

RIVERS OF THE HOMELAND: RIVER RESTORATION ON INDIAN RESERVATIONS

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INTRODUCTION: THE POLITICS OF RESTORATION

There has been a 500-year struggle in the United States between American Indians and the intruding settlers from other lands. While this conflict has primarily centered on land, the conflict over water is equally important because without water land is valueless.

Much of the struggle over Indian water has taken place in the courtroom. Historically, state governments did not recognize the water rights of Indian reservations. To the states, Indian tribes were no different than other water users and had to file for water rights like individuals or corporations. Until fairly recently, Congress also refused to acknowledge special water rights for Indian reservations. Accordingly, no statute has generally sanctioned the creation of water rights appurtenant to federally recognized Indian lands. The water rights of American Indian tribes are strictly the creation of federal courts. Beginning with the 1908 landmark case of *Winters v. United States*.¹ and continuing through a long string of subsequent decisions, the courts have defined the doctrine of federally reserved water rights.²

The Indian water conflict began to change in the 1980s when the federal government started to emphasize negotiated settlements as an alternative to expensive and seemingly endless litigation.³ As a result, over twenty tribes have signed settlement agreements since 1980.⁴ At the same time, a major shift occurred in federal water policy as agencies placed greater emphasis on demand-control, ecosystem management, and more efficient allocations of both water and funding. One aspect of the settlement approach to water conflicts was the recognition that some

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¹ 207 U.S. 564 (1908).

² See LLOYD BURTON, *AMERICAN INDIAN WATER RIGHTS AND THE LIMITS OF LAW* (1991); DANIEL MCCOOL, *COMMAND OF THE WATERS* (1994); THOMAS MCGUIRE ET AL., *INDIAN WATER IN THE NEW WEST* (1993); JOHN SHURTS, *INDIAN RESERVED WATER RIGHTS* (2000).

³ See BURTON, *supra* note 2, at 48–62; PETER SLY, *RESERVED WATER RIGHTS SETTLEMENT MANUAL* 25–36 (1988).

⁴ See BONNIE COLBY ET AL., *NEGOTIATING TRIBAL WATER RIGHTS* (2005); DANIEL MCCOOL, *NATIVE WATERS* 82–86 (2002); JOHN THORSON ET AL., *TRIBAL WATER RIGHTS* 133–195 (2006).

water development is not beneficial and that society is best served by the restoration of some streams and rivers.⁵

Many of these restoration projects involve Indian reservations. In many ways, river restoration is even more important to native culture than water development. It is a way to maintain traditional homelands, exercise sovereignty and regain a sense of the past by reestablishing ties to the land and its waters. This article will explain the political and economic forces driving river restoration and will then examine four specific restoration projects that directly involve American Indian tribes. These four projects were selected to provide a broad overview of a variety of restoration projects involving Indian reservations. They vary across both restoration techniques and political strategies, thus providing an understanding of the diversity of these projects. They also cover a large geographic spectrum, ranging from coast to coast.

The United States has a long history of dam building and water development. For the first 200 years of this country's existence, rivers were viewed in a strictly utilitarian sense, to be dammed, diverted, controlled and developed to serve the needs of the nation. In many ways, the development of our nation's rivers contributed directly to the settlement of the country and its economic growth.⁶ Water projects also proved to be a useful source of government pork as politicians sought to funnel money to home districts and states.⁷ But there was virtually no recognition of the economic costs and environmental impact of this development.⁸

As a result, the nation went on a binge when it came to water development. There are nearly 79,000 dams over twenty-five feet in height,⁹ and approximately 2.5 million dams have been built in total.¹⁰ The U.S. Army Corps of Engineers manages and maintains 8,500 miles of levees, 12,000 miles of navigation channels, 240 locks, 75 hydropower facilities,

⁵ See ELISABETH GROSSMAN, WATERSHED 1-8 (2002); WILLIAM R. LOWRY, DAM POLITICS: RESTORING AMERICA'S RIVERS 1-7 (2003); PATRICK McCULLY, SILENCED RIVERS 1-25 (1996); TIM PALMER, ENDANGERED RIVERS AND THE CONSERVATION MOVEMENT 1-4 (2d ed. 2004). See generally ELLEN WOHL, DISCONNECTED RIVERS (2004).

⁶ See generally JOHN A. FEREJOHN, PORK BARREL POLITICS: RIVERS AND HARBORS LEGISLATION, 1947-1968 (1974); LOWRY, *supra* note 5.

⁷ See generally DANIEL MCCOOL, COMMAND OF THE WATERS: IRON TRIANGLES, FEDERAL WATER DEVELOPMENT, AND INDIAN WATER (Univ. of Ariz. Press 1994); RICHARD W. WAHL, MARKETS FOR FEDERAL WATER: SUBSIDIES, PROPERTY RIGHTS, AND THE BUREAU OF RECLAMATION (1989).

⁸ See generally PATRICK McCULLY, SILENCED RIVERS: THE ECOLOGY AND POLITICS OF LARGE DAMS (1996); ELLEN E. WOHL, DISCONNECTED RIVERS: LINKING RIVERS TO LANDSCAPES (2004).

⁹ U.S. ARMY CORPS OF ENG'RS, NATIONAL INVENTORY OF DAMS FACT SHEET 1 (July 2005), available at http://www.tec.army.mil/fact_sheet/nid.pdf.

¹⁰ NAT'L RESEARCH COUNCIL, RESTORATION OF AQUATIC ECOSYSTEMS 26 (1992).

926 harbors, and 541 dams.¹¹ The U. S. Bureau of Reclamation manages and maintains 472 dams, 58 hydropower facilities¹², and 56,000 miles of conveyance systems.¹³ The Tennessee Valley Authority alone constructed 49 dams.¹⁴ Much additional water development was done by state and local governments, special water districts, and by private interests. Development is so widespread that a study by the National Park Service found that only 2% of the nation's river miles were in a state of "high natural quality."¹⁵

The massive level of river development has had a disproportionate impact on Indian reservations for four reasons. First, Indian reservations were primarily established as remnants of traditional homelands where most principal villages and settlements tended to be on major water courses.¹⁶ The more recent trend of locating major cities and suburbs without regard to a viable local water supply (Las Vegas, Phoenix, San Diego, Los Angeles) occurred after many reservations were already established. This invariably led to conflicts as growing cities claimed and diverted increasing amounts of water—water that was also coveted by Indian tribes.¹⁷ Thus, the development of rivers inevitably had a direct impact on Indian reservations where much of the settlement has occurred along major water courses.¹⁸

The second reason I call the "Missouri River Syndrome." When water developers looked for land to be flooded by a new reservoir, it was often politically expedient to flood Indian lands rather than lands held by influential non-Indians. Along the upper Missouri River the construction

¹¹ U.S. ARMY CORPS OF ENG'RS, CIVIL WORKS STRATEGIC PLAN FISCAL YEAR 2004–FISCAL YEAR 2009, at 39, 62 (Mar. 2001), available at http://www.usace.army.mil/cw/hot_topics/cw_strat.pdf.

¹² U.S. DEP'T OF THE INTERIOR, BUREAU OF RECLAMATION, RECLAMATION MANAGING WATER IN THE WEST: 2006 ANNUAL REPORT 24, 31 (2006), available at http://www.usbr.gov/library/annual_reports/FY2006/MDA.pdf.

¹³ *Energy and Water Development Appropriations for Fiscal Year 2005: Hearings Before the Subcomm. on Energy and Water Development of the H. Comm. on Appropriations*, 108th Cong. pt. 3, at 736 (2004).

¹⁴ FEMA, THE NATIONAL DAM SAFETY PROGRAM 4 (2004), available at <http://www.fema.gov/plan/prevent/damfailure/pdf/ndsp-25-years.pdf>.

¹⁵ NAT'L PARK SERV., NATIONWIDE RIVERS INVENTORY (1982), <http://nps.gov/nrcr/programs/rcs/nri/>; see also NAT'L MARINE FISHERIES SERV. PROTECTED SPECIES BRANCH & MGMT DIV., FACTORS FOR DECLINE: A SUPPLEMENT TO THE NOTICE OF DETERMINATION FOR WEST COAST STEELHEAD UNDER THE ENDANGERED SPECIES ACT (1996), <http://www.nwr.noaa.gov/ESA-Salmon-Listings/Salmon-Populations/Reports-and-Publications/loader.cfm?url=/commonspot/security/getfile.cfm&pageid=27113>.

¹⁶ See WENDY NELSON ESPELAND, THE STRUGGLE FOR WATER 1–3 (1998); DONALD PISANI, WATER AND AMERICAN GOVERNMENT 154–301 (2002).

