Water Law Review

Volume 8 | Issue 2 Article 5

1-1-2005

Dividing Western Waters: A Century of Adjudicating Rivers and Streams

John E. Thorson

UNIVERSITY OF DENVER
WATER LAW REVIEW

VOLUME 8 ISSUE 2 SPRING 2005

DIVIDING WESTERN WATERS: A CENTURY OF ADJUDICATING RIVERS AND STREAMS†

JOHN E. THORSON, RAMSEY LAURSOO KROPF, DAR CRAMMOND & ANDREA K. GERLAK‡

‡ John E. Thorson is an Administrative Law Judge with the California Public Utilities Commission in San Francisco. He formerly served as Special Master for the Arizona General Stream Adjudication and is co-convener of the Dividing the Waters water education project for judges. Ramsey Laursoo Kropf is Special Master for Wyoming's Big Horn Adjudication. She is also a partner in the Aspen, Colorado, law firm of Patrick, Miller & Kropf, P.C. Kropf serves as Chair of the American Bar Association's Water Resources Committee. Dar Crammond is the Water Rights Program Manager with the U.S. Bureau of Reclamation, Pacific Northwest Region, in Portland, Oregon. Andrea K. Gerlak is an Assistant Professor in Columbia University's Department of Earth and Environmental Sciences. The authors' views are their own and do not express the views of their respective agencies, universities, or the Wyoming District Court.

We thank the judges, judicial officers, and faculty associated with Dividing the Waters and Carolyn Brickey, Director, for their substantive assistance; the Ford Foundation, William and Flora Hewlett Foundation, Compton Foundation, and General Service Foundation for financial assistance extended through Dividing the Waters; and Janis Villalpando for research and editing. We especially thank Kathy Dolge who, through tireless efforts, has served as the backbone for this effort; Wyoming District Judge Gary Hartman, and Colorado Supreme Court Justice Gregory Hobbs who decreed an end to our procrastination.

An unusual document caught Judge Allen Minker's eye as he sifted through the mail on a chilly afternoon in late January 1986. The document was an order from the Arizona Supreme Court. Minker, the sole superior court judge in Arizona's small-sized Greenlee County (population 11,400), rarely got orders from the Arizona Supreme Court—especially ones directed specifically to him. Upon closer reading, Minker learned the supreme court had just appointed him as presiding judge of the Little Colorado River adjudication.

Minker, who had been on the bench for only a few years following a predominately criminal law practice in the Tucson area, had not a clue what the Little Colorado River adjudication was—much less why the supreme court had appointed him as the presiding judge. The case, docketed in another county, would require him to travel 350 miles roundtrip to hold hearings. Was he being rewarded or punished by those justices down in Phoenix?

Over the next twelve years, Minker often pondered the same question as he attempted to steer a case that seemed always to have a life and pace of its own. The supreme court assigned Minker to a general stream adjudication, already underway for eight years, involving 3,000 parties who filed 11,000 claims to the scarce waters of a pitifully small river system. So small indeed that the Little Colorado River itself could be hurdled in many of its upper reaches and was often dry in many of its lower stretches. However, the river basin itself is enormous, encom-

passing most of northeastern Arizona and including the Navajo Indian Reservation (largest in the United States), the Hopi Reservation (oldest continuously inhabited community in the United States), and several important national monuments (Painted Desert, Petrified Forest). The parties themselves ranged from a "who's who" listing of Arizona movers and shakers—Salt River Project, Arizona Public Service Co., Southern California Edison, Peabody Coal Co., Santa Fe Railroad, Phelps Dodge Corporation, Stone Container Corporation, Aztec Land & Cattle Company—to individual farmers, ranchers, and homeowners.

Throughout the years, as he learned water law, Indian law, hydrology, western history, techniques for managing complex cases, and settlement strategies, Minker also mulled another question often shared by judges assigned to comparable stream adjudications in other parts of the West: what is the reason for these cases?

A majority of the western states participate in general stream adjudications.[1] Arizona, Idaho, Montana, Wyoming, and Washington are undertaking comprehensive, basin wide adjudications of water rights. California, Colorado, New Mexico, Oklahoma, Oregon, and Utah are presently determining water rights on a more piecemeal basis, either because they previously adjudicated most of their streams, or because they deemed more expansive general adjudications unnecessary. North Dakota has not attempted adjudication, and South Dakota and Alaska have abandoned their efforts. Only Texas has completed statewide general stream adjudication; its success is due in large part to the absence of federal and tribal lands in that state, which eliminates the need to adjudicate the water rights associated with such holdings. However, Texas grapples even more desperately with groundwater issues.

Modern general stream adjudications, most of which have been filed since the 1970s, are characterized by their enormity and longevity. These complex lawsuits are among the largest civil proceedings ever litigated in state or federal courts. For instance, 28,500 persons have filed more than 100,000 claims to water rights in the Arizona general

---

1. *See* ALASKA STAT. §§ 46.15.060, .065, .165— .169 (Michie 2004); ARIZ. REV. STAT. ANN. §§ 45-251 to -264 (West 2003); CAL. WATER CODE §§ 2000-2900 (West 1971 & Supp. 2005); COLO. REV. STAT. §§ 37-92-101 to -602 (2004); IDAHO CODE §§ 42-1401 to -1428 (Michie 2003); MONT. CODE ANN. §§ 85-2-201 to -243(2003); NEB. REV. STAT. §§ 46-226 to -231 (2002); NEV. REV. STAT. ANN. §§ 533.090—.320, 534.100 (Michie 1995 & Supp. 2003); N.M. STAT. ANN. §§ 72-4-13 to -19 (Michie 1985 & Supp. 1997); N.D. CENT. CODE §§ 61-03-15 to -20 (2003); OKLA. STAT. ANN. tit. 82, §§ 105.6— .8 (West 1991); OR. REV. STAT. §§ 539.010-.350, 541.310—.320 (2003); S.D. CODIFIED LAWS §§ 46-10-1 to -13 (Michie 2004); TEX. WATER CODE ANN. §§ 111.301—.341 (Vernon 2000); UTAH CODE ANN. §§ 73-4-1 to -24 (1989 & Supp. 2004); WASH. REV. CODE ANN. §§ 90.03.110—.245 (West 2004); WYO. STAT. ANN. §§ 41-4-301 to -331 (Michie 2003).

stream adjudications.[2] Parties have filed over 150,000 claims for water rights in Idaho's Snake River adjudication.[3] Also, in Montana, approximately 80,000 persons have filed 218,000 water rights claims in the statewide adjudication.[4]

These proceedings are tied closely to state government, since the state attorney general, state engineer, or water resources department frequently files them under a specialized statute. These state agencies remain active participants in the litigation: they propose decrees, generate technical reports, and supply other information to the court. The participation of the federal government and Indian tribes, however, is the unique feature of modern general stream adjudications and sets them apart from earlier water rights litigation. Federal agencies and tribes prefer not to engage in these massive proceedings, so their presence is most often involuntary.[5] The 1952 McCarran Amendment,[6] known as "the Magna Carta of state water rights adjudication,"[7] mandated their participation. With the McCarran Amendment, Congress waived federal sovereign immunity whenever comprehensive stream adjudications arise in state or federal court.[8]

Due to the McCarran Amendment, the federal government and the Indian tribes became the most significant parties in most stream adjudications. With federal land ownership exceeding 50 percent of the landmass in seven western states alone, and tribal lands comprising nearly 52 million acres, the water rights claims of these parties are

---

2. Arizona Supreme Court, Arizona's General Stream Adjudications: Overview of Adjudications, *Frequently Asked Questions*, *at* http://supreme.state.az.us/wm/bulletin/Overview.htm (last modified May 4, 2004).

3. Snake River Basin Adjudication, Informational Brochure, *Frequently Asked Questions*, *at* http://www.srba.state.id.us/DOC/BROCH1.HTM (last visited Mar. 25, 2005).

4. WATER RIGHTS BUREAU, STATE OF MONTANA – DEP'T OF NATURAL RES. & CONSERVATION, WATER RIGHTS IN MONTANA 9-10 (Apr. 2004), http://www.dnrc.state.mt.us/wrd/WaterRights/WaterRightsWeb.htm.

5. Both before and after the McCarran Amendment, the federal government selectively brought water rights adjudications in troublesome western watersheds. In the 1970s, however, as several western states moved toward beginning comprehensive proceedings in state courts, the United States, both in its proprietary and trust capacities, filed federal court adjudications in an effort to secure what the federal government perceived to be a favorable judicial forum.

6. Act of July 10, 1952, ch. 651, § 208, 66 Stat. 549, 560 (codified as amended at 43 U.S.C. § 666 (2000)).

7. A. Dan Tarlock, *The Illusion of Finality in General Water Rights Adjudications*, 25 IDAHO L. REV. 271, 272 (1988-9).

8. The McCarran Amendment waived only the sovereign immunity of the United States in comprehensive stream adjudications. 43 U.S.C. § 666(a). While this waiver put both the water rights of federal agencies and the water rights of tribes (held in trust capacity by the United States) before the courts, tribal governments themselves were not subject to the jurisdiction of the court. In recent years, tribal governments have frequently intervened in general stream adjudications in order to protect more directly tribal water rights and, in the process, they have placed themselves under the jurisdiction of the court.

enormous.[9] Consequently, in many stream adjudications, federal and tribal parties are pitted against all other water claimants.

General stream adjudications have become a principal forum for the clash of legal rights and values concerning water. Much is at stake; general stream adjudications reflect the importance of water to the residents of the western states. Since rainfall is unpredictable in many parts of the West, water users rely on rivers and streams, as well as the commonly interconnected groundwater with those rivers and streams. These sources of water are critical to the farming, ranching, and mining economies of the western states. Urban expansion and recreation also depend on those sources. For many Indian tribes, water has provided spiritual sustenance along with promise of future economic development. Environmental advocates likewise seek to protect the riparian ecology of western watersheds. Since many western rivers are overappropriated, the battle intensifies.

I. THE WEST BEFORE GENERAL STREAM ADJUDICATIONS

More than one hundred years separate the first mining uses of water by the Forty-niners of the California mountains from the passage of the federal McCarran Amendment in 1952, which made modern general stream adjudications possible. During this period, the West changed fundamentally. The nature and extent of these changes are evident from a study of western lands policy, demographics, Indian policy, and the development of regional water law and institutions.

Many able historians have passed this way before us and we urge the reader to refer to these scholars for a more comprehensive rendering of western history.[10] We seek only to relate the context in which the

---

9. The Public Land Law Review Commission described the impact of federal landholdings upon western water in 1970, as follows:

> Federal lands are the source of most of the water in the 11 coterminous western states, providing approximately 61 percent of the total natural runoff occurring in the region. Most of this runoff comes from land withdrawn or reserved for specific purposes. Forest Service and National Park Service reservations contribute about 88 and 8 percent, respectively, of the runoff from public lands and more than 59 percent of the total yield from all lands of those states. Other public lands, such as the vast acreages administered by the Bureau of Land Management, do not contribute much to the overall yield of western streams, but are so situated that they influence water quality.

U.S. PUB. LAND LAW REVIEW COMM'N, ONE THIRD OF THE NATION'S LAND, A REPORT TO THE PRESIDENT AND TO THE CONGRESS BY THE PUBLIC LAND LAW REVIEW COMMISSION 141 (1970).

10. *See, e.g.*, ROBERT G. DUNBAR, FORGING NEW RIGHTS IN WESTERN WATERS (1983);PATRICIA NELSON LIMERICK, THE LEGACY OF CONQUEST: THE UNBROKEN PAST OF THE AMERICAN WEST (1987); DONALD J. PISANI, TO RECLAIM A DIVIDED WEST: WATER, LAW, AND PUBLIC POLICY, 1848-1902 (1992) [hereinafter 1 PISANI]; DONALD J. PISANI, WATER, LAND AND LAW IN THE WEST: THE LIMITS OF PUBLIC POLICY, 1850-1920 (1996) [hereinafter 2 PISANI].

adjudications of western rivers and streams began. Hence, we present a profile of the West as it was when the first water rights adjudications emerged in the hope of revealing some of the important reasons why these cases arose.

A. ACQUIRING THE AMERICAN WEST

The acquisition of most of what we now know as the American West came from the major European powers, who won these lands by conquest from the indigenous people. Mexico and Russia ceded the remainder of the western territory.

The first major western acquisition occurred when the United States purchased the Louisiana Territory from France at the urging of Thomas Jefferson in 1803. Napoleon offered the territory for sale to fund France's military initiatives in Europe. The Louisiana Purchase included over 523 million acres of land in what are now fourteen states, including eight of the western states studied here (Montana, Wyoming, North Dakota, South Dakota, Nebraska, Kansas, Colorado, and Oklahoma).[11]

Texas, which gained its independence from Mexico in 1836, joined the Union in 1845. In an effort to pay its own revolutionary war debt, Texas sold 79 million acres of its territory to the federal government in 1850.[12] These lands later became parts of New Mexico, Oklahoma, Kansas, Colorado, and Wyoming.

The Oregon Compromise of 1846 averted a war with Great Britain, and settled the northern American boundary. The Compromise also brought another 181 million acres of Pacific Northwest Territory (now part of Washington, Oregon, Idaho, and Montana) under the United States' dominion.[13]

The United States used less noble means to acquire territory from its southern neighbor. In 1848, the Treaty of Guadalupe Hidalgo ended the Mexican-American War. Mexico agreed to recognize the Rio Grande as the boundary between Texas and Mexico and consented to sell almost 335 million acres to the United States.[14] These lands later formed all or significant parts of California, Nevada, Wyoming, Colorado, Arizona, and New Mexico.

With the 1853 Gadsden Purchase, the United States acquired an additional 19 million acres from Mexico.[15] This purchase added to the New Mexico territory. As a result of the purchase of Alaska from Rus-

---

11. PAUL W. GATES, PUB. LAND LAW REVIEW COMM'N, HISTORY OF PUBLIC LAND LAW DEVELOPMENT 76, 86 (1968).
12. *Id.* at 81-82.
13. *Id.* at 76, 86.
14. *Id.* at 83.
15. *Id.* at 86.

sia in 1867, the United States annexed over 365 million more acres.[16] Alaska was also the last land acquisition to bring public land into the United States. This purchase essentially completed the western land base studied here.

All told, the Untied States fueled its drive westward by acquiring 1.7 billion acres of land west of the Mississippi River.[17] Of course, the federal government would not keep all of this land for long.

B. GIVING THE LAND AWAY: THE HOMESTEAD MOVEMENT

Even as the United States was busy acquiring the western lands, Congress enacted a series of measures to "privatize" or otherwise dispose of much of the public domain east of the Mississippi River. These privatization measures included military land bounties for soldiers and sailors who had served during the Revolutionary War, cash and credit sales of land, special laws legalizing the practice of squatting to acquire public lands, and a "preemption" program that allowed settlers to purchase up to 160 acres of land after living upon and improving it for one year.[18]

Congress disposed of other lands for public purposes. Most notable of these efforts was the Land Ordinance of 1785, which, in addition to establishing the rectangular survey system that exists today, reserved section 16 in every township "for the maintenance of public schools, within said township."[19] The Land Ordinance of 1785 became the Morrill Act, which granted public lands to states so they could establish colleges of agriculture and mechanical arts (this program was the land grant college system).[20] Other land grants provided states with a source of funds for other permanent improvements, and divested the federal government of some swamplands.

Although the California gold rush greatly heightened Americans' interest in the West, the Civil War delayed public land disposal in the region. Once the hostilities ended, settlement of the western public domain began in earnest under the older statutes, as well as under new legislation specifically fashioned by Congress to expedite western development.

Although federal assistance to railroads in the East existed as early as 1835, development accelerated with major grants made in 1862 to support transcontinental railroad construction.[21] On each side of the

16. *Id.*

17. *Id. See also* SAMUEL TRASK DANA & SALLY K. FAIRFAX, FOREST AND RANGE POLICY: ITS DEVELOPMENT IN THE UNITED STATES 10 (2d ed. 1980) [hereinafter DANA & FAIRFAX].

18. *See* GATES, *supra* note 11, at 121-284.

19. 28 JOURNALS OF THE CONTINENTAL CONGRESS 378 (1785).

20. Morrill Act, ch. 130, 12 Stat. 503 (1862) (codified as amended at 7 U.S.C. §§ 301-08 (1994)).

21. GATES, *supra* note 11, at 357, 364.

proposed track, the United States gave alternate sections of land to the Union Pacific and Central Pacific railroads, the companies that completed the transcontinental route in 1869. Eventually, the United States granted more than 131 million acres from the public domain to support railroad construction.[22] The United States conveyed almost 94 million acres directly to the railroad companies while the United States conveyed the remaining 37 million acres to the states for the benefit of the railroads.[23]

Also in 1862, Congress passed the Homestead Act.[24] The Act allowed any person older than twenty-one years of age to settle and cultivate up to 160 acres.[25] The statute contained numerous weaknesses, however. For instance, its acreage allowances were too small to foster productive farming in the arid West. For this and other reasons, lawmakers revised the homesteading program over the years. Eventually, the United States patented 285 million acres under these laws.[26] Similar laws followed.

Among such legislation was the Timber Culture Act,[27] which Congress passed in 1873. Before its repeal in 1891 (because its growth quotas were unrealistic in light of the West's arid climate), this law granted 160 acres of public land to any person who planted trees on forty acres and kept them growing for ten years.[28] Other land grant legislation included the 1877 Desert Land Sales Act.[29] The Act granted 640 acres of land to anyone who agreed to irrigate otherwise unproductive land within three years.[30] In addition, the Mining Act of 1866,[31] Placer Act of 1870,[32] and General Mining Act of 1872[33] created a system for locating minerals on both public lands and the lands patented to prospectors.

Under these various auspices, the federal government gave away over one billion acres, which constituted over 70 percent of the original public domain. Public lands scholar Sally K. Fairfax reports that of this total, some 69 percent went to individuals and institutions, 22 percent to the states, and 9 percent to railroads.[34]

The divestiture of the public domain continued into the twentieth century. Congress passed several acts that liberalized homestead poli-

22. *Id.* at 379.
23. *Id.* at 385, 805.
24. Homestead Act, ch. 75, 12 Stat. 392 (1862).
25. *Id.*
26. DANA & FAIRFAX, *supra* note 17, at 24.
27. Timber Culture Act, ch. 277, 17 Stat. 605 (1873).
28. *Id.*
29. Desert Land Sales Act, ch. 107, 19 Stat. 377 (current version at 43 U.S.C. §§ 321-23 (2000)).
30. *Id.*
31. Mining Act of 1866, ch. 262, 14 Stat. 251.
32. Placer Act of 1870, ch. 235, 16 Stat. 217.
33. General Mining Act of 1872, ch. 152, 17 Stat. 91.
34. DANA & FAIRFAX, *supra* note 17, at 29.

cies.[35] Indeed, homestead entries during the movement's first two decades proceeded at a higher rate, and involved more acreage, than in any time before.[36]

C. THE GIVEAWAY ENDS

The late 1800s and the first decades of the twentieth century brought a turnabout as the first efforts to retain the remaining federal public lands began. John Wesley Powell, whose travels made him extremely knowledgeable about the West, urged the government to take a more scientific approach to land disposition. As director of the United States Geological Survey (USGS), Powell argued that watersheds, not 640-acre rectangular sections, should be the basic planning unit in the West.[37] He also believed that these lands should be surveyed, classified, and disposed of based on their best potential use, and that the western lands should be withdrawn from entry until they could be surveyed and classified. Although Congress authorized the land withdrawal and surveys in 1888, pressure from western boosters and potential settlers led Congress to reopen the public domain in 1890, long before Powell and his agency finished their work.[38]

1. Federal Withdrawals and Management

The use of federal domain for parks began in 1864 when Congress transferred Yosemite Valley and Mariposa Big Tree Grove to California for its use as a public park.[39] Likewise, Congress reserved 2 million acres in Wyoming, Montana, and Idaho in 1872 to create the first national park, Yellowstone.[40] After a time, California clearly could not administer the Yosemite grant properly, so the federal government reclaimed the land in 1906 and formed its own park. That same year, Congress passed the Antiquities Act, allowing the President of the United States to withdraw lands to protect areas with historic, prehistoric, or scientific values.[41] Under this law, Congress reserved twenty-

35. *See, e.g.*, Enlarged Homestead Act of 1909, ch. 160, 35 Stat. 639 (*repealed by* 43 U.S.C. § 218 (2000) (increasing homestead size to 320 acres); Three-Year Homestead Act of 1912, ch. 153, 37 Stat. 123 (*repealed by* 43 U.S.C. § 218 (2000) (reducing the requisite residency period on the land from five to three years); Stockraising Homestead Act of 1916, ch. 9, 39 Stat. 862 (*repealed by* 43 U.S.C. § 291-298 (2000) (providing 640-acre homesteads on nonirrigable land).

36. GATES, *supra* note 11, at app. A at 799-800.

37. WALLACE STEGNER, BEYOND THE HUNDREDTH MERIDIAN: JOHN WESLEY POWELL AND THE SECOND OPENING OF THE WEST 322 (1954).

38. *See id.* at 316-24.

39. GATES, *supra* note 11, at 566.

40. *Id.*

41. Antiquities Act, ch. 3060, 34 Stat. 225 (1906) (codified as amended at 16 U.S.C. §§ 431-433 (2000)).

three national monuments in eleven states and Alaska by 1910.[42] Congress subsequently expanded several national monuments to form national parks.[43] Today, over 564 million acres of land reside in federal ownership.[44]

Growing public concern over the rapid and frequently wasteful depletion of the nation's natural resources prompted decisive action in the field of forestry in the 1890s: the Forest Reserve Act.[45] Although Congress already created a Division of Forestry within the Department of Interior in 1876, that agency's only function was research. The Forest Reserve Act served as an early indication that the federal government would not shy away from holding on to significant amounts of land to accomplish its goals.[46] This legislation authorized the President to withdraw timbered public lands from homestead and other types of entry and set those lands aside as forest reservations. Presidents Grover Cleveland and Theodore Roosevelt vigorously wielded the Act's authority to create a system of forest reserves.[47] In time, the government created 155 national forests, with 101 located in the West.[48] These reservations totaled approximately 156,274,000 acres.[49]

With the passage of the Taylor Grazing Act[50] in 1934, the federal government committed itself to actively managing much of the remaining public domain. The Act empowered the Secretary of the Interior to establish grazing districts. The grazing districts currently encompass 141 million acres of public land for grazing and forage crops.[51]

The Department of the Interior created an elaborate leasing system for these lands, since the Act barred homestead entry upon them, except in Alaska. In many respects, the Taylor Grazing Act marked the closing of the public domain.[52] The Taylor Grazing Act demonstrated

---

42. DANA & FAIRFAX, *supra* note 17, at 78.

43. *Id.*

44. BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, PUBLIC LAND STATISTICS 2003 5, 7 tbl.1-1, 1-2 (Apr. 2004) [hereinafter PUBLIC LAND STATISTICS].

45. Forest Reserve, ch. 561, 26 Stat. 1095 (1891), *repealed by* 16 U.S.C. § 471 (2000). *See also* DANA & FAIRFAX, *supra* note 17, at 55.

46. DANA & FAIRFAX, *supra* note 17, at 55.

47. "On February 22, 1897, [Cleveland] issued proclamations creating thirteen new reserves with a gross area of 21.3 million acres, which more than doubled the existing area of reserves. His action came without warning . . . . and without consultation with a single governor or elected representative from the affected areas." *Id.* at 60.

48. FORESTRY SERV., U.S. DEP'T OF AGRIC., LAND AREAS OF THE NATIONAL FOREST SYSTEM: LAND AREAS REPORT AS OF SEPTEMBER 30, 2004 tbl.1, http://www.fs.fed.us/land/staff/lar/LAR04/table1.htm.

49. *Id.*

50. Taylor Grazing Act, ch. 865, 48 Stat. 1269 (1934) (current version at 43 U.S.C. § 315 (2000)).

51. PUBLIC LAND STATISTICS, *supra* note 44, at 13-15 tbl.1-4.

52. *See generally* E. LOUISE PEFFER, THE CLOSING OF THE PUBLIC DOMAIN: DISPOSAL AND RESERVATION POLICIES 1900-50 (Stuart Bruchey & Eleanor Bruchey eds., Arno Press 1972) (1951).

that the federal government was much more inclined to keep its land than give it away. This policy culminated in the Federal Land Policy and Management Act (FLPMA) in 1976.[53] Under FLPMA, the Bureau of Land Management (BLM), a division of the Department of the Interior, managed approximately 262 million acres of western public domain.[54] The BLM leased much of the land to ranchers and farmers for livestock grazing.

To facilitate its western expansion, the United States eventually acquired approximately 1.7 billion acres of land in the area west of the Mississippi River, including Alaska, but not including Hawaii.[55] The federal government's disposition policies resulted in the permanent transfer of nearly 1.2 billion acres of this land to states, corporations, and private persons. At present, 564.5 million acres of land remain in federal ownership as national parks and monuments, forests, wildlife preserves, BLM public lands, and military installations.[56]

Congress acted frequently to assist agricultural settlement in the West. In addition to the Homestead Act and Desert Land Sales Act of 1877, the Carey Act of 1894[57] provided incentive to western states (up to one million acres of federal land) to reclaim the land through irrigation.[58] While agriculture was wildly successful in lush pockets of the West, farming was usually a hard and unpredictable enterprise for most western agrarians. Locally sponsored irrigation projects simply proved economically impractical. In addition, widespread drought during the 1890s convinced many westerners they could not do it alone. The federal government needed to help.

With water came thousands of settlers who poured into the searing desert where only three inches of rain fell each year on average, and summer temperatures frequently climbed to 120 degrees.[59] The population of the West grew from just over 4 million in 1900 to more than 9 million in 1920.[60] In California's Imperial Valley alone, the population reached 15,000 in 1909 with 160,000 acres irrigated.[61] At the same time, the urban areas of Los Angeles and southern California burgeoned. In fact, growth pressures in California helped push the fed-

53. Federal Land Policy and Management Act of 1976, Pub. L. No. 94-579, 90 Stat. 2743 (codified as amended at 43 U.S.C. § 1701 (2000)).

54. PUBLIC LAND STATISTICS, *supra* note 44, at 13-14 tbl.1-4.

55. GATES, *supra* note 11, at 86; DANA & FAIRFAX, *supra* note 17, at 11.

56. PUBLIC LAND STATISTICS, *supra* note 44, at 5-7 tbl.1-1, 1-2.

57. Carey Act, ch. 301, 28 Stat. 372 (1894) (current version at 43 U.S.C. § 641 (2000)).

58. *Id.* at 422.

59. PHILIP L. FRADKIN, A RIVER NO MORE: THE COLORADO RIVER AND THE WEST 186 (1981).

60. BUREAU OF THE CENSUS, U.S. DEP'T OF COMMERCE, HISTORICAL STATISTICS OF THE UNITED STATES: COLONIAL TIMES TO 1970, at 22 (1975) [hereinafter HISTORICAL STATISTICS].

61. FRADKIN, *supra* note 59, at 186.

eral Reclamation Service (renamed the Bureau of Reclamation in 1923) to plan the Hoover Dam and develop the Colorado River for western growth.[62]

2. The Lure of the Mines

The glitter of gold, not the agrarian dream, was responsible for the bulk of the dramatic population increases in the western region. Forty-niners left the eastern states in droves for California after the discovery of gold. The City of Denver sprang up practically overnight when miners found gold traces in the mountains of Colorado in the late 1850s. Discovery of silver in Colorado and Arizona also brought settlers to the mountain West.

