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WYOMING LAW REVIEW

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EYEING THE FUTURE ON THE WIND RIVER

*Anne MacKinnon**

I. INTRODUCTION

The key question for the future of the Wind-Big Horn is how the river can be managed to its fullest potential, to serve all the uses desired by the people who live in the basin. Currently the majority of the river's flows available for use in Wyoming are managed by the State of Wyoming and the federal government, primarily for irrigation.¹ Current and future state and federal water users in the basin may or may not see their water needs satisfied by that management. Among those non-Indian residents of the basin, some have voiced increased interest in using water for non-irrigation purposes: recreation, fisheries, instream flows, and aesthetic enhancement of residential areas along the Wind River in Riverton.

The Eastern Shoshone and Northern Arapaho tribes, meanwhile, have clearly expressed interest in substantial non-irrigation uses of the river. Their attempt to protect instream flows in the Wind River from diversion for agricultural use led to the litigation decided in 1992 in *In re the General Adjudication of All Rights to Use Water in the Big Horn River System (Big Horn III)*.² The tribal water code and tribal water planning efforts pay explicit 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.³

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¹ Wyoming Water Development Commission, Executive Summary, Wind-Bighorn Basin Plan Update (May 2010), available at <http://waterplan.state.wy.us/plan/bighorn/2010/finalrept/execsumm.pdf>.

² 835 P.2d 273 (Wyo. 1992).

³ WIND RIVER WATER CODE, TRIBAL CODE § 11-8-I(E)(1) (adopted by Shoshone and Northern Arapaho tribes of the Wind River Reservation, Mar. 18, 1991); Northern Arapaho and

Though the two tribes had their right to a majority of the flows of the Wind River confirmed in 1988 in *In re the General Adjudication of All Rights to Use Water in the Big Horn River System (Big Horn I)*, those flows have not been put to anything like the broad array of uses envisioned in the tribal water code.⁴ As the previous articles in this issue have detailed, after more than thirty-five years of litigation and decree implementation, a good half of the water rights in the Wind River held by the tribes are still not “wet” water rights, but only paper rights.⁵

Accordingly, much of the question of the Wind-Big Horn’s future boils down to whether the tribes can achieve their goals for the river, despite the limits imposed by the suite of Wyoming Supreme Court *Big Horn* decisions. This is a question that should concern not only the two tribes and the Wyoming State Engineer’s office, but the overall population and the elected officials of Fremont County and all of Wyoming.

Fremont County had an unemployment rate of 5.2% when the Big Horn Symposium was held in Riverton in September 2014, the highest in the state and more than a full percentage point above the statewide rate of 4.1%.⁶ The high rate of unemployment has been a situation typical for the county in this century.⁷ Recent figures suggest the true unemployment rate for tribal people living on the Wind River Indian Reservation or nearby trust lands is dramatically higher: 18.9%, from 2008 to 2012.⁸ Meanwhile, low family income has meant that all or

Eastern Shoshone Water Resources Control Board, Office of the Tribal Water Engineer, *Our Water, Our Future: The Wind River Water Plan, Eastern Shoshone & Northern Arapaho Tribes* (Public Review Draft, Aug. 2007).

⁴ *In re the General Adjudication Of All Rights To Use Water In The Big Horn River System*, 753 P.2d 76 (Wyo. 1988)

⁵ Justices Thomas and Cardine of the Wyoming Supreme Court used the term “paper water” or “paper water rights” to describe the tribes’ futures award. *Big Horn III*, 835 P.2d at 284–85.

⁶ News Release, Wyoming Dept. of Workforce Services, Research and Planning (Oct. 21, 2014), <http://doe.state.wy.us/lmi/news.htm> (last visited Nov. 13, 2014) This website posts the latest unemployment figures news release each month, so content will vary by date accessed.

⁷ Wyoming Community Development Authority, *Home Demographics Database*, <http://www.westernes.com/Wyoming/> (last visited Nov. 14, 2014).

⁸ For a variety of data regarding employment status for individuals identifying themselves as American Indian on the Wind River Reservation and the nearby trust lands, see U.S. Census Bureau, American Community Survey (ACS), *2008–2012 Labor Force Status*, <http://www.census.gov/acs/www> (last visited July 5, 2015). Wind River Reservation details are extracted (and difficulties in finding reliable data are discussed) by Norm DeWeaver, *Labor Market Data for Indian Workers on the Wind River Reservation* (on file with author) (available by contacting Mr. DeWeaver at norm_deweaver@rocketmail.com). For a recent discussion of the major difficulties facing reservation residents seeking work, and an analysis of the problems of generating accurate labor force data on Indian reservations or designing effective workforce services programs for reservation residents, see Norm DeWeaver, *Indian Workers and the Reservation Labor Market: Reality, Research and a Way Forward*, (Aug. 2014), available at <http://doe.state.wy.us/LMI/LAUS/LM-dynamics-in-reservation-areas-9-1-14.pdf>.

nearly all the students in the three Fremont County school districts with primarily Native American students qualified for free or reduced-price lunch, according to the most recent figures, for 2007 through 2011.⁹ Also in the most recent years documented, Fremont County has led the state in births to unmarried mothers. From 2007 to 2011, forty-five to fifty-six percent of all births in Fremont County were to unmarried mothers, compared to thirty-five percent of all births statewide to unmarried mothers.¹⁰ Fremont County also led the state in births to teen mothers: the five-year average rate in births to teen mothers from 2005 to 2009 in Fremont County was 70–77 per 1,000 girls ages 15–19, compared to the statewide rate or 43–46.5 births per 1,000 girls of the same age.¹¹ Tribal members have reported a variety of community problems, including lack of transportation to work and medical care, lack of jobs, gang violence, and high school drop-out rates.¹² The preceding figures point to a social and economic situation that reduces the health and vitality of the tribes, of the county, and of the state.

The establishment of casinos on the reservation since 2004, made possible by litigation initiated by the Northern Arapaho Tribe, may have improved the employment and income figures somewhat over what they had been in the last century. The Wind River Casino just outside Riverton in Fremont County has also won the appreciation of the economic development leaders of that town, which was built by non-Indians involved originally in irrigated agriculture and later uranium mining.¹³

Meanwhile, the Native American population of Fremont County is growing at a rate far beyond that of the county, state, or nation: 20.7% growth from 2000 to 2010, compared to 12.1% for the county, 14.1% for the state, and 9.1% for the nation.¹⁴ Improving the social and economic welfare of Native Americans in Fremont County should be of paramount concern to the county and to the state.

⁹ Kids Count data center, *Students Eligible For Free or Reduced Lunch Programs by School District*, <http://datacenter.kidscount.org/data/tables/6141-students-eligible-for-free-or-reduced-lunch-programs-by-school-district?loc=52&clct=10#detailed/10/7147-7154,7162/true/867,133,38,35,18/2275,2276,2277/12821,12822> (last visited Nov. 11, 2014).

¹⁰ Kids Count data center, *Births to Unmarried Mothers*, <http://datacenter.kidscount.org/data/tables/3507-births-to-unmarried-mothers?loc=52&clct=2#detailed/5/7113-7135/false/867,133,38,35,18/any/7218> (last visited Nov. 13, 2014).

¹¹ Kids Count data center, *Teen Birth Rate*, <http://datacenter.kidscount.org/data/tables/3519-teen-birth-rate-5-year-average-rate-per-1000-female-teens-age-15-0019?loc=52&clct=2#detailed/2/any/false/38,35,18,17,16/any/12503> (last visited Nov. 13, 2014).

¹² WYOMING RURAL DEVELOPMENT COUNCIL, WIND RIVER REPORT (May 2003), available at http://www.wyomingrural.org/_pdfs/2014/WindRiverreport.pdf (based on 2003 assessment).

¹³ Fremont County Community, *Fremont County/Municipal Multi-Hazard Mitigation Action Plan 3.6–3.7*, available at <http://fremontcountywy.org/emergency-management-agency/fremont-county-municipal-multi-hazard-mitigation-action-plan/>.

¹⁴ United States Census data, via Wyo. Div. of Econ. Analysis, *Population by Race and Hispanic Origin: 2010*, http://eadiv.state.wy.us/demog_data/pop2010/cnty_race_00_10.htm;

Water is a resource, which, if wisely managed, can underpin a healthy and vibrant society and economy. Both depend on a secure water supply. “Water is Wyoming’s Gold,” says the Wyoming Water Association slogan.¹⁵ In 2014, just as in 1982, Wyoming’s governor took care to call attention to water development in an election year.¹⁶ And as the late David Getches, leading water law and Indian law scholar, pointed out ten years ago regarding most of the West, “[t]he futures of tribes have long been trapped behind unclaimed, unusable water rights.”¹⁷

Paper water rights may not be the only barrier to a better future for tribal members in Wyoming, but tearing down that barrier could be an important step towards a more vibrant and healthy society on the reservation, and in adjacent Fremont County. Commentators have observed that water rights can be seen as “the most valuable property of Indian tribes . . . probably essential to Indian future economic development and well-being.”¹⁸ Some tribes have dramatically increased their irrigated acreage once their water rights were quantified; others have been able to allocate water to protect fish and wildlife to boost local economies; still others have been able to market their water to non-Indian users off the reservation, creating a new revenue stream to aid the tribes.¹⁹ Unlike the transfers of Indian lands to non-Indians in the late nineteenth and early twentieth centuries, which tended only to impoverish tribes, conscious efforts to ensure tribes can put their water rights to use could genuinely increase tribal self-sufficiency.²⁰

Percent Change in Resident Population for the 50 States, the District of Columbia, and Puerto Rico: 2000 to 2010, http://eading.state.wy.us/demog_data/pop2010/chge00_10map.pdf; *Total Population and Change: 2010 and 2000*, http://eading.state.wy.us/demog_data/pop2010/cnty_city_00_10.htm (last visited Nov. 17–18, 2014).

¹⁵ WYOMING WATER ASSOCIATION, <https://www.wyomingwater.org/> (last visited May 20, 2015).

¹⁶ Press Release, Office of Governor Matt Mead (Aug. 4, 2014), *available at* <http://governor.wy.gov/media/pressReleases/Pages/PublicCommentPeriodforWaterStrategyWraps-Up.aspx>

¹⁷ David Getches, *Foreword*, in BONNIE G. COLBY ET AL., *NEGOTIATING TRIBAL WATER RIGHTS: FULFILLING PROMISES IN THE ARID WEST* xiv (U. Ariz. Press, 2005).

¹⁸ Reid P. Chambers and John E. Echohawk, *Implementing the Winters Doctrine of Indian Reserved Water Rights: Producing Indian Water and Economic Development Without Injuring Non-Indian Water Users?*, 27 GONZ. L. REV. 447, 454 (1991–92).

¹⁹ Five Lower Colorado River tribes which had their rights quantified in *Arizona v. California*, 373 U.S. 546 (1963) increased their irrigated acreage by 150% over 25 years. Chambers and Echohawk, *supra* note 19, at 457. The Pyramid Lake Paiute Tribe and the Fallon Paiute Shoshone tribe, via a federal statute enacted as part of a water rights settlement, saw storage built which provides water to support fisheries on which the tribes depended. *Id.* at 460–62. The Papago, Colorado Ute, Salt River, and Ft. McDowell tribes are among those who have found new revenue through water marketing approved for them by Congress (see discussion on water marketing, *infra*, *Id.* at 463–65).

²⁰ Chambers and Echohawk, *supra* note 19, at 468–69. An unidentified high school girl in a 2005 film on water on the Wind River Indian Reservation commented to the same effect, regarding water: “If we exercise our rights, we’ll be taken more seriously by the state. Then if we’re taken seriously by the state, then we won’t get pushed around so much, we can avoid so many other legal disputes. We could save ourselves time, ourselves money.” OUR WATER OUR FUTURE min. 25 (2005).