¹⁷ See generally W. STATES WATER COUNCIL, INDIAN WATER RIGHTS IN THE WEST (May 1984) (Study prepared for W. Governors' Ass'n).

¹⁸ See David Getches, *Indian Water Rights in Perspective*, in INDIAN WATER IN THE NEW WEST 7, 7–26 (Thomas McGuire, William Lord & Mary Wallace eds., 1993).

of five enormous main-stem reservoirs by the Army Corps of Engineers flooded approximately 350,000 acres of prime reservation lands.¹⁹ The impact on the affected tribes was devastating.²⁰ In Pennsylvania the Kinzua Dam inundated Seneca lands.²¹ Other federal dams have affected Crow Indian lands in Montana and part of the Winnebago Reservation in Nebraska.²² The Bureau of Reclamation attempted, without success, to flood nearly the entire Fort McDowell Indian Reservation in Arizona.²³ In most cases, Indian people resisted the inundation of their land but lacked the political power necessary to fight against powerful federal water agencies and their local allies.²⁴

Third, most of the Bureau of Reclamation's irrigation projects have diverted water away from Indian reservations.²⁵ The Bureau has a long history of ignoring the needs of Indian reservations when planning and building large water projects.²⁶ In some cases, the Bureau's diversions have completely de-watered reservation rivers and streams.²⁷

The fourth reason concerns fish stocks. The construction of hundreds of dams has destroyed or greatly diminished the primary source of food for many tribes.²⁸ This is especially true for the anadromous fishruns along both coasts. Anadromous fish, those that live in the sea but breed in freshwater, were more plentiful in the past and formed an essential part of traditional Indian culture and identity; they were not just sustenance, but shaped how tribes related to the natural world and how they viewed their relationship with the creator. The Columbia River Inter-Tribal Fish Commission expressed this sentiment in a recent report: "The Salmon's spirit . . . is sacred life . . . [t]he salmon unselfishly gave

¹⁹ MICHAEL LAWSON, DAMMED INDIANS 27-67 (1982).

²⁰ *Id.*

²¹ MCCOOL, *supra* note 2, at 175-80.

²² *Id.*

²³ *Id.*

²⁴ *See id.*; LAWSON, *supra* note 19, at 27-67.

²⁵ *See* MCCOOL, *supra* note 2, at 175-80; PISANI, *supra* note 16, at 154-80; Monique Shay, *Promises of a Viable Homeland, Reality of Selective Reclamation: A Study of the Relationship Between the Winters Doctrine and Federal Water Development in the Western United States*, 19 ECOLOGY L.Q. 547, 547-91 (1992).

²⁶ *See* sources cited *supra* note 25.

²⁷ *See* Norris Hundley, Jr., *The "Winters" Decision and Indian Water Rights: A Mystery Reexamined*, 13 W. HIST. Q. 17, 40-41 (1982). *See generally* CHARLES DUMARS, MARILYN O'LEARY & ALBERT UTTON, PUEBLO INDIAN WATER RIGHTS (1984); MARTHA KNACK & OMER C. STEWART, AS LONG AS THE RIVER SHALL RUN: AN ETHNOHISTORY OF PYRAMID LAKE INDIAN RESERVATION (1st ed. 1984).

²⁸ *See, e.g.*, LISA MIGHETTO & WESLEY J. EBEL, SAVING THE SALMON: A HISTORY OF THE U.S. ARMY CORPS OF ENGINEERS' EFFORTS TO PROTECT ANADROMOUS FISH ON THE COLUMBIA AND SNAKE RIVERS (1994); FED. COLUMBIA RIVER POWER SYS., THE COLUMBIA RIVER SYSTEM INSIDE STORY 38-45 (2d ed. 2001), available at http://www.bpa.gov/power/pg/columbia_river_inside_story.pdf.

of itself for the physical and spiritual sustenance of humans.”²⁹ Many of the restoration efforts taking place today are focused on restoring fish runs that were the mainstay of so many tribes.

Given the enormous impact that water development has had on Indian people, it is not surprising that they would play a major role in efforts to restore rivers. Today there are hundreds of river restoration projects taking place across the nation.³⁰ Many, but not all, of these involve dam removal. Since 1912 about 465 dams were removed in the United States.³¹ Since 1999, another 145 dams have been removed.³² However, dam removal is just one aspect of river restoration; many rivers are partially restored while dams on the same river are maintained. Indian tribes are the primary leaders of some of these restoration efforts, but the more typical *modus operandi* is for tribes to participate in a broad coalition of stakeholder groups that work together to restore rivers. In the following section, this article briefly describes four restoration efforts involving Indian tribes.

I. FOUR CASE STUDIES

A. THE PENOBSCOT RIVER

Every major river in Maine has been dammed in multiple locations for hydropower and to power paper mills, including the Penobscot, which flows through the center of the state.³³ As a result, the great fish runs that used to course up Maine’s rivers each year have virtually disappeared.³⁴ The loss of the great Atlantic salmon runs was a significant economic loss to the state, but it had an even greater impact on the Indian

²⁹ 1 COLUMBIA RIVER INTER-TRIBAL FISH COMM’N, WY-KAN-USI-MI WA-KISH-WIT SPIRIT OF THE SALMON: THE COLUMBIA RIVER ANADROMOUS FISH RESTORATION PLAN OF THE NEZ PERCE, UMATILLA, WARM SPRINGS, AND YAKAMA TRIBES (1995), http://www.critfc.org/oldsite/text/TRP_intro.htm (under “Preface”).

³⁰ See generally ASPEN INSTITUTE, DAM REMOVAL: A NEW OPTION FOR A NEW CENTURY (2002), available at <http://www.aspeninstitute.org/atf/cf/%7BDEB6F227-659B-4EC8-8F84-8DF23CA704F5%7D/DAMREMOVALOPTION.PDF>; ELIZABETH GROSSMAN, WATERSHED: THE UNDAMMING OF AMERICA (2002); H. JOHN HEINZ CTR. FOR SCIENCE, ECONOMICS & ENV’T, DAM REMOVAL RESEARCH: STATUS AND PROSPECTS (William L. Graf ed., 2003), available at http://www.heinzctr.org/NEW_WEB/PDF/Dam_Research_Full%20Report.pdf; LOWRY, *supra* note 5; TIM PALMER, ENDANGERED RIVERS AND THE CONSERVATION MOVEMENT (2d ed. 2004).

³¹ See FRIENDS OF THE EARTH ET AL., *Introduction to Dam Removal Success Stories*, at viii (1999), available at <http://www.foe.org/res/pubs/pdf/successstories.pdf>.

³² See AMERICAN RIVERS, DAMS REMOVED FROM 1999–2003 (2004), available at http://www.americanrivers.org/site/DocServer/1999-2003_dams_removed_list.pdf?docID=301.

³³ NATURAL RES. COUNCIL OF ME., A CITIZENS GUIDE TO DAMS, HYDROPOWER, AND RIVER RESTORATION IN MAINE 6–7, available at http://www.nrcm.org/documents/nrcm_river_restoration.pdf.

³⁴ Rory Saunders, Michael Hachey & Clem Fay, *Maine’s Diadromous Fish Community*, 31 FISHERIES 537, 541 (2006).

tribes that depended on the salmon and other anadromous fish for their livelihood.³⁵ One of the hardest hit tribes was the Penobscot Nation.³⁶

Advocates of river restoration did not have a fighting chance to remove some of the dams until the 1980s, when Congress amended the enabling act for the Federal Energy Regulatory Commission (FERC).³⁷ Maine made news in 1999 when it removed Edwards Dam on the Kennebec River—the first time in America that a dam was removed against the wishes of its owner.³⁸ The restorationists then turned their attention to the Penobscot River, which drains most of central Maine. After years of haggling, a multi-party agreement was signed in 2003; it promises the removal of two dams on the Penobscot River, the modification of others, and the opening up of 500 miles of salmon habitat.³⁹

The Penobscot Tribe played a major role in the negotiations and was a signatory to the agreement.⁴⁰ Barry Dana, the Chief of the Penobscot Nation at that time, described what the historic settlement meant to his people:

Words may not describe what this restoration project means to me and my people We are inextricably tied to the Penobscot River through a cultural, physical, and spiritual relationship that runs in our veins as the original inhabitants of this region. . . . It is time that we, as a society, begin to repay the Penobscot River for all that she has provided for such a long time.⁴¹

Maine's rivers have always been viewed as one of its greatest natural resources. Native Americans in this region thrived on the fishing and wildlife found in and around the rivers. The Penobscot River alone supported salmon runs estimated at 50,000 to 70,000.⁴² In the early days of European settlement, rivers were used to float giant log rafts were dammed to power sawmills and gristmills.⁴³ Later, rivers were dammed

³⁵ BUTCH PHILLIPS, *A RIVER RUNS THROUGH US* 1-4 (Penobscot River Restoration Trust 2006), available at http://www.penobscotriver.org/assets/river_BP06_blue.pdf.

