water law. Regarding the plenary authority of Congress over Indian affairs, see generally Michalyn Steele, *Plenary Power, Political Questions, and Sovereignty in Indian Affairs*, 63 UCLA L. REV. 666 (2016).

162. Ranquist, *supra* note 65, at 41.

agreements that address these subjects.[163] A review of these agreements reveals that in more cases than not, settlement terms establishing the measure and priority of tribal reserved rights also provide that these rights will be administered subject to state law.[164] These agreements have the force of law when approved by Congress, and while only controlling of the tribal right in question, reflect a trend worthy of close examination as more tribes enter settlement talks over water.

Many of the settlement agreements subject the reserved right to state law or specifically provide that a change in use or transfer of the right may not impair state-based rights.[165] The Northern Cheyenne-Montana Compact establishes the right of the Northern Cheyenne Tribe to divert thousands of acre-feet from several different stream systems.[166] Pursuant to the compact, the tribe may not exercise these rights "in a manner that adversely affects" most water rights junior to the tribal right, with a priority of 1881.[167] The compact provides for off-reservation uses within a specified geographic area for beneficial uses recognized by Montana law, provided that the use does not adversely affect state appropriators.[168] The tribe carries the burden of proving no harm to state and other water users protected therein.[169]

Other settlements providing similar limitations include the Fallon Paiute Settlement, where the tribe's use of the Newlands Reclamation Project water is "subject to applicable laws of the State of Nevada."[170] The court order approving a settlement of water rights for the Taos stipulates that any change in point of diversion, purpose, or place of use of water from a location within the Pueblo lands to a location outside of the lands shall be in accordance with

163. For a comprehensive list of the thirty-six Indian reserved rights settlement agreements, thirty-two of which have been enacted by Congress, see STERN, *supra* note 29, at 10–12.

164. *Id.*

165. *Id.*

166. Northern Cheyenne Montana Compact, MONT. CODE ANN. § 85-20-301 (2017).

167. *See id.* art. II(A)(2)(a)(ii), art. II(A)(3)(c).

168. *Id.* art. II(A)(2)(a)(ii); art. III(A)(4)(b)(iii)–(iv).

169. *Id.* art. III(D)(4)(c)(iii).

170. Fallon Paiute Shoshone Indian Tribes Water Rights Settlement Act of 1990, P.L. 101-618, § 103(E), 104 Stat. 3289, 3291 (1990).

state law.[171] By virtue of the settlement reached with the State of New Mexico in the San Juan River Basin, the Navajo have agreed not to change their points of diversion off the mainstream of the river without adhering to state procedures.[172] In the Crow Water Compact, water use cannot have an "adverse affect," defined as "interference with . . . the reasonable exercise of a water right."[173]

Another issue to consider is that tribes will be subject not only to the substantive provisions of state water law, but to state administrative procedure as well.[174] Challenges to tribal uses will be brought in state fora as in *Orr Ditch*, where the initial determination of injury was made by a state engineer. Tribes should also be vigilant of injurious appropriative water users, and will need to look to state fora to bring challenges of their own.

Lastly, it is important to consider how state law might evolve to the disadvantage of tribes holding reserved rights, and necessarily without tribal input. There are several states where water administrators are statutorily authorized to deny a change of use grounds that go beyond traditional no harm rule principles. For example, Nevada allows the state engineer to consider the economic consequences to the state of changes to uses "involving the industrial purpose of generating energy to be exported out of this state."[175] Wyoming does as well, permitting the water

171. New Mexico *ex rel.* State Eng'r v. Abeyta, No. 69CV7896 MV/WPL, slip op. at 6 (D.N.M. Feb. 11, 2016) (partial final judgment and decree on the water rights of Taos Pueblo).

172. New Mexico *ex rel.* State Eng'r v. United States, CV-75-184, slip op. at 11–12 (San Juan County, Eleventh Judicial District Court N.M., Nov. 1, 2013) (partial final judgment and decree of the water rights of the Navajo Nation).