Turning paper rights into wet water rights involves finding avenues to put the Wind River Indian Reservation tribes' "futures" water award to use, in ways that the tribes themselves consider desirable. *Big Horn III* demonstrated that water use the tribes sought at the time—instream flow for aesthetic, environmental, recreational and spiritual purposes—was seen as directly at odds with the use of water for irrigated agriculture that the State of Wyoming has sought to protect. If even a portion of the tribes' paper rights are to become wet water rights, it appears that the water use goals of the tribes, as well as the goals of the state, need recognition and a means of being exercised. A broader array of water uses on the river, implementing in some mutually-accepted fashion the water use goals of both tribal members and non-tribal residents of the Wind River, offers the potential for a more complete use of the river, in a way that contributes to the vitality of the entire river basin.

In the last few decades, situations involving water management across cultural, social, institutional, and political divides have been addressed with some success, in some locations, by what the policy world calls "co-management."²¹ The concept often involves sharing authority or "turf," rather than defending it, in relations between two or more levels of government. Co-management also often calls for involving more users in everything from information-sharing to devolution of some authorities.²² Two or more national governments have formed joint organizations to manage an international river; state governments have formed joint efforts to manage an interstate river; tribal, state, and national governments have formed joint agencies to manage water and fish.²³ The Wyoming state government has helped create an organization led by Wyoming, Colorado, Nebraska and the federal government to manage the Platte River, the Platte River Governance

²¹ See Evelyn Pinkerton, *Translating Legal Rights into Management Practice: Overcoming Barriers to the Exercise of Co-Management*, 51 HUMAN ORGANIZATION (1992), available at <http://hdl.handle.net/10535/3187>; THE FISHERIES CO-MANAGEMENT EXPERIENCE: ACCOMPLISHMENTS, CHALLENGES AND PROSPECTS (Douglas C. Wilson et al. eds., 2003); Fikret Berkes, *Shifting Perspectives on Resource Management: Resilience and the Reconceptualization of 'Natural Resources' and 'Management'*, 9 MAST 13, 13–40 (2010).

²² Kristen Ounanian and Troels Jacob Hegland, *The Regional Advisory Councils' Current Capacities and Unseen Benefits*, 11 *Maritime Studies* 10, 2 (2012), available at <http://www.maritimestudiesjournal.com/content/11/1/10> (discussing European Union fisheries management, providing a summary of scholarship on co-management).

²³ E.g., THE MEKONG RIVER COMMISSION, <http://www.mrcmekong.org/>; THE INTERNATIONAL COMMISSION FOR THE PROTECTION OF THE RHINE, <http://www.iksr.org/>; THE UPPER DELAWARE COUNCIL, <http://www.upperdelawarecouncil.org/>; THE NORTHWEST POWER AND CONSERVATION COUNCIL, www.nwcouncil.org (last visited June 25, 2015) (addressing tribal-state-federal management on the Columbia). See the State of Washington's description of cooperation in "a unique government-to-government relationship." Washington Department of Fish and Wildlife, *Salmon & Steelhead Conservation*, <http://wdfw.wa.gov/conservation/salmon/co-management/> (last visited July 5, 2015).

Committee.²⁴ As scholars of tribal water rights settlements in the western United States have noted, though some tribes or states may seek to dominate control of water, “many observers believe the interconnected nature of rivers, lakes and aquifers make [sic] joint jurisdiction and management desirable.”²⁵

Co-management of the Wind River would require the participation of the Eastern Shoshone Tribe, the Northern Arapaho Tribe, the State of Wyoming, and the United States. The United States has interests, sometimes conflicting, with respect to Bureau of Reclamation irrigation projects it operates, and its different obligations under federal law as a trustee for the tribes, along with its management of Bureau of Indian Affairs irrigation projects.²⁶

Literal co-management of the Wind River by a new governing institution created by these four entities might not be a feasible goal, given their respective institutional histories as well as their decades of disagreement with each other. But analyzing what makes effective co-management possible, and applying that analysis to the Wind River, may be very helpful in identifying what needs to happen in coming years to get a wider array of water uses, and particularly the tribes’ water use goals, recognized and implemented on the river.

Studies of co-management issues suggest that factors in several key arenas affect the emergence of effective co-management structures. These arenas can be described as the spheres of law, politics, and knowledge.²⁷ This article examines factors in those arenas that fostered co-management of Washington state salmon fisheries and compares the situation there with the situation regarding law, politics, and knowledge in Wyoming’s Wind River Basin.

II. COMPARISON CASE: NORTHWEST COAST TRIBES AND FISHING RIGHTS

The coast of Washington provides an instructive example in joint tribal, state and federal management of natural resources in the United States. An outline of salmon fisheries management provides a framework for analyzing the situation on the Wind River. A major study published in 1998, *Constructing Co-operation*, by

²⁴ See PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM, <https://www.platteriverprogram.org/Pages/Default.aspx> (last visited Nov. 29, 2014).

²⁵ Colby et al., *supra* note 17, at 14.

²⁶ UNITED STATES NATIONAL WATER COMMISSION, WATER POLICIES FOR THE FUTURE 474–75 (1973).

²⁷ Pinkerton, *supra* note 21; Julian R. Griggs and Colin J. Rankin, Developing Successful Native/Non-Native Joint Management Systems: Four Case Studies of Interim Measures Agreements for Renewable Resources in British Columbia Canada (June 1996) (conference paper), *available at* <http://hdl.handle.net/10535/7474>.

Sara Singleton, a political scientist at Western Washington University, is a guide to the developments in Washington State.²⁸

The legal framework that ultimately fostered co-management in the Puget Sound-area salmon fisheries was created by litigation brought by the United States, as trustee for seven area tribes.²⁹ The tribes had treaties securing their fishing rights, but as of the 1960s their usual fishing activities had been in many cases outlawed, and effectively pushed aside, by the State of Washington and non-Indian fishermen.³⁰ By 1960, salmon runs had become significantly reduced since the mid-nineteenth century treaty times, and Indians harvested only five percent of the total salmon catch.³¹

Native protests over this situation, involving well-publicized and sometimes violent confrontations between tribal fisherman and state wardens or police, eventually led the United States—“reluctantly” according to Singleton—to file the suit, which was ultimately joined by another fourteen tribes.³² In 1974, the U.S. District Court for the Western District of Washington ruled that the tribes had substantial treaty rights, which required that they be able to catch fifty percent of the total annual salmon harvest.³³ After lengthy controversy and appeals, the district court’s ruling was upheld in its key portions (though remanded on others) by the U.S. Supreme Court.³⁴

The key portions of the ruling upheld by the U.S. Supreme Court also restricted the state’s authority to regulate tribal fishing activity.³⁵ To restrict fishing by treaty tribes, the state would have to show the regulation was reasonable and necessary and that all alternatives, including restriction on non-Indian fishing, were exhausted.³⁶ That meant the state had to balance allocation and conservation of the fish throughout the varied fishery areas affected, rather than take the simple

²⁸ SARA SINGLETON, *CONSTRUCTING COOPERATION: THE EVOLUTION OF INSTITUTIONS OF COMANAGEMENT* (1998).

²⁹ *United States v. State of Washington*, 384 F. Supp. 312 (W.D. Wash. 1974); *Washington v. Washington State Commercial Passenger Fishing Vessel Ass’n*, 443 U.S. 658 (1979); Singleton, *supra* note 28, at 64.

³⁰ Singleton, *supra* note 28, at 55–56.

³¹ *Washington*, 384 F. Supp. at 398–99; James H. Isherwood, III, *Indian Fishing Rights in the Pacific Northwest: Impact of the Fishery Conservation and Management Act of 1976*, 8 ENVTL. L. 101, 107–08 (1977–1978); PAMELA MADSON AND WILLIAM KOSS, *WASHINGTON SALMON: UNDERSTANDING ALLOCATION 5* (Wash. State H.O.R., Office of Program Research, 1988).

³² Singleton, *supra* note 28, at 64.

³³ *Washington*, 384 F. Supp. at 410.

³⁴ *Washington State Commercial*, 443 U.S. at 658; Singleton, *supra* note 28, at 65–68.

³⁵ *Washington State Commercial*, 443 U.S. at 685–86.

³⁶ *Washington*, 384 F. Supp. at 342.

course used earlier of shutting down fisheries in areas that were key areas typically used by some tribes.³⁷

A crucial additional issue was decided in a subsequent phase of the litigation: the federal district court required a tribal role in environmental protection of the salmon resource.³⁸ The lifecycle of salmon is as dependent on healthy rivers as it is on the ocean because the fish migrate from their native streams out to the ocean and return upstream to spawn.³⁹ The 1980 federal district court decision known as *United States v. Washington II* required that the tribes have a say in protection of the entire ecosystem affecting salmon, including the upstream reaches of rivers feeding Puget Sound. This crucial district court decision came down just a year after the final U.S. Supreme Court ruling in the appeal of the 1974 district court decision, known as *United States v. Washington I*.⁴⁰

Both the Supreme Court and district court decisions had significant impacts on the political and knowledge arenas. Implementation of both lines of decisions, on salmon catch shares and ecosystem protection, of course immediately implicated the political arena. The catch-share decision was handed down into a politically polarized situation where bargaining power had been drastically lopsided in the hands of the State of Washington.⁴¹ Implementation of the decision required dramatic reworking of that scene.⁴² The decision also left a lot of details to be worked out in the political arena, under the broad outline of salmon-catch allocation set out by the court—regional, state and tribal councils to propose and negotiate management plans, for instance, had to be set up.⁴³

Constructing a working relationship between the state and the tribes took at least fifteen years.⁴⁴ At the outset, there was a “political firestorm” of objections and resistance.⁴⁵ The United States Court of Appeals for the Ninth Circuit compared the situation to the reactions triggered by school desegregation cases: in the salmon case “the district court has faced the most concerted, official and

³⁷ Singleton, *supra* note 28, at 63–64, 66; *Washington*, 384 F. Supp at 401–04, 407–09, 411 (Conclusions of Law #23, 29, 35, 38, 40; Declaratory Judgment item #20; Ruling on Fisheries’ Questions per Reconsideration Motion #2, 6, 16).

³⁸ U.S. v. *Washington*, 506 F. Supp. 187, 203–05 (W.D. Wash. 1980) [hereinafter *Washington II*].

³⁹ National Park Service, Olympic, *The Salmon Life Cycle*, <http://www.nps.gov/olymp/learn/nature/the-salmon-life-cycle.htm> (last visited July 5, 2015); Madson and Koss, *supra* note 31, at 13.

⁴⁰ Singleton, *supra* note 28, at 68, 79.

⁴¹ *Id.* at 66–69, 76–78.

⁴² *Id.* at 76–78.

⁴³ *Id.* at 70–72.

⁴⁴ *Id.* at 74–80.

⁴⁵ *Id.* at 66.

private efforts to frustrate a decree of a federal court witnessed in this century,” other than in the desegregation cases, the court said.⁴⁶

The Washington State Department of Fisheries took several years to approach implementation of the catch-share decision; ultimately a new director had to be appointed before the culture of the agency could adapt to the idea of working with rather than against the tribes.⁴⁷ Eventually, however, a process involving the state, the tribes, and the federal government, as well as the Canadian Government, began to function effectively to achieve joint decisions allocating catch shares in a way that meets the requirements of the key *United States v. Washington* decision.⁴⁸ An infusion of federal money to improve management coordination for all parties, and increase fish production, was an important factor.⁴⁹

The ecosystem protection decision in *United States v. Washington II*, meanwhile, had significant impacts on the knowledge and, in turn, the political arenas. In Singleton’s view, it was this decision that ultimately made possible the required political shift and the effective implementation of co-management of the Puget Sound salmon fisheries.⁵⁰ In ecosystem protection, Singleton argues, both the tribes and the Washington Department of Fisheries found genuinely common ground.⁵¹

The tribes were able to train and hire their own watershed science experts, with whom the state fisheries department staff worked on issues of mutual interest.⁵² Significantly, the two groups worked initially to improve their shared knowledge of watershed ecosystem conditions affecting salmon.⁵³ Ultimately, joint efforts that began with data-gathering led to watershed improvement and restoration projects—and some of those projects were successful.⁵⁴

⁴⁶ Puget Sound Gillnetters Association v. United States District Court, 573 F.2d 1123, 1126 (9th Cir. 1978).