³⁶ *Id.*

³⁷ Electric Consumers Protection Act of 1986, P.L. 99-495, 100 Stat. 1243 (1986).

³⁸ ME. STATE PLANNING OFF., *KENNEBEC RIVER RESOURCE MANAGEMENT PLAN* 196 (1993), available at <http://www.maine.gov/sos/cec/rules/07/105/105c001.doc>.

³⁹ Douglas Watts, *Penobscot Reborn*, ATLANTIC SALMON J., Winter 2003, at 26; Mary Wittenberg, *Historic Maine Bargain Opens Way for Return of Atlantic Salmon Runs*, CHRISTIAN SCIENCE MONITOR, Oct. 7, 2003 at 3.

⁴⁰ Penobscot River Restoration Trust, <http://www.penobscotriver.org/> (last visited June 6, 2007).

⁴¹ Statement of Barry Dana, Chief of the Penobscot Nation, Office of the Governor and Council, in *Indian Island*, Me. (2003).

⁴² Penobscot River Restoration Trust, *supra* note 40.

⁴³ Watts, *supra* note 39, at 29.

to generate electricity.⁴⁴ The rivers also proved useful as a dump for polluted refuse from pulp mills.⁴⁵ Today, the Penobscot people and the rest of the state's residents must contend with the legacy of these uses.

The two dams on the Penobscot slated for removal are the result of a carefully negotiated collaboration between the power company, interest groups, the state, and the Penobscot Nation. The two dams are just downstream from the reservation. The first is the Great Works Dam, which is owned by PPL, the local power company.⁴⁶ A few miles below Great Works Dam is the Veazie Dam.⁴⁷ It is the first dam on the river, and stops most anadromous fish from continuing upstream.⁴⁸ There is a narrow, aging fish ladder near the center of the dam, but few salmon manage to climb it.⁴⁹ The fish ladder is even less effective in assisting other species of fish over the dam, such as alewives and sturgeon.⁵⁰ It is instructive that the clubhouse for the Veazie Salmon Club sits on a bluff overlooking the river just downstream from the dam.⁵¹ However, this section of the river is now closed to all fishing due to a lack of fish.

Much of the controversy over dams has centered on Atlantic salmon, but the objectives of the Tribe are much greater. John Banks, the director of Natural Resources for the Penobscot Nation, explained that:

Until recently, people didn't see the relationship between alewives and other species, but they play a large ecological role in the ecosystem. We need to focus on all species, not just the Atlantic salmon. It's the game fish that get all the attention due to [Endangered Species Act] issues, but we try to look beyond salmon and look at the river as a whole.⁵²

To the Penobscot people, the restoration of the river is a cultural necessity, not just an economic or ecological amenity. Tribal Elder Butch Phillips recently explained the connection:

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ See Murray Carpenter, *Breaking Down the Wall*, BOSTON GLOBE, Oct. 23, 2003, at B1.

⁴⁷ *Id.*

⁴⁸ See generally sources cited *supra* note 39.

⁴⁹ See Carpenter, *supra* note 46, at B1.

⁵⁰ See *id.*; Penobscot River Restoration Trust, *supra* note 40. See generally sources cited *supra* note 39.

⁵¹ Diedre Fleming, *The House that Salmon Built*, PORTLAND PRESS HERALD, Apr. 1, 2007, at K1.

⁵² Interview with John Banks, Director of Natural Resources, Penobscot Nation, in Indian Island, Me., (May 19, 2004).

I am reminded that the bones of my ancestors are buried here and their spirits are still here all around us. It creates a very special feeling, a feeling of spiritual connectedness with my ancestors and the river. The People of the Penobscot have always believed that this river was our lifeblood. In honor of our Ancestors, and for the protection of the future generations, we must continue the efforts to restore the sacredness to the river.⁵³

Restoring the Penobscot meant that the Tribe had to oppose two powerful elements of Anglo-American society—the paper and hydroelectric companies. Early on, in the 1980s, the Penobscots realized that they could not win this battle alone, so they sought out allies, and became part of an alliance called the Penobscot Partners.⁵⁴ As with most negotiated settlements, this one took years to work out, tested everyone's patience and tolerance, and created some unusual partnerships. In many ways it became a model of how to create a successful agreement. The current Chief of the Penobscots, James Sappier, recently explained what the Nation hopes to achieve with the settlement: "The Penobscot Nation looks forward to the day we celebrate the return of the fish along with the hydropower generation on the river, and participate in the revitalization of our culture that will follow."⁵⁵

B. THE ELWHA RIVER

The Elwha River originates on the flanks of Mount Olympus on Washington's Olympic Peninsula.⁵⁶ It was once home to massive salmon and steelhead runs each year, estimated at 380,000.⁵⁷ The Elwha is unique in the Columbia River Basin in that it empties directly into the Strait of Juan de Fuca.⁵⁸ Unlike the other rivers in the Columbia River system that drain into the Columbia upstream of dams, there are no main-stem dams between the mouth of the Elwha and the open sea.⁵⁹

⁵³ PHILLIPS, *supra* note 35, at 3.

⁵⁴ Interview with Nick Bennett, Staff Scientist, Natural Resources Council of Maine, in Augusta, Me. (May 18, 2004); Penobscot River Restoration Trust, *supra* note 40.

⁵⁵ Penobscot River Restoration Trust, *Vision of the Penobscot River Once Again Teeming with Life While Continuing to Generate Energy Is Closer to Becoming a Reality*, NATURAL RES. COUNCIL OF ME., May 31, 2006, http://www.nrcm.org/news_detail.asp?news=758.

⁵⁶ FED'L ENERGY REGULATORY COMM'N, FINAL ENVIRONMENTAL IMPACT STATEMENT, ELWHA DAM (1996).

⁵⁷ *Id.* at 4.

⁵⁸ See Elwha River Education, <http://www.elwharivereducation.org/about.php> (last visited Mar. 29, 2008).

⁵⁹ See *Freeing the Elwha: Restoration in Olympic's Largest Watershed*, OLYMPIC (Olympic Nat'l Park), May 2007, at 1, <http://www.nps.gov/olym/naturescience/upload/elwharestoration.pdf>.

Because of the river's unique habitat, the Lower Elwha River Klallam Tribe has lived at the mouth of the river for centuries.⁶⁰

In 1912 when the Olympic Power Company closed the gates on its new Elwha Dam the fortunes of the Lower Elwha River Klallam tribe changed dramatically.⁶¹ Fifteen years later, another hydropower dam, the Glines Canyon dam, was built further upstream.⁶² In addition to the dams, there were other threats: the river descended through forests that were heavily impacted by clear-cutting; the dams and other impacts effectively eliminated the native fish species and deprived the Elwha Klallam of their livelihood.⁶³

Over time other sources of electricity were developed and people began to appreciate the value of intact rivers. Also, the nation's treatment of Indians began to change as tribes developed their own political presence—assisted by various court victories and the occasional supportive congressman. For the Elwha Klallam, these new trends culminated in the 1992 Elwha River Ecosystem and Fisheries Restoration Act, which authorized the purchase and removal of both dams and the restoration of the fishery.⁶⁴ Tribal members played a leading role in the effort to restore the river.⁶⁵

The National Park Service has also been a central player because Glines Canyon is within Olympic National Park.⁶⁶ The dam was there first, but the National Park Service still intends to restore the river channel, including the anadromous fish runs, to a relatively pristine condi-

⁶⁰ See Lower Elwha Band of Klallam, <http://www.elwha.org/> (last visited Mar. 29, 2008).

⁶¹ See Elwha Ecosystem Restoration, <http://www.nps.gov/olym/naturescience/elwha-ecosystem-restoration.htm> (last visited Mar. 29, 2008); Elwha River Education, *supra* note 58; Lower Elwha Klallam Tribe, The Elwha River Dams, <http://www.elwha.org/River%20Restoration%20History1.htm> (last visited Apr. 4, 2008). For more information on the Lower Elwha Band of Klallam, see Culture and History of the Lower Elwha Klallam Tribe, www.elwha.org/Culture-History.htm (last visited Mar. 29, 2008).

⁶² See Elwha Ecosystem Restoration, *supra* note 61.

⁶³ See *id.*

⁶⁴ Pub. L. No. 102-495, 106 Stat. 3173 (1992); see also Adam Burke, *River of Dreams*, HIGH COUNTRY NEWS, Sept. 24, 2001, at 1, 8–11; Lower Elwha Band of Klallam, *supra* note 60. See generally LOWRY, *supra* note 5.