Not surprisingly, Americans and immigrants flowing west to seek their fortunes in gold and silver mines provided a powerful catalyst for growth in the western states. The mines of the West provided a large increase in the gold and silver output of the United States, which stimulated the economy of the northern states during the Civil War.[63] The mining rushes also helped divide the West into political territories. The demand for increased food markets resulted from the proliferation of mining camps.[64] The wealth generated by the mining fields contributed to the completion of railroads as the demand for passage to the mountains and the coast increased.

As the population surged westward, this influx increased the pressure on the sovereignty and territories of Native Americans. These pressures prodded the federal government to move the Indian tribes and the original inhabitants out of the way for non-Indian fortune seekers.[65]

The potential to make it big in the West had a snowball effect. The population of the region grew at a greater rate than the rest of the nation during the last two decades of the nineteenth century. During this time, the United States' population growth exceeded that of all other industrialized nations.[66] Furthermore, the large influx of foreign-born inhabitants who came to work on the railroads and in the mines added to the already unique western culture.

---

62. *Id.* at 187.

63. FREDERICK MERK, HISTORY OF THE WESTWARD MOVEMENT 418 (1978).

64. *Id.*

65. *Id.*

66. Keith L. Bryant, Jr., *Entering the Global Economy, in* THE OXFORD HISTORY OF THE AMERICAN WEST 195, 232 (Clyde A. Milner II et al., eds. 1994) [hereinafter OXFORD HISTORY].

3. "Show me a rich country and I'll soon give you a large town"[67]

As Americans moved west in the 1800s, following gold, timber, and the plough, the virgin character of the region began to change. Fueled by the gold rushes of the 1840s and 1850s, city populations sprung up and flooded the frontier with would-be millionaires. City centers replete with trade, government, culture, and countless promoters generated a constant demand for metals, wood, and food. Even from the earliest settlement days, the West was surprisingly urban.

At the turn of the twentieth century, western population figures revealed fairly dramatic changes beginning in the 1850s. To illustrate, in 1850, the regional population of the West amounted to 0.6 percent of the total population in the United States.[68] "By 1890, the proportion of residents of the western states who lived in towns of ten thousand or more was larger than that of *any* other U.S. region except the Northeast."[69] By 1900, the western population comprised almost 6 percent of the total population in the United States.[70] Nearly 40 percent of all westerners lived in urban areas.[71] Growth of the frontier regional economy occurred in tandem with large mineral discoveries, because the need to supply goods and equipment to the mining economy hurried increases in urban growth.

In 1860, San Francisco stood alone as the only true urban center in the West. By 1900, however, "Houston, Dallas, Denver, Seattle, Portland, Los Angeles, and other urban areas boasted large populations and complex economies."[72] What drove this period of increasing growth in western urban centers? In part, the arid geography of the region encouraged urban growth because the dry, harsh climate made living in many rural parts of the West virtually intolerable.[73] The oasis of the city helped soften the dry reality. Much of the West was too arid to support successful farms.

Western migration also coincided with the industrial revolution, another factor that encouraged urban grown in the West. As the profitability of growing food for subsistence abated, the market for exchange goods and services developed. Still, this market depended upon access to a concentrated population.[74]

One precious commodity helped fuel the growth of the West: water. Cities, mines, and farms alike relied on it. Yet, as John Wesley

67. Carol A. O'Connor, *A Region of Cities, in* OXFORD HISTORY, *supra* note 66, at 535 (citing a Western pioneer proverb).
68. HISTORICAL STATISTICS, *supra* note 60, at 22.
69. O'Connor, *supra* note 67, at 536.
70. HISTORICAL STATISTICS, *supra* note 60, at 22.
71. Bryant, *supra* note 66, at 232.
72. *Id.* at 231.
73. O'Connor, *supra* note 67, at 536.
74. *Id.*

Powell argued in 1879, strong federal intervention would be required if communities were to continue growing.[75] The federal government faced the challenge of harnessing this vital resource.

4. Boom and Bust Cycles

Abundant natural resources in the largely undeveloped West spawned extractive industries including mining, timber, and ranching. The ability to harness western watercourses facilitated growth in many sectors of the western economy. The West's dual dependence on its natural resources and eastern capital made the region particularly vulnerable to boom and bust cycles.

For instance, Edmund Morris described the devastating winter of 1886-87 that almost annihilated ranching in the Northern Great Plains and ended Theodore Roosevelt's years as a cattleman in the Bad Lands near Medora, Dakota Territory in financial ruin.[76] Ranchers lost 75 to 85 percent of their herds. As Morris recounted, "When the last drifts of snow melted away, and the flood abated, cowboys went out onto the range to look for survivors [among the cattle]. Bill Merrifield was among them. 'The first day I rode out,' he reported, 'I never saw a live animal.'"[77]

The Depression of 1893 was another harsh blow to western fortunes. The economic downturn was more severe than any since the Revolutionary War, with unemployment higher than 10 percent for half of the decade.[78] Uncertainties about the gold standard and monetary policy, poor agricultural prices, and reduced railroad investment unduly burdened the West.[79]

Despite the swings in economic fortunes, the population in the western region persisted in growing during the first few decades of the twentieth century. From 1917 to 1919, the West shared in the post-World War I boom. However, the drought years escalated the Great Depression of the 1930s in all western states (except perhaps California, where the climate remained more sound). "[L]ow prices, and drought were driving people from their land and into other parts of America."[80] Historian Robert Athearn reported that during this period, the Southwest lost between 5 and 10 percent of its population.[81] The

75. JOHN WESLEY POWELL, REPORT ON THE LANDS OF THE ARID REGION OF THE UNITED STATES: WITH A MORE DETAILED ACCOUNT OF THE LANDS OF UTAH 3-5, 7-9 (Wallace Stegner ed., The Belknap Press of Harvard Univ. Press) (1879).

76. EDMUND MORRIS, THE RISE OF THEODORE ROOSEVELT 373 (1979).

77. *Id.* at 366.

78. *See* NEIL IRVIN PAINTER, STANDING AT ARMAGEDDON: THE UNITED STATES 1877-1919, at 116, 295 (1987).

79. *See generally id.* at 110-140 (describing the depression of the 1890s).

80. ROBERT G. ATHEARN, THE MYTHIC WEST IN TWENTIETH-CENTURY AMERICA 88 (1986).

81. *Id.*

tier of states from the Dakotas to Oklahoma suffered from similar losses in population.[82]

As the depression deepened, the western population became less rural.[83] In 1900, over 50 percent of western citizens lived in a rural area.[84] Yet, by 1940, nearly 60 percent of residences lived in an urban setting.[85] This change occurred despite the federal government's continuing provision of ample opportunities to acquire homestead property. Indeed, homestead land was available until 1934.[86] Athearn hypothesized that farmers just could not make a go of it in rural areas, gave up, and moved on to neighboring towns and cities.[87]

In 1933 the New Deal programs, spearheaded by President Franklin Roosevelt and driven by large public water works projects such as Boulder Canyon Dam on the Colorado River and Fort Peck Dam on the Missouri River, began to turn the western economy around. Thus, as America entered World War II, prosperity was gradually returning to the country and to the West.

D. INDIAN POLICY AND THE END OF TRIBALISM

Manifest destiny, or the opening of the western frontier to settlement, depended on a particular federal policy. One major challenge was termed the "Indian problem." Commentators frequently criticize American Indian policy for its ambiguous and unstable history. In its service of manifest destiny, however, American Indian policy consistently produced one result important to Anglo-Americans moving west during the 1800s: making more land available for settlement. The United States accomplished this by removing Native Americans from their ancestral homelands. Even when the United States did not physically remove entire tribes, the government significantly reduced or parceled tribal lands. One side effect was clear: the reduction of the Indians' land base diminished their military and political power.

The framers of the United States Constitution placed Indian policy in the hands of Congress. The Constitution mandated that Congress should regulate commerce with the Indian tribes, while it empowered the President to make treaties, necessarily including Indian treaties, given the consent of the Senate.[88]

The United States generally treated Indian tribes as foreign sovereign nations and often considered them enemies. The federal gov-

82. *Id.*
83. HISTORICAL STATISTICS, *supra* note 60, at 22.
84. *Id.*
85. *Id.*
86. Taylor Grazing Act, ch.865, 48 Stat. 1269 (1934) (current version at 43 U.S.C. § 315 (2000) (ending the availability of homestead land).
87. ATHEARN, *supra* note 80, at 88.
88. U.S. CONST. art. I, § 8, cl. 3, art. II, § 2, cl. 2.

ernment initially orchestrated the commerce between tribes and the growing territories. Before 1815, most "Indians negotiated treaties from a position of some power, for the tribes had the option of allying with either the United States or the British."[89]

Despite the tribes' powers, by the 1820s, non-Indian settlers continued west for new land. They demanded stronger policies to facilitate favoring Anglo expansion. The federal government heeded their call. Thus, the United States implemented a removal policy.

1. Removal Policy (1830-1871)

Though it had its genesis much earlier, Presidents Monroe, Adams, and Jackson most ardently championed the executive policy of removal.[90] Jackson was especially supportive of removal, because he fought in many Indian wars. In 1830, Congress passed the Indian Removal Act,[91] which expressed the goal of removing the Indian population from the eastern United States and gave the President power to accomplish the removal.[92]

The Act's intent was to force tribes from their eastern homelands to areas west of the Mississippi. The United States had a number of methods to accomplish the removal of Indian tribes from tribal lands. The United States used one option, war, liberally. Whether or not preceded by bloodshed, the government's relations with the tribes typically culminated in a treaty. Inevitably, treaties required tribal governments to forfeit some portion of their land. The United States held the remainder in reserve.

The United States often forced treaty negotiations upon tribes who did not understand English. Further, some tribal spokespeople did not really represent the tribes they purported to represent.[93] Often, the United States imposed treaties upon tribes, even without their consent.[94]

After 1871, the United States renounced treaty-making, and bilateral agreements arose as the negotiation method of choice.[95] Like treaties, these agreements reserved and ceded portions of land to tribes.

---

89. Charles F. Wilkinson & John M. Volkman, *Judicial Review of Indian Treaty Abrogation: "As Long as Water Flows or Grass Grows Upon the Earth"–How Long is That?*, 63 CAL. L. REV. 601 (1975), *reprinted in* DAVID H. GETCHES, CHARLES F. WILKINSON &ROBERT A. WILLIAMS, JR., CASES AND MATERIALS ON FEDERAL INDIAN LAW 155 (3d ed. 1993) [hereinafter GETCHES].

90. WILLIAM C. CANBY, JR., AMERICAN INDIAN LAW IN A NUTSHELL 14 (4th ed. 2004).

91. Indian Removal Act, ch. 148, 4 Stat. 411-12 (1830).

92. JOHN E. THORSON, RIVER OF PROMISE, RIVER OF PERIL: THE POLITICS OF MANAGING THE MISSOURI RIVER 44 (1994).

93. GETCHES, *supra* note 89, at 156.

94. *Id.*

95. CHARLES F. WILKINSON, AMERICAN INDIANS, TIME, AND THE LAW: NATIVE SOCIETIES IN A MODERN CONSTITUTIONAL DEMOCRACY 8 (1987).

Both houses of Congress ratified these agreements. Other methods accomplished the same goals: unilateral congressional statutes, Interior department actions, and executive orders. All continued to draw boundary lines around the many varied tribes of the West. Treaties and treaty substitutes[96] worked to form today's Indian reservations. These documents recognized tribes under the emerging United States government and eventually established a reservation system.

The removal policy, which was essentially "the purchase of Indian lands and the transposition of their former owners to new territories to the [W]est," resulted in many treaties.[97] Through this policy, the United States created reservations for many eastern Indian tribes on lands west of the Mississippi. The non-Indian Anglo world intended to impose its culture upon the new Indian reservations, changing Indian warriors and hunters in the abundant new world into benign American farmers. Yet, these ideals could not quite succeed. The United States initiated numerous attempts at creating boundaries, but those attempts then failed. As western expansion continued and whites increasingly crossed the boundaries set by treaties, the government broke the treaties, and reservations diminished.[98]

The United States gave tribes a choice of sorts: keep the homeland and be overrun by white settlement, or move west. President Jackson remained committed to removal of all Indians. He did not hesitate to use force if needed, but the United States Supreme Court sometimes refused to uphold such strong-arm tactics. Though the Court could only deal with particularized situations, the judiciary in the early days, led by Chief Justice John Marshall, rendered legal decisions that ran against the currents of removal.[99]

---

96. A term coined by Professor Wilkinson. *Id.* at 8.

97. BENJAMIN CAPPS, THE INDIANS 157 (Time-Life Books ed. 1973).

98. *Id.* at 157-69.

99. First, in *Johnson v. M'Intosh*, 21 U.S. (8 Wheat.) 543 (1823), a case about the validity of a tribe's land grant to non-Indian individuals, the Court ruled such a conveyance was invalid. *Id.* at 543, 604-05. The doctrine of occupancy (sometimes called Indian title, aboriginal title, and original title) was created for tribes in their aboriginal lands after European discovery. "The result of this decision was to recognize a legal right of Indians in their lands, good against all third parties but existing at the mere sufferance of the federal government." CANBY, *supra* note 90, at 15.

In the early 1830s, Justice John Marshall penned two more cases involving the Cherokee nation. The young state of Georgia gave up western land claims in return for a federal promise to extinguish Indian title in Georgia. Georgia did not wait for the federal government to make good on its promise. Instead, it passed legislation that divided Cherokee land between Georgian counties and invalidated Cherokee law. The Cherokee sued in the Supreme Court, *Cherokee Nation v. Georgia*, 30 U.S. (5 Pet.) 1 (1831), where Justice Marshall determined the Cherokee tribe demonstrated some level of sovereignty, though not as formidable as that of a foreign state. *Id.* at 17. Instead, Marshall created the concept of the "domestic dependent nation" and determined the United States was to Indian tribes like "a ward to his guardian." *Id.*

More telling than the treaties that began to form the Indian reservation system was the impact of broad policies Congress adopted that left implementation to later legislative or administrative action. The policy of allotment, discussed in the next section, played as large a role as removal policy in determining the character of today's Indian reservations.

2. Allotment and Assimilation (1871-1928)

Eventually, Indian wars enforcing removal policy became far less popular, less successful than planned, and enormously expensive.[100] The United States needed more effective tactics to terminate Indian tribal societies and open lands inhabited by the tribes for settlement. Toward that end, the effort to "assimilate" Indian people into the American culture developed. The first major indication that the federal government was serious about assimilation occurred when the Bureau of Indian Affairs (BIA) moved from the War Department to the Department of the Interior.[101]

The favored assimilation tool was the allotment program. Congress passed the General Allotment Act (also called the Dawes Act) in 1887.[102] The government's new mandatory initiative resembled the homestead program in that it allotted parcels of reservation land to individual tribal members. These individuals became yeoman farmers—full participants in American capitalism. Once the government allotted tribal land, it opened surplus reservation land to Anglo settlement. Perhaps for this reason, some advocates of assimilation argued allotment promoted the best interest of the whites as well as those of Indians.[103] Others regarded allotment as a destructive force, because it

---

The next term, Marshall opined *Worcester v. Georgia*, 31 U.S. (6 Pet.) 515 (1832), where Georgia authorities arrested non-Indian missionaries living in Cherokee country and accused them of violating state law requiring a state license or sworn allegiance to Georgia. *Id.* Marshall upheld the sovereignty of the tribe and ruled that jurisdiction over the Cherokees "belonged exclusively to the federal government, and that Georgia had no power to pass laws affecting the tribe." ALVIN M. JOSEPHY, JR., 500 NATIONS: AN ILLUSTRATED HISTORY OF NORTH AMERICAN INDIANS 328 (1994). The Court stated "[t]he Cherokee nation, then, is a distinct community, occupying its own territory, with boundaries accurately described, in which the laws of Georgia can have no force. . . ." *Worcester*, 31 U.S. (6 Pet.) at 561.

Despite the Court's language, the sovereignty of Indian tribes was difficult to protect without the support of Congress and the executive. Indian tribes were armed only with the words of the Supreme Court and had no political power. After the *Worcester* opinion, Jackson is thought to have remarked "John Marshall has rendered his decision, now let him enforce it." JOSEPHY, *supra*, at 328.

100. JOHN COLLIER, THE INDIANS OF THE AMERICAS 214 (1947).

101. *Id.* at 213.

102. General Allotment Act, ch. 119, 24 Stat. 388 (1887).

103. FELIX S. COHEN, HANDBOOK OF FEDERAL INDIAN LAW 208 (photo. reprint 1986) (1942).

imposed individual property ownership on members of a culture that believed in communal ownership.[104]

Under allotment, heads of families initially received 160 acres, while other family members received 80 acres.[105] If the land was suitable merely for grazing, these acreages doubled.[106] Title to the allotted land remained with the United States in "trust" for twenty-five years (longer, if the President extended the time). Once twenty-five years passed, the land became unencumbered and freely sold.[107]

After the federal government finished meting out reservation land to tribal members, it opened the remainder, or "surplus," to others. Thus, allotment policy put more land into Anglo hands. The policy also reduced total Indian landholdings by 35 percent, from 138,000,000 acres in 1887 before the Dawes Act to 48,000,000 acres in 1934.[108] The gross statistics underestimate the losses of tribal landholdings due to the allotment policy. Tribes were left with lands of lesser quality, where almost half of the land was either desert or semi-desert.[109] All told, tribes lost over 80 percent of the value of their lands due to the allotments.[110]

Ensuing events were equally harsh. Allottees frequently lost their land due to state tax foreclosures.[111] "Grafters" made things worse. They specialized as dealers of Indian lands, monopolizing the best tracts and leasing them out to tenant farmers.[112] They also appropriated the land of recalcitrant Indians who refused to accept allotments in their surplus holdings. In addition, grafters plundered the assets of Indian children by seeking appointment as guardians of young allottees and using the allotment for the grafters' benefit.[113] Those benefits were potentially huge: in the Five Tribes area of Oklahoma alone, there were 60,000 Indian minor children.[114] The agricultural value of their allotted estates equaled approximately $130,000,000 and that value was growing due to increasing oil prices.[115] Unscrupulous dealers would even have adult Indians declared incompetent to gain guardianship and, thus, control the land owned by their "charges." Grafters collected lease money and royalties, but rarely distributed it to the

104. COLLIER, *supra* note 100, at 214-15.
105. CANBY, *supra* note 90, at 21.
106. *Id.*
107. *Id.* at 21-22.
108. COHEN, *supra* note 103, at 216.
109. *Id.*
110. *Id.*
111. CANBY, *supra* note 90, at 22.
112. ANGIE DEBO, A HISTORY OF THE INDIANS OF THE UNITED STATES 325 (5th prtg. 1977).
113. *Id.* at 326.
114. *Id.* at 327.
115. *Id.*

landowning Indians, or heirs.[116] Grafters even employed murder to channel allotments into conspirators' hands; tribes reported twenty-four unsolved cases, some involving shooting, poisoning, and arson.[117]

More passive forces, like those of agricultural economics, gave allotment policy another unfortunate dimension. As allottees died, their estates were broken into small portions and distributed among heirs. Beneficiaries frequently leased out the land, but increasing parcel fragmentation generated proportionately smaller income.[118]

If the goal was to assimilate Indians into mainstream society, allotment failed. By eroding tribal lands and aboriginal governments, and splitting tribal members up, allotment policy corroded the political power of tribes. The Indian Task Force of the Hoover Commission summed up:

> The practice of allotting land and issuing fee patents obviously did not make the Indians competent. It proved to be chiefly a way of getting Indian land into non-Indian ownership. . . . The rationalization behind this policy is so obviously false that it could not have prevailed for so long a time if not supported by the avid demands of others for Indian lands. This was a way of getting them, usually at bargain prices.[119]

3. *Winters v. United States*

A United States Supreme Court opinion issued during the allotment period ran contrary to the general destruction of tribal property that characterized that era. In *Winters v. United States,*[120] Indians on the Fort Belknap Reservation in Montana asserted they were entitled to "reserve" water in the Milk River for future purposes, even though they had no need for the water at the time of the case. The Court agreed and held the tribe was entitled to enough water to enable it to accomplish the reservation's original purpose. The Court reasoned the United States surely would not give the Indians a reservation for farming purposes, but no water for farming. "It was the policy of the Government, it was the desire of the Indians, to change those [uncivil] habits and to become a pastoral and civilized people."[121] The holding

116. *Id.*
117. *Id.* at 333.
118. Cohen predicted "the allotment system, working down through the partitionment or sale of the land of deceased allottees, mathematically insures and practically requires that the remaining Indian allotted lands shall pass to whites. The allotment act contemplates total landlessness for the Indians of the third generation of each allotted tribe." COHEN, *supra* note 103, at 216.
119. DEBO, *supra* note 112, at 331 (internal quotations omitted).
120. 207 U.S. 564 (1908).
121. *Id.* at 576.

of *Winters* gave the federal government the power to "reserve" water when it entered into treaties with Indian tribes exempt from state law.

For more than fifty years there was little government reaction to the *Winters* holding and the reserved rights doctrine lay dormant.[122] Perhaps this was because the government policy of western expansion persisted in largely disregarding Indian rights. For instance, the United States engineered huge water projects into western riverbeds, often in complete derogation of Indian rights.[123] The tribes themselves had little ability to stop this. Allotment so isolated and impoverished tribes that they lacked the political power and resources to pursue the water rights recognized by *Winters*.

4. Reform Period (1928-1945)

The end of the allotment period coincided with the final closing of the American frontier. Allotment ended with the Indian Reorganization Act (IRA),[124] passed after the election of President Franklin Roosevelt. The IRA prohibited further allotments and froze previously allotted land still in trust status. The IRA allowed some surplus lands, not yet claimed by third parties, to be returned to tribes.[125] Congress also authorized the Secretary of the Interior to acquire new lands and water rights for tribes.[126]

Meanwhile, the Commissioner of Indian Affairs, John Collier, pursued new educational, economic, and administrative reform and encouraged Indian tribes to form self-governing tribal societies under the IRA.[127] Tribes had the option to reorganize their governments under IRA provisions, though a vote by the tribe in favor was required.[128] As a result, ninety-five tribes adopted constitutions, and seventy-four formed corporations for conducting their business. Some relatively undisturbed tribes declined such changes. They continued to manage their affairs in ways dictated by their own custom.[129]

Critics of the IRA believed it merely imposed Anglo institutions on Indian people.[130] They noted that many tribes adopted constitutions modeled on Anglo-American institutions.[131] While critics debate the legacy of the IRA, John Echohawk, executive director of the Native

---

122. GETCHES, *supra* note 89, at 782.
123. THORSON, *supra* note 92, at 80-83.
124. Indian Reorganization Act, ch. 576, 48 Stat. 984 (1934) (codified as amended at 25 U.S.C. § 461 (2000)) (also called the Wheeler-Howard Act of 1934).
125. *Id.* at 984 (current version at 25 U.S.C. §§ 462-63 (2000)).
126. *Id.* at 984-86 (current version at 25 U.S.C. § 465 (2000)).
127. LIMERICK, *supra* note 10, at 202.
128. *Id.*
129. *Id.* at 202-03.
130. VINE DELORIA, JR. & CLIFFORD M. LYTLE, AMERICAN INDIANS, AMERICAN JUSTICE15 (1983).
131. *Id.*

American Rights Fund, reached an interim assessment shared by many: "The Indian New Deal wasn't perfect...but its results were fundamentally beneficial for Indian people. The Indian Reorganization Act reversed the direction of American Indian policy. The pattern of history changed from the erosion of Indian sovereignty to its restoration and revival."[132]

Although reform came, the extent of the damage allotment caused was painfully evident by the 1920s. In 1928, the federal government published the Meriam Report. The report clearly documented the failure of the allotment policy and described extreme poverty and despair on divided reservations.[133] This report, written under contract by Interior Secretary Hubert Work, compiled the results from an in-depth social and economic survey of American tribes and found "deplorable conditions of poverty, disease, lack of social and economic adjustment, suffering, and discontent," on reservations, citing the allotment policy as its main cause.[134] The report also suggested various solutions to the devastating consequences of allotment.

Some reformers wanted to divest tribes of all their remaining land by liquidating the reservations. The Harding administration proposed paying the Indians the cash value for their remaining assets.[135] One bill unified the Pueblo people by recognizing the rights of squatters who invaded Pueblo property in New Mexico. Pueblo people united statewide for the first time in 242 years. Seventeen Pueblo representatives traveled to Washington D.C. to protest the bill, declaring, "[t]he time has come when we must live or die."[136]

Another sign of the renewal of tribalism came during the 1930s and 1940s. Legal scholarship focused on Indian sovereignty, thereby lending it some support.[137] For instance, Indian scholar Felix Cohen wrote his *Handbook of Federal Indian Law* and used the doctrine of tribal sovereignty John Marshall originally postulated as his thesis.[138] Cohen's scholarship became the leading authority courts used to address Indian issues, thereby encouraging more judges to issue decisions respecting Indian sovereignty.

By the end of World War II, however, the spirit of reform lost ground. New political forces ruled the day, and tribal interests were not among them. In the end, the power the tribes regained proved limited and was not enough to make reform a permanent feature on the federal agenda or the political horizon.

---

132. LIMERICK, *supra* note 10, at 209.
133. COHEN, *supra* note 103, at 26-27.
134. DEBO, *supra* note 112, at 336.
135. *Id.* at 334. In 1934 Congress also passed the Taylor Grazing Act, officially ending the homesteading era. MERK, *supra* note 63, at 611.
136. DEBO, *supra* note 112, at 335.
137. WILKINSON, *supra* note 95, at 57.
138. *Id.* at 56-57.

E. TERMINATION ERA

The IRA and Collier's policies produced a resurgence of social, spiritual, and political power for Native Americans, but the advent of the Termination Era in the 1950s halted such gains. Just eleven years after Congress passed the IRA, Collier's reforms began fading into the past. In 1949 the Hoover Commission issued its *Report on Indian Affairs* suggesting a return to assimilation policy: "[C]omplete integration of Indians should be the goal so that Indians would move into the mass of the population as full, taxpaying citizens."[139] Social forces of the times, coupled with the desire to abate federal funding to tribes, brought termination policy to the forefront of Indian policy debates.[140]

F. SUMMARY

As previously discussed, a series of land settlement initiatives, principally the Homestead Act of 1862 and the Desert Land Sales Act of 1877, parceled out the public domain for the benefit of individual family farmers. Federal land tenure in the West was important to water adjudications because it determined the type and magnitude of water rights claimed for these lands. Often, the same individual or family leased these lands for decades. They constructed stockponds, ditches, wells, and other water improvements. As for lands that remained in federal control, the government intensified its interest in these holdings, because the land could support recreation, environmental protection, and other governmental initiatives. Tribal lands present a more challenging prospect after the advent of *Winters* rights and the associated questions surrounding the quantification of tribal water rights. General stream adjudications currently face the daunting task of defining water rights for this patchwork of western lands, and the lands and water are enmeshed in an intense value struggle over the future of the West.