⁴⁷ Singleton, *supra* note 28, at 66–70.

⁴⁸ *Id.* at 69–78; Madson and Koss, *supra* note 31, at 13–23 (describing the complex allocation decision process and its participants).

⁴⁹ Federal financial support came through the Salmon and Steelhead Conservation and Enhancement Act of 1980, 16 U.S.C. §§ 3301–3371, pushed by Washington Sen. Warren G. Magnuson; through that statute, \$129 million in federal funds went to improving coordination among federal, state, and tribal fisheries managers, and enhancements to improve fish production. Singleton, *supra* note 28, at 69.

⁵⁰ Singleton, *supra* note 28, at 78–82.

⁵¹ *Id.* at 79.

⁵² *Id.* at 93–94.

⁵³ *Id.* at 143–45.

⁵⁴ Joint work has included identification of spawning and rearing stream stretches for enhancement projects. *Id.* at 80–82.

That experience of cooperation at the ground level made it much more possible, Singleton argues, for tribal and state representatives to work together, or support those higher-up in their organizations to work together, in the more formal setting of the joint process for determining catch allocations.⁵⁵ By the 1990s, the tribes, the state and federal governments, and the Canadian government were able to work together effectively. They identified and handled disputes, and agreed upon policies and allocation of salmon catches.⁵⁶

Of course, a variety of problems have developed as the joint management effort moved forward.⁵⁷ Overcoming past mistrust as work begins in the basic knowledge arena can mean initial duplication of effort. As each entity gathers and analyzes data, developing its own information set, it expends a lot of time and effort. Over time, however, the different strengths and interests of the tribes and the state have led to bargaining strategies that have benefited the resource and the various people dependent upon it, and ultimately made for more efficient use of time and money.⁵⁸ A number of variables continue to affect what happens in the way of policy and catch allocation decisions. Intertribal disputes regarding catch allocation and how to regulate non-tribal fishing can affect tribal support for the joint effort. The views of individual tribes, and individual members within tribes, on what regulation of fishing activities is appropriate, can vary a good deal depending in part on geographic location. Similarly, Washington state politics can change the level of state commitment to the process.⁵⁹

Overall, however, co-management has effectively secured tribal shares of the salmon catch, as called for by the treaties and court decisions.⁶⁰ At the same time, state and tribal managers working together have reduced the total harvest dramatically in response to declining salmon runs.⁶¹ How much this joint management effort can serve to protect and ultimately begin to restore the runs of wild salmon in the long run remains to be seen. Since 1991, a number of salmon species have been listed as endangered under the Endangered Species Act.⁶² In the mid-1990s, the native salmon in Washington appeared to be doing better than salmon elsewhere in the Pacific Northwest.⁶³ Even so, the organization

⁵⁵ *Id.* at 77–78, 97–98.

⁵⁶ *Id.* at 79–98.

⁵⁷ *Id.* at 77–78, 97–98.

⁵⁸ *Id.* at 141–50.

⁵⁹ *Id.* at 78, 99–140.

⁶⁰ *Id.* at 89.

⁶¹ NORTHWEST INDIAN FISHERIES COMMISSION, 2015 ANNUAL REPORT 8, available at <http://nwifc.org/publications/annual-report/>.

⁶² STATE OF WASHINGTON, STATE OF THE SALMON IN WATERSHEDS 6 (2008), available at http://www.rco.wa.gov/documents/gсро/2008_sos_rpt/2008_sos_report.pdf.

⁶³ Singleton, *supra* note 28, at 143.

of the fishing treaty tribes that brought the 1970s litigation issued a white paper in 2011, arguing that ongoing destruction of habitat in the Pacific Northwest continues to destroy salmon runs and accordingly violates the treaties with the tribes.⁶⁴ The top federal fisheries official in the area, in a January 2015 speech, acknowledged the tribal initiative begun in 2011, tying destruction of salmon runs to treaty violations, as a “very big deal” with major implications for Northwest salmon management.⁶⁵

How to support wild salmon in an area that has been heavily industrialized and urbanized, both along the ocean shore and far up the rivers that were once fertile spawning grounds, is an ever-present challenge for the Northwest. There is some hope, however, that the joint management efforts begun with treaty fishing rights litigation and continue with robust tribal involvement may ultimately yield a common understanding of salmon and their ecosystem. That in turn could lead to vigorous and sustainable salmon runs.⁶⁶ Knowledge and strategies fed by the experience of the diverse people who care about salmon, from the tribes to non-Natives and from fishermen to science professionals, may offer the best hope for achieving salmon sustainability, Singleton argues.⁶⁷

III. THE CASE AT HAND: WIND RIVER WATER

In all three arenas—law, politics, and knowledge—Wind River water presents a starkly different picture.⁶⁸ But the contrasts with the Puget Sound example may provide insights into how work with water issues on the Wind River might lead to a brighter future.

Underlying the legal issues of tribal, state, and federal rights on the Wind River (and in Puget Sound) is the basic concept of sovereignty. Federal law has recognized the sovereignty of Indian tribes since the early nineteenth century,⁶⁹ but what that means in practice has varied over the years and continues to vary with time, place, and the issue at hand. The United States signed treaties with tribes as sovereign to sovereign, and that gives Indian treaties their lasting significance as “the supreme Law of the Land.”⁷⁰ The United States is also described by the U.S.

⁶⁴ Northwest Indian Fisheries Commission, *Treaty Rights at Risk* (July 2011), <http://nwifc.org/> (last visited July 5, 2015).

⁶⁵ David Light, *West Coast ESA Challenges*, 133 *THE WATER REPORT* 2 (Mar. 15, 2015) (quoting William Stelle, West Coast Region Administrator for National Oceanic and Atmospheric Administration (NOAA) fisheries, Jan. 22, 2015).

⁶⁶ *Treaty Rights at Risk*, *supra* note 64.

⁶⁷ Singleton, *supra* note 28, at 143–45.

⁶⁸ See *supra* note 27 and accompanying text.

⁶⁹ *Cherokee Nation v. Georgia*, 30 U.S. 1 (1831); *Worcester v. Georgia*, 6 Pet. 515 (1832).

⁷⁰ U.S. CONST. art. 6, cl. 2.

Supreme Court as having a trustee responsibility for the tribes, leading to a federal government duty to represent the tribes' interests, as federal lawyers did in the Big Horn cases.⁷¹ However, Congress sets Indian policy, and can and has changed it: for example, launching nineteenth century efforts to assimilate Indian people into non-Indian society, and twentieth century efforts first to disestablish and then re-recognize tribes as sovereign entities.⁷² The extent of tribal sovereignty, in relation to potential state regulation over activities on reservations, can vary. In any specific situation, a state's interest in jurisdiction and regulation is subject to federal preemption, and is weighed against the impact or interference the state's proposed regulation will have on federal policy regarding the tribes, and also on a tribe's ability to make its own laws and be governed by them.⁷³

States are also sovereign, to the extent allowed by their inclusion in a federal system, and in their relations with Indian tribes states must deal as sovereign to sovereign. At the same time, tribal members are considered citizens of the state in which their reservation is located, and have the rights of citizens including—for instance, the right to vote—which cannot be “denied or abridged” under the protection of the federal Voting Rights Act.⁷⁴ In the case of the Wind River Indian Reservation, that right was confirmed as recently as 2010 in relation to Fremont County Commission elections.⁷⁵

In setting policy regarding Indian tribes, the federal government has, since the 1950s, specifically allowed states to sue tribes over water rights in state courts rather than federal courts, while requiring the federal government to act as a “guardian” for the tribes in the state court proceeding.⁷⁶ The 1950s federal statute

⁷¹ See *United States v. Mitchell*, 463 U.S. 206 (1983); *Morton v. Mancari*, 417 U.S. 535 (1974); *Navajo Tribe of Indians v. United States*, 364 F.2d 320 (Cl. Ct. 1966); *Seminole Nation v. United States*, 316 U.S. 286 (1942); *Cherokee Nation v. Georgia*, 30 U.S. 1 (1831).

⁷² Contrast, for instance, 25 U.S.C. § 177, from the early treaty years (known as the Non-Intercourse Act), with the General Allotment Act of 1887, encouraging the privatization and break-up of tribal lands (25 U.S.C. §§ 331 *et seq.*), and the Indian Reorganization Act of 1934 (25 U.S.C. §§ 461 *et seq.*) For a summary of federal policy regarding tribal sovereignty, see FELIX S. COHEN, *HANDBOOK OF FEDERAL INDIAN LAW* 122–50 (1958). See also Susan M. Williams, *The Governmental Context For Development in Indian Country: Modern Tribal Institutions and the Bureau of Indian Affairs*, 16a OCCASIONAL PAPERS SERIES (U. Colo. Natural Resources L. Center, 1988), available at http://scholar.law.colorado.edu/books_reports_studies/116/.

⁷³ See, e.g., *Williams v. Lee*, 358 U.S. 217 (1959); *United States v. Mazurie*, 419 U.S. 544 (1975); *Brendale v. Confederated Tribes and Bands of the Yakima Indian Nation*, 492 U.S. 408 (1989); *Colville Tribes v. Walton*, 752 F.2d 397 (9th Cir. 1985).

⁷⁴ Voting Rights Act, 42 U.S.C. § 1973(a).

⁷⁵ Memorandum Opinion, *James E. Large v. Fremont County*, U.S. District Court, Wyoming, Judge Alan B. Johnson, Apr. 29, 2010, at 6, 100, *Large v. Fremont Cnty.*, 709 F. Supp. 2d 1176 (D. Wyo. 2010) (No. 05-CV-0270); Order on Remedial Plan, *James E. Large v. Fremont County*, U.S. District Court, Wyoming, Judge Alan B. Johnson, Aug. 10, 2010, at 2, *Large v. Fremont Cnty.*, 709 F. Supp. 2d 1176 (D. Wyo. 2010) (No. 05-CV-0270).

⁷⁶ *McCarran Amendment*, 43 U.S.C. § 666(a) (1952); *Jicarilla Apache Tribe v. United States*, 601 F.2d 1116, 1130 (10th Cir. 1979), *cert. denied*, 444 U.S. 995 (1979).

known as the McCarran Amendment grants state courts jurisdiction over claims regarding Indian water rights if and when those claims are addressed as part of a general water rights adjudication, for an entire basin, in state court.⁷⁷ Accordingly Wyoming sued to adjudicate the water rights not only of the Shoshone and Arapahoe tribes, but also of every other water claimant in the Wind-Big Horn Basin.⁷⁸ The filing of that suit occasioned the elaborate process that produced the Big Horn decrees commemorated in the Big Horn Symposium.⁷⁹

The initial *Big Horn* cases (*I* through *III*) firmly established the rights of the Eastern Shoshone and Northern Arapaho tribes to nearly 500,000 acre-feet of water each year from the Wind River.⁸⁰ Two-fifths of that is future projects water, quantified by acreage that was determined (after considerable litigation on all criteria) to be practicably irrigable on the reservation at some future date.⁸¹ Thus, a substantial amount of the award was a paper right until put to use. *Big Horn III*,⁸² despite the confusion created by its five disparate opinions, served as a warning that the future projects award might not easily be transformed into wet water for non-agricultural uses the tribes endorse under their water code. The fractured majority ruled that use of the tribes' future projects water rights for instream flow had to be done under state water law procedures, which did not allow the chosen use.⁸³

The *Big Horn III* majority also envisioned on-the-ground distribution of water in the Wind-Big Horn Basin under the supervision of the State Engineer, who would have the duty to enforce state water right-holders' non-interference with tribal rights.⁸⁴ The State Engineer would also have a "monitoring" obligation to bring before the district court any uncertainties about the scope of the tribal right or objection his office might have to the way the tribes implement their rights.⁸⁵

⁷⁷ *Arizona v. San Carlos Apache Tribe of Arizona*, 463 U.S. 545, 564 (1983). The Court noted that the McCarran Amendment was designed to address "the general problem arising out of the limitations that federal sovereign immunity placed on the ability of the States to adjudicate water rights," *Id.*

⁷⁸ *In re General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources*, 753 P.2d 76, 84–88 (Wyo. 1988) (*Big Horn I*).