⁶⁵ Interview with Robert Elofson, Coordinator, Elwha River Restoration Program, Lower Elwha Klallam Tribe, in Lower Klallam Village (June 24, 2004).

⁶⁶ See OLYMPIC NAT'L PARK, ELWHA ECOSYSTEM RESTORATION, FREEING THE ELWHA (2006), <http://www.nps.gov/olym/naturescience/upload/elwharestoration.pdf>.

tion.⁶⁷ It is one of the largest ecosystem restoration projects ever attempted by the Park Service.⁶⁸

There are seven distinct runs of anadromous fish that are native to the Elwha; planners hope to re-establish all seven.⁶⁹ To accomplish this, the Lower Elwha Tribe will use its existing fish hatchery and build a new one to increase the number of smolts—juvenile salmonids—it releases into the Strait.⁷⁰ The idea is to flood the area with fish to help these native species re-establish themselves in the Elwha River after nearly a hundred years of blockage.⁷¹ To accomplish this task the tribe has created the Elwha River Restoration Program.⁷²

The removal of the Elwha River dams has been a long political odyssey. Senator Slade Gorton, who was the state's attorney general during the famous Washington fisheries case,⁷³ was in Congress when the dam removal legislation was passed. He opposed appropriations for the restoration project as part of a larger effort to stop other dam removals.⁷⁴ The small town of Port Angeles, at the mouth of the river and adjacent to the Lower Klallam Reservation, initially opposed dam removal, and a local group called SEAL (Save Elwha and Aldwell Lake) lobbied against it.⁷⁵ But their efforts came to naught as town officials, including the mayor, saw dam removal as a way to bring new life to what was essentially a dying town.⁷⁶ As with many restoration projects, the Elwha project brought together an odd assortment of stakeholders. The Surfriders Foundation (a group that represents the interests of surfers) joined the coalition.⁷⁷ And even the James Paper Company—the primary customer for the dams' power—eventually came to the table.⁷⁸ This odd mixture includes two federal agencies that are not usually viewed as friends of

⁶⁷ NAT'L PARK SERV., ELWHA RIVER ECOSYSTEM RESTORATION IMPLEMENTATION: FINAL SUPPLEMENT TO THE FINAL ENVIRONMENTAL IMPACT STATEMENT (July 2005), available at http://www.nps.gov/olym/naturescience/upload/All_Chapters.pdf.

⁶⁸ NAT'L PARKS CONSERVATION ASS'N, STATE OF THE PARKS: OLYMPIC NATIONAL PARK—A RESOURCE ASSESSMENT 6 (2004), available at <http://www.npca.org/stateoftheparks/olympic/olympic.pdf>.

⁶⁹ *Id.*; NAT'L PARK SERV., *supra* note 67.

⁷⁰ Interview with Robert Elofson, *supra* note 65.

⁷¹ *Id.*

⁷² *Id.*

⁷³ *United States v. Washington*, 384 F.Supp. 312 (W.D. Wash. 1974). The 1974 "Boldt decision" awarded half of the harvestable catch to twenty tribes (including the Lower Klallam), based on language in the Stevens Treaties. *Id.* at 343. For more detail, see Overview of the Northwest Indian Fisheries Commission, <http://www.nwifc.wa.gov/aboutus/index.asp> (last visited Sept. 9, 2007).

⁷⁴ LOWRY, *supra* note 5, at 146–47.

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ Interview with Russell Veenema, Executive Director, Port Angeles Chamber of Commerce, in Port Angeles, Wash. (June 25, 2004).

either Indian tribes or dam removal; the Bureau of Reclamation is in charge of the physical removal of the dams, and the Army Corps of Engineers is building the flood control levee around the Lower Klallam village.⁷⁹

The tremendous variety of supportive groups is a reflection of the breadth and diversity of the restoration; it is an effort to restore an entire ecosystem, not just a river. Tribal member George Bolstrom succinctly described the mission: "It's not just about taking the dams out, or even just putting the fish back. It's about the whole picture, the human population, marine predators, overfishing, the works. If the whole system is addressed, then maybe restoration will work."⁸⁰

C. THE KLAMATH RIVER

The Klamath River Basin stretches out like a giant hand across northern California and southern Oregon. Its hydrology and geography is unusually complex, which explains in part why the politics of the river are so byzantine. The Klamath is virtually a microcosm of western water issues; every major issue presents itself in this one river basin.⁸¹ There is so much conflict in the region that a recent opinion piece issued jointly by the Klamath Water Users Association, the Karuk and the Yurok Tribes began with this phrase: "The Klamath Basin has become famous for conflict."⁸²

When the upper basin was in relatively pristine condition, it was a maze of wetlands, terminal lakes, and swift-running streams that were ideal habitat for anadromous fish and two species of suckerfish.⁸³ The Klamath Tribes, consisting of the Klamaths, Modocs, and Yahooskin peoples, lived in the upper basin and relied heavily on suckerfish for their sustenance.⁸⁴ The Karuk and Yurok tribes inhabit the lower ba-

⁷⁹ NAT'L PARK SERV., *supra* note 67.

⁸⁰ George Bolstrom, River Restoration, <http://www.elwha.org/River%20Restoration.htm> (last visited Sept. 9, 2007). See generally LOWRY, *supra* note 5.

⁸¹ See William Yardley, *Climate Change Adds Twist to Debate over Dam*, N.Y. TIMES, Apr. 23, 2007, at A12.

⁸² Klamath Water Users Ass'n & the Karuk and Yurok Tribes of N. Cal., *Irrigators and Tribes Engaged in Productive Dialogue*, KLAMATH WATER USERS ASS'N UPDATE, Feb. 27, 2006 at 1-2, available at <http://www.kwua.org/updates/022706.doc>.

⁸³ See Comm. on Endangered & Threatened Fishes in the Klamath River Basin, Nat'l Research Council, Scientific Evaluation of Biological Opinions on Endangered and Threatened Fishes in the Klamath River Basin: Interim Report 9-17 (2002); D.J. PERKINS, J. KANN, & G.G. SCOPPETTONE, THE ROLE OF POOR WATER QUALITY AND FISH KILLS IN THE DECLINE OF ENDANGERED LOST RIVER AND SHORTNOSE SUCKERS IN THE UPPER KLAMATH LAKE (2000).

⁸⁴ Klamath Tribes History, <http://www.klamathtribes.org/history.html> (last visited Sept. 9, 2007).

sin.⁸⁵ The Klamath Tribes' federal recognition was terminated in 1954, and they lost their reservation lands but retained their hunting and fishing rights.⁸⁶ In 1986, the Tribes regained federal recognition but not their reservation lands.⁸⁷

The upper Klamath River basin is also home to a massive federal irrigation project begun in 1905 that waters 200,000 acres of land.⁸⁸ The project was primarily a drainage and pumping project because most of the project lands were around terminal lakes that were below the level of the Lower Klamath River.⁸⁹ The Bureau drained these low areas, built thousands of miles of irrigation canals to water them, and put in place a complex pumping system to pipe the runoff into the Lower Klamath River.⁹⁰ As a result, the project uses a considerable amount of water and consumes an enormous amount of power, and the runoff into the Lower Klamath is laden with agricultural chemicals. The Klamath Tribes live upstream from the project, but the habitat of the suckerfish was greatly impaired by the project. Two species of the suckerfish were declared endangered in 1988.⁹¹ The Klamath Tribes, which had enjoyed the bounty of the suckerfish catch for generations, were told they were allowed to harvest only two fish per year for ceremonial purposes.⁹²

The lower half of the Klamath River, in California, consists of several major tributaries, with the Trinity River being by far the largest.⁹³ However, 90% of the Trinity was diverted by another Bureau of Reclamation project into the central valley of California, primarily to flood-irrigate rice.⁹⁴ In addition, seven private power dams were built on the Klamath by PacifiCorp and its predecessors between 1908 and 1962.⁹⁵ None of these dams were built with fish passage, and they slowed the flow of water in the lower reaches, increased water temperature, and re-

⁸⁵ Karuk Tribe of California, <http://www.karuk.us/> (last visited Sept. 9, 2007); Yurok Tribe: Background Information, <http://www.yuroktribe.org/culture/history/history.htm> (last visited Sept. 9, 2007).

⁸⁶ Klamath Tribes History, *supra* note 84.

⁸⁷ *Id.*

⁸⁸ KLAMATH BASIN AREA OFFICE, BUREAU OF RECLAMATION, KLAMATH PROJECT HISTORIC OPERATION 5-6 (2000), available at <http://www.usbr.gov/mp/kbao/docs/Historic%20Operation.pdf>.