II. THE SEARCH FOR WATER LAWS AND INSTITUTIONS SUITABLE FOR THE WEST

By the 1860s, Manifest Destiny accomplished its principal tenet: to secure under the American flag all of the territory between the Atlantic and Pacific oceans. After the Civil War, the nation's attention turned toward settling this vast terrain for the dual purposes of developing western lands and protecting them from foreign threats. At the beginning of this settlement era, western rivers and streams sufficiently accommodated the water needs of new settlers. After the first wave of settlers acquired prime riparian lands and diversion points, it became

139. GETCHES, *supra* note 89, at 229 (internal quotations omitted).
140. DEBO, *supra* note 112, at 349-53.

apparent that new water laws and institutions would be necessary if remaining arid lands were to support a growing population and economy in the ensuing years.

The first wave of settlers adopted a legal regime for the future and called it "prior appropriation." To administer the doctrine, they created local institutions to develop and allocate water resources. At the beginning of the twentieth century, the federal government assumed an active role in western water issues with federal reclamation legislation and funding. The combination of water law and local involvement, coupled with federal support, facilitated the development of the American West. Ultimately, this combination placed a premium on ascertaining existing water rights, providing the impetus for the general stream adjudications.

A. DEVELOPMENT OF THE PRIOR APPROPRIATION DOCTRINE

The eastern riparian water rights doctrine, which limits water use to those persons with lands bordering a river or lake, eventually proved ill-suited for the arid West. Beginning in the late 1840s, custom and tradition determined water allocation policies in many parts of the West. The prior appropriation doctrine, which embodied the principle "first in time, first in right," arose in response to western needs to suit the aridity and geography of the region.[141] The doctrine treated each of the following as property: priority, place of diversion, quantity, transfer rights, and the owner's status in the hierarchy of users.[142] Early miners first applied prior appropriation principles to the use of surface water, and eventually western territories and states adopted the doctrine in their statutes as well.[143]

At first, the federal government responded in a deferential manner by recognizing past and even future appropriations of water on public lands, which were based on local customs and traditions. The government's deference was particularly evident in the Mining Act of 1866 and the Desert Land Sales Act of 1877.

Even the federal judiciary deferred to state law in the appropriation and use of water in a series of court cases, which bestowed each state with broad regulatory authority over water rights on public lands

---

141. *See, e.g.*, Coffin v. Left Hand Ditch Co., 6 Colo. 443, 447 (1882) ("Imperative necessity, unknown to the countries which gave [the riparian doctrine] birth, compels recognition of [the prior appropriation doctrine] in conflict therewith.").

142. Mark W. Tader, *Reallocating Western Water: Beneficial Use, Property, and Politics*, 1986 U. ILL. L. REV. 277, 284.

143. John D. McGowen, *The Development of Political Institutions on the Public Domain*, 11 WYO. L.J. 1-14 (1956). Later, western state legislatures required that the state itself concur with the appropriation. This policy required appropriators to apply for permits before constructing the works or using the water. A state agency then decided whether unappropriated water was available for the use, and whether that use was beneficial.

and gave each the exclusive right to choose its own system of water law.[144] During this period, territorial and state governments[145] were the primary drivers of water rights and water use control. Congress remained content to defer to state or territorial law on such matters.[146]

B. DEVELOPMENT OF LOCAL INSTITUTIONS

The need for water also presented organizational challenges as communities realized they needed some sort of structure to oversee the movement of water. As a solution, Mormons in the Salt Lake Valley pioneered the first communal irrigation organizations.[147] This cooperative movement also took hold in irrigation-based colonies, which some touted as experimental utopian communities. These included Anaheim, California, where in 1857; individuals formed the Los Angeles Vineyard Society for the purpose of cultivating grapes and producing wine.[148] Settlers established one of the most famous initiatives, the Union Colony, in 1870 near the confluence of the Cache la Poudre and Platte rivers in Colorado.[149] They named the community "Greeley," after Horace Greeley of the *New York Tribune*, who sponsored the community in its early days. The Chicago-Colorado Colony established a similar settlement near Longmont, Colorado.[150]

More formal, corporate organizations evolved as citizens realized that mere cooperative efforts would be insufficient to settle the entire West. Private canal companies organized in many states, including the Highland Ditch Company of Colorado in 1871.[151] The Boise City Land & Irrigation Company in Idaho followed, as did the Pecos Irrigation & Investment Company of New Mexico.[152] The financial returns from

144. *See* California Oregon Power Co. v. Beaver Portland Cement Co., 295 U.S. 152, 154-56 (1935) (holding Congress had recognized the validity of local customs related to the appropriation of water); Kansas v. Colorado, 206 U.S. 46, 94 (1907) ("It may determine for itself whether the common law rule in respect to riparian rights or that doctrine which obtains in the arid regions of the West of the appropriation of water for the purposes of irrigation shall control. Congress shall not enforce either rule upon any state."); United States v. Rio Grande Dam & Irrigation Co., 174 U.S. 690, 704 (1899).

145. State powers to legislate in the field of water rights arose from the general sovereignty reserved to the states by the Tenth Amendment to the United States Constitution. The power to create property rights and the police power to regulate those rights stems from this reserved sovereignty. The Tenth Amendment provides, "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." U.S. CONST. amend. X.

146. Ernest A. Engelbert, *Federalism and Water Resources Development*, 22 LAW & CONTEMP. PROBS. 325, 329 (1957).

147. DUNBAR, *supra* note 10, at 18.

148. *Id.* at 20-21.

149. *Id.* at 22.

150. *Id.* at 23.

151. *Id.*

152. *Id.* at 24, 26.

these companies, however, could not sustain the day-to-day cost of operating the irrigation projects. As one historian concluded: "In general, the canal corporation as an institution could construct irrigation projects, but could not successfully operate them."[153]

Progress continued nonetheless. Mutual ditch or irrigation companies formed in many states, with the assistance of state or territorial legislatures.[154] The companies required farmers to pool their resources in exchange for stock, and assigned them a proportionate share of irrigation water. One such mutual irrigation company was the Hardy Irrigation Canal Company, which six Arizona pioneers organized in 1870 along Arizona's Salt River near Tempe.[155] In 1900 farmers organized a similar mutual ditch company, the Big Ditch Company, in the Yellowstone Valley near Billings, Montana.[156]

Another corporate form, the development corporation, which was a hybrid between the private corporation and the mutual irrigation company, allowed developers to create a mutual corporation, build irrigation facilities, and divide and sell the land and stock to individual farmers. These corporations became a predominant settlement pattern in southern California in cities such as Pomona, Pasadena, and Redlands.[157]

In 1887 California's Wright Act,[158] further enhanced the financial capacity of local irrigation efforts. The Act enabled a county board of supervisors to create irrigation districts that could assess agricultural land, issue bonds, and construct irrigation projects. Eventually, sixteen other western states adopted variants of the Wright Act.[159] New Mexico further refined the irrigation district concept by authorizing water conservancy districts that allowed communities to assess both urban and agricultural lands to support multi-purpose projects.[160]

C. LIMITS OF LOCAL EFFORTS

By the late 1800s, however, many westerners realized that the region's rives needed large storage facilities if the reclamation and settlement of the West were to proceed. The private canal companies and

153. *Id.* at 27.

154. Among the forms of legislative support irrigation districts enjoyed were exemption from state and territorial taxation, exclusivity rights (with which some companies held exclusive rights to particular service areas), and the power of eminent domain to acquire rights of way and purchase land through condemnation. 1 PISANI, *supra* note 10, at 98-99.

155. DUNBAR, *supra* note 10, at 29.

156. *Id.* at 30.

157. *Id.* at 32.

158. CAL. WATER CODE §§ 20500-29975 (West 1984) (officially named the Irrigation District Law, but commonly known as the Wright Act).

159. DUNBAR, *supra* note 10, at 33.

160. *Id.* at 34-35.

irrigation districts had already overextended themselves[161] and lacked the financial capacity and engineering expertise to construct large storage projects. Gradually, eyes turned toward Washington to provide assistance.

Congress responded in 1888 by mandating a survey of possible storage sites on western rivers.[162] The United States Geological Survey (USGS), which John Wesley Powell headed at the time, conducted the survey with Arthur D. Foote and Edwin S. Nettleton as supervising field engineers.[163] Powell recommended, and Congress agreed, the government should close the public domain to settlement until the USGS completed the survey and Congress had the opportunity to act. The closing led to such an outcry from the western states and territories that Congress reversed itself in 1890.[164] By that time, however, "Powell, with his topographical mapping, stream gauging, and reservation of reservoir sites, had laid the foundation for national reclamation."[165]

D. NATIONAL RECLAMATION

In 1894, Congress enacted the Carey Act.[166] Considered to mark a crossroads in the history of western reclamation, this Act authorized the transfer "of one million acres within each state's public lands for irrigation, reclamation, settlement, and cultivation [.]"[167] The Act responded to the expectation that states would contract with private development corporations to undertake the reclamation work. Only Montana, Washington, Idaho, Colorado, Wyoming, and Idaho capitalized on the Carey Act.[168] William "Buffalo Bill" Cody led Carey Act reclamation efforts in several states; his grand visions for developing irrigated commonwealth communities stood in stark contrast to the "Wild West" he so fervently peddled years before.[169] The Carey Act was ultimately deemed ineffective because of a lack of private financing.[170] One commentator observed, "[t]he Carey Act development corporations

161. Many irrigation corporations ignored the reality that they could only meet interest and maintenance costs of building their canals if their service areas settled rapidly and densely. When droves of settlers failed to materialize, these costs crushed some companies. In Arizona's Salt River Valley, companies built eight canals at a cost of nearly one million dollars, but only approximately twenty percent of the lands that the canals were capable of serving actually became cultivated. 1 PISANI, *supra* note 10, at 106.

162. DUNBAR, *supra* note 10, at 47.

163. *Id.* at 47-48.

164. *Id.* at 48.

165. *Id.*

166. 43 U.S.C. § 641 (2000).

167. KAREN L. SMITH, THE MAGNIFICENT EXPERIMENT: BUILDING THE SALT RIVER RECLAMATION PROJECT 1890-1917, at 8 (1986).

168. 1 PISANI, *supra* note 10, at 261.

169. *Id.* at 254-55.

170. SMITH, *supra* note 167, at 8.

faced the same problems as the earlier corporations—miscalculation of costs, overestimation of the water supply, and a dearth of settlers to purchase water rights."[171] In the end, the Carey Act did little to cultivate or reclaim the public domain.[172]

During the 1890s, support increased for a strong federal role in western reclamation. Captain Hiram M. Chittenden of the Army Corps of Engineers, who surveyed and located five possible reservoir sites in Colorado and Wyoming, recommended Congress fund the construction of these projects.[173] However, he proposed states build the water distribution facilities themselves.[174] In addition, in 1899, California attorney George Maxwell organized the National Irrigation Association, an organization devoted to national reclamation.[175] By 1902, the national reclamation movement crested with the support of President Theodore Roosevelt. With Roosevelt's assistance, Senator Francis Newlands of Nevada succeeded in urging Congress to pass his reclamation act.[176]

The Reclamation Act of 1902[177] was a strategic federal instrument to further settlement and economic development of the West. The Act authorized federal funds for the construction of reservoirs and water distribution facilities in sixteen western states and territories.[178] Farmers would construct projects with federal loans, which the farmers would repay within ten years.[179] The federal government entrusted responsibility for the program to the Reclamation Service, housed within the Department of the Interior's United States Geological Survey. This configuration of authority circumvented regional policies and traditions, and created a more closed system of decision-making.[180] With this

171. DUNBAR, *supra* note 10, at 40.

172. SMITH, *supra* note 167, at 8.

173. 1 PISANI, *supra* note 10, at 276-77. With the states responsible for the distribution system, Chittenden estimated the federal government could provide enough water storage to reclaim the entire arid West for $5.37 per acre, or approximately $1,430,031 each year for a century. *Id.* at 278.

174. *Id.* at 278.

175. *Id.* at 287.

176. *Id.* at 317-18.

177. Reclamation Act of 1902, ch. 1093, § 8, 32 Stat. 390 (codified as amended at 43 U.S.C. § 372 (2000)).

178. DUNBAR, *supra* note 10, at 51. These states are Washington, Oregon, California, Idaho, Nevada, Utah, Arizona, Montana, Wyoming, Colorado, New Mexico, North Dakota, South Dakota, Nebraska, Kansas, and Oklahoma. Reclamation Act of 1902, ch. 1093, 32 Stat. 388. Congress added Texas in 1905 as the seventeenth reclamation state. DUNBAR, *supra* note 10, at 51.

179. DUNBAR, *supra* note 10, at 51.

180. SMITH, *supra* note 167, at 21. Note that section 8 of the Act declared, "nothing in this Act shall be construed as affecting or intended to affect or in any way interfere with the laws of any State or Territory relating to the control, appropriation, use, or distribution of water used in irrigation...." Reclamation Act of 1902, ch. 1093, § 8, 32 Stat. at 390. According to historian Donald J. Pisani, the Reclamation Act "pandered

enactment, Congress gave private rights prevalence, and directed the Secretary of the Interior to proceed in conformity with state laws.[181] The federal government deemed all water rights delivered by federal irrigation projects "attached" to the land watered. This precluded any entity from selling, purchasing, or monopolizing water rights as a commodity separate from the land, a factor that restricted state administrative control.[182]

On March 14, 1903 Secretary of the Interior Ethan Allen Hitchcock authorized reclamation projects on five rivers: the Salt River in Arizona, Truckee-Carson River in Nevada, Uncompahgre River in Colorado, North Platte River in Wyoming and Nebraska, and Milk River in Montana.[183] By 1907, twenty-four such reclamation projects were underway in fifteen states.[184] By 1929, more than one hundred federal projects were complete, bringing irrigation to about 1,500,000 acres.[185]

The proponents of these projects hoped they would finance themselves over time, but the federal projects did not live up to that expectation. Congress responded by passing multiple relief measures, which extended repayment dates or reduced the amounts due.[186] The Secretary of the Interior's Committee of Special Advisers on Reclamation in 1924 concluded it was a fundamental error to believe the construction of irrigation projects alone would foster vigorous agriculture.[187] Part of the problem was the inordinate amount of energy the government devoted to engineering without regard to the dynamics of human interaction. The federal water subsidy contributed to the western migration of many would-be farmers, but not all had the capital or experience needed to succeed. Farmers were simply not organized enough to help each other.[188]

As homesteading diminished the supply of public land, and Reclamation Service funds dried up, the Reclamation Service turned to In-

---

to home rule and institutionalized fragmentation." 1 PISANI, *supra* note 10, at 325. He noted that "Section 8 of the act ratified a medley of state and territorial water laws that crippled coordinated planning in its infancy." *Id.*

181. 43 U.S.C. § 383.

182. Historians actively debate the centralization of water resources. *See, e.g.*, SAMUEL P. HAYS, CONSERVATION AND THE GOSPEL OF EFFICIENCY: THE PROGRESSIVE CONSERVATION MOVEMENT, 1890-1920 (Univ. of Pittsburgh Press 1999) (1959) (applauding centralization's benefits) *but cf.* DONALD WORSTER, RIVERS OF EMPIRE: WATER, ARIDITY, AND THE GROWTH OF THE AMERICAN WEST (1985) (warning of the dangers of centralization).

183. DUNBAR, *supra* note 10, at 51-52.

184. *Id.* at 52.

185. MERK, *supra* note 63, at 509.

186. *Id.* at 510.

187. *See generally.* COMM. OF SPECIAL ADVISERS ON RECLAMATION, FEDERAL RECLAMATION BY IRRIGATION, S. DOC. NO. 68-92, at 36-39 (1st Sess. 1924) (discussing the weaknesses and failures of the Reclamation Act).

188. SMITH, *supra* note 167, at 155.

dian lands. In 1904 Congress gave the Reclamation Service the right to "reclaim, utilize, and dispose of any lands" within the reservation, as long as each Indian received an irrigated farm.[189] As the Reclamation Service began taking over Indian Bureau water projects that the Dawes General Allotment Act of 1887 originally founded, Indian water rights became captive to experiments in federal reclamation.[190]

Indian tribes even helped subsidize federal reclamation through the sale of "surplus" land, or land the federal government deemed unnecessary for tribes. For example, on the Flathead Reservation in Montana, surplus land sold to white settlers at $4 to $7 an acre rapidly became worth $100 to $500 an acre when settlers irrigated. Yet, the allotment policy offered few benefits for Indians, because they owned only small percentages of the irrigated land. According to the *Report of Advisors on Irrigation on Indian Reservations*, many of the so-called Indian irrigation projects were not Indian projects at all.[191] Historian Donald J. Pisani perhaps summed it up best: "In any contest between whites and Indians, political expediency, if nothing else, dictated that the Reclamation Service support white farmers. The 1902 act, after all, had been written for those homesteaders."[192]

E. PROGRESSIVE CONSERVATION ERA AND NEW DEAL POLICIES

The Reclamation Act was a manifestation of the progressive conservation movement, which became the basis of President Theodore Roosevelt's national resource policies. One of the principal tenets of the progressive conservation movement was that the federal government should retain ownership of western public lands and the government should use revenues from these lands to support public land management. Further, progressives believed resource management should benefit from scientific principles. Most notably, progressives thought society should develop western arid lands "for the nation as a whole, not [solely] for local interests."[193] This emerging national policy also sought stewardship of the nation's water resources to support navigation, irrigation, hydroelectric power, and construction of reservoirs to prevent flooding.[194]

Proponents of progressive conservationism, however, soon ran afoul of the capitalists on Wall Street over the issue of hydroelectric

---

189. Reclamation Act of 1902, ch.1402, § 25, 33 Stat. 224.

190. Act of Feb. 8, 1887, ch. 119, 24 Stat. 388 (codified as amended at 25 U.S.C. §§ 331-334, 339, 341, 342, 345, 348, 349, 354, 381 (1994)). The act is commonly known as the "Indian Allotment Act."

191. 2 PISANI, *supra* note 10, at 177-78.

192. *Id.* at 168. *See also* DANA & FAIRFAX, *supra* note 17, at 69.

193. SMITH, *supra* note 167, at 22.

194. MARK D. O'KEEFE ET AL., BOUNDARIES CARVED IN WATER: AN ANALYSIS OF RIVER AND WATER MANAGEMENT IN THE UPPER MISSOURI BASIN 11 (1987).

power. In 1906 the Roosevelt administration championed an amendment to the Reclamation Act, which enabled the federal government to sell surplus hydroelectric power generated by reclamation projects.[195] Although President Roosevelt called for some form of federal power commission to regulate the distribution of this power, it was not until after he left office that Congress finally passed the Federal Power Act of 1920.[196] Even then, the commission the statute created was ineffectual during much of the 1920s. Despite the Act, three major oligarchies, the Morgan-Bonbright-National City group, the Chase National-Forbes group, and the Insull group, controlled almost 60 percent of the electric power in the country.[197]

Ultimately, public and congressional fears about the private monopolization of hydropower and hydropower sites provided support for the comprehensive river basin planning and development concept. Large main stem dams, many of which the Reclamation Act authorized, were important components of this multi-purpose policy.

The government undertook comprehensive plans for the Colorado River that led to the Colorado River Compact of 1922 and the Boulder Canyon Project Act of 1928. In 1933 comprehensive river basin development also gave birth to the Tennessee Valley Authority (TVA), considered the model for management proposals on other river systems.[198] President Franklin Roosevelt predicted, "[i]f we are successful here [with TVA] we can march on, step by step; in a like development of other great natural territorial units within our borders."[199]

During the Depression years, the TVA and other large multipurpose water development projects spurred national economic recovery. The Bonneville and Grand Coulee Dams on the Columbia River began in 1933 and 1935, respectively.[200] Congress slated similar large-scale projects for central and southern California. In 1935 Congress also approved the Fort Peck Dam on the Missouri River.[201] By 1940, with the public domain closed, and government dams provided cheap power to fuel an economic "takeoff" in the West.[202] Federalism scholar Daniel Elazar described the time as one of continued collaboration between the federal and state governments, albeit with the balance of power on the federal government's side: "[Although] [t]he great acceleration of the velocity of government made cooperative federalism

195. SMITH, *supra* note 167, at 96.
196. THORSON, *supra* note 92, at 60.
197. *Id.*
198. *Id.*
199. Franklin D. Roosevelt, Message to Congress Suggesting the Tennessee Valley Authority (Apr. 10, 1933) (transcript available in the Franklin D. Roosevelt Presidential Library and Museum), http://www.fdlrlibrary.marist.edu/odtvacon.htm.
200. THORSON, *supra* note 92, at 60-61.
201. *Id.* at 61.
202. 2 PISANI, *supra* note 10, at 197.

all-pervasive . . . .The co-operative system was subtly reoriented toward Washington."[203]

The West benefited from federal reclamation policy because it meshed well with the prior appropriation doctrine by supporting the capture and storage of water for state water users. From the western perspective, the federal government made cultivation possible by providing the capital for construction and distribution systems, yet allowed western states to maintain control over the actual distribution of water through prior appropriation.[204]

This partnership between the federal government and western states worked so well because it was consistent with state and federal land settlement and disposal policy.[205] The United States Supreme Court confirmed such an arrangement in *California Oregon Power Co. v. Beaver Portland Cement Company*.[206] The Court recognized Congress relinquished property rights in western waters to the states when it passed the Desert Land Sales Act of 1877.[207] Western states would later point to language from that case to argue the Court meant to recognize state ownership and control over all non-navigable waters.

After *California Oregon Power*, western state citizens and politicians assumed the federal government would refrain from infringing on state primacy in water allocation, unless it was acting within its powers to regulate commercial navigation.[208] Eventually, westerners were disappointed, for the large water development projects of the New Deal exerted a great deal of influence. Still, given the economic importance of these projects, federal interference was a price that most westerners were willing to bear.

F. INTERSTATE COMPETITION FOR WATER

By the turn of the twentieth century, demands on interstate stream water had increased so much that conflicts arose between neighboring states. Over the next fifty years, these tensions frequently erupted in cycles of federal court litigation.

---

203. Daniel J. Elazar, *The Shaping of Intergovernmental Relations in the Twentieth Century*, 359 ANNALS AM. ACAD. POL. & SOC. SCI. 10, 18-19 (1965).

204. Charles T. DuMars & A. Dan Tarlock, *Symposium Introduction: New Challenges to State Water Allocation Sovereignty*, 29 NAT. RESOURCES J. 331, 332-33 (1989).

205. *Id.* at 333.

206. California Oregon Power Co. v. Beaver Portland Cement Co., 295 U.S. 142, 164 (1935).

207. *Id.* at 163-64 ("What we hold is that following the act of 1877, if not before, all non-navigable waters then a part of the public domain became *publici juris* subject to the plenary control of the designated states. . . ."); *see also* Desert Land Act of 1877, ch 107, 19 Stat. 377 (codified as amended at 43 U.S.C. § 321 (2000)).

208. DuMars & Tarlock, *supra* note 204, at 334.

In 1902, for instance, Kansas sued Colorado in the United States Supreme Court.[209] Kansas argued Colorado's diversions from the Arkansas River damaged downstream riparian rights.[210] Colorado contended it was a sovereign state and, as such, it had the right to use its water as it saw fit, even if doing so damaged downstream states.[211]

To address the dispute, the Court acknowledged the principle of equitable apportionment as the arbiter for interstate disputes over water.[212] The Court compared the equities of both states, and found the value of established upstream irrigation in Colorado outweighed the limited injury it might inflict on Kansas. The Court denied Kansas any relief, but left open the possibility of Kansas renewing its suit if circumstances changed.[213] This open-ended decision to weigh the equities engendered a series of interstate lawsuits over rights along the Arkansas River that continue to this day.

By the 1920s, other states began litigating over western rivers. Water users in Nevada successfully sued upstream irrigators in California along the Carson River.[214] In similar litigation lasting almost a decade, an irrigation company in Nebraska sued the State of Colorado over uses on the Republican River.[215] Other states also sued their neighbors in the United States Supreme Court. Wyoming sued Colorado and other parties to prevent a proposed diversion of Laramie River water through a tunnel into the Cache la Poudre, which detrimentally effected water users in Wyoming. Wyoming filed the case in 1911, argued it in 1916, and reargued it in 1918 after the United States intervened to claim ownership of the unappropriated water in the Laramie River, a non-navigable stream.[216] The parties reargued *again* and ultimately the Court ruled in 1922.[217] Similarly, on two occasions, Arizona unsuccessfully attempted to sue California over the Colorado River.[218] Arizona's chief obstacle was the Supreme Court's holding that because Congress had authority to build Boulder Dam[219] no court could apportion the river without the federal government joined in the litigation.[220]

---

209. Kansas v. Colorado, 185 U.S. 125 (1902).
210. *Id.* at 142.
211. *Id.* at 143.
212. Kansas v. Colorado, 206 U.S. 46, 104-05 (1907).
213. *Id.* at 117.
214. *See, e.g.*, Anderson v. Bassman, 140 F. 14 (C.C.N.D. Cal. 1905); Rickey Land & Cattle Co. v. Miller & Lux, 152 F. 11 (9th Cir. 1907).
215. Weiland v. Pioneer Irrigation Co., 259 U.S. 498, 499 (1922).
216. Wyoming v. Colorado, 259 U.S. 419, 455-56 (1922).
217. *Id.* at 419.
218. Arizona v. California, 283 U.S. 423 (1931); Arizona v. California, 298 U.S. 558 (1936).
219. Arizona v. California, 283 U.S. at 455-56.
220. Arizona v. California, 298 U.S. at 571.

G. SUMMARY

The water use customs and patterns developed during the earlier gold rush periods and agricultural settlement established prior appropriation as the legal regime for the settlement of the American West. The prior appropriation doctrine led to the creation of new local institutions, including canal and irrigation companies. As these efforts proved unsatisfactory, the federal government took a more active role. National involvement appeared inevitable, as "neither private enterprise nor the states could reclaim the West alone."[221] Broader Progressive Era and New Deal efforts, coupled with increased interstate competition for water, helped solidify a federal role in water. By the 1940s, the federal government had ascended to become the dominant player in western water resource management and appropriation.[222]

Despite the great strides achieved in western water development from the 1860s to the 1940s, two critical factors remained unaddressed: groundwater rights and Indian rights. Prior appropriation, originally designed to allocate surface water, failed to incorporate groundwater under its legal regime even though surface water largely depends on the flows of tributary groundwater in many western watersheds. The law also appeared to leave Indian rights out of the prior appropriation equation.

As populations increased, so too did demands for water. In light of this growth, the questions prior appropriation left unanswered soon haunted federal-state relations and western water allocation decisions. As the western frontier vanished, Americans could no longer ignore the pressures that arise when great numbers of people live in close proximity.[223] General stream adjudications commenced with high hopes of providing the one forum in which parties could resolve these conflicts.

III. THE GENEALOGY OF WESTERN WATER ADJUDICATIONS

Conflicts over scarce water resources are not a modern malady; indeed, they are endemic to the western United States. For many of the pre-Columbian cultures, this problem was mitigated by seasonal migration in pursuit of better forage and water. For agrarian indigenous groups and the Hispanic and Anglo cultures that followed them, how-

221. 1 PISANI, *supra* note 10, at 327.