⁷⁹ See Jason A. Robison, *Wyoming's Big Horn General Stream Adjudication*, 15 WYO. L. REV. 243 (2015) (describing the process of the *Big Horn* adjudication).

⁸⁰ *Big Horn I*, 753 P.2d 76; *In re General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources*, 803 P.2d 61 (Wyo. 1990) (*Big Horn II*); *In re General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources*, 835 P.2d 273 (Wyo. 1992) (*Big Horn III*).

⁸¹ *Big Horn I*, 753 P.2d at 113–14.

⁸² *Big Horn III*, 835 P.2d 273.

⁸³ *Id.* at 279.

⁸⁴ *Id.* at 282–83.

⁸⁵ *Id.*

Since that 1992 decision, state and tribal water managers have had more than twenty years to work together and learn about each other's systems, both regulatory and hydrological, on the ground. Unfortunately, it seems that little learning has occurred in those two decades.

Although some officials have held out hope that state and tribal staff would learn much from each other during the long years of the adjudication, local administrators in both the tribal and state offices report with disappointment that there has been little joint work or communication leading them to understand each other's systems better.⁸⁶ For some time after 1992, personnel who had taken part in the often-bitter *Big Horn I* and *III* litigation remained in office. In the last fifteen years or so, new people have come in to several key positions.⁸⁷ In one later phase of the litigation, state, tribal, and federal representatives did joint on-the-ground inspections of overlapping water rights locations, which significantly advanced ability to come to agreement.⁸⁸ At present there are fundamental communication gaps, however. For instance, the state has delivered to the tribes detailed information on water right status and location under the final rulings in the adjudication, but the information is so complex that, without training accompanying its transfer to tribal staff it is useless, according to the state's adjudication manager, Nancy McCann.⁸⁹ The needed training has so far not taken place, but discussions are underway to set it up.⁹⁰ Any one ditch or stream carries multiple water rights—of different dates, and different sources such as treaty or state law—recognized by the court, McCann noted.⁹¹ She has provided key databases and maps to both the Bureau of Indian Affairs and the Tribal Water Engineer's office (a joint agency of the two tribes). The databases are generated from material relied upon by the court for *Big Horn* rulings, in many cases using data from tribal and federal consultants.⁹² But the databases are useless, and the

⁸⁶ Gordon W. Fassett, Tribal Water Issues in Watershed Management (A.B.A. Section of Env't, Energy and Resources Water L. Conference, Feb. 15–16, 2001) (conference paper); Letter of Resignation Following Completion of the Adjudication from Ramsey L. Kropf, Special Master, Big Horn Adjudication (Oct. 16, 2014); Personal Interviews with Anonymous Sources, Tribal and State Administrators (on file with author).

⁸⁷ State Engineer Patrick Tyrrell came into office in 2001 and State Division III (Wind-Big Horn Basin) Superintendent Loren Smith came into office in 2003, Wyoming State Engineer's Office, *History of Officers*, <https://sites.google.com/a/wyo.gov/seo/home/history-of-officers> (last visited Mar. 9, 2015). Mitchel Cottenoir became Acting Tribal Water Engineer in January 2010. Personal Communication with M. Cottenoir (Mar. 10, 2015).

⁸⁸ Personal Interviews with Nancy McCann, Adjudication Manager, Wyoming State Engineer's Office (Nov. 6, 2014 and Jan. 29, 2015).

⁸⁹ *Id.*

⁹⁰ Personal Communication with Anonymous University of Wyoming Personnel (May 2015).

⁹¹ *Id.*

⁹² *Id.*

sources of the data are difficult to discern, without considerable training, which has yet to occur, McCann said.⁹³

The *Big Horn* decisions need not, of course, be the last word in the law governing the river. The parties involved—the two tribes, Wyoming, and the federal government—could come to an agreement of their own, built upon the *Big Horn* decisions as far as necessary, but superseding them via a binding agreement on how to go forward. Tribal water rights settlements, which require congressional approval and usually involve federal funding, have been reached by a number of tribes and states along with the federal government. They have provided for such things as instream flows, water marketing, or increased water storage often sought by one party—made possible by federal cash, and either not contemplated or typically ruled out in court decisions.⁹⁴ The possibilities offered by settlement are appealing enough that a number of tribal water rights issues have been settled by agreement rather than in court.⁹⁵ The Big Horn adjudication, in fact, was regarded in the late 1980s and early 1990s as a prime example of “what not to do” in state-tribal water rights disputes.⁹⁶ As a result, the Big Horn adjudication helped spur a number of settlement efforts.⁹⁷ The Department of the

⁹³ *Id.*

⁹⁴ Colby et al., *supra* note 17, at 171–76 tbl.A.1 (Indian water rights settlements and quantification cases).

⁹⁵ *Id.*

⁹⁶ David M. Dornbusch, The Wind River Litigation: Effects of the Wyoming Supreme Court’s decision on the Wind River Reservation’s water use and implications for other reservations’ water rights (Nat. Resource Development in Indian Country, Nat. Resources L. Center, U. Colo. School of Law, June 1988) (conference paper). In this talk, delivered the year after *Big Horn I* was decided, the author (a San Francisco lawyer) said:

I understand that in the Wind River litigation, both sides spent a considerable amount of money, and Wyoming spent considerably more than the United States and Wind River Tribes combined. And, it appears to me from the Wind River experience, and from other ongoing Indian water rights cases, that the United States is committed to devoting considerable resources to assert Indian water rights claims. This, plus the fact that the United States and the Tribes were extremely successful in Wind River, will hopefully send a message to other states that it will be in their best interests to negotiate and not spend the large sums of money required to litigate Indian water rights.

Id. at 2. Colby et al. make a similar point for both states and tribes: “The extended litigation involving the Wind River tribes in Wyoming made a strong impression on neighboring tribes and states, strengthening resolve to avoid similar litigation.” Colby et al., *supra* note 17, at 121.

⁹⁷ For example, the Fort Hall Indian Water Rights settlement in Idaho, implemented in the Fort Hall Indian Water Rights Act of 1990 (P.L. 101-602, 104 Stat. 3059) was the result of years of work inspired towards settlement by the mounting expense of the Wyoming litigation that began in 1977. Colby et al., *supra* note 17, at 121. Similarly, the Hopi Tribe initiated efforts with the state of Arizona towards settlement of disputes regarding water rights in the Little Colorado River in 1986, after the high cost of the Wind River litigation had become apparent *Id.* at 132.

Interior now has an entire staff dedicated solely to settlement or implementation of Indian water rights cases, as Jennifer Gimbel, now Principal Deputy Assistant Secretary for Water and Science at the Department of the Interior, noted at the Big Horn Symposium.⁹⁸

After *Big Horn I*, the tribes, State of Wyoming, and federal government attempted to reach settlement on issues of how to implement the decision.⁹⁹ Unofficially, participants say the talks involved discussion of federal financing for irrigation system improvements and job training.¹⁰⁰ The negotiations did not result in an agreement.

Agreements post-2014 on implementation, including changing the scope of acceptable water uses and the relative duties of the parties established under the *Big Horn* decisions, are legally permissible.¹⁰¹ While agency administrators routinely say they are bound by the series of *Big Horn* decisions, it does not mean they are bound in every respect. They are bound by the rules the court set out unless some further arrangement is reached. Both federal and state administrators participating in the Big Horn Symposium noted that initiatives to reach a new accommodation of area water interests would in their view have to come from area residents—actual water users and would-be water users.¹⁰²

The prospects for a new agreement, driven by residents and water users, are determined in the political arena. It appears, unfortunately, that the legal rules articulated in the *Big Horn* decisions, setting out who has what authority over water, have not been helpful in bridging long-standing divides in the political arena.¹⁰³ *Big Horn III* in fact increased the already greater bargaining power of

⁹⁸ A former assistant attorney general in Wyoming who worked on water issues, Gimbel was chair of the Interior Secretary's Indian Water Rights Working Group in the first decade of this century. News Release, U.S. Bureau of Reclamation, Reclamation Veteran Jennifer Gimbel to Serve as Deputy Commissioner for External and Intergovernmental Affairs (Mar. 12, 2014), <http://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=46226>. For more information on federal work to secure tribal water rights, see U.S. Department of the Interior, Bureau of Indian Affairs, *Branch of Water Resources*, <http://www.bia.gov/WhoWeAre/BIA/OTS/NaturalResources/Water/index.htm> (last visited July 5, 2015).

⁹⁹ Wind River Water Resources Control Board, *Wind River Reserved Water Rights 7* (2007) (paper presented to the State-Tribal Summit); Personal Interviews with Anonymous Negotiation Participants (Fall 2014).

¹⁰⁰ Personal Interviews with Anonymous Negotiation Participants (Fall 2014).

¹⁰¹ Singleton, for instance, noted that in the Northwest coast fisheries situation, “formal rules” set by the court decrees “have been superseded by informal institutions worked out between the parties.” Singleton, *supra* note 28, at 87.

¹⁰² Big Horn Symposium, Prospective Intrastate Panel (Sept. 12, 2014).

¹⁰³ *In re* General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources, 753 P.2d 76, 114–15 (Wyo. 1988) (Big Horn I) (discussing State Engineer Office authority); *In re* General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources, 835 P.2d 273, 280–83 (Wyo. 1992) (Big Horn III) (discussing State Engineer Office authority).

the state by bringing tribal decisions about the use of their reserved water rights arguably under state supervision.¹⁰⁴ The decision also stands for the proposition that the tribes could pursue their interest in protecting instream flows in the Wind River only by going through Wyoming's state water law process.¹⁰⁵ Wyoming's instream flow law allows only the State of Wyoming—no other entity, and no individual—to hold instream flow water rights.¹⁰⁶ The tribes, therefore, could not hold an instream flow right, and their goal of protecting instream flows under a tribal right was thwarted.¹⁰⁷

While the sovereignty of Indian tribes is standard fare in law, politics in Wyoming seems to hardly recognize it. Fremont County failed four years ago in an attempt to maintain its at-large districting for county commission elections that the court found would tend to prevent tribal citizens from electing a commissioner who might represent their interests.¹⁰⁸ The county government seems to have seen tribal members as an “other,” a group to be kept out of county civic and cultural

¹⁰⁴ *Big Horn III*, 835 P.2d at 280–83.

¹⁰⁵ *Id.* at 278–80. Note that the holding subjecting the use of the tribes' water rights to the processes set by state law is narrow, specifically limiting the application of state law to tribal water decisions regarding “changes of use” of the future projects water rights (not other tribal water rights) from agricultural to other uses. *Id.* at 276, 279.

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. We leave for another day the question of whether the Tribes may dedicate their historically used water to instream flow, as that issue is not directly presented for our review by the facts of this case.

Id. at 279. Elsewhere, however, the majority suggests that the tribes can be viewed as an appropriator like other state law appropriators, with a mere “usufructory” right to the water. *Id.* at 278–80. Justices Brown and Golden outline (in strongly-worded dissents) the broad implications of that approach for subjecting tribal water use to state water law. *Id.* at 288–90, 296–97.

¹⁰⁶ WYO. STAT. ANN. § 41-3-1002(e) (“No person other than the state of Wyoming shall own any instream flow water right.”).