173. Crow Tribe-Montana Compact Ratified, MONT. CODE ANN. § 85-20-901, art. II(3) (2017).

174. Typically, the appropriator must seek permission for a transfer or change in use. The decision whether or not to approve the change will rest with a state engineer or other administrative agency. In Colorado, change of use is approved through a statutorily established court proceeding and approved via court decree. *See* COLO. REV. STAT. § 37-92-302 (2017). Most states place the burden on the applicant to demonstrate that the applied-for use will not result in harm to another appropriator, and interested parties can file statements of opposition. This was the procedural posture in the recent case *United States v. Gila Valley Irrigation Dist.*, 859 F.3d 789, 801–03 (9th Cir. 2017).

175. NEV. REV. STAT. § 533.372 (2017) ("Based upon the public interest and the economic welfare of the State of Nevada, the State Engineer may approve or disapprove any application of water to beneficial use or any application which contemplates a change in the place or beneficial use of water to a use involving the industrial purpose of generating energy to be exported out of this state."). Considering power generation is a major source of economic development for many tribes, this is potentially very limiting.

administrator to consider economic loss to the locality and the state.[176] These provisions seem to be an opportunity for state protectionism.

Other states go beyond economic criteria in change of use review. For instance, a Utah court required the state engineer to consider public welfare in adjudicating a transfer application even though this requirement did not appear in the statute.[177] Similarly, in New Mexico, the review criteria for injury includes water conservation considerations, and in one case, a change of water rights from agricultural use to a proposed resort was found contrary to the public interest.[178] Finally, in Wyoming, the water administrator may be required to obtain consent forms signed by other users on the stream.[179] There have been no cases yet applying these particular terms to a tribal change in use. However, these principles suggest a concerning potential for subjectivity in state adjudication of highly politicized tribal-state water disputes. *Big Horn III* is the prime example, where a state high court was swayed by the sense that "[w]ater is simply too precious to the well being of society to permit water right holders unfettered control over its use."[180]

As noted above, there are significant advantages to settlement compared to general stream adjudications for the resolution of tribal reserved rights claims, the most obvious being that tribes often receive a Congressional appropriation in the tens or hundreds of millions of dollars earmarked for water infrastructure.[181] Other benefits include achieving greater certainty and specificity than an adjudication would provide, and fostering productive (rather than adversarial) relationships among parties that will need to work together as stewards of scarce water

176. WYO. STAT. ANN § 41-3-104 (West 2017) (providing that the water administrator may consider the following facts in adjudicating a change of use: "(i) The economic loss to the community and the state if the use from which the right is transferred is discontinued; (ii) The extent to which such economic loss will be offset by the new use.").

177. *See* Bonham v. Morgan, 788 P.2d 497 (Utah 1989). For a discussion of general questions surrounding states' addition of public welfare criteria to water codes, see Consuelo Bokum, *Implementing the Public Welfare Requirement in New Mexico's Water Code*, 36 NAT. RESOURCES J. 681 (1996).

178. *See* N.M. STAT. ANN. § 72-5-23 (2018); *In re* Sleeper, 760 P.2d 787, 791–792 (N.M. Ct. App. 1988).

179. *See* WYO. STAT. ANN § 41-3-114.

180. *Big Horn III*, 835 P.2d 273, 280 (Wyo. 1992).

181. *See supra* note 62 and accompanying text.

resources. In this sense, it is difficult to judge whether acquiescence to state law might actually be a small price to pay in light of the benefit received. The purpose of this Note, though, is not to dissect the individual settlement terms, but simply to highlight where water rights settlements are providing piecemeal solutions to some of the intractable administrative questions.

C. Applying *Orr Ditch* to Negotiated Settlement Terms

Negotiated settlement agreements are addressing many open questions in reserved water rights administration. A conspicuous detail they are lacking, however, is an approach to measuring injury if a state water user challenges the change in use of a tribal reserved right. The same issue that gave rise to the *Orr Ditch* litigation could arise among parties to a settlement, particularly since the monetary awards to tribes should enable them to put greater quantities of the reserved rights to use.[182] When higher-priority tribal uses are established and conflicts with state users arise, courts should follow *Orr Ditch* and decline to find an injury to a state user so long as the tribe is within the confines of its paper right.