222. Much of the relevant literature of the time supports this assessment. Scholars presented papers at a 1940 symposium on federalism giving significant attention to the roles of state and local governments. Yet, in other papers concerning the use of federal grants-in-aid, the use of federal regions, and the deference accorded congressional enactments by the Supreme Court, it is clear that the federal government was emerging as the dominant party in the federal scheme. *See generally* Symposium, *Intergovernmental Relations in the United States*, 207 ANNALS AM. ACAD. POL. & SOC. SCI. 1 (1940).

223. *See, e.g.*, DANIEL KEMMIS, COMMUNITY AND THE POLITICS OF PLACE (1990).

ever, water shortages posed serious challenges that spawned creative solutions. Historic methods for water management and conflict resolution continue to inform and mold our current practices. In some cases, the tendency toward precedent, stability, and familiarity preserve old ideas, while in other cases, the old ideas have enduring vitality because they capture common sense solutions. This section addresses traditional methods of resolving water disputes, emergence of the common law, statutory development, and the emergence of water right adjudications as unique property law proceedings. This family tree of cultures, laws and traditions has evolved into our current water right adjudication processes, and like a genetic code, holds some important keys to adapting our processes in the future.

A. TRADITIONAL METHODS OF RESOLVING WATER DISPUTES

Westerners rely on formal legal institutions to resolve water right conflicts along the region's rivers and streams. The statutory general stream adjudication is the most complex type of these formal methods of dispute resolution. In earlier times, however, other cultural institutions exercised social control over water. Indian, Hispanic, and Mormon approaches to water management exemplify some of these more traditional methods.

1. The Ancients

For the early inhabitants of the American West, water embodied spiritual, cultural, and utilitarian values.[224] These individuals based their religious ceremonies, community organization, and economic practices on a hydrologic cycle that swung seasonally between scarcity and abundance. Particularly in the Southwest, the rain god, rain lord, or rain magician controlled clouds, springs, lightning and thunder, and rain.[225] The rain god, even if capricious, was the giver of life and a force the ancients were loath to offend.[226]

As early as 2000 B.C.E., the inhabitants of the Southwest gradually progressed from a subsistence based on hunting and gathering to an economy based on domesticated agriculture.[227] The introduction of maize and squash from Mexico, first as a seasonal dietary supplement, eventually led to permanent settlements along the Gila and Salt rivers

224. MICHAEL C. MEYER, WATER IN THE HISPANIC SOUTHWEST: A SOCIAL AND LEGAL HISTORY, 1550-1850, at 10-11 (1st paperbound prtg. 1996).

225. *Id.* at 11.

226. *Id.*

227. Richard B. Woodbury & Ezra B.W. Zubrow, *Agricultural Beginnings, 2000 B.C.-A.D. 500*, *in* 9 HANDBOOK OF NORTH AMERICAN INDIANS 43, 43 (William C. Sturtevant & Alfonso Ortiz eds., 1979).

in present-day Arizona, and organized irrigation appeared by about 300 B.C.E.[228]

The Hohokam, the desert farmers of the American Southwest, organized the irrigation along the Gila and Salt rivers.[229] These master engineers eventually irrigated more than 100,000 acres of land in the Phoenix area alone.[230] They built an impressive 135-mile system of canals and lined portions of the canals with clay to reduce seepage.[231] The Hohokam grew maize, beans, and cotton, often producing two crops per year.[232] The canals also provided domestic water although the Hohokam also used wells, in order to ensure a more stable supply.[233]

By approximately 550 C.E., the Hohokam culture extended into tributary drainages of the Gila River system.[234] Villages along the Santa Cruz, San Pedro, Verde, and Agua Fria rivers supported variations on the main Hohokam cultural theme.[235] During this expansionist period, the Hohokam deepened and lengthened canals in widespread locations. By about 1450 C.E., however, the Hohokam culture began declining.[236] Many contributing factors could possibly explain the failure of the irrigation system, including poor maintenance, climate change, and salinization of soils.[237]

---

228. *Id.* at 43-44.

229. George J. Gumerman & Emil W. Haury, *Prehistory: Hohokam, in* 9 HANDBOOK OF NORTH AMERICAN INDIANS 75, 75 (William C. Sturtevant & Alfonso Oritz eds., 1979).

230. 2 PISANI, *supra* note 10, at 165.

231. *Id.* The largest canal was thirty feet wide, seven feet deep, eight miles long, and could irrigate 8000 acres. WORSTER, *supra* note 182, at 34. "The gradients were carefully designed, as Hohokam agriculturalists knew that too slow a rate of flow encouraged excessive evaporation in the canals and too fast a rate induced erosion of the banks." MEYER, *supra* note 224, at 12.

232. Gumerman & Haury, *supra* note 229, at 78.

233. *Id.*

234. *Id.* at 75, 77 tbl.1.

235. *Id.* at 75.

236. *Id.* at 88.

237. Historian Donald Worster argued that the Hohokam's inability to exercise regional social control caused the decline:

> [L]ocal self-management very soon did not suffice; downstream villages had to establish control over those living upstream if they were to get any water at all. The outcome [would have been] a more efficient utilization of rivers—if efficiency means complete, total use—and a more elaborate legal framework to resolve conflicting interests. . . . The Hohokam did not in fact have the full infrastructural base, nor perhaps did they have the intention, to go that far toward the consolidation of power.

WORSTER, *supra* note 182, at 34-35.

The destiny of the Hohokam is unknown. Some authorities feel the Hohokam became the present-day Pima who were utilizing irrigation when the Spanish arrived in the sixteenth century. Others believe the Pima were the original inhabitants of the region who returned after the departure of the Hohokam. Gumerman & Haury, *supra* note 229, at 88.

The later stages of the Hohokam overlapped with the Anasazi culture in the Four Corners region. At sites such as Mesa Verde and Chaco Canyon, the Anasazi developed their own forms of irrigation using check dams and diversion structures with canals.[238] At Chaco Canyon, the irrigation system helped support a population of 10,000 people.[239] As in the case of the Hohokam, soil salinization and climate change may have contributed to the Anasazi decline, forcing them to abandon their elaborate rock-formed communities in the 1400s. They gradually dispersed among the Hopi and Zuni people in the West and among the Rio Grande valley pueblos to the East.[240]

The first Spanish adventurers, who arrived in 1542, found a simpler but more widespread irrigation culture along the Gila[241] and Rio Grande river systems:

> The chroniclers of Coronado's expedition refer to the cultivation of cotton and corn by the Pueblo Indians of the Middle Rio Grande Valley, New Mexico; Espejo, writing of his explorations of 1582-3, speaks approvingly of the irrigation ditches supplying the pueblos in the general region of Socorro and above, and refers to irrigation by the inhabitants of Acoma "with many partitions of the water" in a marsh two leagues from the pueblo; Father Kino found the Sobaipuris engaged in irrigation at their rancherias in the San Pedro and Santa Cruz valleys and other tribes elsewhere in Arizona, and relates the use

238. MEYER, *supra* note 224, at 12.

239. *Id.*

240. Fred Plog, *Prehistory: Western Anasazi*, *in* 9 HANDBOOK OF NORTH AMERICAN INDIANS: SOUTHWEST 108, 129-30 (William C. Sturtevant & Alfonson Oritz eds., 1979).

241. In the late twentieth century, the peoples of central and southern Arizona began to call themselves by the name O'odham. When the Spaniards first entered the region they called Papaguería (lands of the Papago) and Pimería Alta (upper lands of the Pima), they gave the speakers of the O'odham language different names. STEPHEN TRIMBLE, THE PEOPLE: INDIANS OF THE AMERICAN SOUTHWEST 357-58 (1993).

> Sobaipuris lived along the Santa Cruz and San Pedro rivers; Pimas lived along the Gila River (allied with the Yuman-speaking Maricopa); Papagos lived in the desert away from the rivers; and Sand Papagos lived in the western and most arid parts of the Sonoran Desert. Pima and Papago were Spanish-applied names that had no meaning to the . . . O'odham. . . . [Who] themselves speak of Akimel O'odham (River People), whom outsiders call Pimas; Tohono O'odham (Desert, Country, or Thirsty People), the Papago; and Hia C-ed O'odham (Sand People), or Sand Papago. . . . Another analysis of the O'odham neatly divides them into One Villagers, the Pima, farmers who lived in permanent villages along rivers with permanent water; Two Villagers, the Tohono O'odham, who divided their time between a summer village where they irrigated fields with seasonal floodwaters and a winter home higher in the mountains near a permanent spring; and No Villagers, the Sand Papago, many of whom moved through the year, through the most extreme desert, farming a little, but gathering and hunting for most of their food.

Id. at 358-59.

> of irrigation ditches in providing water for preparing mortar for the foundations of the church at San Xavier del Bac . . .[242]

The southern Arizona Papago developed modest floodplain irrigation on river edges or the mouths of ravines or arroyos, called "akchin" or arroyo-mouth farming.[243] Rio Grande valley pueblos utilized more extensive systems, which continued larger and more complex ditch systems.

Historians know little about how these traditional Indian communities resolved water rights conflicts. For the pueblos, at least, historical evidence shows they preferred communal undertakings, and built and managed their irrigation systems as community affairs.[244] "The character and exigencies of their pueblo life led inevitably to public regulation of irrigation matters; therefore, taking care of the ditches became one of the important traditional community tasks."[245]

For other tribes, such as the Hopis, family groups or clans made decisions about water.[246] Along the Rio Grande, however, "[t]he river was too powerful for any small clan, or even single pueblo, acting alone, to tame."[247] Cooperation began to develop among the pueblos, leading to more centralized authority in the defense of the community against intruders and for control of water.[248]

Historians know even less about agrarian culture in other parts of the West during this time. Archaeological evidence suggested that Coastal and Basin Northwestern tribes did not adopt extensive irrigated agriculture.[249] In several ways, however, their dispute-resolution processes reflected a communal sense of property. While prime fishing, hunting and gathering areas might have belonged primarily to one person, family or clan, the group leader settled conflicts with the interests of the group as the foremost concern.

---

242. Wells A. Hutchins, *The Community Acequia: Its Origin and Development,* 31 SW. HIST. Q. 261, 262 (1928).

243. WORSTER, *supra* note 182, at 33-34.

244. Hutchins, *supra* note 242, at 263.

245. *Id.* at 263. *See also* MEYER, *supra* note 224, at 18.

246. WORSTER, *supra* note 182, at 33.

247. *Id.* at 33. *See also* MEYER, *supra* note 224, at 18 ("[W]hen water was summoned to the pursuit of political or military goals, it is likely that this action was tribal or communal, rather than individual.").

248. WORSTER, *supra* note 182, at 33.

249. Douglas Cole & David Darling, *History of the Early Period, in* 7 HANDBOOK OF NORTH AMERICAN INDIANS: NORTHWEST COAST 119, 131 (William C. Sturtevant & Wayne Suttles eds., 1990) (noting that Northwest Coast Indians did not engage in true agriculture); Catherine S. Fowler, *Subsistence, in* 11 HANDBOOK OF NORTH AMERICAN INDIANS: GREAT BASIN 64, 94 (William C. Sturtevant & Warren L. D'Azevedo eds., 1986) (stating that Great Basin peoples only used some brush dams and ditches to irrigate wild plants).

2. The Hispanics

New Spain's northern frontier included lands that today comprise California, Arizona, New Mexico, and Texas.[250] In addition, New Spain encompassed the area six Mexican states now occupy, giving New Spain a total of more than 960,000 square miles.[251] The Spanish commenced their conquest of this region in 1542 and soon began to develop the water.[252] The Spaniards valued water highly. Throughout history, Spaniards used water "to bargain, to raise funds, to apply subtle pressure, and to haughtily coerce."[253] In New Spain, water became an even more central means for sustenance and social control. The early explorers used major river corridors, such as the San Pedro River in present-day Arizona, as pathways into unknown territory.[254] During the Colonial period, Spaniards used water to pursue social goals including defense, agriculture, mining, the domination and religious conversion of the Indians, and protecting Indian populations from the excesses of individual Spaniards.

As soon as the Spanish conquistador Juan de Oñate arrived at the Pueblo of San Juan near the confluence of the Rio Grande and Rio Chama in 1598, he constructed an irrigation canal with the assistance of 1500 Indians.[255] The Spanish also used a sophisticated legal regime to divide the Southwest's waters. The Spanish water law systems remained in place following the Mexican Republic's creation in 1821 and endured through Texas's independence in 1836, its statehood in 1845, and the cession of New Mexico and California territories in 1848 (formalized in the Treaty of Guadalupe Hidalgo).[256]

Spanish water law was not indigenous to the New World, but developed in Spain over centuries. The Spanish legal regime had layers of Roman, Germanic, and Moorish influences.[257] This compound legal system demonstrated remarkable tolerance for diversity. "[T]he rulers of Spain, long before the discovery of America, were familiar with the problems inherent in trying to reconcile the interests of different races and different cultures, as well as in juxtaposing the demands of conquerors with the concerns of the conquered."[258]

---

250. MEYER, *supra* note 224, at 6.
251. *Id.* at 3.
252. *Id.* at 25-26.
253. *Id.* at 21.
254. *Id.* at 26.
255. This area, near San Juan Pueblo, locus of the first Spanish settlement within the present boundaries of the United States, remains under adjudication in a case filed in 1968. *See* New Mexico *ex rel.* Reynolds v. Abbott, Nos. CIV-7488 SC & CIV-8650 SC (D. N.M. 1968).
256. Treaty of Peace, Friendship, Limits, and Settlement with the Republic of Mexico, Feb. 2-May 30, 1848, 9 Stat. 922 [hereinafter Treaty of Guadalupe Hidalgo].
257. MEYER, *supra* note 224, at 106.
258. *Id.* at 108.

In an effort to unify his diverse realm and standardize the disparate legal practices, King Alfonso X ordered a major codification of Iberian law. Completed in 1265, this codification is known as the *Las siete partidas del rey don Alfonso el Sabio* (commonly known as *Las siete partidas*).[259] This codification reflected the strong influence of ecclesiastical law and Roman Emperor Justinian's *Corpus Juris Civilis*.[260]

After the settlement of the New World was well underway, Spain faced the vexing problem of how to administer its colonies, which were half a world away. Toward that end, the Spanish government drafted the *Recopilación de leyes de los reynos de las Indias* ("the laws of the Indies") in 1681, a compendium of 6,377 individual laws and directives.[261] They completed a supplemental compilation, the *Novísima recopilación de las leyes de España*, by 1805, and it constituted the complete articulation of Spanish law at the end of the Colonial period.[262]

Spain supplemented these major legal principles with more specific ordinances, royal decrees, and individual cases. Spain issued important decrees regulating water use in 1761.[263] Spain promulgated instructions on water law civil procedure in 1786.[264] The Plan de Pitic of 1796 also set forth rules for water management.[265] The rules applied in Hermosillo and other new communities throughout the northern frontier of New Spain.[266]

In the colonies, officials emphasized finding judicial solutions to governmental problems. One scholar concluded Spain focused primarily on the "adjudication between competing interests, rather than . . . deliberately planning and constructing a new society."[267]

Spanish water law paralleled some community practices of Southwestern Indians, but placed a greater emphasis on land and water as private property. Although the Spanish Crown claimed *all* the land and water in these new territories, the government also employed a system of complex land and water grants to settle and exploit these lands, and Christianize the inhabitants. The Crown made land grants to individual Spaniards, clerical groups intent on building missions and supporting communities, groups of individuals who sought to establish towns or rural agricultural clusters, and the Indians themselves.

---

259. *Id.* at 21.

260. "The system of Roman jurisprudence compiled and codified under the direction of Emperor Justinian, in A.D. 528-534. This collection comprises the Institutes, Digest (or Pandects), Code, and Novels." BLACK'S LAW DICTIONARY 344 (6th ed. 1990).

261. MEYER, *supra* note 224, at 109.

262. *Id.* at 111.

263. *Id.* at 112.

264. *Id.*

265. *Id.*

266. *Id.*

267. *Id.* at 113 (quoting J.H. PARRY, THE SPANISH SEABORNE EMPIRE 194 (1967)).

The Crown did, however, retain much of the most valuable land for itself.

Whether these land grants also carried water rights with them was unclear. Grantees could claim and beneficially use the springs or wells located on their property.[268] Whether they also had rights to other surface water sources within or bordering on their grants was less certain. Some scholars argued that explicit grants of water rights were required, and others believed that *both* express and implied grants were valid. Still others argued that a form of prescriptive rights developed, at least in practice. The predominant view was somewhere in the middle: explicit grants were required in most instances, and the type of land grant influenced the result.[269]

Grants of land for grazing purposes included conveyed water rights, as "Spanish law provided that animals could be watered without special permission in common water."[270] The Crown intended other grants for farming purposes, so the implication was that the grants contained water rights sufficient to support intensive agriculture and orchards. Spaniards and Indians also used water on Crown lands for modest domestic purposes and even agriculture. Water on, or appurtenant to, Crown lands was also available for common navigation, embarkation, and fishing purposes, uses similar to those contemplated by today's public trust doctrine.[271] A leading authority indicated that there were no riparian water rights under Spanish law[272] although certain California courts disagreed, indicating that such rights *did* exist in the colonies.[273]

Like the American government several centuries later, the Spanish Crown "privatized" New Spain lands in a strategic effort to encourage settlement. Elements of the Spanish legal regime also emphasized community and the common good. Spanish land grants frequently

---

268. *Id.* at 120.

269.

> It is clear; however, that water was granted or withheld on the basis of land classification. The case for implied water right can be carried too far. The absence of water provisions in certain land grants cannot be attributed simply to oversight. Not all land grants, not even all farming grants, were intended to convey water rights.

Id. at 131.

270. *Id.* at 125.

271. *See* Nat'l Audubon Soc'y v. Superior Court, 658 P.2d 709 (Cal. 1983) (explaining the application of the public trust doctrine in the context of the Mono Lake dispute); Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 473 (1970).

272. MEYER, *supra* note 224, at 119-20.

273. Lux v. Haggin, 10 P. 674, 724-30 (Cal. 1886). *See also* Samuel C. Wiel, *Fifty Years of Water Law*, 50 HARV. L. REV. 252, 256-59 (1936) (describing the story in *Lux v. Haggin*, which resulted in limiting California's appropriative doctrine to public lands still in federal ownership, but recognizing a riparian doctrine in lands privately held where appropriation occurred before reservation by patent terms or statute).

included a "set-aside" of sufficient water for future growth. Rural water associations, known as *acequias* (literally, "irrigation canals"), received easements in order to bring water by ditch to members' fields.

In northern New Mexico and southern Colorado, community *acequias* successfully distributed water from the Rio Grande system for hundreds of years before the region became American territories and then states. Through the process of *mancomunicación*, rural irrigators (*parciantes*) formed associations to build, maintain, and administer ditches, usually no more than one to five miles in length. These irrigators elected a ditch supervisor, known variably as the *mayordomo* or *zanjero*, who, in some areas, represented the only semblance of government to the rural residents.[274]

Among his many duties of maintaining the ditches and supervising diversions, the *mayordomo* adjudicated disputes between *parciantes*. When disputes arose between different *acequias* within the same watershed, the *mayordomos* from these associations sat together in an effort to mediate the dispute. Other means of resolving local disputes included the temporary purchase of water rights or the use of *sobrante* compacts between individuals. In these informal agreements, senior users often pledged to forbear using their surplus water. The beneficiaries of these *sobras* frequently constructed reservoirs to store surplus waters. Priorities thus arose between the *sobrante* users.

Spanish law also provided more formal methods of resolving water disputes. One method, the *composición*, was a complicated method used to cleanse, authenticate, and even modify original grants,[275] often implemented to define the rights associated with vague land grants. A governmental authority appointed a commission or an individual to examine claims and documents and render a decision. A favorable decision usually cleared the water rights titles in dispute,[276] and the decision could be used in subsequent litigation to prove ownership, if necessary. The *composición* was thus a one-sided variant of the modern declaratory judgment action.

The other, more formal method of dispute resolution was the *repartimiento de aguas*,[277] which resembled modern water rights litigation. These proceedings were common in the northern frontier, where

274. For more information on the structure and terminology of Spanish water adjudication *see generally* Hutchins, *supra* note 242 (discussing Spanish-American irrigation law); PHIL LOVATO, LAS ACEQUIAS DEL NORTE (1974) (explaining the laws of Acequias); STANLEY CRAWFORD, MAYORDOMO (1988) (recounting a year in the life a small *acequia* in northern New Mexico); Charlotte Benson Crossland, *Acequia Rights in Law and Tradition*, 32 J. SW. 278 (1990) (analyzing the roles of acequias and questioning whether modern hierarchical institutions have since replaced them as the most powerful irrigation organizations in New Mexico).

275. MEYER, *supra* note 224, at 133-34.

276. *Id.* at 134.

277. *Id.* at 135.

drought constantly provoked water right disputes.[278] Litigants submitted these conflicts to a water judge or appropriate court, where officials utilized a well-defined set of legal principles embodied in the *Recopilación* of 1681.[279] The judicial officer had wide latitude to apply and customize these equitable principles. The same set of rules guided the *mayordomos* when they conducted the mediations. The most important elements of these equitable principles were:

1. Land and water title. The disputing parties had to produce their title documents for land and water, and the officials would examine these titles in a hypertechnical way, even to the point that parties had to print their titles on paper embossed with the royal seal. The Spanish Crown intended this insistence on formality to protect Indian property interests, but often the Indians suffered since they could not produce the proper documents. In the case of the New Mexican Pueblos of San Ildefonso, Tesuque, Pojoaque, and Nambe, the residents lost their title documents to Spanish officials who borrowed them for copying and other official purposes and never returned the originals.[280]

2. Prior appropriation. The judicial officer regarded prior usage as an important factor in water allocation (although not to the extent it is in today's western water law). As one official expressed in 1842, "[p]rior use contrary to reason or to good custom can never acquire the force of law, because in such a case it can be considered no more than an old mistake, being less a use than an abuse and an infraction of law."[281]

3. Need. A person's need for water greatly influenced whether the official would assign him a water right in a *repartimiento*. Officials might even award individuals without plausible claims to water some nominal water usage if they could prove need. By contrast, the officials could revoke explicit grants, if the individual was not using the water or others needed it. Once, a widow prevailed even without any title because the investigating official confirmed that her need for water was so great. Her crops had dried up to the point "that not even if she irrigated them with Holy Water could they be saved."[282]

4. Injury to third persons. These equitable principles contained protections for the rights of third parties. If there was a question that a water right might damage others, the official could appoint an inspector to report on potential impacts (*vista de ojos*). The inspector's findings could prompt modification of a water right grant. Furthermore,

278. *Id.*
279. *Id.*
280. *Id.* at 146-47.
281. *Id.* at 150 (internal citation omitted).
282. *Id.* at 151-52 (internal citation omitted).

although Spanish law allowed ditch diggers to construct ditches across another's property, they had to route the ditches in such a way to cause the least injury to the landowner.[283]

5. Intent. The outcome of a *repartimiento* also depended on the disputants' intent for their water and the extent to which those intentions satisfied or contravened the Crown's overall purposes for the region. Thus, the official considered water destined for mining, cultivation of wheat, or for the use of *presidios* (forts) more valuable and useful than water intended for other less utilitarian purposes.[284]

6. Legal right. As previously mentioned, proof of legal title was an important requisite of *repartimiento*; however, not all legal titles bore equal rights. The official deemed water rights for corporate communities, for instance, more important than water rights for individuals. The judicial officer could even rescind or modify early grants if they damaged the community. While Spanish law often favored the community over individual rights, it did not do so when community claims were unjustifiable.[285]

7. Equity and the common good. Fundamentally, the *repartimiento* sought the greatest good for the greatest number. Often, this meant the corporate community would prevail over individuals. Other times, individual interests that promised greater benefit to society won out. Spanish judges had the discretion to balance such factors to achieve a just result.[286]

As the result of a typical *repartimiento*, the official might produce a resolution stated in general terms or award the parties specific quantities of water for rotating periods of use. On occasion, the official divided water into separate channels.[287]

While the *repartimientos* had legal status, they were not permanent decrees "as Spanish jurisprudence appreciated that few conflicts were resolved so wisely that future abuse could not stem from a decision at

283. *Id.* at 152-53.
284. *Id.* at 154-55.
285. This is the basis for the much-debated Pueblo Rights Doctrine that has had a confusing history in southwestern state courts. While some courts recognized the Pueblo Rights Doctrine as giving certain communities a prior and paramount right to water necessary for present or future purposes, other courts and authorities have argued that the doctrine is more a preference than an absolute entitlement. *Compare* City of Los Angeles v. City of San Fernando, 537 P.2d 1250 (Cal. 1975) (disapproved on other grounds), City of Barstow v. Mojave Water Agency, 5 P.3d 853 (Cal. 2000) (adopting the doctrine), *and* Cartwright v. Pub. Serv. Co. of New Mexico, 343 P.2d 654 (N.M. 1958) (adopting the doctrine), *with* State *ex rel.* Martinez v. City of Las Vegas, 89 P.3d 47 (N.M. 2004) (rejecting doctrine).
286. MEYER, *supra* note 224, at 161-62.
287. *Id.* at 136.

one time just."[288] Thus, the *repartimientos*, like the original grants, were elastic and the officials could modify them based on individual or community need. Through this elasticity, officials could also reserve water for future growth. Many of these methods of dispute resolution were available to the pueblos and individual Indians.[289]

The Spanish water law system described above continues to impact water adjudications in the American Southwest.[290] This is in part due to the Treaty of Guadalupe Hidalgo, which the United States and Mexico entered in 1848.[291] The Treaty required that the United States respect property rights acquired under Spanish and Mexican law. Some confusion about the application of this "law of state succession" resulted from the United States Senate's failure to ratify Article X of the Treaty, which dealt specifically with land grants. Many authorities argued other provisions of the Treaty did protect Spanish and Mexican water rights, such as Article VIII, which protected Mexican property "of every kind." They also argued that the later Protocol of Querétaro, which explained and amplified some Guadalupe Hidalgo Treaty provisions, sheltered these rights.[292]

All said, in addition to a well-defined regime of water rights, the Spanish left us with an important legal tradition still acknowledged today:

> Fortunately for the courts that would be called upon to apply Hispanic water law . . . , the Hispanic water regimen rested on a rich philosophical foundation, one designed to serve broad individual and community goals and one which challenged judges to be guided by what was right and proper, *ex aequo et bono*.[293]

3. The Mormons

Even before departing their religious community of Nauvoo in western Illinois during the winter of 1846, leaders of the Church of Jesus Christ of the Latter-Day Saints knew their migration would settle itself in the Great Basin. These Mormon leaders also knew they

---

288. *Id.*

289.

> We decree that the audiences name judges, unless it is the custom for the viceroy, or president, or cabildo to do so, who shall apportion waters to the Indians for the irrigation of their farms, orchards, and cultivated fields, and to water their cattle, in such a way as to offend no one.

Id. at 135 (internal citation omitted).

290. *See* Peter L. Reich, *Mission Revival Jurisprudence: State Courts and Hispanic Water Law Since 1850*, 69 WASH. L. REV. 869 (1994).

291. Treaty of Guadalupe Hidalgo, *supra* note 256.

292. Protocol of Querétaro, May 26, 1848, U.S.-Mex., 1 TREATIES, CONVENTIONS, INTERNATIONAL ACTS, PROTOCOLS, AND AGREEMENTS BETWEEN THE UNITED STATES OF AMERICA AND OTHER POWERS 1119 (1909).