⁸⁹ *See id.* at 1-9.

⁹⁰ *Id.*

⁹¹ *See* PERKINS, KANN & SCOPPETTONE, *supra* note 83.

⁹² Letter from John Echohawk, Executive Director, Native American Rights Fund, to Dr. Bruce Alberts, President, National Academy of Sciences (Apr. 8, 2003). *See generally* RONNIE PIERCE, KLAMATH SALMON: UNDERSTANDING ALLOCATION (1998), available at <http://klamathsalmontlibrary.org/documents/Pierce1998pd.pdf>.

⁹³ Central Valley Project Improvement Act of 1992, Pub. L. No. 102-575, 106 Stat. 4706; TIM PALMER, ENDANGERED RIVERS THE CONSERVATION MOVEMENT 269 (2d ed. 2004).

⁹⁴ *Id.*

⁹⁵ PacifiCorp, Executive Summary of Application for New License for Major Project: Klamath Hydroelectric Project (FERC Project # 2082), 2004 (on file with the author).

duced water levels.⁹⁶ This had a devastating impact on salmon and steelhead runs. The Coho salmon runs in the river were declared threatened in 1997.⁹⁷ Indian tribes and environmental groups began agitating for the removal of the four lowest power dams when their license came up for renewal in 2000.⁹⁸

The loss of salmon runs in the Trinity and Klamath Rivers was especially difficult for the tribes that had depended on these runs for their livelihood. The Hoopa Valley Indian Reservation straddles the Trinity River and follows much of its course.⁹⁹ After the Trinity joins the Klamath, the river flows sixty miles to the sea past the Yurok Tribe reservation.¹⁰⁰ The Karuk people also live along the lower river.¹⁰¹ These tribes were greatly affected in 2002 when 65,000 fish died just outside the reservation.¹⁰²

The effort to restore the anadromous fish runs and suckerfish to the Klamath River Basin has been extremely contentious. The tribes and their allies in the fishing industry and environmental groups have won a string of court victories forcing federal agencies to meet the requirements of the Endangered Species Act and protect the fish.¹⁰³ These court cases forced the Bureau of Reclamation to curtail water deliveries to the Klamath Irrigation Project in the summer of 2001.¹⁰⁴ The result was a virtual armed revolt among farmers, who illegally forced open the project's main head gates and diverted water to their crops.¹⁰⁵ Many people in the Klamath farming community blamed Indian people for the water shut-

⁹⁶ GLENN SPAIN, STATEMENT OF THE PAC. COAST FED'N OF FISHERMEN'S ASS'N & INST. FOR FISHERIES RES. TO THE NAT'L RESEARCH COUNCIL'S COMM. ON HYDROLOGY, ECOLOGY & FISHES OF THE KLAMATH RIVER BASIN (Oct. 3, 2006).

⁹⁷ U.S. FISH & WILDLIFE SERV., KLAMATH BASIN ECOSYSTEM, ENDANGERED SPECIES, <http://www.fws.gov/endangered/klamath.html> (last visited Sept. 9, 2007).

⁹⁸ Craig Tucker, *Building the Case for Dam Removal on the Klamath River*, HEADWATERS 4 (Winter 2004).

⁹⁹ See Hoopa Valley Tribe, <http://www.hoopa-nsn.gov/> (last visited Sept. 9, 2007).

¹⁰⁰ Yurok Tribe, *supra* note 85.

¹⁰¹ Karuk Tribe of California, *supra* note 85.

¹⁰² See Dean Murphy, *U.S. Offers California Tribe Water Plan to End Dispute*, N.Y. TIMES, Mar. 3, 2004, at A13; Kristen Boyles, *The Legacy of the Klamath River Fish Kill*, EARTH JUSTICE, May, 9, 2006, <http://www.earthjustice.org/library/background/legacy-of-klamath-river-fish-kill.htm>.

¹⁰³ See Pac. Coast Fed'n of Fishermen's Ass'n v. Bureau of Reclamation, 426 F.3d 1082 (9th Cir. 2005); Pac. Coast Fed'n of Fishermen's Ass'n v. Bureau of Reclamation, 138 F. Supp. 2d 1228 (N.D. Cal. 2001); Pac. Coast Fed'n of Fishermen's Ass'n v. Bureau of Reclamation, Civ. No. C02-2006 SBA (Mar. 27, 2006).

¹⁰⁴ Klamath Water Users Ass'n, Summary of Environmental Restoration & Water Conservation Efforts (2003) (on file with the author); Interview with Greg Addington, Executive Director, Klamath Water Users Association, in Klamath Falls, Or. (Aug. 6, 2006).

¹⁰⁵ Interview with Bill Ransom, Chairman of the Board, & Barbara Hall, member, Klamath Bucket Brigade, in Klamath Falls, Or. (Aug. 6, 2006); see Klamath Bucket Brigade: A History of the Klamath Water Crisis, http://www.klamathbucketbrigade.org/YNTKhistory-ofwatercrisis_table.htm (last visited Sept. 9, 2007).

off.¹⁰⁶ The tribes have been a party to the numerous lawsuits and have played a leading role in the political conflict.¹⁰⁷ The tribes are quick to point out that Indian people did not cause the decline of the fish; rather, they are the victims of that decline.¹⁰⁸

An essential component of the tribal perspective is that the endangered fish were more than a source of food. A member of the Klamath Tribes described the cultural significance of the suckerfish:

Each spring the Tribes hold a "Return of c'waam [Lost River suckers] Ceremony" as they have for hundreds of years. These fish are of enormous importance to the physical and spiritual well being of the Klamath people. The closure of the fishery has worked a great hardship on the Indian people who have lost this food source.¹⁰⁹

The Yurok Tribe has a similar relationship to the salmon:

Our people and our culture are tied to the Klamath River in ways that are sometimes difficult for outsiders to understand. We rely on the River for the anadromous fish it supplies for our food, for the spiritual meaning that comes from ceremonies based on the River, and for the ultimate cultural significance as Yurok people. As one of our elders put it, the Klamath River is our identity as Yurok people. This has been true since time immemorial.¹¹⁰

These long-held traditions, and the tribes' dependency on the fish, give rise to substantial issues of federal trust responsibility. The federal government's failure to support adequately the recovery of endangered fish species could provoke legal action based on treaty claims and other trust commitments. These reservations were established to allow the Indians to continue with their traditional fishing activities.¹¹¹ A spokesperson for the Hoopa Valley Tribe made this point in recent congressional

¹⁰⁶ Interview with Greg Addington, *supra* note 104.

¹⁰⁷ See, e.g., Jeff Barnard, *Tribes Heading to Scotland to Seek Salmon Passage over Dams*, ASSOCIATED PRESS, July 10, 2004, available at <http://www.signonsandiego.com/news/nation/20040710-0417-klamathsalmon.html>.

¹⁰⁸ Telephone Interview with Allen Foreman, Chairman, Klamath Tribes (Sept. 11, 2006).

¹⁰⁹ C'waam and Qapdo Mullet, Lost River Suckers, and Shortnose Suckers, <http://www.klamathtribes.org/suckers.htm> (last visited Apr. 4, 2008).

¹¹⁰ *Hearings on Water Management and the Endangered Species Act Issues in the Klamath Basin: Hearing Before the H. Comm. on Resources*, 107th Cong. 88 (2001) (statement of Troy Fletcher, Executive Director of the Yurok Tribe).