¹⁰⁷ The *Big Horn III* majority wrote:

[T]he appropriation of water for instream flow is not a beneficial use which is presently available to the Tribes. Wyo. Stat. §41-3-1002(e) (Supp.1991) clearly provides: “No person other than the state of Wyoming shall own any instream flow water right.” The Wyoming legislature has for good reason precluded water right holders from unilaterally dedicating water to maintain instream flows. . . . Our decision today recognizes only that which has been the traditional wisdom relating to Wyoming water: Water is simply too precious to the well being of society to permit water right holders unfettered control over its use.

Big Horn III, 835 P.2d at 279–80. Note the court's language again embodies the perspective that the tribes are simply “water right holders” under state law.

¹⁰⁸ Memorandum Opinion, *James E. Large v. Fremont County*, U.S. District Court, Wyoming, Judge Alan B. Johnson, Apr. 29, 2010, at 2–3, *Large v. Fremont Cnty.*, 709 F. Supp. 2d 1176 (D. Wyo. 2010) (No. 05-CV-0270).

life, not because of any misreading of tribal sovereignty but because of “on-going discrimination,” as the federal court in Cheyenne found in 2010.¹⁰⁹

In a more recent development, in 2014, the State of Wyoming declared itself affronted, or perhaps terrified, by federal agency recognition of the capacity of the two Wind River tribes for environmental monitoring.¹¹⁰ The State has vigorously opposed the Environmental Protection Agency’s (EPA) approval of “treatment as a state” (TAS) status in air quality matters for the two tribes for non-regulatory purposes, including eligibility for air quality planning funds and for commenting on air quality permits.¹¹¹ Wyoming’s Attorney General, in his objections to the EPA, conjured up a picture of “civil and criminal jurisdictional turmoil,” portraying the tribes governing Riverton and smaller communities in Fremont County in everything from criminal law to preschool education.¹¹² Inflammatory statements sketching grandiose implications have been reported on both sides.¹¹³ The EPA’s approval of TAS status for the tribes, however, is applicable only to “certain Clean Air Act provisions,” and involves only commenting and recommendation opportunities, not regulatory authority.¹¹⁴ The EPA stated explicitly that “[n]one of the provisions for which the Tribes requested eligibility entails the exercise of Tribal regulatory authority under the Clean Air Act.”¹¹⁵

In its initial comments to the EPA, its subsequent petition to the EPA, and its brief filed in October 2014 with the United States Court of Appeals for the Tenth Circuit, the State has concentrated its efforts on contesting the boundaries

¹⁰⁹ *Id.* at 6. The court’s 102-page opinion describes vivid testimony from a number of witnesses on instances of racial discrimination—from harassment by landlords, to Riverton Police discrimination, to slurs from a county commissioner—and concludes: “The Court finds that these instances of racial discrimination cannot be dismissed as a few bad experiences caused by a few ‘bad apples.’ Rather the testimony evidenced a more extensive problem that while of course not reflective of the attitudes and behaviors of all citizens of Fremont County, is nonetheless relevant in the Court’s inquiry.” *Id.* at 14–15; *see also Id.* at 6–14 (testimony).

¹¹⁰ Letter from State of Wyoming, Petition for Reconsideration and Stay of Approval of Eastern Shoshone and Northern Arapaho Tribes’ Application for Treatment as a State, to Environmental Protection Agency Administrator Gina McCarthy (Jan. 6, 2014), *available at* <http://ag.wyo.gov/wyoming-epa>.

¹¹¹ Approval of Application Submitted by Eastern Shoshone Tribe and Northern Arapaho Tribe for Treatment in a Similar Manner as a State Under the Clean Air Act, Notice of Final Action, 78 Fed. Reg. 76,829, 76,829–31 (E.P.A. Dec. 19, 2013).

¹¹² Petition for Reconsideration and Stay by State of Wyoming 22–24 (Jan. 6, 2014), *available at* <http://ag.wyo.gov/wyoming-epa>.

¹¹³ *See id.* at 22 (citing, without providing a copy, a Dec. 9, 2013 letter from the Chairman of the Northern Arapaho Tribe to the Mayor of Riverton “claiming criminal jurisdiction in Riverton and proposing transfer of prisoners”).

¹¹⁴ Notice of Final Action, 78 Fed. Reg. at 76,830.

¹¹⁵ *Id.*

of the Wind River Indian Reservation cited by the EPA in its TAS decision.¹¹⁶ The boundary issue had been heavily litigated in *Big Horn I*, as the location and extent of the tribes' reserved water rights depended upon it.¹¹⁷ The State's return to the issue¹¹⁸ begs comparison of the current air quality TAS dispute with the 1977 state decision to launch the Big Horn Adjudication in response to the tribes' assertion of rights to groundwater in the Riverton area. In the air quality case, the Northern Arapaho tribe has noted the complexity of federal law regarding tribal sovereignty, under which state or tribal jurisdiction depends on detailed analysis of the regulatory purpose and facts involved.¹¹⁹ The tribe's discussion of the issue suggests that the state's invocation of jurisdictional conflict demonstrates state inability or unwillingness to understand the law on tribal sovereignty.¹²⁰

The State's TAS case may prove to be as much a miscalculation of the likely judicial result regarding tribal rights as was the decision to launch the Big Horn adjudication: where in *Big Horn I* the State expected to defeat most tribal water claims, the tribes instead won confirmation of significant water rights; the same confirmation of the tribal position could happen in the air quality dispute. But whatever its legal merits, the State's decision to pump up rhetoric and go to court to challenge the tribes' actions (perhaps not coincidentally in a gubernatorial

¹¹⁶ Petition for Reconsideration and Stay, *supra* note 112, at 1–14, 20–21; Opening Brief, State of Wyoming at 3–71, State of Wyoming v. U.S. Environmental Protection Agency, U.S. Court of Appeals for the Tenth Circuit, (Oct. 6, 2014) (Appellate Case: 14-9512, Document: 01019321851), available at <http://ag.wyo.gov/current-issues>, under State of Wyoming v. EPA, link titled *Northern Arapaho's Opposition to Wyoming's Motion to Complete and Supplement the EPA's Administrative Record*, Document 3 of 10 items (the state's Oct. 6, 2014 brief contains, as appendices, a helpful collection of documents including the Dec. 19, 2013 Federal Register notice, the agency's Decision Document on the tribes' application for Treatment as a State and the agency's Legal Analysis of Reservation Boundaries); EPA Region 8, Legal Analysis Of Wind River Reservation Boundary, Attachment 1 to EPA Region 8 Decision Document on the Eastern Shoshone and Northern Arapaho Tribes' Application for Treatment as a State, at 1 (noting that the legal analysis of the boundary was prepared by the agency in response to objections to reservation boundaries that commenters raised during agency consideration of the tribes' application).

¹¹⁷ John C. Schumacher, *Wind River Litigation: Decades in the Making* 6, 9 (2013) (attorney for the Eastern Shoshone Tribe on the Big Horn Adjudication from 1985 through 2010 at john.schumacher@windriverlaw.com, on file with author).

¹¹⁸ Petition for Reconsideration and Stay, *supra* note 112, at 1–14, 20–21; Opening Brief, State of Wyoming, *supra* note 116, at 3–71.

¹¹⁹ Northern Arapaho Tribe, Response to Wyoming's Opposed Motion to Complete and Supplement the EPA's Administrative Record at 17, State of Wyoming v. U.S. Environmental Protection Agency, et al., U.S. Court of Appeals for the Tenth Circuit (May 23, 2014) (Appellate Case: 14-9512 Document: 01019254494), available at <http://ag.wyo.gov/current-issues>, under State of Wyoming v. EPA, link titled *Northern Arapaho's Opposition to Wyoming's Motion to Complete and Supplement the EPA's Administrative Record*, Document 9 of 10 items.

¹²⁰ *Id.*

election year) is a telling indication of the chasm dividing non-Indians and Indians in Wyoming's political arena.¹²¹

At the Big Horn Symposium, State Engineer Patrick Tyrrell made a point of noting that the *Big Horn I* award of future projects water rights to the tribes gives them considerable bargaining power as a matter of practical politics.¹²² And indeed a series of events since 1988 has indicated that the existence of the future projects award has had practical impact on local water users and state officials. In the first year after *Big Horn I*, the State of Wyoming paid the tribes not to put their future projects rights into action.¹²³ That practice ended after about a year.¹²⁴ Over the years since 1989, non-Indian irrigators in the Wind River area have sought and won state funds from the Wyoming Water Development Commission based in part on the concern, not always stated, that if the tribes do develop their future projects water, the non-Indian irrigators may have to learn to function with less water.¹²⁵ Accordingly state funds—some \$10 million, for instance, to the Midvale Irrigation District headquartered in Pavillion, west of Riverton—have

¹²¹ See Press Release, Office of Governor Matt Mead (Dec. 20, 2013), *available at* <http://governor.wy.gov/media/pressReleases/Pages/GovernorWyomingWillNotHonorEPADecisionChangingStateTribalBoundary.aspx> (“This decision goes against 100 years of history, involving over a million acres of land. It is not a decision that should come from a regulatory agency”); *see also* Press Release, Office of Governor Matt Mead (Jan. 6, 2014), *available at* <http://governor.wy.gov/media/pressReleases/Pages/WyomingtoEPAPlaceTribalBoundaryDecisiononHoldand.aspx> (“This should be a concern to all citizens because, if the EPA can unilaterally take land away from a state, where will it stop?”). It is perhaps not coincidental that the state objections and press releases on the EPA decision introduced a gubernatorial election year, 2014. For news coverage of views on the issues of the air quality dispute from a variety of people ranging from the Chairman of the Northern Arapaho Tribe to U.S. Senator Michael Enzi (and a number in between), see Gregory Nickerson, *Arapaho Promote Mediation in Wind River Reservation Border Dispute*, WYOFILE (May 6, 2014), http://wyofile.com/gregory_nickerson/arapaho-promote-mediation-in-wind-river-reservation-border-dispute/.

¹²² Big Horn Symposium, Patrick Tyrrell, Wyoming State Engineer, Prospective Intrastate Panel (Sept. 12, 2014).

¹²³ GEOFFREY O’GARA, *WHAT YOU SEE IN CLEAR WATER: LIFE ON THE WIND RIVER RESERVATION* 173 (2000); Wind River Water Resources Control Board, *Wind River Reserved Water Rights* 7 (State-Tribal Summit, Oct. 2–3, 2007).

¹²⁴ *Wind River Reserved Water Rights*, *supra* note 123, at 7.

¹²⁵ A 1992 state report noted that in 1990, Governor Mike Sullivan asked the Wyoming Water Development Commission to evaluate “potential solutions to the problems facing the non-Indian water users. The WWDC concluded that regardless of the outcome of the litigation/negotiation, the non-Indian irrigators will have to be more water efficient,” WYOMING WATER DEVELOPMENT COMMISSION 1992 LEGISLATIVE REPORT, at 70. Accordingly the Wyoming Legislature funded a Wind River Planning Study in 1991, and the state joined the federal government and the tribes in looking at water use efficiency issues and potential water storage in the basin, on and off the reservation. *Id.* Reports generated at the author’s request, from the Wyoming Water Development Commission in August 2014, listed the thirty-one irrigation system rehabilitation projects that state funds have provided for off-reservation irrigation districts in the basin since the 1980s. Midvale and Riverton Valley Irrigation District, LeClair Irrigation District, and Wind River reservation, Excel documents (Aug. 27, 2014 and Aug. 28, 2014) (on file with author).

gone into improving their water delivery systems and eliminating potential waste of water.¹²⁶

Meanwhile, successive Wyoming state administrations, working through the Water Development Commission, have sought to convince the tribes to develop their future projects water in ways acceptable to the state.¹²⁷ The Commission has done a number of studies on potential reservoir sites for the Upper Wind River.¹²⁸ The studies have slowly moved from examinations of on-channel storage in locations the tribes considered sacred or otherwise undesirable, to off-channel storage sites that some state officials hope may be more attractive to the tribes.¹²⁹ The results of the latest of such studies, assessing the feasibility of reservoir sites on both the Big and Little Wind Rivers, are due to be reported in November 2015.¹³⁰ Increased water storage on the river might be useful to a number of existing or potential water users, in allowing more flexibility in timing and volume of water deliveries. State opponents of instream flow water rights (statewide or in Fremont County) have often argued that new storage should be the preferred way to provide for instream flows.¹³¹

Actual implementation of the tribes' future projects rights has thus far gone nowhere, which may be an indication of just how much bargaining power, as a practical matter, the *Big Horn I* award confers on the tribes under *Big Horn*

¹²⁶ List of WWDC funded projects, Midvale and Riverton Valley Irrigation Districts, Excel document (Aug. 27, 2014) (on file with author).