293. MEYER, *supra* note 224, at 188.

needed to rely upon irrigation to sustain crops in their new home. They gained this intelligence through the reports of John Frémont, whose expeditions from 1843 to 1845 familiarized him with this territory.[294] Other sources of information about farming in arid lands included Apostle Orson Hyde, who knew of irrigation from his visits to the Holy Land, Lebanon, Syria, and Egypt.[295] Other Mormons such as members of the Mormon Battalion, who visited the Southwest, knew of Mexican irrigation from their time spent in the Rio Grande valley.[296]

When the advance column of the migrating Mormons reached the Salt Lake valley in July 1847, members began the task of diverting water from what is now known as City Creek to irrigate their freshly scratched soils.[297] Erastus Snow, one of the first settlers, recalled, "We found the land so dry... that to plough it was impossible, and in attempting to do so some of the ploughs were broken. We therefore had to distribute the water over the land before it could be worked."[298] By the time Brigham Young arrived on July 24, 1847, the settlers had planted six acres of potatoes and vegetables.[299]

The Mormons laid out the plan for the City of Zion, now Salt Lake City, in a four-square grid pattern, with nineteen wards, each consisting of nine ten-acre blocks and each block subdivided into eight building lots. Southeast of the city, the Mormons set aside approximately 8000 acres of land as the "big field," an area for farming in five- to twenty-acre parcels.[300]

During the remainder of the summer of 1847, the Mormons built diversion dams across City Creek and Big Cottonwood Creek to deliver water by canals and ditches to individual home lots and farming parcels. For each of the nineteen wards, the citizens appointed a bishop. The bishop's many duties included assuring the proper construction of the ditches and the equitable division of the water for culinary, agricultural, and industrial purposes. As described by one historian,

> When a group of families found themselves in need of water (or additional water) to irrigate their farms and gardens, the bishop arranged for a survey and organized the men into a construction crew. Each man was required to furnish labor in proportion to the amount of land he had to water. Upon completion of the project the water

294. NAT'L PARK SERV., U.S. DEP'T OF THE INTERIOR, HANDBOOK 116: EXPLORING THE AMERICAN WEST 1803-1879, at 65-72 (1982).

295. EUGENE E. CAMPBELL, ESTABLISHING ZION: THE MORMON CHURCH IN THE AMERICAN WEST, 1847-1869, at 9 (1988).

296. *Id.*

297. WATERS OF ZION: THE POLITICS OF WATER IN UTAH 29 (Daniel C. McCool ed., 1995).

298. WILLIAM ALEXANDER LINN, THE STORY OF THE MORMONS: FROM THE DATE OF THEIR ORIGIN TO THE YEAR 1901, at 391 (1963).

299. *Id.*

300. CHARLES S. PETERSON, UTAH: A BICENTENNIAL HISTORY 37 (1977).

> would be distributed by a ward watermaster in proportion to this labor.[301]

Originally, families flood-irrigated these fields once or twice a week.[302] Each project's goal emphasized the equitable division and the maximum use of available water.[303]

The church High Council appointed Edson Whipple to the post of first watermaster in 1847.[304] The bishops in each of the nineteen wards then appointed other watermasters.[305] Thereafter, the bishop's court, composed of the bishop and two counselors, decided disputes over water use in a ward. The losing party could always appeal the decision to the High Council.[306]

The Mormon leadership obviously anticipated some political affiliation with the United States. After debating several strategies, elders decided to organize the State of Deseret as a political entity;[307] thereafter, they petitioned Congress for its admission into the Union. From 1849 to 1851, the State of Deseret was the civil authority in the region, although the lines between civil and church law always remained uncertain. During this period, the General Assembly passed many water-related measures. Most of these were financial appropriations for the construction of dams,[308] funding for municipal water resources development,[309] and exclusive grants or licenses to waters of specified streams and rivers.[310] In February 1851 the General Assembly author-

---

301. LEONARD J. ARRINGTON, GREAT BASIN KINGDOM: AN ECONOMIC HISTORY OF THE LATTER-DAY SAINTS 1830-1900, at 53 (1958).

302. LEONARD J. ARRINGTON & DAVIS BITTON, THE MORMON EXPERIENCE: A HISTORY OF THE LATTER-DAY SAINTS 115 (1979).

303. *Id.*

304. DUNBAR, *supra* note 10, at 15.

305. *Id.*

306. *Id.*

307. Utah Div. of State Archives, *History for the Utah Supreme Court, at* http://archives.utah.gov/reference/xml/agencies/868.html (last updated July 2, 2003).

308. *See* Ordinance for Taking Out the River Jordan (Jan. 15, 1850) (on file with authors); Ordinance for Taking Out the Big Cottonwood, and Other Creeks, for Irrigating and Other Purposes (Jan. 15, 1850) (on file with authors).

309. *See* Ordinance to Incorporate Great Salt Lake City § 15 (Jan. 9, 1851) (on file with authors).

310. *See* Ordinance Granting the Petition of Brigham Young [for the privilege and control of City Creek and Canyon] (Dec. 4, 1850) (on file with authors).

> Occasionally, the legislature made exclusive grants to prominent Mormons, but in doing so it did not confer monopolistic privilege of use, but rather, the exclusive right to orderly regulation and apportionment of water usage in accordance with socially desired ends . . . the legislative body resorted to the device of centralizing responsibility as a means of averting interminable controversies over this prime essential in food and crop production under arid conditions. The general rule as often expressed was: In water [as in other] disputes, let the Priesthood rule.

ized county judges to grant mill and waterpower privileges on any river or creek. The caveat was that "said privileges do not interfere with the rights of the community, for common uses, or irrigation, or any privileges heretofore granted by this legislative body."[311]

While the United States Congress rejected the State of Deseret's overtures for admission as a state, the compromise between slave and anti-slave forces in Washington, which Illinois Senator Stephen Douglas brokered, allowed the passage of the Utah Territorial Organic Act in September 1850.[312] At that point, Utah created a bicameral territorial legislature, and the President of the United States appointed a governor.[313] The Utah Territorial Legislature soon codified many of the water practices that had existed since the first days of migration into the Salt Lake valley. The legislature thus legitimized public ownership of water.

Historian Robert Dunbar evaluated early Mormon water management institutions as follows: "These institutions may be best understood by a realization that as members of the Church of the Latter-Day Saints the colonialists believed that they were participating in a revival of egalitarian primitive Christianity, with its emphasis on the sharing of goods."[314] Accordingly, Brigham Young declared on September 30, 1848, "[t]here shall be no private ownership of the streams that come out of the canyons, nor the timber that grows in the hills. These belong to the people: all the people."[315] Another historian noted that colonial practices "[d]eveloped to bring a raw environment into harmony with God's will on the one hand, and to protect the independence that its rawness permitted on the other . . . ."[316] In these early years, the Mormons worked cooperatively to develop the maximum use of water and other natural resources. They cultivated the land individually, but fenced and irrigated it cooperatively.[317]

Principles of stewardship, productive use, and small holdings governed land distribution in the Salt Lake valley. The Mormon leadership already decided the basin's natural resources were for public rather than private use. The community rejected the doctrine of riparian rights, which would have benefited landholders along rivers and

---

ARRINGTON, *supra* note 301, at 54 (internal citations omitted).

311. Ordinance Authorizing the Judges of the Several Counties of this State, to Grant Mill, and Other Water Privileges, and to Control the Timber in their Respective Counties (Feb. 4, 1851) (on file with authors).

312. THOMAS G. ALEXANDER, UTAH: THE RIGHT PLACE 118 (Richard W. Sadler ed., 1995).

313. *Id.*

314. DUNBAR, *supra* note 10, at 13.

315. *Id.*

316. PETERSON, *supra* note 300, at 36.

317. *Id.* at 37.

streams. Public ownership and management of water led to widespread irrigation in the valley.

The influence of the Mormon experience with water and irrigation spread in many directions from the Salt Lake valley. Individuals established similar water management institutions in Idaho, Arizona, Nevada, and southern California—particularly within Mormon communities. In Idaho, for instance, Mormon missionary Henry H. Spalding, who diverted water from the Clearwater River to water his garden near Lapwai, established the first recorded irrigation right.[318] His efforts were followed by Mormon irrigation in the Lemhi, Cache, Bear Lake, Malad, and Boise valleys.[319] Thus, from 1855 to 1875, the Mormons worked cooperatively to build the earliest pioneer canal systems.[320]

In Arizona, the Mormons were the first non-Indian irrigators in the northern part of the state.[321] During 1864 and 1865, Henry W. Miller began irrigating fruit trees, grapevines, wheat, corn, and other vegetables.[322] Members of William C. Allen's company, who settled on the lower Little Colorado River in 1876 at present-day Joseph City, secured their water rights by agreeing to form an irrigation company.[323] The St. Joseph United Order, which handled the irrigation matters within its jurisdiction, soon supplanted this agreement.[324] Thus, informal associations among Mormons persisted and ruled the day.[325]

By 1880, however, this communitarian use of water began to give way in the Mormon heartland. Brigham Young died in 1877, and with him, some measure of the communitarian utopia passed on as well.[326] The transcontinental railroad arrived just seven years earlier.[327] A building boom occurred in the Salt Lake City area in the late 1800s.[328] Rich mines, bustling commerce, and a booming urban populace put pressure on existing water supplies. The Utah territorial legislature passed legislation authorizing county officials to grant water rights to individuals.[329] The legislation required that counties record water rights; it also authorized adjudications to determine superior and infe-

318. F. ROSS PETERSON, IDAHO: A BICENTENNIAL HISTORY 124 (1976).
319. *Id.*
320. *See id.* at 124-26.
321. JAMES H. MCCLINTOCK, MORMON SETTLEMENT IN ARIZONA: A RECORD OF PEACEFUL CONQUEST OF THE DESERT 117 (1921).
322. *Id.*
323. CHARLES S. PETERSON, TAKE UP YOUR MISSION: MORMON COLONIZING ALONG THE LITTLE COLORADO RIVER 1870-1900, at 181 (1973).
324. *Id.*
325. *Id.*
326. ARRINGTON & BITTON, *supra* note 302, at 180.
327. THOMAS G. ALEXANDER & JAMES B. ALLEN, 5 MORMONS & GENTILES: A HISTORY OF SALT LAKE CITY 72 (1984).
328. *Id.* at 87.
329. DUNBAR, *supra* note 10, at 14.

rior rights.[330] Individual property rights in water rapidly replaced community need and the general welfare in the allocation of water rights.[331]

B. COMMON LAW APPROACHES

Throughout the West, territorial and state courts eventually assumed the role of resolving water right disputes. Despite Hispanic and Mormon influences, courts applied the rules and procedures of the Anglo-American legal tradition. In that tradition, courts initially applied common law principles of equity to water conflicts.[332]

The most basic disputes over water were two-party suits in equity, seeking injunctive relief, or suits at law for damages. As western water users soon found out, water litigation was rarely an isolated dispute between two water users. More frequently, such disputes cascaded throughout a watershed, ultimately implicating most of the water users on the river. Here too, the courts attempted to use equitable principles to avoid a multiplicity of lawsuits when many people claimed rights in the same property. For instance, bills in equity were sometimes used to enable a court to acquire jurisdiction of all the rights involved, and of all the owners of those rights, to allow the permanent adjudication of rights and responsibilities in a simple proceeding.[333]

Western courts gradually developed refined procedures, similar to "quiet title" actions, to address multi-party litigation over water. These proceedings originated in the court's general equity power, but were gradually modified to better suit water rights adjudication. Some of these modifications enhanced the judicial role, and others vested dispute resolution authority in administrative agencies.

The place of water use dictated jurisdiction in these early equitable proceedings. In cases of a river or a stream running through different counties, each county court had jurisdiction.[334] Generally, only a person with an actual right or legal claim to the use of water could bring a basic adjudication suit against contestants.[335] The law required parties to join all other parties with a valid claim. The rights of the defendants, however, were not subject to adjudication unless the defendant affirmatively asserted rights hostile to those of the plaintiff.[336] The

330. ALEXANDER, *supra* note 327, at 223.

331. *Id.*

332. CLESSON S. KINNEY, 3 A TREATISE ON THE LAW OF IRRIGATION & WATER RIGHTS § 1532, at 2757-58 (2d ed. 1912). *See also* SAMUEL C. WIEL, 1 WATER RIGHTS IN THE WESTERN STATES § 624, at 678-79 (3d ed. 1911).

333. KINNEY, *supra* note 332, § 1535, at 2764.

334. *Id.* § 1533, at 2760-61.

335. *See* Bear Lake County v. Budge, 75 P. 614, 614, 616 (Idaho 1904) ("Under the police power of a state, the legislature cannot authorize a public officer to bring a suit to settle private rights to the use of water or the priority of such rights.").

336. KINNEY, *supra* note 332, § 1545, at 2782. *See also id.* § 1550, at 2795("In a suit in equity to determine water rights, as the rights of all parties to the action may be adju-

plaintiff, and all other persons asserting a claim to a water right, bore the burden of proving the claim by a preponderance of the evidence. The plaintiff was obligated to show every element necessary to establish a legal basis and prevail.[337]

In states that recognized both prior appropriation and riparian doctrines, an adjudication in equity determined the respective rights between these appropriators and riparians.[338] Thus, even conflicting legal regimes did not diminish an action in equity. Courts could also determine titles to ditches, canals, and easements in these proceedings.[339]

In response to the workload generated by the constant conflict over water rights, common law courts developed procedures tailored for trying these unusually complicated cases. Some courts used referees or commissioners to hear and summarize evidence for the court's benefit before trial.[340] Judges often left the bench to make personal examinations of the water source so they could develop better information to support their findings.[341] In the majority of the cases, the judge also could submit questions of fact to a jury to solicit advisory opinions, although some jurisdictions disfavored this practice.[342]

The goal of these proceedings was a court decree that would stand the test of time and definitively award respective rights to the parties in the action.[343] Unfortunately, this goal persistently eluded western common law courts. Some decrees lacked specificity, with the court postponing the actual determination of the rights to a future date.[344] Some courts were even unsuccessfully called upon to undertake the especially difficult task of apportioning subterranean waters.[345] These heavy tasks inevitably generated unsatisfactory results.

The principal and predictable shortcoming of these procedures was that they failed to produce final results.[346] For instance, the lack of finality in an 1898 adjudication between the southern New Mexico town of Alamogordo and a neighboring community perpetuated redundant litigation even twenty-five years later.[347] Also, despite their

---

dicated in the same action, defendants are entitled to set up their claims *inter se* in their answers, and have the same adjudicated on such notice as the law and the Court may prescribe.").

337. *Id.* § 1554, at 2802-03.
338. *Id.* § 1540, at 2771.
339. *Id.* § 1541, at 2771.
340. *Id.* § 1553, at 2800.
341. *Id.*
342. *Id.* § 1553, at 2801-02; *see* Parke v. Boulware, 63 P. 1045, 1045 (Idaho 1901).
343. KINNEY, *supra* note 332, § 1557, at 2811.
344. *Id.* § 1556, at 2810.
345. *Id.* § 1561, at 2826.
346. Tarlock, *supra* note 7, at 273.
347. *See* La Luz Community Ditch Co. v. Town of Alamogordo, 279 P. 72, 73 (N.M. 1929).

success in obtaining an injunction against a junior upstream *acequia*, the result disappointed seven senior *acequias* in northern New Mexico. The decree could not be enforced, causing the parties to engage in further litigation, almost twenty years later.[348]

Law professor Albert W. Stone vividly documented the lack of finality in Montana's early adjudications. They were conducted under a bare-bone, 1885 stream adjudication statute that only slightly modified common law procedures. Stone summarized the litigation on Dempsey Creek, a small stream less than twenty miles in length, as follows: "fourteen lawsuits [extending from 1891 to 1966,] with eight decisions by the Montana Supreme Court. In nearly every one of these lawsuits, all or substantially all of the people in the community of Dempsey Creek were litigants."[349] Continuing his lament, Stone observed that repetitive adjudications also bedeviled other Montana watersheds.[350]

While quiet title actions could decree absolute rights to a specific piece of real estate, water right actions assigned merely relative, conditional rights, as they were linked to a constantly changing resource. In order to forestall an endless stream of parties suing one another to assert rights to the same water source, all parties affected by a given water supply were required to join the litigation. With such a bulky list of participants, it was simply too difficult and expensive for parties to bring the issue before the court. The inability of private parties to secure jurisdiction over the United States government and its large portfolio of water claims only compounded the problem.

Another recurrent problem with the adjudication of appropriative rights was notice. In the mining camps of California and elsewhere in the West, an appropriator gave notice of priority and ownership to others through the customary requirement of a posting at the point of diversion. This method, of course, provided notice only in a limited area and did little to bar competing claims. Mere notice also failed to produce a reliable record to assist parties in later resolving conflicts.[351]

When addressing this deficiency in 1872, the California legislature required that, in addition to posting notice at the site of diversion, appropriators must record the notice with the county clerk or recorder, within ten days of posting.[352] While this statute seemed like a solution and many other western states emulated it, the requirement did not go far enough. Many pioneers *planned* projects and filed notices, but

348. Acequia del Llano v. Acequia de las Joyas del Llano Frio, 179 P. 235, 235-36 (N.M. 1919).

349. Albert W. Stone, *The Long Count on Dempsey: No Final Decision in Water Right Adjudication*, 31 MONT. L. REV. 1, 11-12 (1969)

350. *Id.* at 12.

351. Tarlock, *supra* note 7, at 276; DUNBAR, *supra* note 10, at 86.

352. DUNBAR, *supra* note 10, at 86-87.

nonetheless failed to complete them.[353] Water users and state officials could not determine the number and priorities of the appropriations on a stream without resorting to an expensive and often inconclusive adjudication.[354]

As the nineteenth century closed, the West was changing rapidly. Population grew in urban centers, fueled by prosperity from mining, ranching, and railroads. Water disputes among neighbors escalated. The courts were increasingly called upon to resolve them and, although the litigation rarely exceeded a dozen parties, the frequency of conflicts continued to erode the security of all water users along a river system.

C. DEVELOPMENT OF STATUTORY ADJUDICATION PROCEDURES

As young western states gradually increased their governmental competence, they continued to strengthen their authority over their water resources. They did so in one of three ways. First, states sought to regulate the initial appropriations of water. Second, states supervised the diversion, distribution, and use of water. Third, states began adjudicating existing water rights.

One of the major water policy issues in the West during the last one hundred thirty years has been whether the executive or the judicial branch of government should control these water management functions. A few states chose to entrust these matters primarily to the judiciary. Other states chose to have an administrative agency handle all three functions. Still other states fell between these extremes, but often with a strong preference for administrative authority over water rights.[355]

The neighboring states of Colorado and Wyoming, which have very different systems for managing water rights, illustrate this diversity of choices. Colorado relies almost entirely on an adjudicatory system, while Wyoming uses an administrative approach. What accounts for this difference between neighboring states with a common heritage and so many shared waterways?

To answer this question, one might consult Robert G. Dunbar's history of western water law, *Forging New Rights in Western Waters*.[356] One thing is certain: the reasons for the different approaches are also the persistent root causes for many of the problems in western stream adjudications, some enduring more than a century later.

---

353. *Id.* at 87.

354. *Id.*

355. Tarlock, *supra* note 7, at 278.

356. DUNBAR, *supra* note 10. *See also* S.V. CIRIACY-WANTRUP ET AL., 1 WATERS AND WATER RIGHTS (Robert Emmet Clark ed., 1967); WATERS AND WATER RIGHTS (Robert E. Beck ed., 1991).

1. Colorado System

The struggles between rival irrigation colonies in the 1870s along Colorado's Cache la Poudre River made clear the need for a more expedient means for resolving conflicts between competing appropriators. An irrigation convention held in December 1878 sought to develop legislation to end these disputes.[357] The convention proposed an administrative system of water commissioners empowered to determine and enforce water rights inside each irrigation district. Legislation empowered a water commissioner "to call for persons and papers, administer oaths, take testimony and [render decisions] in regard to the [rights of claimants to] the use of water."[358] Parties could appeal to district court.[359] Some water users were pleased because they believed that such administrative determination would be more expedient than the courts.

When the proposed bill reached the irrigation committee of the Colorado House of Representatives, however, the lawyer-members of the committee took a different approach. The committee rewrote the bill, believing the determination of property rights, including water rights, was the proper domain of the courts. Colorado's General Assembly passed this version into law.[360]

The 1879 law authorized district judges to appoint a water referee who would hear evidence on water claims.[361] Each claimant was to present proof of the dates ditches were constructed or enlarged, the capacity of those ditches, and the amount of water they carried. After the referee gathered evidence and presented a report, the judge issued a decree establishing the priorities of each ditch within the district.[362] Water commissioners enforced these decrees. By choosing this approach, Coloradoans made a commitment to quantify and allocate water rights in a judicial setting.

Not everyone was satisfied with this approach. A workable solution agreed to by all continued to elude the state for several more years. For instance, during 1879 and 1880, one water referee gathered evidence of water rights on the controversial Cache la Poudre. When the resulting report reached District Judge Victor Elliott, he refused to render a decree.[363] The judge criticized the system because it required

357. DUNBAR, *supra* note 10, at 89.
358. *The Irrigation Convention*, THE GREELEY TRIBUNE, Dec. 11, 1878.
359. *Id.*
360. 1879 Colo. Sess. Laws 99-105.
361. *Id.* § 20, at 100.
362. This system is very similar to the system adopted by Montana in 1979. Like Colorado, the Montana legislature also decided that water rights should be determined in a judicial setting.
363. DUNBAR, *supra* note 10, at 94.

the judiciary itself to initiate contested proceedings while bypassing the customary complaint and summons requirement:

> I cannot bring myself to depart from the English and American systems of jurisprudence. In the administration of justice in an English court there are always parties, and sometimes four: the *actor*, the plaintiff; the *reus*, the thing; the *judex*, the court; and the *juratta*, the jurors; and each have their separate and proper functions to perform. I cannot consent . . . to bring myself to leave the judicial position in which I have been placed by the constitution . . . and take the position of any *actor*, to go around to determine, without being solicited, what are the rights of the respective owners of ditches in these several water districts.[364]

A petition to the Colorado Supreme Court for a writ of mandamus to force Judge Elliott to issue a decree was unsuccessful.[365]

Colorado's 1881 legislative session passed several bills in an attempt to remedy the deficiencies Judge Elliott identified. The resulting legislation required adjudication proceedings to be initiated by petition.[366] After the filing of such a petition, the district judge appointed a referee, and issued notice to all claimants within the district. After holding hearings, the referee prepared a draft decree and submitted it to the judge. The judge then conducted hearings on the proposed decree and issued the decree, after any necessary modifications. The clerk of the court then provided each successful claimant with a certificate awarding an appropriation date and setting a quantity of water to which the holder was entitled.[367]

After these modifications, one flaw still persisted: the law did not allow the state engineer, who represented the public granting the water right, to participate in the adjudication or question the accuracy of

---

364. *Id.* (quoting Judge Ellis in No. 320 (Colo. Dist. Ct. 1880) (emphasis added)). The judge also indicated:

> I shall . . . insist that someone who may desire to have a decree entered in any particular water district, shall become an *actor* by serving out process, and bringing others in to answer; and that when that shall have been done . . . and the case shall then be regularly before the court upon the testimony taken by the referee . . . together with a simple complaint and a simple answer, the court shall then enter upon the investigation of the rights of the parties at their solicitation and enter a decree determining their rights in the premises.

Id. at 94-95. This decision resulted in severe criticism of the legal profession—criticisms that have echoed since in other states: "[M]en of hidebound precedents . . . of blind conservatism . . . looking ahead to endless fat jobs about to come to them from the wasting and ceaseless litigation likely to arise in reference to the establishing of priority of claims to the use of water." DAVID BOYD, A HISTORY; GREELEY AND THE UNION COLONY 128-31 (1890).

365. DUNBAR, *supra* note 10, at 95.

366. *See* 1881 Colo. Sess. Laws § 1, at 142-43.

367. DUNBAR, *supra* note 10, at 96.

claims.[368] As a consequence, the courts operated without vital hydrologic information and awarded water rights that exceeded the capacity of the streams.[369] A worried state engineer reported in 1886:

> So great was this in some instances [the discrepancy between decreed and actual carrying capacity of many ditches] that the results of the gaugings and the decreed capacity seemed to have no connection with each other. Ditches were met with having decreed capacities of two, three and even five times the volume they were capable of carrying . . . . It needs no argument to show the worse than uselessness of these decrees as a guide to the Water Commissioner in the performance of his duties.[370]

Despite these administrative flaws, Colorado's water legislation of 1879 and 1881 firmly established the judicial adjudication of water rights. This preference continues in Colorado today.

2. Wyoming System

The hard lesson of over-appropriation under Colorado's judicial decrees was not lost on Elwood Mead, one of the deans of western water law. Mead came to Colorado to teach mathematics at Colorado Agricultural College in Fort Collins in 1882.[371] He affiliated with Bryant La Grange, the first water commissioner on the Cache la Poudre River.[372] Mead came to share La Grange's concern about the over-appropriation of streams that overly optimistic court decrees caused. La Grange argued for a "Board of State Control" which, by using a water permit system, would issue water privileges while remaining mindful of stream capacity.[373] Mead observed the pattern of over-appropriation during summers when he gauged irrigation ditches for the state engineer. From 1886 to1887, Mead helped the Colorado State Grange and state engineer promote legislation to create a Board of Control that would govern all water diversions in the state.[374] The measure did not reach the house floor for debate.

A year later, Wyoming appointed Mead its first territorial engineer.[375] Because Wyoming replicated many of Colorado's water laws,

368. *Id.* at 98.
369. *Id.*
370. *Id.* at 101.
371. *Id.* at 99.
372. *Id.*
373. *Id.* at 100.
374. *Id.* at 102-03. Mead was influenced by a reading of IRRIGATION DEVELOPMENT (1886) by William Hammond Hall, the California state engineer, who investigated the irrigation institutions of France, Italy, Spain, and ancient Rome. *Id.* at 103. Hall reported on the *tribunal de aguas* in Valencia which allocated and enforced rights on streams–apparently another source for Mead's concept of a board of control. *Id.*
375. *Id.* at 105.

Mead found many over-appropriated streams and a lack of adjudication.[376]

In 1889, Wyoming was on the verge of statehood. The deliberations of the constitutional convention afforded an opportunity to rewrite the water laws of the jurisdiction. With Mead in attendance, the irrigation and water rights committee of the convention drafted an article declaring that streams were the property of the state, therefore placing streams under the supervision of a Board of Control, dividing Wyoming into four water divisions, and creating the office of state engineer.[377] The convention approved these measures, and they became part of the state's constitution.[378]

In 1890, other legislation provided the only means of obtaining new water rights: by applying to the state engineer.[379] Also, the Board of Control oversaw the adjudication of existing rights. Pursuant to this legislation, the state engineer could initiate adjudication by measuring the flow of a stream and gauging the capacities of the ditches it served.[380] A divisional superintendent conducted hearings and compiled evidence on existing uses. The engineer and superintendent then submitted their reports to the Board, which made the final quantification and set priority dates. The legislation added a statutory quantification limit of one cubic foot per second for each seventy acres of irrigated land.[381]

The Wyoming Supreme Court upheld the constitutionality of this legislation in *Farm Investment Company v. Carpenter*, where the plaintiff challenged, among other things, the Board of Control's function, claiming it violated the separation of powers doctrine.[382] The court found the Board "act[ed] judicially; but the power exercised [was]

376. *Id.* at 105-06. Dunbar also quotes from a letter from Mead to Senator William M. Stewart of Nevada: "The public waters of our streams... are conferred upon parties who . . . build ditches regardless of its [sic] effect on the conservation of the water supply or the expense of regulating its distribution." *Id.* at 106.