¹¹¹ Prepared Testimony of Duane Sherman, Sr. Chairman of Hoopa Valley Tribe, Before the H. Resources Comm., Subcomm. on Fisheries Conservation, Wildlife & Oceans, Subject—H.R. 2875, a Bill to Amend the Klamath Basin Fishery Resources Restoration Act, Fed. News Serv. (Fed. News Serv., Inc.) (May 4, 2000).

hearings: "The Hoopa Valley Tribe has rights that have been affirmed by Congress [We have] been affected by the status of the Klamath/Trinity Basin fish stocks. In recent years, because of the low abundance of Klamath/Trinity fall chinook salmon, [we have] had to reduce fishing opportunities for fisheries under [our] authority."¹¹² A spokesperson for the Yurok Tribe, speaking at the same congressional hearing, pointed out that the entire *raison-d'être* of her reservation was to enable the tribe to fish:

As the Department of the Interior stated in 1904, "(t)here is little question that the prevailing motive for setting apart the reservation was to secure to the Indians the fishing privileges of the Klamath River." . . . As Justice Blackmun stated in *Mattz v. Arnett*, the original Klamath River Reservation "abounded in salmon and other fish" and was in all ways "ideally selected for the Yuroks."¹¹³

The role of the federal government in the Klamath Basin is incredibly complex. In overseeing the operation of the Klamath Irrigation Project, the Federal Energy Regulatory Commission licenses hydro-dams, and together the U. S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration respectively protect endangered freshwater and anadromous or commercial sea fish. At the same time, the federal government must meet its trust responsibilities to Indian tribes. To call this a delicate balancing act is a decided understatement. The most likely outcome of this political struggle over the next few years is the removal of the private hydro-dams on the lower Klamath. Also, the Bureau of Reclamation is currently exploring ways to reduce water usage and improve water efficiency on its irrigation project.¹¹⁴

It is hazardous to predict the course of future political events in the Klamath Basin given the great number of stakeholders, the long history of conflict, and the hydrological realities in the basin. But there are enormous political and legal forces that are pushing for the removal of dams and the improved water quality, increased water flows, and protection of endangered species that will result. The tribes in the Basin will undoubtedly continue to play a prominent role in this debate; their existence de-

¹¹² *Id.*

¹¹³ Prepared Testimony of Susan Masten, Chairperson Yurok Tribe, Before the H. Resources Comm. Subcomm. on Fisheries Conservation, Wildlife and Oceans, Subject—H.R. 2875, a Bill to Amend the Klamath Basin Fishery Resources Restoration Act, Fed. News Serv. (Fed. News Serv., Inc.) (May 4, 2000).

¹¹⁴ KLAMATH WATER USERS ASS'N, SUMMARY OF ENVIRONMENTAL RESTORATION AND WATER CONSERVATION EFFORTS (2005); Interview with Christine Karas, Director, Klamath Project, Bureau of Reclamation, in Klamath Falls, Or. (Aug. 5, 2006).

depends on a return of the fish species that, for thousands of years, gave them their identity and their sustenance.

D. THE COLUMBIA AND SNAKE RIVERS

When Lewis and Clark journeyed down, and then up, the Northwest's Columbia River in the early nineteenth century they endured many hardships. Scholars have often described their experience as a great adventure full of peril.¹¹⁵ But to the tens of thousands of people living along the river, who moved freely up and down the valley, Lewis and Clark must have looked more like a couple of foreign tourists out of their element. The native peoples in this basin lived off the bounty of salmon and steelhead runs estimated at 10 to 16 million, and life was quite good—hardly a place of desperate survival.¹¹⁶ A century and a half later, the massive salmon runs had all but disappeared, and the tribes have but one choice: they must save the salmon to save themselves.¹¹⁷

The fish wars of the Columbia River Basin involve a complex array of stakeholders, issues, court cases, government agencies, and proposed solutions. This long, bitter struggle cannot be adequately summarized here, but it is important to understand that tribes have played a leading role in the effort to restore parts of the Basin and bring back the salmon. In part, their efforts rely on a set of treaties negotiated by Isaac Stevens, known collectively as the Stevens Treaties, that ceded 35 million acres of tribal lands to an alien race of people but specifically retained for tribal members "the exclusive right of taking fish in the streams running through and bordering said reservation . . . and at all other usual and accustomed stations."¹¹⁸ This language was interpreted in a series of court cases to mean that the tribes have a right to half of the Columbia River Basin salmon harvest.¹¹⁹ These rights are, or course, meaningless if there are no fish in the rivers.

With the passage of the Bonneville Project Act in 1937, the federal government began a new era on the Columbia River characterized by the construction of massive dams.¹²⁰ The Army Corps of Engineers con-

¹¹⁵ See, e.g., STEPHEN AMBROSE, *UNDAUNTED COURAGE* (1996).

¹¹⁶ MIGHETTO & EBEL, *supra* note 28, at 5.

¹¹⁷ *Id.*; FISH PASSAGE CTR., 2005 ANNUAL REPORT 86–91 (July 2006), http://www.fpc.org/documents/annual_FPC_report/FPC%202005%20Annual%20Report-FINAL.pdf.

¹¹⁸ See COLUMBIA RIVER INTER-TRIBAL FISH COMM'N, BIENNIAL REPORT 17 (1999–2000).

¹¹⁹ See Fronda Woods, *Who's in Charge of Fishing?*, 3 OR. HIST. Q. 106 (2005). See generally David Getches, *Conquering the Cultural Frontier: The New Subjectivism of the Supreme Court in Indian Law*, 84 CAL. L. REV. 1573 (1996).

¹²⁰ MIGHETTO & EBEL, *supra* note 28, at 51–58; RICHARD WHITE, *THE ORGANIC MACHINE* 64–80 (1995); U.S. ARMY CORPS OF ENG'RS, BONNEVILLE POWER ADMIN., BUREAU OF RECLAMATION, *FEDERAL COLUMBIA RIVER POWER SYSTEM* 2 (Aug. 2003).

structed four dams on the lower Columbia between 1938 and 1968.¹²¹ All of these dams had fish ladders, which allowed migrating anadromous fish to travel upstream to spawning beds.¹²² But dam builders gave no thought to how the dams and reservoirs would affect the downstream passage of smolts. The Bureau of Reclamation's Grand Coulee Dam was completed in 1941 without fish passage and thus blocked the entire upper reaches of the Columbia River to downstream passage.¹²³ Six more main-stem dams were constructed upstream of the Snake River and below Grand Coulee. Thousands of additional dams were built on tributaries.¹²⁴ But the proverbial straw that broke the camel's back was the construction of four dams on the lower Snake River.¹²⁵

Between 1961 and 1975 the Corps constructed four dams on the Snake River in Washington for the purposes of generating electricity and extending the Columbia River navigation channel to the town of Lewiston, Idaho.¹²⁶ Like the dams on the lower Columbia, they had fish ladders but turned the river into a series of reservoirs that warmed and slowed the water and created deadly hazards for smolts as they made a run for the ocean.¹²⁷ An entire panoply of mitigation techniques, termed the "adaptive migration approach" by the Corps, are now being implemented in the Columbia River Basin.¹²⁸ But by far the most controversial proposal is to breach the four dams on the lower Snake River—an idea that was first proposed by the Corps and then abandoned in favor of the adaptive migration.¹²⁹ However, fish proponents are convinced that the only way to save the salmon runs is to breach these dams.¹³⁰

¹²¹ *Id.*

¹²² *Id.*

¹²³ See, e.g., PAUL PITZER, *GRAND COULEE: HARNESSING A DREAM* (1994).

¹²⁴ See generally FED. COLUMBIA RIVER POWER SYS., *supra* note 28.

¹²⁵ IDAHO DEP'T OF FISH AND GAME, REPORT TO THE DIRECTOR, IDAHO'S ANADROMOUS FISH STOCKS (May 1, 1988).

¹²⁶ U.S. ARMY CORPS OF ENG'RS, WALLA WALLA DISTRICT, FINAL LOWER SNAKE RIVER JUVENILE SALMON MITIGATION FEASIBILITY REPORT/ENVIRONMENTAL IMPACT STATEMENT (Feb. 2002), http://www.nww.usace.army.mil/lsr/final_fscis/study_kit/Main_Report/default.htm [hereinafter U.S. ARMY CORPS OF ENG'RS, FEASIBILITY REPORT].

¹²⁷ Nick Bouwes, C. E. Petrosky, & Howard Schaller, *Evidence Linking Delayed Mortality of Snake River Salmon to Their Earlier Hydrosystem Experience*, N. AM. J. OF FISHERIES MGMT. 22, 35–51 (2002); NAT'L MARINE FISHERIES SERV., BIOLOGICAL OPINION OF THE FEDERAL COLUMBIA RIVER POWER SYSTEM 25–26, 47–48 (May 31, 2002), swr.nmfs.noaa.gov/psd/klamath/KpopBO2002finalMay31.PDF.

¹²⁸ U.S. ARMY CORPS OF ENG'RS, FEASIBILITY REPORT, *supra* note 126.

¹²⁹ Interview with Greg Graham, Chief of Planning, U.S. Army Corps of Engineers, Walla Walla District, in Walla Walla, Wash. (Aug. 8, 2006).

¹³⁰ See SAVE OUR WILD SALMON, A VISION FOR THE FUTURE: RESTORING SNAKE AND COLUMBIA RIVER BASIN SALMON AND STEELHEAD AND THE COMMUNITIES THAT DEPEND UPON THEM (pamphlet on file with the author). The term "breaching" is used because the proposal is to remove only the earthen portion of each dam, not the entire dam. See Editorial, *Dollars, Sense, and Salmon: An Argument for Breaching Four Dams on the Lower Snake River*, THE IDAHO STATESMEN, Sept. 22, 1997 (special reprint of July 20, 1997 edition), at 108.