¹²⁷ Under Governor Ed Herschler's administration, one of the early studies by the Wyoming Water Development Commission was on the proposed "Blue Holes" reservoir, which would have been directly on the Wind River—later 1980s state reports noted that the study of that reservoir site, funded in 1982, had been put on hold pending resolution or settlement of the Big Horn adjudication. WYOMING WATER DEVELOPMENT COMMISSION 1986 LEGISLATIVE REPORT at 84; WYOMING WATER DEVELOPMENT COMMISSION 1988 LEGISLATIVE REPORT at 33. Under Governor Jim Geringer's administration, in 2000 the development commission began a study of Upper Wind River storage sites (with some focus on off-channel sites) to "alleviate likely shortages." WYOMING WATER DEVELOPMENT COMMISSION 2000 LEGISLATIVE REPORT at 4–90. Under Governor Dave Freudenthal, in 2003 and in 2010 the development commission's Wind/Big Horn Basin Plan Executive Summary noted (under "Surface Water Availability") that use of the tribes' futures water to implement the new irrigation projects contemplated in *Big Horn I* would increase shortages within the basin. Table ES-4 follows by listing three new reservoirs and two reservoir opportunities. Wyoming Water Development Office, Executive Summary, *Wind/Bighorn River Basin Plan* (2003), available at <http://waterplan.state.wy.us/plan/bighorn/2003/execsumm.html>.

¹²⁸ *Wind/Bighorn River Basin Plan*, *supra* note 127.

¹²⁹ *Id.*

¹³⁰ The scope of the current study, authorized by the 2014 Legislature, is described at Wyoming Water Development Office, *Big and Little Wind River Storage Feasibility Studies: Level I, Phase I*, http://wwdc.state.wy.us/dam_reservoir/b-l_WindRStorage/b-l_WindRStorage.html (last visited June 6, 2015).

¹³¹ The Wyoming instream flow statute reflects a legislative preference for storage as the means of providing instream flows by requiring that the Wyoming Water Development Commission review the potential for storage. WYO. STAT. ANN. § 41-3-1004 (2015).

III. Several justices in *Big Horn III* suggested the tribes implement their future projects rights by using the water on agricultural projects, which would include new irrigation projects, as expected by the *Big Horn I* court.¹³² The economic feasibility of irrigation, on paper, is a key factor in quantifying tribal water rights. The tribes and the state put forth considerable evidence on the issue during the trial in the 1980s, as they disputed how large the tribes' future projects rights should be.¹³³ In fact, however, nearly thirty years later in today's economy, putting water to agricultural use in a new irrigation project is a major expense uncertain to pay off.¹³⁴ New-venture major economic projects have failed in the past in Wyoming—the authorized and never-built irrigation features of the Seedskadee Project associated with the federal Fontenelle Dam and Reservoir on the Green River in the 1960s is a classic example.¹³⁵ Irrigation was dropped from the project even then due “to serious financial and economic problems encountered on high-altitude irrigation projects.”¹³⁶ A modern effort to create a major new irrigation project on the Big Horn River near Worland, converting 16,500 acres of dry land to newly-irrigated land, has not made it from the drawing board to reality in more than forty years, despite federal and state funds invested in ongoing studies.¹³⁷

¹³² *In re* General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources, 835 P.2d 273, 278, 285–87 (Wyo. 1992) (Big Horn III).

¹³³ *In re* General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources,, 753 P.2d 76, 103–05 (Wyo. 1988).

¹³⁴ See, e.g., Project description, Westside Irrigation NEPA Analysis, Wyoming Water Development Commission 2009 Legislative Report, ch.3 at 142 (2009).

¹³⁵ TONI RAE LINENBERGER, U.S. BUREAU OF RECLAMATION, SEEDSKADEE PROJECT (1997), available at http://www.usbr.gov/projects/ImageServer?imgName=Doc_1305642403114.pdf.

¹³⁶ Planning of the Seedskadee Project, featuring irrigation, began in earnest in the 1940s, but Congressional authorization did not come until the mid-1950s. The Commissioner of the Bureau of Reclamation, in charge of the project, issued a stop-order

suspending construction of irrigation features of the project until a review of Wyoming projects could be accomplished. In a program to find solutions to serious financial and economic problems encountered on high-altitude irrigation projects, and to provide guidelines for land development and water management, experimental crops were grown on 512 acres of land, using border dike, contour flooding, and circular sprinkling methods. As a result of these experimental farm studies, Fontenelle Dam, originally conceived as an irrigation storage dam, evolved toward storage of water for cities, industry, and fish and wildlife. Irrigation development has been indefinitely deferred.

U.S. Bureau of Reclamation, *Seedskadee Project History*, http://www.usbr.gov/projects/Project.jsp?proj_Name=Seedskadee%20Project (last visited Nov. 20, 2014); see also Linenberger, *supra* note 135, at 8.

¹³⁷ Westside Irrigation NEPA Analysis, *supra* note 134, at 142. Westside Land Conveyance Project Environmental Impact Statement 1-1 to 1-2 (2011), available at <http://www.blm.gov/style/medialib/blm/wy/information/NEPA/wfodocs/westside/feis.Par.87408.File.dat/004chap1.pdf> (providing a timeline of studies on the project).

As noted, the tribes' instream flow designation for water in the Wind River was annulled by the court in *Big Horn III*.¹³⁸ A video from 2005, *Our Water Our Future*, showcases the proposal of young tribal members for bottling and selling Wind River water, but no such program has developed.¹³⁹ In a very small way, the idea of bottling the Wind River raises the question of water marketing. In theory, there might be buyers off the reservation for many acre-feet of the tribes' future projects water.¹⁴⁰ Non-Indian irrigators could conceivably contract with the tribes to allow that water to flow down the river to them. Such contracts could provide those non-Indian irrigators with water of high priority—since it would be the tribes' 1868-priority-date water, contracted out to them—giving the non-Indian irrigators a security of supply that they don't now have. The Riverton Valley and LeClair irrigation districts near Riverton, for instance, now need more water than they have rights to. They can obtain the additional water only by grace of contracts with the federal Bureau of Reclamation. Under a somewhat complex "exchange" arrangement, the two districts pay the Bureau each year for water stored in Boysen Reservoir.¹⁴¹ The contracts these districts sign make it possible for them to take the water they need out of the Wind River, above Boysen, without injuring water users with higher priority far downstream. That is because the water they pay for that is stored in Boysen Reservoir is released downstream to the higher-priority irrigators, so those downstream irrigators get the amount of water they have rights to. At present the districts have only short-term contracts, renewed each year. They chose annual contracts to avoid the complicated and costly environmental analysis and public reviews that would be required for a long-term contract.¹⁴² Such reviews would involve the tribes and most likely require consideration of the uncertainty about if, when, and how the tribes will use their future projects rights.¹⁴³ Use of those rights could mean less water would reach Boysen for storage, and therefore less water would be available for any contracts with the Bureau.¹⁴⁴ As the builder and owner of Boysen Reservoir, the Bureau holds a Wyoming water right to the water stored

¹³⁸ *Big Horn III*, 835 P.2d at 280.

¹³⁹ *OUR WATER OUR FUTURE* (2005).

¹⁴⁰ The Wyoming Supreme Court prohibited such water marketing to entities outside the reservation boundaries. See *infra* note 148 and accompanying text.

¹⁴¹ Personal Interview with John Lawson, retired manager, Bureau of Reclamation Wyoming Office (Sept. 8, 2014).

¹⁴² *Id.*

¹⁴³ A long-term contract for water from Boysen would be considered a federal action requiring analysis under the National Environmental Policy Act. Personal Interview with John Lawson, retired manager, Bureau of Reclamation Wyoming Office (June 21, 2015). Such reviews require extensive analysis and public comment and require involvement of tribes and consideration of tribal concerns. U.S. Department of the Interior, Bureau of Reclamation NEPA Handbook, Attachment 7, Sec. 3 (A), (B) and (C), and Sec. 5 Principle 1, www.usbr.gov/nepa/ (last visited June 26, 2015).

¹⁴⁴ Personal Interview with John Lawson, retired manager, Bureau of Reclamation Wyoming Office (Sept. 8, 2014).

there. Congress authorized the agency to build the reservoir in the 1940s for flood control and other purposes, not irrigation; the agency contracts with irrigation districts upstream and downstream for use of the stored water.¹⁴⁵ The tribes, however, have argued that water stored in Boysen is actually the tribes' future projects water—and thus, they would say that through these annual contracts the Riverton Valley and LeClair districts are using the tribes' future projects award water.¹⁴⁶ Tribal members argue the tribes should be in charge of marketing that water to those districts or other users, and should be paid for it.¹⁴⁷

Water marketing was not heavily litigated in *Big Horn I*, but the court decision forbids the tribes from marketing their future projects water off the reservation.¹⁴⁸ Current federal law probably does not allow tribal reserved water rights to be marketed off-reservation, but Congress may approve tribal water marketing in the case of a settlement agreed to by all parties.¹⁴⁹ Other tribes have, in settlements of water rights with other states and with congressional approval, included specific provisions allowing them to market water off-reservation, in order to avoid restrictions imposed by this doctrine.¹⁵⁰

In 2000, the tribes and the State of Wyoming undertook a short-lived study of the potential for marketing some of the tribes' future projects water to the North Platte, to meet federal and interstate pressure on the state to provide more water in that river for endangered species.¹⁵¹ The idea seemed to disappear when the state was able to meet the pressures on the North Platte without any water imports.¹⁵² In 2007, the tribes made it clear in a State-Tribal Summit meeting that state assistance in funding water storage plus acceptance of leasing of tribes' future projects water to downstream water users on the Wind-Big Horn River are key

¹⁴⁵ U.S. Bureau of Reclamation, *Pick-Sloan Missouri Basin Program: Boysen Unit* (U.S. Government Printing Office, 1980); Wyoming water right permit 5576 R, 10-22-1935, held by the Bureau of Reclamation (on file with Wyoming State Engineer's Office).

¹⁴⁶ Personal Interview with John Lawson, retired manager, Bureau of Reclamation Wyoming Office (Sept. 8, 2014); Presentation at State-Tribal Summit by Sandra C'Bearing, member, Wind River Water Resources Control Board (Oct. 3, 2007).

¹⁴⁷ Sandra C'Bearing, *supra* note 146.

¹⁴⁸ *In re* General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources, 753 P.2d 76, 100 (Wyo. 1988); Schumacher, *supra* note 117, at 13.

¹⁴⁹ Chambers and Echohawk, *supra* note 18, at 464.

¹⁵⁰ *Id.* The Jicarilla Apache Tribe Water Rights Act of 1992 (P.L. 102-441, 106 Stat.2237), for instance, included Congressional approval of off-reservation marketing rights. For a list of tribal settlements as of 2005, listing key provisions including water marketing, see Colby et al., *supra* note 17, 171-76 tbl.A-1.

¹⁵¹ Wind River Export Study, Wyoming Water Development Commission 2000 Legislative Report, 4-94 (2000).

¹⁵² PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM (Oct. 24, 2006), *available at* <https://www.platteriverprogram.org/PubsAndData/Pages/ProgramLibrary.aspx>.

to a “win-win” solution on the Wind River.¹⁵³ No agreements on either of those points have developed since.