377. *Id.* at 107.

378. *Id.* at 108. The convention added the proposal into the Wyoming Constitution as follows:

> There shall be constituted a board of control, to be composed of the state engineer and superintendents of the water divisions; which shall, under such regulations as may be prescribed by law, have the supervision of the waters of the state and of their appropriation, distribution, and diversion, and of the various officers connected therewith. Its decisions to be subject to review by the courts of the state.

Id. (quoting WYO. CONST. art. VIII, § 2).

379. *Id.* at 109.

380. *Id.* at 110.

381. 1890 Wyo. Sess. Laws ch. 25 (codified at WYO. STAT. ANN. § 41-4-322 (Michie 2003)).

382. Farm Inv. Co. v. Carpenter, 61 P. 258, 259 (Wyo. 1900).

quasi judicial only, and [as] such, under proper circumstances, may appropriately be conferred upon executive officers or boards."[383]

Nebraska[384] and Alaska[385] replicated the Wyoming system. Alaska statutes owe their parentage to the then-Dean of the Wyoming Law School, Frank Trelease, who advised Alaska as it developed its Water Code.

Historian Dunbar concisely portrayed the philosophy behind the Wyoming approach, in contrast with that of Colorado:

> [T]he essence of [the Wyoming system] lay in the subordination of the appropriator to the welfare of the state. The interest of the state or the community came first, that of the individual irrigator second. Gone were the days in Wyoming when an appropriator, without anybody's leave, could post a notice, dig a ditch, install a dam, and divert the waters of a stream. Water was too limited a resource to be diverted and wastefully used without regard for the rights of others. Since it was the property of the state, rights to its use were to be granted by the state, adjudicated by the state, and protected by the state.[386]

Despite the distinctions between their water rights systems, Colorado and Wyoming had something in common: as their systems matured, core controversies emerged. The proper scope of authority of the newly founded administrative agencies was unclear. The states also struggled to balance the public's need to regulate water rights with private property interests in water. These controversies endure today.

3. Hybrid Approaches: the Bien Code

Given the differences between the Colorado and Wyoming approaches, it was natural for intermediate methods to develop. One approach was based on the so-called "Bien Code" while another resulted from Oregon's adjudication statute.

Soon after Congress passed the 1902 Reclamation Act, many western states were eager to secure federal funding to build reservoirs and canals.[387] The Reclamation Service, however, had conflicting concerns. The agency feared riparian rights and undocumented appropriative rights might siphon large amounts of project water to riparian or appropriative users outside those projects.

States also were concerned that inadequacies in their water laws would be an impediment to obtaining federal reclamation projects.

---

383. *Id.* at 267.

384. *See* NEB. REV. STAT. ANN. § 46-226 to -231 (Michie 2002).

385. *See* ALASKA STAT. §§ 46.15.060, .065, .165— .169 (Michie 2004). *See* Frank J. Trelease, *Alaska's New Water Use Act*, 2 LAND & WATER L. REV. 1, 29 (1967).

386. DUNBAR, *supra* note 10, at 109.

387. *See* discussion concerning Reclamation Act *supra* Part II.D.

Recognizing the need for a workable adjudication system in their states, the governors of Oregon and Washington requested assistance from the United States Reclamation Service in 1903.[388] Morris Bien, a Reclamation Service lawyer-engineer, drafted a model code for state administration of water in 1904.[389]

Under the Bien Code, a state administrative agency made hydrographic surveys and developed related data.[390] Upon completion of the survey, the agency delivered its information to the state attorney general, often in the form of a proposed determination.[391] The state attorney general then brought suit within a specified period, usually sixty days, and made all water users in the basin parties to the action.[392] The Code also gave the attorney general the authority to intervene in pending private water adjudications. After a mandatory period for objections had elapsed, and the court completed hearings on the objections, the court issued a final decree. Throughout the proceedings, the court could call upon the administrative agency to provide it with hydrological facts.

The Bien Code also vested the state engineer with the authority to issue permits for new water uses. Once a user established beneficial use under the permit rules, the state engineer issued a certificate of water right. The Code served as a hybrid model for general stream adjudications and North Dakota,[393] South Dakota,[394] New Mexico,[395] and Oklahoma.[396]

Oregon's system, formulated in 1909, also blended these judicial and administrative procedures.[397] As in Wyoming, the Oregon adjudication process began with the state engineer, who undertook a hydrographic survey and prompted water users to complete filings to secure their claims. With this information in hand, the state engineer developed a proposed order of determination specifying water rights and their priority. The proposed order was then filed with the appropriate district court, which held hearings on objections to the proposed order. If no party objected, the district court was required to affirm the proposed order. Arizona,[398] California,[399] Nevada,[400] Texas,[401] Utah,[402]

388. DUNBAR, *supra* note 10, at 119-20.
389. *Id.* at 120.
390. *Id.*
391. *Id.*
392. *Id.*
393. N.D. CENT. CODE §§ 61-03-15 to -20 (2003).
394. S.D. CODIFIED LAWS §§ 46-10-1 to -13 (Michie 2004).
395. N.M. STAT. ANN. §§ 72-4-13 to -19 (Michie 1985 & Supp. 1997).
396. OKLA. STAT. ANN. tit. 82, §§ 105.6— .8 (West 1991).
397. OR. REV. STAT. §§ 539.010-.350, 541.310-.320 (2003).
398. ARIZ. REV. STAT. ANN. §§ 45-251 to -264 (West 2003).
399. CAL. WATER CODE §§ 2000-2900 (West 1971 & Supp. 2005).
400. NEV. REV. STAT. ANN. §§ 533.090—.320, 534.100 (Michie 1995 & Supp. 2003).
401. TEX. WATER CODE ANN. §§ 11.301—.341 (Vernon 2000).

Washington,[403] and Idaho[404] followed the Oregon-hybrid approach substantially.

4. Statutory Efforts to Assist Private Litigation

By the middle of the twentieth century, western states enacted further refinements, usually to assist parties in small, private water rights cases. Private litigants were allowed to request assistance from administrative agencies. They could also request the court to refer matters to administrative agencies for investigation and reporting. For instance, in the 1940s, Idaho courts could request reports from the State Department of Reclamation regarding any water source involved in litigation.[405] Nevada, New Mexico, North Dakota, and South Dakota also embraced this kind of judicial/scientific method. Those states adopted legislation that *required* state agencies to draft a hydrographic survey report for every suit involving water rights.

Likewise, California and Kansas adopted reference procedures.[406] These allowed the court to refer factual issues and legal issues in some cases to an administrative agency for a report. Once the agency submitted its report to the court, the litigants could file exceptions to it. These procedures the western states adopted frequently reflected the scientific management movement of the time by routing scientific information into these cases.

Finally, Arizona, Nevada, Oregon, and Utah empowered their courts with even more flexibility. Those states adopted legislation in the 1950s that allowed courts to broaden private water rights litigation, shaping the cases into more comprehensive proceedings where appropriate.

D. SPECIAL CHALLENGES FACING STATUTORY ADJUDICATIONS

In the first-half of the twentieth century, water right adjudications responded to the rapid economic growth of the West and filled the need for certainty about water supply. Stream adjudications assisted western economic development by resolving the ownership of water rights and setting the parameters of those rights.

Routinely, adjudications faced special challenges. For instance, some states integrated rights with origins in two disparate legal regimes, the riparian and appropriative rights doctrines, which compli-

402. UTAH CODE ANN. §§ 73-4-1 to -24 (1989 & Supp. 1996). *See generally* Robert W. Swenson, *A Primer of Utah Water Law: Part II*, 6 J. ENERGY L. & POL'Y 1 (1985).
403. WASH. REV. CODE ANN. § 90.03.110—.245 (West 2004).
404. IDAHO CODE §§ 42-1401 to -1428 (Michie 2003).
405. *Id.* § 42-1404.
406. *See, e.g.*, CAL. WATER CODE §§ 2000-2017 (West 1971).

cated the adjudication effort.[407] In some cases, the need to reconcile the dichotomy between the entrenched and utterly different laws governing surface water and groundwater posed the biggest task. Some states engaged in adjudications to shore up municipal water supplies, forced to balance their own future against the practices of the past. Other states directed great effort at inventorying water uses to capture the prize of federally supported reclamation projects. Statutory adjudications proved a useful approach to these water management problems.

1. Integration of Riparian and Appropriative Rights

While some states, such as Colorado, abolished riparian rights at an early date, other states acquiesced to the creation of water rights under both doctrines and could no longer easily resort to the "abolition" solution. In many Great Plains and Pacific Coast states, the riparian water rights doctrine was seen as a threat to economic development. Although many state courts relaxed some of the riparian doctrine's more rigid aspects, many people still regarded it as a limitation to water uses, confining them to the narrow bands of riparian lands adjacent to state waterways. Even in states that tolerated both the riparian and appropriative doctrines, the uncertainty of downstream riparian demands hampered the economic activity of appropriators. Future accelerated riparian uses on a seemingly water-abundant stream could jeopardize irrigation and storage projects built in reliance on appropriative rights.

Such uncertainties made the need to integrate the riparian and prior appropriation rights very clear. General stream adjudications in several states became the means to integrate the two doctrines. Nebraska, Texas, and Kansas serve as examples.

a. Nebraska Integration Efforts

Nebraska, transected by the hundredth meridian, has a humid region in the eastern part of the state adjoining the Missouri River and a more arid region to the west. Its territorial legislature adopted the riparian doctrine to manage these resources in 1855.[408] As irrigation called for more water, the legislature and courts developed a more flexible doctrine of water distribution. The first vestiges of appropriation principles appear in Nebraska statutes passed in 1877[409] that authorized the transport of water across the lands of other persons, and

407. DUNBAR, *supra* note 10, at 67.

408. THORSON, *supra* note 92, at 36.

409. NAT'L WATER COMM'N, A SUMMARY-DIGEST OF STATE WATER LAWS 461 (Richard L. Dewsnut et al. eds., 1973).

in 1889 statutes that authorized the appropriation of surface water by posting and recording a notice of appropriation.[410]

The 1895 irrigation law built upon these initial steps and delineated a comprehensive statutory scheme for adjudicating existing appropriative rights and permitting appropriative rights in the future.[411] The 1895 statute also eliminated any new riparian rights after its passage.[412]

In the decade following the 1895 statute, the Nebraska Board of Irrigation proceeded to adjudicate pre-existing water rights on all of Nebraska's streams.[413] In 1911, the Nebraska legislature directed the State Board of Irrigation, Highways and Drainage to completely adjudicate any rights remaining in question.[414] These proceedings substantially completed the adjudication of existing rights. Statutory adjudications still occur on a periodic basis to reexamine appropriative permits in cases where parties allege possible abandonment or forfeiture. Most holders of pre-1895 riparian rights either have given them up or replaced them with new appropriative rights. One feature of Nebraska's system is unique: its state agency does not take into account riparian uses when it issues new appropriative permits. Nebraska has no explicit method for registering riparian uses and converting them into appropriative rights.

b. Texas Integration Efforts

Like Nebraska and other Great Plains states, Texas faced the challenge of reconciling water rights based on the riparian doctrine with those based on the prior appropriation doctrine. From 1840 to 1895, Texas recognized riparian water rights under the English common law, but limited withdrawals to quantities needed for reasonable use.[415]

Following the lead of other states, Texas passed irrigation acts in 1889, 1895, and 1913.[416] The acts interjected the prior appropriation doctrine into surface water management. The 1895 and 1913 statutes also included a statewide permitting program. Legislation in 1917[417] set up an adjudication procedure; one of its goals included phasing out riparian rights. In *Board of Water Engineers v. McKnight,* the court declared this adjudication process unconstitutional as an improper exer-

410. *Id.* at 461-62. *See also* James A. Doyle, *Water Rights in Nebraska,* 29 NEB. L. REV. 385, 386-87 (1950) ("In 1889, by an act popularly known as 'The Rayner Irrigation Law,' the legislature expressly adopted the principle of prior appropriation.").

411. *Id.* at 387-88.

412. THORSON, *supra* note 92, at 36.

413. DOYLE, *supra* note 410, at 388.

414. *Id.* at 389.

415. NAT'L WATER COMM'N, *supra* note 409, at 700.

416. *Id.* at 701.

417. Revision of Irrigation Laws, ch. 88, 1917 Tex. Gen. Laws 237.

cise of judicial powers by an administrative agency.[418] The state undertook a similar adjudication system in 1951, but it, too, was declared unconstitutional in 1958.[419]

With no statutory mechanism to conduct an adjudication, the Texas Water Commission and water users experimented with other procedures in an attempt to address the conflicts between riparian and appropriative users, as well as other water management problems facing the state. Federal court class actions involving rights along the Rio Grande were one such mechanism, but they ultimately proved unsuccessful.

For instance, in *Martinez v. Maverick County Water Conservation & Improvement District*, a class comprised of riparian plaintiffs attempted to sue a class of appropriators.[420] They failed; the court held that the lawsuit constituted a spurious class action.[421] Later, in *Miller v. Jennings*,[422] the federal appellate court ruled that a class action involving the upper portion of the Rio Grande did not satisfy the federal McCarran Amendment,[423] which provided a limited basis for waiving federal sovereign immunity, because the class action failed to not join all the claimants possibly affected by the outcome. Class actions in Texas state court were more successful,[424] but they too ultimately proved unsatisfactory. These cases failed to determine the water rights of individual class members.[425]

Finally, some success: the State of Texas, acting through its water commission, filed a declaratory action involving all water rights, both riparian and appropriative, in the Rio Grande below Falcon Reservoir.[426] A court of appeals decision finally resolved conflicting water claims in the lower valley by utilizing an "equitable water rights doctrine." However, "the case took over thirteen years to decide, involved roughly 3,000 parties, and cost an estimated $10 million in court costs and attorneys fees."[427]

---

418. Bd. of Water Eng'rs v. McKnight, 229 S.W. 301, 307 (Tex. 1921).

419. S. Canal Co. v. State Bd. of Water Eng'rs, 318 S.W.2d 619, 621, 625 (Tex. 1958).

420. Martinez v. Maverick County Water Control & Improvement Dist., 219 F.2d 666, 667 (5th Cir. 1955).

421. *Id.* at 672.

422. Miller v. Jennings, 243 F.2d 157, 159-60 (5th Cir. 1957).

423. 43 U.S.C. § 666 (2000)). *See* discussion of the McCarran Amendment *infra* section V.

424. *See* Hidalgo County Water Improvement Dist. v. Cameron County Water Control & Improvement Dist., 253 S.W.2d 294, 296, 301 (Tex. Civ. App. 1952); Valmont Plantations v. State, 355 S.W.2d 502, 503 (Tex. 1962).

425. *See* Corwin W. Johnson, *Adjudication of Water Rights*, 42 TEX. L. REV. 121, 122-23 (1963) (detailing the problems with general stream adjudications).

426. State v. Hidalgo County Water Control & Improvement Dist., 443 S.W.2d 728, 730-31 (Tex. Civ. App.1969).

427. Doug Caroom & Paul Elliott, *Water Rights Adjudication - Texas Style*, TEX. BAR J. 1183, 1184 (Nov. 1981) (explaining Texas' continual struggle with regulating ground-

c. Kansas Integration Efforts

Territorial Kansas, another example, applied the riparian law doctrine to surface water and used the English "absolute ownership" doctrine for groundwater. While this approach worked successfully for the humid eastern portion of the state, it proved less desirable in the more arid western areas.

Like Nebraska and Texas, Kansas faced the difficult problem of competing riparian and appropriative law. The downfall of the riparian doctrine in Kansas occurred in the 1880s and took approximately ten years.[428] Agricultural expansion in the western portion of the state prompted the decline of the doctrine. The legislature passed new irrigation laws that authorized water diversions from streams to nonriparian fields,[429] a practice not previously allowed under the traditional riparian doctrine. Legislation passed in 1917[430] and 1919[431] allowed permits for water appropriation. By the 1940s, state political leaders and water law experts feared that the ability of inactive riparian owners to later claim the water stored or diverted in reclamation projects would jeopardize anticipated Bureau of Reclamation projects in the state.[432]

Nebraska, Texas, and Kansas, experienced a difficult transition from riparian doctrine to the appropriative doctrine. The fundamental philosophical bases of the two approaches were hard to reconcile. Riparianism put a premium on reasonable use and social responsibility, but stymied the march of irrigation science and economic development. Prior appropriation rewarded risk takers and encouraged development, but often at the expense of the "commons." Adjudications effectively imposed metrics on inchoate uses, but time and the inexorable pressure of growth in the West finally became the most effective agents in the abolition of riparianism.

2. Integration of Surface Water and Groundwater Laws

Some states unified the laws that governed surface water and groundwater through general stream adjudications. Kansas again serves as an example. In the 1930s, the City of Wichita earmarked groundwater sources in order to augment its burgeoning municipal

---

water use, and the failure of the adjudicatory effort to include federal reserved rights for Native Americans or other public lands). Also, in comparison to some of the general stream adjudications described in this article, this was a modest case.

428. John C. Peck, *The Kansas Water Appropriation Act: A Fifty-Year Perspective*, 43 KAN. L. REV. 735, 737 (1995).

429. *Id.*

430. Act of Mar. 13, 1917, ch. 172 § 4, 1917 Kan. Sess. Laws 218, 218-19.

431. 1919 Kan. Sess. Laws.

432. *See* Peck, *supra* note 428, at 740.

water system.[433] Wichita explored promising sites in rural areas surrounding the city and, by the early 1940s, leased land twenty miles north of the city to sink wells and divert water.[434] Wichita's campaign accentuated the weaknesses inherent in the absolute ownership doctrine, as it pertained to groundwater.

Landowners overlying the Equus Beds, fed from the stream Wichita sought to use, resisted Wichita's efforts to obtain an appropriation permit from the state's chief engineer.[435] The dispute resulted in a decision by the Kansas Supreme Court that defeated Wichita's overtures because of the impingement on vested water rights.[436] That opinion sounded the death knell for both the absolute ownership doctrine and riparian law in Kansas. In the aftermath of the decision, a gubernatorially appointed water study commission recommended major changes in Kansas' water law adopted by the 1945 legislature.[437]

The resulting Water Appropriation Act of 1945[438] eliminated any future distinction between surface and groundwater by requiring that users obtain a permit for all future uses. The legislature addressed the problem of pre-1945 riparian uses and groundwater rights by directing the chief engineer to undertake the determination of those rights and give them legal definition under prior appropriation principles. Thus, the legislature recognized and gave priority to any pre-1945 water use, defined as water beneficially applied some time in the three years prior to the Act. As for quantity, such vested rights were determined based on their "maximum quantity and rate of diversion for the beneficial use made thereof."[439] The legislature refused to expansively determine domestic uses.

Using these guidelines, the chief engineer systematically identified and investigated existing uses in each Kansas county. By 1956, the state engineer substantially completed this adjudication and recommended the establishment of approximately 5000 water rights.[440]

3. Municipal Growth

Municipal growth pressures prompted major adjudications in several states, including Oklahoma. In 1905, the Oklahoma territorial legislature adopted an adjudication and permitting system[441] based on the model code prepared by Reclamation Service's Morris Bien. The

433. *Id.* at 738.
434. Peterson v. Kansas State Bd. of Agric.,149 P.2d 604, 605 (Kan. 1944).
435. *Id.* at 605-06.
436. *Id.* at 611.
437. Peck, *supra* note 428, at 739-41.
438. Act of June 28, 1945, ch. 390, 1945 Kan. Sess. Laws 665, 666.
439. KAN. STAT. ANN. § 82a-701(d) (2004).
440. Peck, *supra* note 428, at 744.
441. OKLA. STAT. ANN. tit. 82, § 105.6—.8 (West 1990).

system contemplated water rights adjudications covering the entire state, but the court only completed four regional adjudications. The water supply needs of major municipalities prompted these adjudications. The adjudications produced the Tulsa Decree of 1938;[442] the Oklahoma City-Canadian Decree of 1939;[443] the Durant Decree of 1955;[444] and the Oklahoma City-Atoka Decree of 1958.[445]

The court dismissed and reinstated a fifth adjudication, involving a Bureau of Reclamation project on the Washita River aimed at supplying municipal water, however, the court failed to complete the adjudication.[446] Similarly, the court ultimately dismissed a final adjudication, involving a Bureau of Reclamation project to supply municipal water to Norman, Midwest City, and Del City.[447]

4. Reclamation and Determination of Existing Rights

At the turn of the century, several themes coalesced in a more rational, science-based approach to public affairs. Businesses from assembly lines to retail stores embraced the popular scientific management techniques pioneered by Frederick Taylor.[448] Government, too, tried scientific management techniques by using professional managers and employees selected and promoted on the merit basis, in an attempt to sidestep the favoritism and inefficiency inherent in politics.

The natural resource management field adopted these principles with even more enthusiasm. In response to the forceful promotion by President Theodore Roosevelt and his chief forester Gifford Pinchot, bureaucrats applied progressive scientific management principles to forest and river systems. Multiple use development, with its goal of extracting maximum benefits from natural resources, became the watchword of federal land management agencies. The Reclamation Act of 1902, sponsored by Senator Francis G. Newlands of Nevada, typified the federal government's commitment to helping local communities develop their watersheds to yield maximum benefits for all.[449]

As the United States Reclamation Service implemented the Reclamation Act, it became apparent that tattered and uncertain water right records in many states created a situation with the potential to hamper reclamation projects.[450] The federal government could conceivably

442. City of Tulsa v. Grand-Hydro No. 5263 (D. Okla. Feb. 14, 1938).
443. Oklahoma City v. City of Guymon, No. 99028 (D. Okla. Dec. 20, 1939).
444. City of Durant v. Pexton, No. 19662 (D. Okla. 1955).
445. Oklahoma City v. State Bd. of Pub. Affairs, No. 10217 (D. Okla. Oct. 28, 1958).
446. Oklahoma v. City of Anadarko, No. 18450 (D. Okla.).
447. City of Norman v. Schwartz, No. 18409 (D. Okla. June 30, 1959).
448. *See generally* FREDERICK WINSLOW TAYLOR, THE PRINCIPLES OF SCIENTIFIC MANAGEMENT (originally published in 1911) (1998).
449. Act of June 17, 1902, ch. 1093, 32 Stat. 388.
450. WIEL, *supra* note 332, § 1428, at 1331.

spend millions of dollars on a project, only to have most of the necessary water claimed by undocumented senior appropriators or holdout riparian users refusing to join in the pledge to pay for the project. To prevent this risk, the Secretary of the Interior instituted a contractual requirement requiring the local water users association to "take prompt action to secure the determination by the courts of the relative rights of its shareholders to the use of the water for said lands . . . ."[451]

While the Secretary of the Interior easily issued mandates for the quantification of existing rights, the Secretary had a much harder time specifying how the quantification should occur. Common law judicial remedies proved inefficient, and the administrative adjudication developed by Elwood Mead became the best alternative available. Many state leaders, however, were unwilling to bestow their administrative agencies with the powers called for by Mead's system. Some leaders even questioned the constitutionality of doing so.

In 1903 at the behest of the governors of Washington and Oregon, the Reclamation Service addressed these doubts. The Service developed a guide that detailed the ways in which western states could better manage their water and thereby ensure state receipt of reclamation funds. Morris Bien, the Reclamation Service lawyer-engineer, authored this model water code, as previously discussed.

In response to this model and Reclamation Service requirements, several states undertook large water rights determinations. These cases were part of the price the states paid to enjoy the promise of reclamation. Adjudications were required to obtain reclamation projects in Oregon, New Mexico, and other states. Nevada, Arizona, and Washington also commenced such adjudications, and their experiences are discussed in the following.

a. Nevada Adjudications

The prospect of reclamation funding to support local water development gave impetus to Nevada's stream adjudications. Nevada was the site of one of the first reclamation projects, the Newlands Project on the Truckee and Carson Rivers near Reno.

In 1903, the state legislature noted that the proposed reclamation project could increase irrigated farmlands from 432,000 acres to over 1.4 million acres, vastly increasing the state's population and wealth.[452] The laws enacted toward that end reflected a clear understanding of what was at stake: "[T]he Secretary of the Interior, before proceeding to actual construction on any river in Nevada, shall be informed as to the extent of the present actual appropriation and beneficial use of water by existing communities . . . ."[453] The legislature also authorized

451. *Id.* at 1322.
452. Act of Feb. 16, 1903, ch.4, 1903 Nev. Stat. 18, 23.
453. *Id.* at 24.

the state engineer to prepare a list of appropriations from the claims required of all users.

Nevada's efforts failed to completely satisfy federal officials. Soon after construction of the Newlands Project, the United States initiated adjudications to protect water users in the Project from upstream diversions on the Truckee and Carson rivers. This litigation culminated in the *Orr Ditch Decree*,[454] issued by a federal court in 1944. While the water rights of the Pyramid Lake Indian Tribe were also at issue in this litigation, the United States more actively protected its own interest in the project than the fishing needs of the tribe.[455]

b. Arizona Adjudications

By the early 1880s, Anglo settlers in the Phoenix Basin relied on Salt River water for irrigation but with chronic summer shortages. In 1903 the Water Storage Conference Committee formed the Salt River Valley Water Users Association to provide funding and an organization structure required under the provisions of the 1902 Reclamation Act.[456] Soon thereafter, the Secretary of the Interior approved construction of Roosevelt Dam project at the Tonto Basin site on the Salt River. As construction began in 1904, the Association worked out differences among its members, or shareholders. When that proved impossible, the Association filed a legal action, *Hurley v. Abbott*,[457] at the urging of the Department of the Interior. The United States government intervened in the case.[458]

Settled in 1910, the decision became known as the *Kent Decree* in recognition of the presiding judge, Edward H. Kent.[459] The *Kent Decree* still governs water management in the Salt and Verde River systems of Arizona today.

The Department of the Interior completed the Roosevelt Dam in 1909 and many people considered the Salt River Project a huge success. The government again failed to fully consider Indian interests during the construction of the Project and the allocation of its water. For example, only 1300 class A irrigation acres were allocated to the displaced Fort McDowell Indians under the Project.[460]

---

454. United States v. Orr Water Dist. Co., No. A-3-LDG (D. Nev. 1944).

455. *See* Nevada v. United States, 463 U.S. 110 (1983).

456. SMITH, *supra* note 167, at 38-39.

457. Hurley v. Abbott, 259 F.Supp. 669 (D. Ariz. 1966).

458. *Id.* at 670.

459. *See id.* at 669 (referring to the decree entered on Mar. 1, 1910, commonly known as the "Kent Decree").