The effort to breach the dams has been led by a coalition of fishers' organizations, environmental groups, and American Indian tribes.¹³¹ Although there are dozens of tribes in and near the basin that have been involved in the fishing rights issue, one of the most organized and effective voices has been the Columbia River Inter-Tribal Fish Commission (the Commission), which includes four of the Stevens Treaty tribes: Warm Springs, Umatilla, Yakama, and Nez Perce.¹³² Members of these tribes brought many of the court cases alluded to above, beginning 100 years ago with the *Winans* case.¹³³ The tribes opposed the construction of the big dams without success before switching to a strategy of pressuring federal agencies to operate the river in such a way that it improved the survival rates for the remaining fish stocks.¹³⁴ The Commission was formed in 1977, based on a traditional inter-tribal organization called the Celilo Fish Committee.¹³⁵ Its mission is to coordinate the work of the fisheries departments of the four tribes, counteract the decline in the salmon fishery, and to "protect [the four tribes'] treaty-reserved property and sacred salmon heritage."¹³⁶

In 1995 the Commission produced its own two-volume plan for restoring the salmon called "Spirit of the Salmon."¹³⁷ This ambitious and comprehensive effort was the first to examine the basin holistically as an entire ecosystem, using what the plan calls a "gravel to gravel approach," which "focuses on the tributary, mainstem, estuary, and ocean ecosystems and habitats where anadromous fish live."¹³⁸ This focus on passage, habitat, harvest and production required specific actions and substantial changes in current practices in order to allow the river to recover from historical destructive impacts.¹³⁹ The Tribes' concern for the entire ecosystem encompasses multiple species, not just salmon. In addition to the Chinook, Coho, Sockeye, and Chum, the four species of salmon that are native to the Columbia, the plan includes the White Sturgeon, Pacific Lamprey, and Steelhead.¹⁴⁰ Such a comprehensive ap-

¹³¹ See generally SAVE OUR WILD SALMON, *supra* note 130.

¹³² What is Columbia River Inter-Tribal Fish Commission, <http://www.critfc.org/text/work.html> (last visited Mar. 5, 2008).

¹³³ See *United States v. Winans*, 198 U.S. 371 (1908).

¹³⁴ See, e.g., ROBERTA ULRICH, *EMPTY NETS* (2007).

¹³⁵ *Silver Anniversary*, WANA CHINOOK TYMOO, Winter 2003, at 6-9, available at <http://www.critfc.org/text/wana.pdf>.

¹³⁶ Columbia River Inter-Tribal Fish Comm'n, About Us, available at <http://www.critfc.org/text/work.html> (last visited Apr. 7, 2008); see, e.g., *Silver Anniversary*, WANA CHINOOK TYMOO, Winter 2003, at 6-9, available at <http://www.critfc.org/text/wana.pdf>.

¹³⁷ See COLUMBIA RIVER INTER-TRIBAL FISH COMM'N, *SPIRIT OF THE SALMON: THE COLUMBIA RIVER ANADROMOUS FISH RESTORATION PLAN OF THE NEZ PERCE, UMATILLA, WARM SPRINGS AND YAKAMA TRIBES* (1995).

¹³⁸ *Id.* at 5.

¹³⁹ *Id.*

¹⁴⁰ See generally *id.*

proach is especially relevant, given that the entire fishery is in danger; thirteen different stocks of fish in the Columbia Basin are either endangered or threatened.¹⁴¹

Following the release of the plan, the Commission began a four-part strategy of coalition-building, research, public information and on-the-ground restoration work.¹⁴² With regard to coalition-building, the Commission has worked in conjunction with both environmental and fishing interests.¹⁴³ This required a considerable degree of diplomacy, given that tribes and non-Indian fishermen were often in conflict in the 1970s at the height of the controversies over the *Boldt*¹⁴⁴ decision.¹⁴⁵ The Commission has learned to work closely with fishing groups such as Salmon for All, the Northwest Steelheaders Association, and the Northwest Sportfishers Association.¹⁴⁶ They also work with a wide variety of local and national environmental organizations.¹⁴⁷ The attention generated by proposals to breach the four Snake River dams gave additional impetus to the Tribes' efforts to work with other groups. In their 2000 report, the Commission noted that they had "reached out to local, regional, and national environmental and fishing organizations to promote aggressive mainstem Columbia and Snake River passage actions, including the proposal to breach the four lower Snake River dams."¹⁴⁸

The second part of the Inter-Tribal Commission's strategy is to conduct research. In the past, Tribes complained that hydropower interest groups controlled the research on fish passage.¹⁴⁹ The Commission sought to remedy this by doing their own research. A unit within the Commission, the Fish Science Department, employs "geneticists, hydrologists, fish biologists, meteorologists, and other scientists dedicated to studying salmon and their ecosystem."¹⁵⁰ In 2000, the Commission entered into an agreement with the University of Idaho to build and jointly

¹⁴¹ U.S. ARMY CORPS OF ENG'RS, BUREAU OF RECLAMATION, & BONNEVILLE POWER AUTHORITY, PROTECTING SALMON: HIGHLIGHTS, ENDANGERED SPECIES ACT FEDERAL COLUMBIA RIVER POWER SYSTEM 2005 PROGRESS REPORT 1 (June 2006), http://www.salmonrecovery.gov/Biological_opinions/FCRPS/biop_implementation/docs/Progress_Report_2005_6-15-06_FINAL.pdf; see also Salmon Recovery Homepage, <http://www.salmonrecovery.gov>

¹⁴² Interview with Jeremy Fivecrows, Public Relations, Columbia River Inter-Tribal Fish Commission, in Portland, Or. (Aug. 11, 2006); Telephone Interview with Jeremy Fivecrows, Public Relations, Columbia River Inter-Tribal Fish Commission (Jan. 19, 2007).

¹⁴³ *Id.*

¹⁴⁴ *United States v. Washington*, 384 F. Supp. 312 (W.D. Wash. 1974).

¹⁴⁵ Interview with Jeremy Fivecrows, *supra* note 142.

¹⁴⁶ See sources cited *supra* note 142.

¹⁴⁷ *Id.*

¹⁴⁸ COLUMBIA RIVER INTER-TRIBAL FISH COMM'N, *supra* note 118, at 21.

¹⁴⁹ MIGHETTO & EBEL, *supra* note 28, at 174.

¹⁵⁰ Columbia River Inter-Tribal Fish Comm'n, Science, www.critfc.org/text/science.html (last visited Apr. 7, 2008).

operate the Collaborative Center for Applied Fishery Studies.¹⁵¹ The Commission's scientists have published dozens of research papers, many of them in revered science journals,¹⁵² and the Commission's newsletter runs articles featuring research by tribal scientists.¹⁵³ The Commission's research staff produced a companion study to the Spirit of Salmon that offered an in-depth analysis of how fishery restoration would affect hydropower usage.¹⁵⁴ And most recently, the Commission developed its own River Operations Plan in 2005 as a supplement to the Spirit of the Salmon.¹⁵⁵

The third prong of the Commission's strategy is public information. In addition to its newsletter, *Wana Chinook Tymoo* ("Columbia River Salmon Stories" in Sahaptin, the member tribes' common language),¹⁵⁶ the Commission produced a set of three videos titled the "Chinook Trilogy."¹⁵⁷ The Commission worked with other fishing interests to produce a provocative ad campaign, including full-page advertisements in the *New York Times* that compared the disappearance of the buffalo with the impending doom of the salmon, using the caption, "We decimated a species in less than 50 years. We're on the verge of doing it again."¹⁵⁸ The Commission also plays a prominent role in an annual salmon festival that includes a model of a traditional tribal village and information about salmon culture.¹⁵⁹

A fourth activity of the Commission is to assist tribes with individualized restoration projects, including fish hatcheries, stream restoration, and water quality projects.¹⁶⁰ Most such projects are funded by the Bonneville Power Authority, the Pacific Coastal Salmon Recovery Fund or the Pacific Salmon Commission's Southern Fund.¹⁶¹ One of the more

¹⁵¹ COLUMBIA RIVER INTER-TRIBAL FISH COMM'N, *supra* note 118, at 52.

¹⁵² See Columbia River Inter-Tribal Fish Comm'n, Technical Reports and Research, http://www.critfc.org/tech/tech_rep.html (last visited Apr. 7, 2008).

¹⁵³ See *Two Worlds: Tribal Biologists' Ability to Meld Culture and Science Is Changing the Way We Look at Salmon Throughout the Columbia Basin*, WANA CHINOOK TYMOO, Summer 2004, at 42, available at http://www.critfc.org/wana_images/wana_sum04.pdf [hereinafter *See Two Worlds*]; see also *Little Difference Found Between Methow River Salmon*, WANA CHINOOK TYMOO, Winter 2003, at 34, available at <http://www.critfc.org/text/wana.pdf>.