There might be other uses for the Wind River tribes’ future projects water, on the reservation, that are unexplored as of yet. Perhaps a series of parks, with specially-watered groves of cottonwoods and other water-loving plants the tribes prefer, could be established along the river. This would require irrigation and therefore use of the future projects water.¹⁵⁴ Perhaps the casino, where the Big Horn Symposium took place, needs a water-intensive landscaping plan (with some pipe laid to get the water there from the Big Wind River). Such a project would require the future projects water to be accessible for the casino at a point on the Big Wind below Diversion Dam, which currently diverts water for the major non-Indian irrigation district, Midvale. That could help accomplish the tribes’ water goal of keeping more water instream in the Big Wind River past Diversion Dam.

Stalled implementation of the future projects rights clearly can be attributed partly to bargaining power that is weaker than the State’s, and underlined as such by *Big Horn III*;¹⁵⁵ but it may also be a result of internal political problems. Disagreements between the two tribes as well as within each tribe may have slowed adoption and pursuit of a vigorous plan for using future projects water.¹⁵⁶

The route to addressing those internal problems is made more difficult by an initial stumbling block posed by disputes over management of the water

¹⁵³ Tribal officials, Presentation at State-Tribal Summit (Oct. 3, 2007) (on file with author) (Members of the Wind River Water Resources Board presented state officials with information on the federal Reclamation Fund as a potential source of funds for water storage projects).

¹⁵⁴ Municipal uses, such as parks, are considered subsumed under the agricultural purpose of the future projects rights. *In re* General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources, 835 P.2d 273, 278 (Wyo. 1992).

¹⁵⁵ *Id.* at 280–83 (discussing the authority of the State Engineer’s Office).

¹⁵⁶ Since the late nineteenth century the Eastern Shoshone and Northern Arapaho have been forced to work together to govern a single reservation and its resources. The federal government in the nineteenth century required that the two tribes share the Wind River Indian Reservation. The 1868 treaty provided that the Eastern Shoshone reserved the reservation lands for their use. Later in the century, the federal government required the Northern Arapaho tribe to live on that reservation as well. Early in the twentieth century the two tribes, each of which had its own business council, formed a joint business council. Brandi L. Hilton-Hagemann, *Indigenous Nationalism on the Wind River Indian Reservation, 1851–1938*, at 33–34 (2013) (Ph.D. Dissertation, University of Oklahoma). Necessarily, differing views within each tribe and between the two tribes emerged over different issues. In September 2014, for instance, coincidentally during the Big Horn Symposium in Riverton, the Northern Arapaho chose to leave the Joint Business Council. Letter from Northern Arapaho Business Council to Members of the Northern Arapaho Tribe (Sept. 9, 2014), *available at* http://www.northernarapaho.com/sites/northernarapaho.com/files/LF_NABC_to_NAT_members_9-9-14.pdf.

awarded by *Big Horn I* that serves existing irrigated lands.¹⁵⁷ Water deliveries and infrastructure maintenance on the Wind River irrigation system are managed by the Bureau of Indian Affairs (BIA),¹⁵⁸ part of the Department of the Interior, a remnant of early twentieth century implementation of federal trust responsibility to the tribes.¹⁵⁹ Only in the past year or so, however, has the BIA at Wind River taken into account the 1989 *Big Horn I* award giving existing tribal water rights a superior priority date of 1868, according to observers.¹⁶⁰ The lack of effective data-sharing and data management regarding the types and locations of rights only exacerbated matters.¹⁶¹

Worse still, since its inception, the Wind River Irrigation Project has been chronically underfunded by the Department of the Interior, so that the Wind River irrigation system was never built to the high standards set by the Bureau of Reclamation on the non-Indian irrigation district only a few miles away, west of Riverton.¹⁶² Lacking investment from the beginning, the irrigation system on the reservation has suffered from continued lack of funds and failures in maintenance.¹⁶³ “Structure failures are common and catastrophic failure of segments of the water delivery system is imminent,” a state report concluded in 2008.¹⁶⁴ The frustration of tribal irrigators is increased by regular BIA assessments

¹⁵⁷ *In re* General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources, 753 P.2d 76, 106–11 (Wyo. 1988).

¹⁵⁸ Big Horn symposium tour narrative, Gary Collins, Governor’s Liaison to Arapaho Tribe (Sept. 11, 2014).

¹⁵⁹ U.S. Department of the Interior, Bureau of Indian Affairs, *What We Do*, <http://www.bia.gov/WhatWeDo/index.htm> (last visited July 5, 2015).

¹⁶⁰ Until 2013, under its governing rules, the BIA continued to deliver water according to priority dates and in amounts many of those lands were to receive under state water rights—rights superseded by the *Big Horn I* award. Personal Interview with Sara Robinson, former Governor’s Liaison to Shoshone Tribe (Aug. 15, 2014); Personal Interview with Nancy McCann, Wyoming adjudication manager (Nov. 6, 2014 and Jan. 2015).

¹⁶¹ Big Horn symposium tour narrative, Gary Collins, Governor’s Liaison to Arapaho Tribe (Sept. 11, 2014); Personal Interview with Sara Robinson, former Governor’s Liaison to Shoshone Tribe (Aug. 15, 2014); Personal Interview with Nancy McCann (Nov. 6, 2014).

¹⁶² Colby et al., *supra* note 17, at 15 fig.2.1 (from U.S. Census of Agriculture data); O’GARA, *supra* note 123, at 216–26 (describing how funds derived from sale of the ceded portion of the reservation failed to shore up the reservation irrigation system, and went instead to the Bureau of Reclamation project nearby). The federal government convinced the tribes to cede a portion of the reservation in 1904, and encouraged non-Indians to settle the ceded lands. For a general discussion of the federal government’s failure, as guardian for Indian tribes, to develop Indian water rights, and the conflict of interest involved in federal interest in developing water for non-Indians, see FELIX S. COHEN, HANDBOOK OF FEDERAL INDIAN LAW ch. 10, § C, at 596–98 (Mitchie, 1982).

¹⁶³ A 2008 Wyoming Water Development Commission report noted that the Wind River Irrigation Project suffered from more than \$50 million in deferred maintenance work that has never been completed. The report noted that more than 60 percent of the structures needed repair and replacement, and more than 190 miles of canals and laterals (45 percent of the entire project) needed repair or reconstruction. WYOMING WATER DEVELOPMENT COMMISSION 2008 LEGISLATIVE REPORT, at 4–142 (2008).

¹⁶⁴ *Id.*

and late fees. Those assessments and fees are described by tribal members as being levied whether the proper amount of water under the decree has been delivered or not, and affecting lands that may not be irrigated; in addition the fees do not result, in tribal members' view, in noticeable maintenance improvements.¹⁶⁵

An obvious option for the tribes is to remove the BIA's role in system administration by contracting under federal law to run the system themselves.¹⁶⁶ Though there can be some disadvantages in taking over a dilapidated system, it appears there may be a move by the tribes in the next few years to take over management of the Wind River Irrigation Project from the BIA via such a contract.¹⁶⁷

Fixing the Wind River Irrigation Project is a major issue: the price tag for a proper fix is estimated at \$100 million.¹⁶⁸ Since the tribes obtained a seat on the Wyoming Water Development Commission, the agency has approved the tribes' joint applications requesting the commission to recommend that some state funds be allocated to update the Wind River irrigation system.¹⁶⁹ Thus far the State has granted some \$3.5 million, for which the Wyoming congressional delegation succeeded in obtaining matching federal funds.¹⁷⁰ Even in a period of federal belt-tightening, it appears more may be allocated. Working with the Wyoming delegation, the tribes are backing a bill for tribal irrigation works West-wide that would allocate a total of \$4 million annually for twenty years to the Wind River tribes.¹⁷¹ The legislation would provide an additional \$80 million to update the Wind River irrigation system.¹⁷²

¹⁶⁵ Big Horn Symposium tour narrative, *supra* note 161; Sara Robinson Interview, *supra* note 161; Nancy McCann interview, *supra* note 161.

¹⁶⁶ Indian Self-Determination and Education Act of 1975, Pub. L. No. 93-638 (amended 1994). For background history and regulations, see U.S. Department of the Interior, Bureau of Indian Affairs, *Indian Self-Determination and Education Assistance Act, as Amended*, <http://www.bia.gov/cs/groups/mywccsp/documents/collection/idc017334.pdf> (last visited Nov. 29, 2014).

¹⁶⁷ Personal Interviews with individuals requesting anonymity (Sept.–Nov. 2014).

¹⁶⁸ Acting Tribal Water Engineer Mitch Cottenoir, presentation to Wyoming Water Association, Casper, WY (Oct. 30, 2014).

¹⁶⁹ WYOMING WATER DEVELOPMENT COMMISSION 2008 LEGISLATIVE REPORT, at 4–142 (2008); Cottenoir Presentation, *supra* note 168. See also *infra* notes 176 and 177 and accompanying text.

¹⁷⁰ 2008 LEGISLATIVE REPORT, *supra* note 169, at 4–142.

¹⁷¹ S. 715, 113th Congress (2013–14), Authorized Rural Water Projects Completion Act, Title IV, Repair, Replacement and Maintenance of Certain Indian Irrigation Projects, *available at* <https://www.congress.gov/bill/113th-congress/senate-bill/715?q=%7B%22search%22%3A%5B%22Indian+irrigation%22%5D%7D>. The bill, including funding for the Wind River irrigation system, was supported by Wyoming Senator John Barrasso at the Senate Committee on Indian Affairs Oversight Hearing on “Indian Projects in Indian Country” (Sept. 10, 2014). Acting Tribal Water Engineer Mitch Cottenoir testified on the needs of the Wind River project at that hearing.

¹⁷² S. 715, 113th Congress (2013–14), Authorized Rural Water Projects Completion Act, Title IV, Repair, Replacement and Maintenance of Certain Indian Irrigation Projects, *available at* <https://www.congress.gov/bill/113th-congress/senate-bill/715?q=%7B%22search%22%3A>

The tribes have also been able to take steps toward the support of fisheries, expressed in the tribal water code and management plan, by installing fish screens at head-gate diversions to keep fish in streams and out of irrigation ditches, and installing fish ladders to aid sauger, a native fish similar to walleye.¹⁷³ The tribes have established wide partnerships for this work, working with the BIA, U.S. Fish and Wildlife Service, Wyoming Water and Natural Resource Trust, Wyoming Water Development Commission, and Trout Unlimited.¹⁷⁴ Tribal officials who oversee the Tribal Water Engineers' office are also now urging the Bureau of Reclamation and the Midvale Irrigation District, with its major Wyoming Canal diversion off the mainstem of the Wind River, to install fish screens and updated fish passage structures.¹⁷⁵

Meanwhile, a significant positive development has occurred on reservation irrigation ditches, where irrigators have joined together to take over management of water delivered by the BIA to the head of a canal.¹⁷⁶ Water users on individual canal systems typically have water rights of different priority and what irrigators call "high-ority," the latter indicating their geographical position on a ditch where, particularly in a poorly-maintained system, it may be physically difficult to deliver water due at the tail-end as readily as to the head.¹⁷⁷ The willingness and ability of the water users on such ditches to join together to create management teams that benefit them all bodes well for water users to come together to solve other problems. It is significant that the water users of the Ray Canal ditch, one of the ditches where this has occurred, and the ditch leadership, include both Indian and non-Indian irrigators.¹⁷⁸

The two tribes do not agree on all policy issues, and indeed the Northern Arapaho Business Council in September 2014 withdrew from the two tribes' previous Joint Business Council.¹⁷⁹ But the Northern Arapaho council noted

%5B%22Indian+irrigation%22%5D%7D. In the 114th Congress opening in January 2015, Wyoming Senator John Barrasso, as the new chairman of the U.S. Senate Committee on Indian Affairs, vowed continued support of the legislation to fund updates of tribal irrigation systems West-wide, noting that on the Wind River Indian Reservation, deferred maintenance, inefficient water delivery, and damaged infrastructure are "perpetual problems." Senator John Barrasso, Speech to the National Congress of American Indians (Jan. 22, 2015) (quoted in Press Release, Senator John Barrasso, Barrasso Delivers Congressional Response to 2015 State of Indian Nations Address (Jan. 22, 2015), *available at* <http://www.barrasso.senate.gov/public/index.cfm/news-releases?ID=436b7aca-5a73-4db3-a20c-94d380bec572>).