For instance, pursuant to its settlement agreement, the Northern Cheyenne Tribe could allocate a portion of its 19,000 acre-feet of the Tongue River one season to agriculture. In a subsequent dry season, the tribe might decide to apply a majority of its entitlement to instream flow in order to maintain the environmental conditions in the river. A state water user with junior priority may have received her water in the year the tribe applied some of its entitlement to agriculture. However, in the dry year, the same state user might be curtailed and consider challenging the tribe's change in use from agriculture to instream flow under the no harm rule. Applying the reasoning in *Orr Ditch,* a state water administrator or court hearing the challenge should not find an injury as long as the tribe is within its decreed quantity of water.

The *Orr Ditch* case has received little attention from commentators or courts. Cohen's Handbook, the leading treatise on Indian Law, references the case only in a footnote.[183] One

182. *See* STERN, *supra* note 29, at 10–12 (providing a recent tally of projects under settlement agreements which became eligible for federal funding, typically through congressional enactment).

183. COHEN'S HANDBOOK, *supra* note 2, § 19.03(6) n.121 (referencing *Orr Ditch* for the proposition that "even though tribe's water rights are subject to state procedural law under

explanation could simply be that analogous conflicts between state and tribal water users are relatively rare. It is difficult to say for sure without an exhaustive review of western states' administrative water adjudication fora, as well as state court systems. It is also conceivable that state water users have felt the effects of a tribe exercising its water right, yet declined to pursue a claim where it is unclear a court would apply state law change of use principles to the issue. *Orr Ditch* is particularly relevant to negotiated settlements because so many expressly provide that state law would apply.

Orr Ditch does have its limitations. The opinion directs that the injury to other users be measured by the hypothetical impact that would result if the tribe used its entire decreed water right. However, the impact of a particular water use will depend on more than just the quantity consumed. It will also depend on the place and timing of use, any amount of return flow, quality issues, and other factors. If the tribes' full paper water right provides the proper baseline for measuring injury, it is unlikely that the underlying decree will address any of these factors which are nonetheless important considerations in the state law no harm rule analysis. A tribe might resist specifying nature, place, and timing of use for its right in a decree, since it would only seem to limit its flexibility in use, and such a limitation is not required by federal common law.

It is interesting to imagine how state appropriators might react if the *Orr Ditch* approach to injury were more widely adopted. Some state users might try to ascertain whether they are reliant on water that might otherwise be required to satisfy a tribal reserved right. Harold Ranquist opined that "fair dealing dictates that the non-Indian appropriator ought to know at the earliest possible date just where the Indians intend to use their water and how, in order that he may make realistic adjustments in his plans and investments and not be misled by an apparent water supply."[184] But who bears the burden for making this assessment? Thirty-six tribal reserved rights have been settled[185] and only a handful have been adjudicated, but reserved rights doctrine leaves no doubt that there are more tribes

water rights decree, including 'no injury' rule for change in use, injury to junior users is properly measured by comparing [the] impact of tribe's proposed use against impacts that would result if tribe used its entire water right as decreed; if tribe begins using full water rights, adverse impacts on junior users are not 'injury' under state law").

184. Ranquist, *supra* note 65, at 38–39.

185. STERN, *supra* note 29, at 10–12.

with significant entitlement to water. Reserved rights are present perfected rights even before they are quantified, and long before a tribe knows where it intends to use the water and how.

V. CONCLUSION

Many western river systems were appropriated without concern for potential future tribal claims. This reflects powerful notions of who should be entitled to utilize a scarce resource, and to what ends. Utilization of tribal reserved water rights may, as a matter of law, justify gallon-for-gallon reductions in certain water systems. The political and legal dynamics of western water rights adjudication, however, make a future of tribal water use commensurate with non-tribal use difficult to predict.

Likely due in part to political pressure and the comfort of familiar state law, many advocates and jurists share the intuition that tribal water rights should follow state law. This is not mandated by federal common law. But in several outlier cases, and increasingly through negotiated settlement, tribal rights are subject to state law administration. One challenging question arises when a reserved right is shifted from one end use to another, with injury to other water users in the system. In these circumstances, courts should be reluctant to find injury to a state water right where a remainder of a tribal reserved right remains unutilized.