460. James Q. Jacobs, *Water Politics and the History of the Fort McDowell Indian Community* (1999), *at* http://www.jqjacobs.net/southwest/fort_mcdowell.html.

c. Washington Adjudications

The reclamation experience in Washington took a slightly different track. Learning from its experiences in Arizona and Nevada, the Reclamation Service in 1904 struck a deal with the Washington legislature, which desperately wanted to capture the federal development opportunity available under the 1902 Act. The state legislature in 1905 passed what is still the law:

> Whenever the secretary of the interior of the United States . . . shall notify the commissioner of public lands of this state that . . . the United States intends to make examinations or surveys for the utilization of certain specified waters, the waters so described shall not thereafter be subject to appropriation under any law of this state for a period of one year . . . .[461]

By simply notifying the state of its intent to build a project, the Reclamation Service could freeze all appropriations in a watershed. The Reclamation Service readily extended the time for the examinations. After filing its intent, the Reclamation Service gained control over all the basin's unappropriated water for Project development. For example, the Reclamation Service performed its own survey of the Yakima watershed where "paper" claims to water completely precluded development. Reclamation calculated the necessary amount of water to operate the planned Yakima Basin Project. The Service then negotiated a deal with the residents of the Yakima Basin. If the existing users in the basin agreed to limit themselves to an aggregate amount of diversions, which left 2000 cubic feet per second in the Yakima River in September, the Secretary of the Interior would build the Yakima Project.

In an unprecedented flood of community boosterism, coercion, and appeals to the common good, the citizens of the Yakima basin obtained promises from the existing appropriators to limit their claims and let the project proceed. These limiting agreements, secured in 1905 through 1911, continue in force and are now, nearly 100 years later, being reaffirmed in the *Acquavella* adjudication[462] as binding limits on the signatories' water rights.

E. SUMMARY

Post-1900 adjudications arose from reasons closely tied to the climate and economic needs of the states. In the Great Plains region, states struggled to determine whether eastern or western water law and institutions would prevail. Adjudications served as a tool for recognizing existing riparian property rights, while introducing prior appropriation principles for the future. In the more arid West, the appro-

461. WASH. REV. CODE ANN. § 90.40.030 (West 2004).
462. *See* Dep't of Ecology v. Acquavella, 674 P.2d 160 (Wash. 1983).

priation doctrine was comparatively well-established, but adjudications were necessary to secure the federal funding needed to realize the major benefit of the appropriation doctrine: the transport of water to distant places. To a lesser extent, adjudications helped to facilitate urban growth, integrate surface and groundwater rights, and generate official lists of water rights, thereby making water management more efficient.

By mid-century, western states had come a long way in developing methods for adjudicating their water. None of these basic approaches, however, contemplated the adjudication of federal reserved water rights. Those rights would be strongly asserted later in the twentieth century and cast a long shadow over state water rights and pending general stream adjudications.

IV. THE POST-WORLD WAR II WEST

During the post-World War II era, states and localities expanded their duties and accepted some of the functions, usually with federal grant assistance, the federal government performed during the depression and the war. This trend toward decentralization to state and localities reversed slightly in the 1960s. According to federalism scholar Daniel J. Elazar, the 1960s were a period of "concentrated cooperation," with "[i]ncreased federal activity in a number of fields . . . coupled with an intensification of the debate over 'states rights' on one hand and widespread acknowledgment of intergovernmental collaboration on the other."[463]

The public land, Indian, and water policies of the post-World War II era manifested increased federal activity. Federal-state relations in these policy areas must be understood in the context of the significant demographic changes that characterized these times.

A. CHANGING DEMOGRAPHICS

World War II brought population and economic growth to the American West. Population in the seventeen western states was slightly over 14 million in 1940.[464] By 1950, the region grew by 30 percent, to 20.1 million.[465] These increases were particularly apparent in coastal states where major defense plants were found; California, Oregon, and Arizona grew over 50 percent, while Nevada and Washington grew by approximately 40 percent.[466]

---

463. Elazar, *supra* note 203, at 21. Elazar refers to the New Deal and World War II as a period of "crisis-oriented centralism" and in contrast, the post-World War II era is considered to be an era of "non-centralist restoration." *Id.* at 18, 20.

464. HISTORICAL STATISTICS, *supra* note 60, at 22.

465. *Id.*

466. *See* MERK, *supra* note 63, at 567.

Perhaps the 1940s was the most significant decade because it sealed the urban destiny of the West. At the beginning of the decade, western population was evenly distributed between urban and rural areas. Only four states had greater than 50 percent of their population living in cities and towns.[467] By the end of the 1940s, eight other states' character shifted from predominately rural to predominantly urban.[468] One sociologist observed, "It was only at the conclusion of World War II that the West began to acquire an urban and industrial base. The West's economy and population, which had expanded but changed relatively little in essential character for more than 100 years, now began to alter at an increasing rate."[469]

In human terms, these demographic changes were at first accompanied by waves of Americans securing jobs at defense plants, military bases, and support industries. Later in the decade, veterans returned to western cities close to their stations. Many solders and sailors raised on farms opted for urban areas upon their return home, in pursuit of the greater employment, educational, and romantic opportunities.

The end of World War II did not stop the flow of federal dollars that supported the military bases and defense contracts. The Cold War, Korean War, and later, the Vietnam conflict continued the flow of cash to the West.[470] Other benefits of western living became more apparent to American companies and their workers. With improvements in telephone communication and travel technology, and the advent of computer technology, the benefits of the information age made western cities much more accessible. The comparatively less concentrated population of the West made it more desirable to companies and retirees, as did lower rents and mortgages. Advances in air conditioning technology made the West even more livable. By 1965, air conditioning opened the metropolitan areas of the Southwest to unstoppable growth. Finally, the spectacular western outdoors with its wide open spaces drew people who yearned for more leisure time. The region also drew thousands of tourists, once wartime gasoline rationing ended. Thus, the trail westward attracted all comers. These trends drew Americans to live in the West: industry, finance, electronic media, petroleum, and the weather.

---

467. These states are California (71 percent urban), Colorado (53 percent urban), Washington (53 percent urban), and Utah (55 percent urban).

468. Admittedly, the United States Census Bureau's redefinition of the term urban to include some less-populated areas than qualified previously boosted statistical reporting of this trend.

469. PAMELA CASE & GREGORY ALWARD, REPORT TO THE W. WATER POLICY REVIEW ADVISORY COMM'N, PATTERNS OF DEMOGRAPHIC, ECONOMIC AND VALUE CHANGE IN THE WESTERN UNITED STATES 1 (1997).

470. O'Connor, *supra* note 67, at 556.

Two Wests emerged from World War II, economically speaking.[471] One West focused on service industries, tourism, and high-technology growth, while the other still depended on the use and extraction of natural resources. Both stimulated the continued growth of metropolitan areas. Timber, agriculture, and mining (hard rock and oil) continued to boom after World War II right up until the 1970s, when a collapse occurred that lasted through the next decade.[472]

By 1970, with a population of 34.8 million, the West accounted for 17 percent of the United States population, 83 percent of western residents lived in urban areas.[473] Los Angeles, the largest western city, had nearly two million residents in 1950, but by 1970 the city sprawled and became home to an additional 800,000 persons, reaching a total population of 2.8 million.[474] The expanding boundaries of western cities illustrated this phenomenal urban growth. From 1950 to 1990, "San Antonio added 264 square miles to its municipal boundaries, Houston 380, Phoenix 402, and Oklahoma City 557."[475] Developments in public land, Indian, and water policy occurred in the context of these demographic shifts.

B. PUBLIC LAND POLICY

Before the World War, federal public lands outside the national parks and monuments were typically utilized by the traditional parties: loggers in forest lands, miners locating and developing a claim, and ranchers with grazing allotments in both the national forests and on the unreserved public domain. Because the natural bounty was so vast and the western population so small, these lands easily accommodated modest numbers of hunters and fishermen. Since the 1930s both the Forest Service and the Grazing Service, then a bureau within the Department of the Interior, assumed a more active role in preventing the misuse of these resources, but these measures were undertaken to save the logging and grazing industries from themselves, and promote the general public interest in healthy lands. For this reason, minimal conflict between user groups existed. While multiple-use had been in the lexicon of federal land managers for decades, single use of the then-

471. In a recent book, economist Thomas Michael Power examined the current economic trends of the American West and concludes that the West is less reliant today on extractable industries than in past years. *See* THOMAS MICHAEL POWER, LOST LANDSCAPES AND FAILED ECONOMIES: THE SEARCH FOR A VALUE OF PLACE (1996). In the early 1800s, almost 85 percent of the nation's population was engaged in fishing, mining, logging, and agriculture. *Id.* at 239. Today, however, less than 10 percent of the population is engaged in such activities.

472. *See* O'Connor, *supra* note 67, at 460-65.

473. HISTORICAL STATISTICS, *supra* note 60, at 22.

474. *See* O'Connor, *supra* note 67, at 554.

475. *Id.*

abundant public lands was the predominant practice.[476] Only after World War II did federal land managers began to face resource conflicts in which all of the competing parties could not be accommodated.

These resource conflicts developed as a result of the growing national interest in outdoor recreation and the efforts of a small group of resource preservationists who fought development, as it might cause the destruction of pristine resources. As some commentators noted, "By the end of the Second World War, expanding population combined with rising disposable income, longer paid vacations, retirement programs, and increased mobility ushered in an era of *mass* recreation."[477] This recreating public wanted automobile access to developed campsites, trailheads, and lakeside docks. The Forest Service and the National Park Service scrambled to meet this growing demand and, in turn, to engender support from this emerging political force. In 1958 Congress authorized the Outdoor Recreation Resources Review Commission.[478] Chaired by Lawrence Rockefeller, this commission undertook a study of the demand for, versus the availability of recreational resources through the year 2000.[479]

The Forest Service, in particular, was hard-pressed to juggle the competing interests of the new recreating public, the National Park Service's bold initiatives to control prime forest lands, and the growing suspicions of the Forest Service's traditional resource constituency, which wondered about the agency's predilections. The timber industry fundamentally changed after World War II, maturing from a series of logging companies to a more complex wood products industry with greater interest in long-term profitability, revegetation technologies, and the permanent availability of public timber lands to fill the growing demands of the industry. The Forest Service faced another challenge in trying to meet the demands of this evolving constituency.

Two instances prompted the public to question the federal agencies' commitment to their propounded public land management philosophy. These suspicions fueled the resentment of traditional commodity users against unwelcome interference by agencies and the public. During the "great land grab" of 1946 to 1947, western stockmen pushed legislation that allowed them to acquire fee interest in the grazing allotments they held under the Taylor Grazing Act.[480] Under a similar proposal, grazing land administered by the Forest Service would

476. DANA & FAIRFAX, *supra* note 17, at 203.
477. *Id.* at 190.
478. Outdoor Recreation Res. Review Act of 1958, Pub. L. No. 85-470, 72 Stat. 238.
479. DANA & FAIRFAX, *supra* note 17, at 196.
480. Taylor Grazing Act of 1934, ch. 865, 48 Stat. 1269 (current version at 43 U.S.C. §§ 315-315r (2000)).

also be transferred to the federal Grazing Service for similar disposition to the permittees.[481]

Other stockmen's proposals included automatic grazing permit renewal if a permittee pledged livestock as security for a loan (a frequent occurrence), and a measure that granted permittees title to any improvements they made on the land. These proposals, roundly criticized by author Bernard DeVoto in his regular *Harper's Magazine* column, "From the Easy Chair," ultimately failed.[482]

Then, a decade later, the Bureau of Reclamation proposed to build a major dam on Utah's Green River.[483] The dam would have flooded a scenic canyon area within Dinosaur National Monument in Utah.[484] The proposal led to the Echo Park controversy. While Congress defeated the measure in 1956, it provoked serious doubts within the emerging conservation community. That community wondered if valued public lands could be entrusted for the long term to the federal land management agencies.[485]

While the Forest Service had an administrative program in place since 1929 to protect primitive areas, areas considered safe from harm in the 1920s and 1930s suddenly became endangered.[486] The danger stemmed from their rising commercial value. Rising land prices, road system expansion, and technological advances in mineral extraction and harvest made them extremely attractive. Thus, "[t]he Forest Service was under tremendous pressure from industry not to 'lock the resources up.'"[487] Fearing that the agencies planned to serve up pristine lands to traditional commodity groups, some conservation groups sought permanent congressional protection for these areas. In this climate, conservation groups introduced the first wilderness bill in Congress in 1956.[488]

Internal disarray and interagency conflict also hampered federal public land management during the post-War period. The Grazing Service within the Interior Department sought to increase grazing fees before the war, but Democratic Senator Patrick McCarran[489] from Nevada obtained the Department's commitment not to increase fees until congressional hearings could be held. Surrounded by the "scattered

481. DANA & FAIRFAX, *supra* note 17, at 184.
482. *Id.*
483. Norris Hundley, Jr., *The West Against Itself: The Colorado River—An Institutional History, in* NEW COURSES FOR THE COLORADO RIVER: MAJOR ISSUES FOR THE NEXT CENTURY 29 (Gary D. Weatherford & F. Lee Brown eds., 1986).
484. *Id.*
485. *Id.*
486. *See* DANA & FAIRFAX, *supra* note 17, at 197.
487. *Id.*
488. *Id.* at 198.
489. For more information about McCarran, *see* discussion *infra* Part V.

remnants of the states' rights factions of the West,"[490] McCarran successfully stalled the proposal until 1947. Public land historian E. Louise Peffer notes that McCarran was the "most belligerent fighter in the seven-year war of attrition which he waged . . .."[491]

By the end of World War II, the Grazing Service's proposal to hike its fees was caught between McCarran's wrath and that of congressional committees, which bemoaned how little grazing revenue the Grazing Service collected. By 1946, Congress gutted the Grazing Service's budget.[492] In that same year, the Secretary of the Interior abolished the Grazing Service and the General Land Office (GLO), combining their functions into the Bureau of Land Management (BLM). As two public land historians indicated, "[t]he effect of the reorganization was to grant authority over most of the federal lands and all of the federal mineral estate to an uneasy collection of Grazing Service range managers and political hacks and the GLO's Washington-based clerks, bookkeepers, and paper shufflers."[493] With the Interior Department's bureaus weakened in this fashion, western stockmen maintained the status quo on their allotments.

While the Grazing Service withered away in the late 1940s, its much stronger sister agency, the National Park Service, represented a constant thorn in the side of the Forest Service. The National Park Service attempted to portray itself as the premier federal agency for providing recreational opportunities to the public. To perpetuate that perception, the National Park Service stepped up its long-term practice of raiding the public land resources of the Forest Service. Between 1902 and 1960, the National Park Service obtained almost five million acres of forestland in seventy separate transactions with the Forest Service.[494]

In the 1960s, the critics of the federal land agencies became louder. Their tone echoed the civil rights and anti-war rhetoric of the decade. Those concerned about more recreational opportunities on federal lands and preserving pristine areas increasingly looked to Congress, rather than the agencies, for help. In 1964, Congress established the Land and Water Conservation Fund,[495] which allowed the purchase of additional lands by federal agencies and assistance to state and local parks systems. This legislation resulted in a modest reversal of the long-term public land disposition trend that started almost two centuries before.

---

490. PEFFER, *supra* note 52, at 248.

491. *Id.*

492. DANA & FAIRFAX, *supra* note 17, at 183.

493. *Id.* at 188.

494. During the same period, the National Park Service transferred 450,000 acres to the Forest Service.

495. Land and Water Conservation Fund Act of 1965, Pub. L. No. 88-578, 78 Stat. 897 (current version at 16 U.S.C. § 460*l*-4 to -11 (2000)).

In 1964 Congress also passed the Public Land Sale Act, [496] which facilitated the disposal of modest amounts of land for community residential and agricultural purposes. The Classification and Multiple Use Act[497] provided BLM and its predecessors with the first authority ever to inventory the land and resources under its jurisdiction. The National Park Service also utilized legal authority obtained in 1954[498] to acquire private lands with appropriated funds. As a result of purchases and transfers from other agencies, the National Park Service added ten natural areas, forty-seven historical areas, one recreation area, eleven lakeshores and seashores, eight recreation reservoirs, three scenic rivers, and one cultural area during the decade. Perhaps most important, Congress passed the Wilderness Act[499] in 1964 and set aside some pristine lands as "instant wilderness," and authorized the study of an even larger amount of federal land for potential wilderness area status.

This same year, Congressman Wayne Aspinall, a Democrat from Colorado and chair of the House Interior Committee, secured funding for a multi-year study of the public lands. The Public Land Law Review Commission, [500] with Aspinall as chair, studied public land tenure and management for the next six years. When it filed its final report in 1970,[501] the Commission recommended continuing disposition of federal lands. The Commission also pointed out the need for greater congressional authority over public land management, measures to help traditional commodity users, and a commitment to dominant use, rather than multiple uses, of public lands.

While Aspinall's Commission undertook the most thorough and systematic review ever of public land issues, the attention generated by the emerging environmental movement overshadowed its report and recommendations. Congress passed the National Environmental Policy Act[502] in 1969. The Act established the Council on Environmental Quality[503] and set forth criteria for evaluating the environmental impacts of all major federal actions. Earth Day, celebrated throughout the country in April 1970, marked the commencement of the first broad environmental movement in the United States.

---

496. Public Land Sale Act of 1964, Pub. L. No. 88-608, 78 Stat. 988.
497. Act of Sept. 19, 1964, Pub. L. No. 88-607, 78 Stat. 986.
498. Act of Aug. 31, 1954, Pub. L. No. 745, ch. 1163, 68 Stat. 1037 (current version at 16 U.S.C. § 452a (2000)).
499. Wilderness Act of 1964, Pub. L. No. 88-577, 78 Stat. 890 (current version at 16 U.S.C. §§ 1131-1136 (2000)).
500. 78 Stat. at 982.
501. ONE THIRD OF THE NATION'S LAND, *supra* note 9, at iii.
502. National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (current version at 42 U.S.C. §§ 4321-4370d (2000)).
503. *Id.* § 4342.

C. INDIAN POLICY: THE TERMINATION PERIOD

The severe backlash against communism was an important current in American politics during the late 1940s and 1950s. This charged atmosphere had important ramifications for federal Indian policy. To some, the communal lifestyles of American Indians evoked fears of communism. The immediate solution seemed to be the elimination of tribalism. Accordingly, conservative congressmen began to advocate smaller budgets and bureaucracies, and some looked to the BIA as an appropriate target.[504]

As a result, leading tribal advocates departed; John Collier resigned as Commissioner of the BIA in 1945 and attorney and Indian legal scholar Felix Cohen resigned from the Interior Department in 1948.[505] In 1949 the Hoover Commission recommended "complete integration" of Indians into the American population.[506] In 1950, President Truman appointed Dillon S. Myer, a Collier opponent, as Commissioner of Indian Affairs. As historian Angie Debo writes,

> He [Myer] had been in charge of the internment camps in which persons of Japanese ancestry were placed in the panic following Pearl Harbor, and had carried out a vigorous, even coercive, policy of resettling them throughout the general population. Now he showed the same intention of breaking up the Indian reservations and scattering the people, and he used the same coercive methods.[507]

The Bureau abandoned reform policies in favor of "withdrawal programming" and Myer dictated his policies without Indian input.[508] Debo writes of one example, which provides a clue to the sentiment of the times:

> Reform administrators in the Indian Bureau resigned or were discharged. There were complaints of administrative actions here and there favoring white appropriation of Indian property. Certainly this happened to the Paiutes of the Pyramid Lake Reservation in Nevada, where white trespassers were using their grazing lands. The Indians took their case to court and won. Their superintendent supported their rights, and Myer moved him to another reservation at the demand of the trespassers' counsel, Senator Pat McCarran. Then the trespassers remained, and the Indians could not dislodge them.[509]

---

504. LIMERICK, *supra* note 10, at 209.
505. GETCHES, *supra* note 89, at 229.
506. *Id.*
507. DEBO, *supra* note 112, at 351.
508. *Id.*
509. *Id.*

When Dwight Eisenhower became President in 1952, the prevailing philosophy, which advocated terminating federal assistance to tribes and a returning to assimilationist policies, gained even more support. Eisenhower appointed Glenn Emmons, who was a banker, not an Indian affairs expert, to head the BIA.[510] Emmons embraced termination as the "keynote of his policy."[511]

By 1953, Congress officially adopted termination in House Concurrent Resolution (HCR) 108:

> [I]t is the policy of Congress, as rapidly as possible to make the Indians within the territorial limits of the United States subject to the same laws and entitled to the same privileges and responsibilities as are applicable to other citizens of the United States, to end their status as wards of the United States, and to grant them all of the rights and prerogatives pertaining to American citizenship.[512]

Within days of this resolution, Congress passed a law based on HCR 108; Public Law 280 authorized five states to enforce their criminal and civil laws on Indian reservations.[513] Other states were free to accept the same authority. Even though Eisenhower recommended that states obtain tribal consent before acting, he signed Public Law 280 without this condition.[514]

This "new" federal policy of termination, which denied political power and federal protection to Indian tribes, marked a reversion to old attitudes of assimilation and resentment toward federal subsidies to help impoverished tribes. Under this policy, progress only occurred through removing the supervision responsibilities of the federal government, with all of its attendant costs. Even amid the backdrop of abject failure of allotment policy and its failed attempts to assimilate the Indian tribes, Congress proceeded nonetheless to adopt the termination policy.[515]

HCR 108 only expressed congressional policy; it was not law. Congress passed several individual acts to implement the termination policy. One study by lawyers Charles F. Wilkinson and Eric R. Biggs of the legislation passed between 1955 and 1970 posited the results of termination: escalating losses of Indian land to non-Indian ownership (at least 1,362,155 acres) and displacement of Native Americans (at least 11,466 individuals).[516] These authors identified exacerbating elements

---

510. MERK, *supra* note 63, at 601.
511. *Id.*
512. LIMERICK, *supra* note 10, at 209.
513. MERK, *supra* note 63, at 601.
514. *Id.*
515. *See* GETCHES, *supra* note 89, at 233.
516. Charles F. Wilkinson & Eric R. Biggs, *The Evolution of the Termination Policy, in* GETCHES, *supra* note 89, at 234, 235.

of the termination plans. Termination policy resulted in fundamental changes in land ownership patterns, an end to the trust relationship, imposed state legislative jurisdiction and state judicial authority, an end to all exemptions from state taxing authority, and a discontinuation of all special federal programs to tribes and individual tribal members. According to Wilkinson and Biggs, these factors destroyed tribal sovereignty.[517]

Ultimately, through termination tribes also lost their natural resources. Termination acts generally took reservation lands and tribal funds out of the federal trusteeship. The government sold the land or paid modest compensation, and distributed the funds directly to tribes or tribal members.[518]

Two tribes, the Menominee in Wisconsin and the Klamath in Oregon, lived on proceeds from valuable stands of timber.[519] After termination, the sawmill on the Menominee lands subsidized most reservation services that the federal government paid for previously. This burden turned a profit center into a failing business. The Klamath Tribe lost ownership of their timber stands.[520] The effects of the federal government's termination policy became painfully obvious to tribes like these.

D. WATER POLICY AND SHIFTING FEDERAL-STATE RELATIONS

In the years after World War II, many of the tensions between the federal government and the states over water law and policy came to the forefront. The friction had started with the Progressive Conservation Era and continued well into the twentieth century. Varied reasons for the federal-state conflict existed, but fall into three categories: (1) continued expansion of federal water management activities, (2) federal actions taken in disregard of state regulation and control, and (3) federal interference with state-recognized property rights.[521] In addition to these state-federal tensions, growing interstate conflicts along major river systems contributed to the uncertainty that burdened water rights during this period.

1. Continued Expansion of the Federal Government's Role

Congress originally possessed unbridled control over the vast lands the nation acquired from France, Mexico, and Great Britain before the Civil War. Congress gradually ceded land and authority to states, terri-

517. *Id.* at 235-37.
518. MERK, *supra* note 63, at 602.
519. *Id.* at 601-02.
520. DEBO, *supra* note 112, at 374-75.
521. *See* Dominic B. King, *Federal-State Relations in the Control of Water Resources*, 37 U. DET. L.J. 1 (1959) (suggesting the major themes of the federal-state conflict).

tories, and individuals through a series of enactments during the last half of the nineteenth century. In the area of water, Congress relinquished paramount control over water resources to westerners by enacting the General Mining Act of 1866[522] and the Desert Land Sales Act of 1877.[523]

As previously discussed, this *laissez-faire* approach shifted dramatically during the Theodore Roosevelt administration, prompting the withdrawal of many federal lands for forests and other specified purposes and the struggle to maintain federal control over promising hydropower sites on major rivers. Congress passed the Federal Power Act[524] in 1920, which allowed the federal government to control the licensing of private power projects on navigable rivers. The concept of multiple use natural resource management encouraged the development of the "308 Reports"[525] that provided Congress with information on how to develop river basins comprehensively.

Many of the projects originally conceived in the 308 Reports were realized during the Depression. These undertakings provided work for thousands of people during the lean years of the 1930s. These projects also changed forever the economies and ecologies of large regions of the country. They included Fort Peck Dam on the Missouri River, completed in 1940; Hoover Dam on the Colorado River, finished in 1935; Wilson Dam (part of the Tennessee Valley Authority), completed in 1924; Grand Coulee Dam on the Columbia River, completed in 1941; and the Bonneville Dam, completed in 1938.

Although World War II interrupted this bold engineering mandate, it renewed itself with vigor after the war. For instance, the Pick-Sloan Plan, authorized by the Flood Control Act of 1944,[526] set into motion the construction of five other major dams and related channel improvements on the Missouri River. The St. Lawrence Seaway underwent extensive navigation improvements. In retrospect, of the $16.3 billion spent by Congress on water and power projects between 1824 and 1955, Congress spent 88 percent of that money between 1930 and 1955.[527]

By the 1950s, westerners were somewhat taken aback at the scope of activities undertaken by the national government. As one commentator recalled, the federal government became

---

522. Act of July 26, 1866, ch. 262, 14 Stat. 251.

523. Act of Mar. 3, 1877, ch. 107, 19 Stat. 377 (current version at 43 U.S.C. §§ 321-23 (2000)).

524. Act of June 10, 1920, ch. 285, 41 Stat. 1063 (current version at 16 U.S.C. §§ 791-828c (2000)).

525. H.R. Doc. No. 69-308 (1926).

526. Act of Dec. 22, 1944, ch. 665, 58 Stat. 887 (1944) (current version at 16 U.S.C. § 460d and scattered sections of 33 & 43 U.S.C. (2000)).

527. *See* King, *supra* note 521, at 16.

> actively engaged in extensive reclamation work, power development, transmission and sale of power, flood control, navigation improvement, river basin planning, pollution control, and even municipal and industrial water supply. With each federal increase in control there was inevitably a decrease in state control and a consequent strain on federal-state relations.[528]

Many of the agencies seemed to lose sight of the original purposes of their work: "They occasionally [became] so absorbed in the thrill of building bigger and better dams that they want[ed] to build and manage for the sake of the project rather than for the interest of those to be served thereby."[529] The federal role in water policy received increasing scrutiny. The second Hoover Commission documented the number of overlapping agencies with no unified mission, inventoried twelve federal agencies with responsibilities for flood control, nine involved in irrigation, seven with responsibilities for navigation improvement, nine agencies involved in pollution control, ten interested in watershed development, fifteen involved in hydropower, and thirteen involved in water supply issues.[530]

2. Federal Disregard of State Regulation and Control

In several areas, Congress utilized its constitutional powers to authorize federal agency actions that disregarded or preempted state regulation and authority. The federal navigation power and servitude provided the basis for this activity.