¹⁷³ Cottenoir Presentation, *supra* note 168.

¹⁷⁴ *Id.*

¹⁷⁵ *Id.*

¹⁷⁶ *E.g.*, Ray Canal: Big Horn Symposium Tour (Sept. 11, 2014).

¹⁷⁷ *Id.*

¹⁷⁸ *Id.*

¹⁷⁹ Northern Arapaho Business Council Letter, *supra* note 156.

that the two tribes would continue to cooperate through joint committees or other means.¹⁸⁰ On water issues, however, the two tribes have worked together as necessary, and separately when appropriate.¹⁸¹ The dedication of some future projects water to instream flow in 1992, which led to *Big Horn III*, was a decision both tribes supported.¹⁸² Similarly, the tribes have joined forces to seek state and federal funds for rehabilitation of the Wind River Irrigation system, for years leading up to and including 2014.¹⁸³ To finance drinking water infrastructure for Shoshone and Arapaho communities, located in different geographic areas of the reservation, the tribes have applied separately for state funds.¹⁸⁴ In addition, on non-water issues that require combined action to get federal attention, the tribes joined together in their application to the EPA for TAS for Clean Air Act monitoring.¹⁸⁵ In the Fremont County voting rights case, Judge Alan Johnson found significant political and community cohesion between the Eastern Shoshone and Northern Arapaho tribes.¹⁸⁶

In the comparison case of Puget Sound, considerable disagreement has occurred both among tribes, and within individual tribes, regarding which policy initiatives to pursue on fishing issues. Differing intertribal and intra-tribal goals

¹⁸⁰ *Id.* The Northern Arapaho Business Council noted that the Joint Business Council was a creation of the federal government rather than coming from the tribes' traditions, and said the JBC had hobbled both tribal governments and created barriers to development. *Id.*; see also Hilton-Hagemann, *supra* note 156.

¹⁸¹ *In re* General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources, 835 P.2d 273, 275–76 (Wyo. 1992) (*Big Horn III*); O'GARA, *supra* note 123, at 227–28.

¹⁸² *Big Horn III*, 835 P.2d at 275–76; O'GARA, *supra* note 123, at 227–28.

¹⁸³ See *supra* notes 144–48 and accompanying text.

¹⁸⁴ Both the Shoshone Well and Transmission project sponsored by the Eastern Shoshone Tribe and the Ethete Water Supply project sponsored by the Northern Arapaho tribe have, since 2004, won state funds for transforming drinking water systems dependent on surface water sources, poor in both quality and quantity, to groundwater sources. WYOMING WATER DEVELOPMENT COMMISSION 2008 LEGISLATIVE REPORT, at 4-112 (2008); WYOMING WATER DEVELOPMENT COMMISSION 2011 LEGISLATIVE REPORT, at 3-31, 3-32 (2011).

¹⁸⁵ Approval of Application Submitted by Eastern Shoshone Tribe and Northern Arapaho Tribe for Treatment in a Similar Manner as a State Under the Clean Air Act, Notice of Final Action, 78 Fed. Reg. 76,829, 76,829–30 (E.P.A. Dec. 19, 2013).

¹⁸⁶ Memorandum Opinion, James E. Large v. Fremont County, U.S. District Court, Wyoming, Judge Alan B. Johnson, Apr. 29, 2010, at 23–42, Large v. Fremont Cnty., 709 F. Supp. 2d 1176 (D. Wyo. 2010) (No. 05-CV-0270). The development of tribal governments over the past 150 years has of course been hampered by changing federal policy towards the very existence of Indian tribes. Williams, *supra* note 72, at 1–3. For a detailed discussion of the growth and changes in governance structure on the Wind River Indian Reservation from the 19th to mid-twentieth centuries, see Hilton-Hagemann, *supra* note 156. Discussions of optimal tribal governance draw on history and political science. For instance, for an interesting use of tribal tradition and modern political theory, focusing on Sioux tribal government, see Delmer Lonowski, *A Return to Tradition: Proportional Representation in Tribal Government*, 18 AM. INDIAN CULTURE AND RES. J. 147, 147–63 (1994).

have led to the tribes refraining, at times, from adopting economically optimal allocation rules for fish catches.¹⁸⁷ In many cases, however, the tribes have worked through inter- and intra-tribal disagreements to adopt new policies when they could see a larger goal.¹⁸⁸

Moving from the arena of politics to that of knowledge, the ineffectiveness of data sharing thus far between the State Engineer's Office and the Tribal Water Engineer's office, suggests that there is much room for establishing and enlarging a shared knowledge base. In the Puget Sound case, crucial pieces of the progress made in co-management of fisheries included the tribes' ability to hire and work with their own scientists, who aided considerably in the understanding of the complex Puget Sound fisheries system, and the increased trust among all parties in fisheries scientists.¹⁸⁹ High-level Wyoming officials may appear hostile to this kind of capacity development by the tribes. The EPA's award of TAS status to the Wind River tribes for air quality commenting and recommendations to EPA is based on the capacity for such commenting that the tribes have built up.¹⁹⁰ The State's decision to challenge the EPA action, though focusing on boundary determination issues, does not offer much welcome to the tribes' work on environmental monitoring. Yet capacity development on the part of the Shoshone and Arapaho tribes has been significant in the last twenty-five years under the leadership of the late Don Aragon, director of the Wind River Environmental Commission staff.¹⁹¹ That capacity within the tribes could give them the tools to seek, alongside the State, what could eventually become a shared understanding of the river. After that, the tribes and the State could explore what more could be done in river management to meet all needs.

IV. EYEING THE FUTURE

Nancy McCann, the Wyoming State Engineer's Office Adjudication Manager, suggested at the Big Horn Symposium that a "joint management plan" for the Wind-Big Horn River could one day be the "icing on the cake" of the completed Big Horn adjudication.¹⁹² Though co-management of the Wind River appears very unlikely in the near term, this analysis suggests that steps could be taken to make some form of co-management possible in perhaps another twenty years. Legally, agreements for a structure to manage water other than what was left in

¹⁸⁷ Singleton, *supra* note 28, at 108–15, 138–40.

¹⁸⁸ *Id.* at 118–22, 125–37.

¹⁸⁹ *Id.* at 144–45.

¹⁹⁰ Decision Document, attached to Letter from Environmental Protection Agency to Northern Arapaho and Eastern Shoshone Tribes 13–14 (Dec. 6, 2013).

¹⁹¹ Memorandum from Don Aragon to Wind River Environmental Quality Commission staff (Dec. 4, 2011) (on file with author).

¹⁹² McCann Interview, *supra* note 161.

place by the *Big Horn* decisions are possible. Politically, it appears that despite low points in state-tribal relations, the scene may shift slightly. Tribal bargaining power on water issues might increase following current tribal action that seeks consolidating control and rehabilitation of existing water infrastructure on the reservation.¹⁹³ Continued tribal interest in supporting fisheries may mean the tribes could bring other players into partnerships to push for water management for fisheries.¹⁹⁴ That suggests a potential for concerted tribal attention to making water management on the Wind River serve the full array of water uses outlined in the tribal water code.

The greatest opportunity for progress may lie in the knowledge arena: taking steps to build shared information and a consensus understanding of the river and its users' needs. Discussion at the Big Horn Symposium suggested that it is the users who could and should take the first steps towards change—perhaps leaving lawyers and engineers out of the initial discussions.¹⁹⁵ Potentially, both users and would-be users—including people whose interests in the Wind River aren't recorded in water rights—could get together and propose a data gathering and learning project that might attract state or federal funds. The example of the Indian and non-Indian water users who have joined together on individual canal systems to manage their water locally points toward what could be done.

Once users begin to work through mutually agreed-upon data, they could propose some mutually agreed-upon projects: perhaps the fish screen and passage improvements the tribes believe are needed on the Wyoming Canal; perhaps non-Indian and State acceptance of some of the tribes' desired but unrealized uses of their future projects water, in return for a tribal agreement regarding use of future projects water that would give more certainty to the water supply of the non-tribal districts on the Wind River.¹⁹⁶

¹⁹³ See *supra* notes 160–69 and accompanying text.

¹⁹⁴ The U.S. Fish and Wildlife Services (USFWS) has examined the Wind River for fisheries potential, and one of the key tribal members who worked for instream flow to support fisheries in 1990, Richard Baldes, had a long career with the USFWS. O'GARA, *supra* note 123, at 221–23. The National Wildlife Federation took an interest in the tribes' fishery and instream flow effort in 1990. O'GARA, *supra* note 123, at 221–23.

¹⁹⁵ Big Horn Symposium, Amy Cordalis, Prospective Intrastate Panel (Sept. 12, 2014).

¹⁹⁶ See *supra* notes 135–38 and accompanying text. The “exchange” contracts that the Riverton Valley and LeClair Irrigation Districts now sign with the Bureau of Reclamation to send water stored by the Bureau to irrigators downstream, making up for water the Riverton Valley and LeClair districts take from the Wind River upstream of the reservoir, currently must be signed anew each year. The Bureau will not approve longer-term contracts because of the uncertainty of if, when, and how the tribes may use their future projects rights. Longer-term exchange contracts with the Bureau would improve the security of the supply for the Riverton Valley and LeClair districts, but might be possible only with some form of binding commitment from the tribes. Personal Interview with John Lawson, retired manager, Bureau of Reclamation Wyoming Office (Sept. 8, 2014).

The Wyoming State Engineer's Office (SEO) might be able to take a new role through this kind of work, starting with data gathering and interpretation. Several speakers at the Symposium noted that in tribal water adjudications and settlements in other states, state engineers have played a crucial role as neutral information sources, rather than merely representing water users.¹⁹⁷ By contrast, in the Big Horn litigation, the SEO actively represented state water right holders, particularly in the early years.¹⁹⁸

Over the long course of the litigation, however, the SEO has begun to take on a new role. The SEO's adjudication manager collated and became a source of information. Over the years she has several times supplied to the tribes data provided by tribal consultants, put together into maps and databases by the State, and approved as accurate by the court.¹⁹⁹

Now, with the litigation finished, it should be possible for the SEO to fully shoulder the role of neutral information provider. For that to happen, however, everyone concerned has to trust the information and the provider. That point has not been reached, but perhaps it could be, as users start to talk to one another and learn how to read and use the data, and eventually work toward some joint projects.

Justice Golden, in his *Big Horn III* dissent, characterized the majority decision as a "deliberate and transparent effort to eliminate the political and economic base of the Indian peoples under the distorted guise of state water law superiority."²⁰⁰ More than twenty years later, effort is much needed to reverse the situation left by the *Big Horn III* majority. As the Big Horn Symposium ended in fall 2014, veterans of the *Big Horn* litigation who had once represented disparate interests, sitting together at a lunch table, agreed that what is needed now is work toward "small successes" that might lay the groundwork for something new and better on the river—for co-management. There may be hope that in the next few years, people in the Wind-Big Horn Basin will start taking those steps toward small but significant successes.

¹⁹⁷ Big Horn Symposium, John Thorson, Comparative Panel (Sept. 11, 2014).

¹⁹⁸ Justice Golden of the Wyoming Supreme Court, in his dissent in *Big Horn III*, described the state engineer in 1990 acting as "the state's chief negotiator in talks with the Tribes over water issues and at the same time retaining the constitutional duty to protect the waters of the state." *In re* General Adjudication of All Rights to Use Water in the Big Horn River System and All Other Sources, 835 P.2d 273, 297 (Wyo. 1992) (*Big Horn III*).

¹⁹⁹ McCann Interview, *supra* note 161.

²⁰⁰ *Big Horn III*, 835 P.2d at 304.