¹⁵⁴ See COLUMBIA RIVER INTER-TRIBAL FISH COMM'N, TRIBAL ENERGY VISION 5-8 (May 2003), <http://www.critfc.org/legal/tev.pdf>.

¹⁵⁵ See generally COLUMBIA RIVER INTER-TRIBAL FISH COMM'N, 2005 RIVER OPERATIONS PLAN (Mar. 24, 2005), www.critfc.org/legal/riverops05.pdf.

¹⁵⁶ *A River Unites Them*, Wana Chinook Tymoo, Summer 2004, at 3, available at http://www.critfc.org/wana_images/wana_sum04.pdf.

¹⁵⁷ Videotape: Matter of Trust (Wild Hare Media, Portland, OR 1995); Videotape: My Strength is from the Fish (Wild Hare Media, Portland, OR 1994); Videotape: Empty Promises, Empty Nets (Wild Hare Media, Portland, OR 1994).

¹⁵⁸ COLUMBIA RIVER INTER-TRIBAL FISH COMM'N, *supra* note 118, at 49.

¹⁵⁹ Interview with Jeremy Fivecrows, *supra* note 142.

¹⁶⁰ *Id.*

¹⁶¹ *Id.*

ambitious projects undertaken is the restoration of salmon runs on the Umatilla River. Two dams, built in 1910 and 1914, effectively eliminated anadromous fish from the river.¹⁶² The Umatilla Tribe and the Inter-tribal Commission negotiated a series of agreements that allowed increased water flows and the removal of impediments.¹⁶³ It took ten years of work, but by 2000, seventy years after they disappeared, salmon began to return to the Umatilla in significant numbers.¹⁶⁴

It is important to note that, in addition to the four tribes in the Commission, many other tribes in the Basin are also involved in salmon restoration efforts. The Northwest Indian Fisheries Commission is a coalition of twenty tribes in western Washington.¹⁶⁵ These tribes are outside the Columbia River Basin, but they all depend on a healthy Columbia River fishery.¹⁶⁶ The Upper Columbia United Tribes represents five reservations in the upper reaches of the river,¹⁶⁷ and has been particularly vocal about mitigation for the “blocked areas,” a reference to the Columbia River above Grand Coulee Dam, and the Snake River above Hells Canyon Dam, where anadromous fish runs were extirpated by the construction of dams without fish passage.¹⁶⁸

Private interests and state and federal agencies have gradually accepted the tribes as partners in the management of the river. Even the Bonneville Power Authority (BPA), the premier advocate for unbridled hydropower in the basin, recognizes tribal interests and includes the tribes as one of the “three sovereigns” along with state and federal interests.¹⁶⁹ Furthermore, BPA has funded tribal research. A recent report by three federal agencies (BPA, the Army Corps of Engineers, and the Bureau of Reclamation) included a section titled “The Sacredness of the Natural World,” which explains the native perspective.¹⁷⁰ The inclusion of this section contrasts with the numerous photographs included in the publication that depict heavy equipment and large dams, which are typically accompanied by glowing reports of “progress” conquering the river.¹⁷¹ That contrast is testament to the dramatic scope of conflict over

¹⁶² *Id.*

¹⁶³ *Id.*

¹⁶⁴ See *See Two Worlds*, *supra* note 153, at 8.

¹⁶⁵ See Northwest Indian Fisheries Commission—About Us, <http://www.nwifc.org/aboutus/index.asp> (last visited Mar. 5, 2008).

¹⁶⁶ See *id.*

¹⁶⁷ The five tribes are the Coeur d’Alene, Kalispel, Spokane, Colville Confederated, and Kootenai Tribes. See Upper Columbia United Tribes, <http://www.ucut.org> (last visited Apr. 7, 2008).

¹⁶⁸ IDAHO DEP’T OF FISH AND GAME, *supra* note 125.

¹⁶⁹ BONNEVILLE POWER ADMIN., U.S. BUREAU OF RECLAMATION & ARMY CORPS OF ENGRS, *THE COLUMBIA RIVER SYSTEM: INSIDE STORY* 57 (2d ed. 2001).

¹⁷⁰ *Id.*

¹⁷¹ *Id.* att4–17.

the Columbia River today. The tribes are fighting for their survival by fighting for the restoration of the salmon. But they are just one of many powerful interests in the basin, and the conflict between the competing interests promises to continue into the future—unless the salmon do not survive, and there is nothing left to fight over.

CONCLUSION

These four case studies illustrate the breadth and diversity of restoration projects that involve American Indian tribes. They are part of a larger effort on the part of both tribal and non-Indian interests to return rivers to a more natural state. For example, in the Missouri River Basin, there are close to thirty tribes, many of them negatively affected by the river's development, that are working with the U.S. Army Corps of Engineers to improve the natural function of the river, protect wetlands, and improve water quality.¹⁷² Also, the Miccosukee and Seminole Tribes are involved in the effort to restore the Florida Everglades.¹⁷³ The Columbia River fishing tribes were part of the coalition that convinced PacifiCorp to remove Condit Dam on the White Salmon River.¹⁷⁴ The Pueblos along the Rio Grande River have been instrumental in forcing improved water quality in that river, and have supported efforts to restore the endangered silvery minnow.¹⁷⁵ And three tribes, the Hualapai, Colorado River, and Cocopah Tribes, are participating in a multi-agency effort to restore riparian habitat along the lower Colorado River.¹⁷⁶

The effort to restore tribal rivers also played a role in negotiated Indian water rights settlements. Some tribes included river restoration or protection in their settlement agreements. The Northern Ute settlement provided for the restoration of lower Rock Creek.¹⁷⁷ A provision in the Shoshone-Bannock settlement allowed the tribes to restore wetlands along the Snake River at Fort Hall Bottoms.¹⁷⁸ And the Pyramid Lake

¹⁷² See U.S. ARMY CORPS OF ENG'RS, MISSOURI RIVER RESERVOIR SYSTEM: MASTER WATER CONTROL MANUAL 4-5, 254-56, available at <http://www.nwd-mr.usace.army.mil/rcc/reports/mmanual/MasterManual.pdf>; Mni Sose Intertribal Water Rights Coalition—Member Tribes, <http://www.mnisose.org/map.html> (last visited Mar. 5, 2008).

¹⁷³ Michael Grunwald, *A Rescue Plan, Bold and Uncertain*, WASH. POST, June 23, 2002, at A1; Michael Grunwald, *Water Quality Is Long-Standing Issue for Tribe*, WASH. POST, June 24, 2002, at A11.

¹⁷⁴ COLUMBIA RIVER INTER-TRIBAL FISH COMM'N, *supra* note 118, at 33.

¹⁷⁵ U.S. ARMY CORPS OF ENG'RS, ALBUQUERQUE DISTRICT, HOT TOPICS: ENDANGERED SPECIES ACT ISSUES, MIDDLE RIO GRANDE, NEW MEXICO, <http://www.spa.usace.army.mil/hot-topics/esa.htm> (last visited Apr. 3, 2002).

¹⁷⁶ See U.S. BUREAU OF RECLAMATION, LOWER COLORADO REGION, DEP'T OF THE INTERIOR, LOWER COLORADO RIVER MULTI-SPECIES CONSERVATION PROGRAM, LIST OF VOTING MEMBERS 8, <http://www.lcrmscp.gov/steeringcmte/VotingMembers.pdf> (last visited Apr. 7, 2008).

¹⁷⁷ McCool, *supra* note 4, at 150.

¹⁷⁸ *Id.* at 153-58.

Paiute settlement was premised almost entirely on the goal of restoring natural flows to the Truckee River and preventing Pyramid Lake and its unique fish species from disappearing.¹⁷⁹

In a larger sense, these river restoration projects are really tribal restoration projects; they are part of an effort to restore cultural tradition, sovereignty, and self-reliance. It is clear in the long run—seven generations—that tribes must save rivers in order to save themselves. The land is incomplete without its rivers, and thus it cannot effectively serve as a homeland, or even a habitat for all living creatures—including humans—absent river restoration. For two-hundred years the unbridled policy of the United States was to dam and divert rivers. Nearly all of America's rivers have been dammed, diverted, leveed, or channeled. Bringing a portion of them back to life will serve the long-term interests of society, but it is critical to the survival of those Indian tribes that have been relegated to a tiny portion of their ancestral lands; they cannot afford to degrade what little they have left. For that reason, tribes stand to gain the most from a new era in national water policy that emphasizes river restoration.

¹⁷⁹ *Id.*