As early as 1899, the United States Supreme Court prevented the private development of a dam at Elephant Butte on the Rio Grande in New Mexico because the obstruction on a non-navigable portion of the river would effect downstream navigation.[531] Decades later, Congress justified the building of Hoover Dam on the Colorado River as an exercise of the federal navigation power, and the Supreme Court rebuffed Arizona's attempt to require the dam and accompanying water rights be permitted under state law.[532]

The United States Supreme Court also rejected the attempt of Oklahoma to enjoin federal construction of a dam and reservoir on the Red River. The United States intended for the dam to facilitate navigation on the Arkansas and Mississippi Rivers, and provide flood control and power production. Oklahoma had a land use plan for that

---

528. *Id.* at 15.

529. Clyde O. Martz, *The Role of the Federal Government in State Water Law*, 5 U. KAN. L. REV. 626, 629 (1957).

530. COMM'N ON ORG. OF THE EXECUTIVE BRANCH OF THE GOV'T, 1 WATER RESOURCES & POWER 12-15 (1955).

531. United States v. Rio Grande Dam & Irrigation Co., 174 U.S. 690, 708 (1899).

532. Arizona v. California, 283 U.S. 423, 451, 455-56, 464 (1931).

portion of the state and complained that federal activities would inundate 100,000 acres of land, displace 8,000 people, destroy productive farmland, prevent oil and gas development, reduce tax values, and distribute the hydropower only in Texas. Still, the Supreme Court based its decision on the dam's propensity to improve navigation on the Arkansas and Mississippi rivers.[533]

In a similar vein, President Roosevelt vetoed the original Republican River compact among Colorado, Nebraska, and Kansas. He cited possible interference with the federal navigation power and the federal power to develop irrigation.[534] Congress used the navigation power to justify other large basin projects, such as some of the TVA dams and tributary projects on the Missouri River under the 1944 Flood Control Act, even though these improvements only tangentially related to actual navigation. As one commentator surmised, "These multi-purpose dam projects, by encompassing reclamation, flood control, power generation, and recreational interests, necessarily cut across many areas of state control and state law, with the resultant federal-state conflict."[535]

The Federal Power Act of 1920 and the regulatory activities of the Federal Power Commission (FPC) became a special point of contention between the federal government and the states. The United States Supreme Court recognized the federal navigation power as sufficient justification for the sweeping authority granted to the FPC under the Power Act.[536] While always controversial, the FPC outraged western officials further still with a series of decisions between 1946 and 1955.

In *First Iowa Hydro-electric Cooperative v. Federal Power Commission*,[537] an electric cooperative sought to build a dam on Iowa's Cedar River, a navigable waterway. Iowa denied the applicant a permit because the project diverted water into another basin, a transfer that violated Iowa policy. The Supreme Court upheld the FPC's authority to license the project over state opposition, because the project furthered the federal objective of comprehensive development of natural resources.[538]

The FPC again ignored state authority in 1954, when it licensed two tall dams in conflict with state law that established a Columbia River sanctuary and prohibited dams over twenty-five feet in height on tributaries in order to protect anadromous fish. The City of Tacoma on the Cowlitz River, a navigable waterway entirely within the state, proposed dams much higher than any previously built structures, 500

533. Oklahoma v. Guy F. Atkinson Co., 313 U.S. 508, 511-13, 524, 532-33 (1941).
534. H.R. Doc. No. 77-690, at 1-2 (1942).
535. King, *supra* note 521, at 18.
536. *See, e.g.*, United States v. Appalachian Elec. Power Co., 311 U.S. 377, 380, 383 (1940).
537. First Iowa Hydro-Electric Coop. v. Fed. Power Comm'n, 328 U.S. 152 (1946).
538. *Id.* at 181-83.

and 240 feet respectively.[539] The Ninth Circuit Court of Appeals sustained the FPC's decision.[540] The United States Supreme Court declined to review the case.[541]

The Supreme Court directly considered similar state fishery concerns a year later in *Federal Power Commission v. Oregon*, the well-known "*Pelton Dam*" case.[542] A private power company sought to build a dam across Oregon's Deschutes River, a non-navigable river that served as an important breeding area for salmon and steelhead. The state objected based on the dam's interference with the migration of the anadromous fish.

The United States Court of Appeals for the Ninth Circuit upheld the FPC's license, over the state's objection, holding that "[i]f the dams will destroy the fish industry of the river, we are powerless to prevent it."[543] The court did not justify the FPC's authority over the project based on the federal navigation clause, but still found that the commission had jurisdiction, based on the fact that one end of the dam rested on an Indian reservation held in trust by the United States, and the other end rested on a site previously reserved by the United States as a hydropower site. The decision immediately alarmed westerners because it suggested that federal lands of all types had paramount water rights overriding state-recognized water rights.

3. Federal Disregard of State-Recognized Property Rights

Increased activity along western waterways, coupled with the more frequent exercise of the federal navigation power to construct dams and other projects, raised concerns of many western water users about the security of their water rights. One commentator noted that "the recent malignant expansion of federal power [has come] at the expense of state prerogatives and private appropriation and riparian rights."[544] Many of the western states successfully nurtured the prior appropriation doctrine and resisted efforts by the federal government to claim ownership of unappropriated water on non-navigable streams.

Perhaps the United States Supreme Court allayed their fears when it largely ignored the United States' efforts to claim such rights in *Wyoming v. Colorado*[545] in 1922. Later, in *California-Oregon Power Company v. Beaver Portland Cement Company*, Justice George Sutherland indicated "[w]hat we hold is that following the act of 1877 [Desert Land Sales

539. *See* Washington Dep't of Game v. Fed. Power Comm'n, 207 F.2d 391, 395 (9th Cir. 1953), *cert. denied*, 347 U.S. 936 (1954).
540. *Id.* at 398.
541. Washington Dep't Game v. Fed. Power Comm'n, 347 U.S. 936 (1954).
542. Fed. Power Comm'n v, Oregon, 349 U.S. 435 (1955).
543. *Washington Dep't of Game*, 207 F.2d at 398.
544. Martz, *supra* note 529, at 631.
545. *See* Wyoming v. Colorado, 259 U.S. 419 (1922).

Act], if not before, all non-navigable waters then a part of the public domain became *publici juris*, subject to the plenary control of the designated states . . .."[546] Once again, in the Supreme Court's 1945 decision in *Nebraska v. Wyoming*, Justice William O. Douglas rejected federal claims to title of unappropriated western water by calling the argument "largely academic."[547]

While private rights and state regulation seemed more secure on non-navigable waterways, the reverse was true for navigable rivers. In 1945 the Supreme Court held that property owners were not entitled to compensation when the navigational servitude encumbered land below the high water mark, due to the construction of dams.[548] While holding that the specific state statute required compensation for private property loss due to reclamation projects, the Court suggested that the Constitution might not require such compensation.[549]

The Federal Power Act also had consequences for property ownership in the West. Regarding the FPC, one western water law attorney argued,

> [i]n the accomplishment of its important mission . . . the Commission has ridden rough shod over state laws and policies on water resource development and has not only taken private rights for public projects without compensation, but may even have authorized private licensees to take the velocity and flow of streams and the economic value of dam sites for private power use without compensation. It has extended its jurisdiction to streams that are not navigable in fact and to projects that have no measurable effect upon navigation.[550]

Western congressional representatives, some of whom had first-hand experiences with federal agency activities in the West, undertook a series of legislative initiatives to curtail federal power. The most controversial of these was the Barrett Bill, introduced in 1956.[551] The Bill required federal agencies to conform to state law and obtain necessary state permits; however, Congress introduced and modified this Bill several times but never passed it.

---

546. *Id.* at 163-64. This sentence "is used to argue that the case recognized state ownership, or at least control, of all nonnavigable waters. And indeed, taken out of context and isolated from the issues, that is not a totally unreasonable assertion. But the controversy in *Beaver Portland Cement* involved only private parties, none of whom claimed a federal right other than their patents." Eva Hanna Morreale, *Federal-State Conflicts Over Western Water–A Decade of Attempted "Clarifying Legislation,"* 20 RUTGERS L. REV. 423, 436-37 (1966).

547. Nebraska v. Wyoming, 325 U.S. 589, 616 (1945).

548. United States v. Willow River Power Co., 324 U.S. 499, 510-11 (1945).

549. United States v. Gerlach Live Stock Co., 339 U.S. 725, 754-55 (1950).

550. Martz, *supra* note 529, at 637.

551. Water Rights Settlement Act of 1956, S. 863, 84th Cong.

In the ensuing decade, Congress introduced and debated fifty such "settlement bills," but passed none. In 1961, law professor Frank Trelease calmly reviewed these upheavals and concluded: "[t]he American federation of states is a fairly good compromise for achieving the greatest freedom for states to deal with local problems while at the same time reserving to the federal government power to accomplish national objectives."[552]

4. Increased Interstate Competition Over Major Rivers

Beginning in the 1920s, many of the southwestern states pioneered the use of the interstate compact as a means to resolve disagreements over interstate streams. While these agreements did much to resolve tensions, they typically took many years to negotiate and litigation frequently preceded, accompanied, or followed. While the participating parties signed the Colorado River Compact in 1922, Arizona did not ratify it until 1944. In the interim, on two occasions Arizona unsuccessfully sought to relitigate the issues before the United States Supreme Court.[553] In 1952, Arizona sued California for a third time, seeking to divide the waters of the lower basin. The lawsuit led to a decision generally in Arizona's favor in 1963.[554]

Similarly, in the Rio Grande basin, Colorado, New Mexico, and Texas began negotiating a compact in 1923. A temporary, status quo agreement was in place from 1929 to 1934 when Texas sued New Mexico in the United States Supreme Court and claimed that the construction of El Vado Dam in New Mexico on the Chama River interfered with Texas' water entitlement below Elephant Butte Dam. At the urging of the federal government, the states returned to the negotiating table and concluded the Rio Grande Compact in 1938. Texas sued New Mexico when that state began falling behind in its deliveries to Texas in 1940. The Court dismissed that case in 1957 when the Court recognized the United States' sovereign immunity and the federal government refused to join the litigation.[555] Texas and New Mexico sued Colorado in 1966, accusing that state of failing to make the deliveries called for by the compact.[556] The states agreed to postpone that case pending negotiation.[557]

Disagreements over the Pecos River, another shared waterway between Texas and New Mexico, led to threats of litigation as early as

552. Frank J. Trelease, *Federal Limitations on State Water Law*, 10 BUFF. L. REV. 399, 425 (1961).
553. *See* Arizona v. California, 283 U.S. 423 (1931); Arizona v. California, 298 U.S. 558 (1936).
554. Arizona v. California, 373 U.S. 546, 564 (1963).
555. Texas v. New Mexico, 352 U.S. 991, 991 (1957) (per curiam).
556. Texas v. Colorado, 389 U.S. 1000 (1967).
557. Texas v. Colorado, 391 U.S. 901, 901 (1968).

1924. Negotiations, however, produced an interim agreement in 1935 and a formal compact in 1948.[558] Texas sued New Mexico when that state proposed the construction of the Brantley Reservoir in 1974.[559] Some of these interstate disputes, such as the *Arizona v. California* litigation over the Colorado River, might be seen as colossal forms of general stream adjudications.

Along other western rivers, interstate tensions motivated the states to attempt to write compacts, but did not cause actual litigation. While South Dakota and Wyoming agreed in 1948 on a compact for the Cheyenne River, Congress rejected it because of its possible impact on Indian tribes. Between 1925 and 1966, the northwestern states of Washington, Oregon, Idaho, and Montana, sometimes joined by Wyoming, Utah, and Nevada, attempted to write a compact concerning the Columbia River.[560] All or some of those states rejected compacts proposed in 1955, 1961, and 1963.[561] The states abandoned the effort in 1966. Similarly, states proposed a compact for the Missouri River basin in 1952, and then again in 1953. However, the basin states did not adopt that compact.

While none of these interstate disputes was directly responsible for a state initiating a general stream adjudication, the ongoing troubles over interstate waters no doubt contributed to a climate that supported such proceedings. As early as *Kansas v. Colorado* in 1907,[562] the United States Supreme Court signaled that it would weigh the relative existing uses of water in each of the litigating states. State engineers and attorneys general understood that their position would improve if they showed the extent of actual use of water along a contested interstate stream, evidenced by a judicial decree in a general stream adjudication.

Elwood Mead and Morris Bien, joined by Oregon State Engineer John H. Lewis, were so disturbed by the potential of interstate conflicts they suggested to the National Irrigation Congress the application of Wyoming's administrative water right determinations to interstate conflicts. They proposed the creation of a federal administrative agency with the authority to determine the water rights of interstate streams, when the states along those streams had not previously adjudicated their rights.[563] Such a federal solution to this problem was not well re-

558. G. EMLEN HALL, HIGH AND DRY: THE TEXAS-NEW MEXICO STRUGGLE FOR THE PECOS RIVER 45 (2002).

559. *See* Texas v. New Mexico, 482 U.S. 124, 126 (1987).

560. HARVEY R. DOERKSEN, STATE OF WASHINGTON WATER RESEARCH CTR., COLUMBIA RIVER INTERSTATE COMPACT, POLITICS OF NEGOTIATION 23-24, 168 (1972).

561. *Id.* at 91, 122-27, 137-50.

562. Kansas v. Colorado, 206 U.S. 46, 86-87 (1907).

563. JAMES R. KLUGER, TURNING ON WATER WITH A SHOVEL: THE CAREER OF ELWOOD MEAD 36 (1992).

ceived in the West. Rather it provided further impetus for states to determine or adjudicate their own water rights.

E. SUMMARY

If one can regard natural resource management authority as a triptych in which states, the federal government, and tribal powers each comprise a scene, one image clearly dominated the post-World War II era. The federal government seized the strongest role in western resource management during this period.

By contrast, the Indian tribes' authority progressively faded. Federal movements, such as assimilation and termination, thwarted tribal power by the diminishment of Indian land ownership and tribal sovereignty, thereby erasing tribal participation in natural resource matters.

State power also dwindled, not so much because of state passivity, but because federal strength grew unabated. Congress undertook bold new initiatives that served to enhance federal agency power. Federal reclamation projects consistently prevailed over state conservation and management efforts.

States used the interstate compact negotiations most vividly to reassert primacy over their natural resources. These succeeded for the most part, despite lengthy time lines and occasional outbreaks of litigation. Prompted in part by these successes, states began to commence with general stream adjudications. As the era closed, a new kind of state mobilization began. That mobilization culminated with the enactment of the McCarran Amendment.

V. PASSAGE OF THE MCCARRAN AMENDMENT

After World War II, western states, while still asserting state primacy in water allocation, began to fear that federal reserved rights would interfere with the water rights of junior appropriators based on state law. Federal sovereign immunity prevented the reserved rights of federal agencies and Indian tribes from involvement in state general stream adjudications.[564] The United States compounded the problem by often claiming its water rights as paramount and superior to other water users.[565] In claiming these superior rights, rather than eminent

564. For example, when Arizona sought an adjudication before the United States Supreme Court among basin states of Colorado River water rights in 1936, the Court dismissed the case because the federal government claimed sovereign immunity. Without determining the extent of federal navigation rights to the river, the Court could not establish rights to water impounded above Hoover Dam. Arizona v. California, 298 U.S. 558, 571-72 (1936).

565. Federal courts appeared open to such arguments. *See, e.g.*, United States v. Gerlach Live Stock Co., 339 U.S. 725 (1950); Rank v. Krug, 90 F. Supp. 773, 786 (S.D. Cal. 1950) (discussing the "paramount" rights claimed by the federal government related to the power to regulate navigation). The so-called "tidelands litigation" also revealed the

domain power, the federal government avoided the requirement to pay damages to junior appropriators. Federal reserved water rights created an unknown "wild card" for western states, which prevented them from planning for the future management of their waters.

Western states, under the leadership of Patrick McCarran, adamantly opposed the Department of Justice's staunch federal supremacy position regarding western water rights. In 1952, this United States Senator from Nevada successfully achieved passage of the McCarran Amendment,[566] which waived federal sovereign immunity and provided the United States' consent to be joined in general stream adjudications. The legislative history of the McCarran Amendment indicated a congressional willingness to tolerate diverse state proceedings. This waiver, however, was valid only for judicial adjudications and not for adjudication procedures undertaken exclusively by administrative agencies. This waiver made modern general stream adjudications possible.

The passage of the McCarran Amendment did not clarify all the uncertainties about quantifying federal water rights. Procedural issues remained, such as what processes constituted a general stream adjudication and whether the amendment really waived immunity as to the

---

federal government's legal reliance on the threatening concept of "paramount" rights. In these cases, the United States Supreme Court denied several coastal states, including California, of revenue from the valuable offshore oil leases in the marginal sea, the three-mile zone seaward of the low-watermark. *See* United States v. California, 332 U.S. 19, 35-36 (1947); United States v. Louisiana, 339 U.S. 699, 704 (1950); and United States v. Texas, 339 U.S. 707, 717-18 (1950).

566. The amendment was enacted as section 208(a)-(c) of the Department of Justice Appropriation Act. Act of July 10, 1952, Pub. L. No. 945, 66 Stat. 560 (current version at 43 U.S.C. § 666 (2000)). It reads as follows:

> (a) Consent is given to join the United States as a defendant in any suit (1) for the adjudication of rights to the use of water of a river system or other source, or (2) for the administration of such rights, where it appears that the United States is the owner of or is in the process of acquiring water rights by appropriation under State law, by purchase, by exchange, or otherwise, and the United States is a necessary party to such suit. The United States, when a party to any such suit, shall (1) be deemed to have waived any right to plead that the State laws are inapplicable or that the United States is not amenable thereto by reason of its sovereignty, and (2) shall be subject to the judgments, order, and decrees of the court having jurisdiction, and may obtain review thereof, in the same manner and to the same extent as a private individual under like circumstances: *Provided*, That no judgment for costs shall be entered against the United States in any such suit.
>
> (b) Summons or other process in any such suit shall be served upon the Attorney General or his designated representative.
>
> (c) Nothing in this section shall be construed as authorizing the joinder of the United States in any suit or controversy in the Supreme Court of the United States involving the right of States to the use of the water of any interstate stream.

Id. § 666(a)-(c). *See generally* David W. Edwards, Comment, *McCarran Amendment: General Adjudications in Wyoming: Threshold Problems*, 16 LAND & WATER L. REV. 53 (1981).

reserved rights of federal agencies. In *Arizona v. California,* the United States Supreme Court issued a powerful enunciation of Indian reserved rights.[567] With this opinion a new set of legal questions arose that threatened to undo the McCarran Amendment. Must tribes litigate Indian reserved water right claims in federal court? Did the McCarran Amendment waive sovereign immunity as to *these* rights so that a state court might also adjudicate these rights? Many state decision makers believed these questions could be answered by modern general stream adjudications.

A. FEDERAL RESERVED WATER RIGHTS DOCTRINE

The federal reserved water rights doctrine began with the controversy over the building of Elephant Butte Dam on the Rio Grande in New Mexico. In the 1890s, private developers had sought to build a dam on the river, but the United States opposed the project. In a case reaching the United States Supreme Court, *United States v. Rio Grande Dam & Irrigation Company,* the Court found that the federal government properly vetoed the project based on its land ownership along the river.[568] The Court held that "a [s]tate cannot by its legislation destroy the right of the United States, as owner of lands bordering on a stream, to the continued flow of its waters; so far at least as may be necessary for the beneficial uses of the government property."[569]

The origins of the reserved right doctrine, in an Indian law context, began in a fishing controversy along Washington's Columbia River soon after the turn of the twentieth century. Non-Indian fishermen utilized fish wheels to catch large amounts of salmon, and landowners denied the Yakima Indians access to customary fishing locations along the river. The United States sued on behalf of the Yakimas, and the Supreme Court held in *United States v. Winans* that, pursuant to their 1859 treaty with the United States, the Indians reserved their fishing and access rights.[570] With Justice McKenna speaking for the majority, the Court held that "the treaty was not a grant of rights to the Indians, but a grant of rights from them–a reservation of those not granted."[571]

1. The *Winters* Doctrine

Many consider the case of *Winters v. United States* to be the Court's first full expression of the federal reserved rights doctrine as it pertains

567. Arizona v. California, 373 U.S. 546, 600 (1963).
568. United States v. Rio Grande Dam & Irrigation Co., 174 U.S. 690, 710 (1899).
569. *Id.* at 703.
570. United States v. Winans, 198 U.S. 371, 377-78, 381 (1905).
571. *Id.* at 381.

to water.[572] In the 1880s, settlers pressured the federal government to open the vast Great Blackfeet Reservation, established in 1855 in the Montana Territory for non-Indian homesteading and other economic activities. Indeed, Congress eventually reduced the reservation by 17,500,000 acres and divided it into three individual reservations, Fort Peck, Blackfeet, and Fort Belknap. The negotiations with the Gros Ventre and Assiniboine tribes, which eventually occupied the Fort Belknap Reservation, occurred at the Fort Belknap Agency in January 1887. After three days of negotiations in extremely cold weather, the Indians agreed to reserve for themselves 600,000 acres, a small fraction of their original holdings, in exchange for the federal government's promise of homes, livestock, farm equipment, and other aid. Congress ratified the agreement between the tribes and the United States on May 1, 1888; while the agreement did not specifically mention water rights, the text indicated that the reservation's purpose was to encourage the Indians to abandon their nomadic way of life and adopt agriculture as a "pastoral and [civilized] people."[573] The newly drawn reservation boundaries of the Fort Belknap Reservation included the middle of the Milk River as the northern boundary.[574]

Settlers immediately flowed into the area, aided by the Great Northern Railroad, newly completed in 1893.[575] Many settlers established farms and new communities, such as Havre, Harlem, and Chinook, upstream of the Fort Belknap Reservation and began using Milk River water. However, the government delayed irrigation on the new reservation. Finally in 1898, the reservation superintendent filed a state notice of appropriation for a flow rate of 10,000 miners' inches (250 cubic feet per second).[576]

In spring 1905, drought conditions, compounded by upstream diversions, created a difficult situation for Indians on the Fort Belknap Reservation:

> We have had no water in our ditch whatsoever. Our meadows are now rapidly parched up. The Indians have planted large crops and a great deal of grain. All this will be lost unless some radical action is taken at once to make the settlers above the Reservation respect our

572. Winters v. United States, 207 U.S. 564, 576-77 (1908). *See generally* JOHN SHURTS, INDIAN RESERVED WATER RIGHTS: THE *WINTERS* DOCTRINE IN ITS SOCIAL AND LEGAL CONTEXT, 1880-1930S (2000) (providing a legal history of the *Winters* case and doctrine).

573. Act of May 1, 1888, ch. 213, 25 Stat. 113.

574. Shurts, *supra* note 572, at 19.

575. *See* ALBRO MARTIN, JAMES J. HILL AND THE OPENING OF THE NORTHWEST 396 (1976).

576. Norris Hundley, Jr., *The "Winters" Decision and Indian Water Rights: A Mystery Reexamined*, 13 W. HIST. Q. 17, 22 (1982).

> rights. To the Indians it either means good crops this fall, or starvation this winter.[577]

The Commissioner of Indian Affairs authorized legal action, and the federal attorney for Montana sued in federal court for an injunction against twenty-one defendants, including two irrigation companies and a cattle firm.

While the United States Attorney based his case both on prior appropriation and riparian principles, United States District Court Judge William H. Hunt based his decision to issue an injunction on the rights the Indians reserved when they signed the 1889 treaty. In Judge Hall's judgment, when the Indians signed the treaty granting rights to the United States, they reserved "the right to the use of the waters of Milk River, at least to the extent reasonably necessary to irrigate their lands."[578] After the settlers appealed to the United States Court of Appeals for the Ninth Circuit, a three-judge panel of that court upheld the injunction in February 1906 and elaborated further on Judge Hunt's reservation doctrine. The court stated "[w]e must presume that the government and the Indians, in agreeing to the terms of the treaty . . . knew that 'the soil could not be cultivated' without the use of water to 'irrigate the same.'"[579] The court affirmed that the doctrine of reserved rights existed against the United States and its grantees, as well as against the state and its grantees. The Ninth Circuit apparently determined that the United States reserved the water right, based upon its previous sovereign ownership of the lands in question, and that the tribes also reserved water rights, based upon their right of occupancy of the land.[580]

In January 1908, the United States Supreme Court reviewed and affirmed the issue in a decision written by Justice McKenna.[581] The Court utilized the same basic reasoning set forth by Judge Hunt and the Ninth Circuit, although the Court's opinion less clearly stated whether the United States, tribes, or both "reserved" the necessary water for the reservation. The Court held "[t]he power of the [g]overnment to reserve the waters and exempt them from appropriation [cannot be de-

577. Letter from William R. Logan, Superintendent, Fort Belknap Indian Agency, to Francis E. Leupp, Commissioner of Indian Affairs (June 3, 1905) (on file with authors).

578. Winters v. United States, 143 F. 740, 749 (9th Cir. 1906) (describing the district court holding). As historian Norris Hundley indicates, while Judge Hunt and later the court of appeals refers to the 1888 agreement as a treaty, it did not have that stature since Congress had abandoned the treaty-making system in 1871. *See* Hundley, *supra* note 576, at 26.

579. *Winters*, 143 F. at 745.

580. Hundley, *supra* note 576, at 30.

581. Winters v. United States, 207 U.S. 564, 574, 578 (1908).

nied] . . . [t]hat the government did reserve them we have decided, and for a use which would be necessarily continued through years."[582]

The Ninth Circuit again applied the reserved water rights doctrine in a case also decided in 1908, *Conrad Investment Company v. United States*.[583] In this dispute, once again arising in Montana, the court held that the Blackfeet Indians had a paramount right to water for irrigating and for other useful purposes.[584] While the court specified the amount of water for the tribe, it expressly indicated that the tribe could modify the decree by application to a court as uses increased.[585] Thus, the court emphasized the open-ended nature of the reserved rights doctrine, which signaled the great uncertainty of the doctrine for western states and territories and their non-Indian citizens.

2. Post-*Winters* Decisions

In the years following the Supreme Court's *Winters* decision, the reserved rights doctrine developed haphazardly. While acknowledging the "Montana cases," an Indian Bureau agent entered into a limitation agreement with white settlers giving them 75 percent of the waters of Ahtanum Creek to the detriment of the Yakima Tribe.[586] This strange act, flatly contradictory to the spirit of *Winters*, caused future litigation over the respective water rights in this area of central Washington.

In Arizona, the district court entered the *Kent Decree* in 1910 to apportion Salt River.[587] While the decree granted rights to Indian tribes in the Phoenix area, the decree failed to mention the reserved water right doctrine. In another Arizona case, the court held that the United States did not possess reserved spring water that, if developed, provided no significant benefit to the Indian reservation.[588] Similarly, the Oregon Supreme Court held in 1917 that the 1855 treaty with the Walla Walla, Cayuse, and Umatilla Indians contained no implied grant of water rights to the Umatilla River for the benefit of the Indians. The court awarded water only for actual beneficial uses.[589]

In the 1920s, the reserved water right doctrine received indirect support from the United States Attorney General, Harlan F. Stone,

582. *Id.* at 577 (internal citations omitted).
583. Conrad Inv. Co. v. United States, 161 F. 829, 831-32, 835 (9th Cir. 1908).
584. *Id.* at 831.
585. *Id.* at 832.
586. *See* United States v. Ahtanum Irrigation Dist., 236 F.2d 321, 329, 336 (9th Cir. 1956), *cert. denied*, 352 U.S. 988 (1957) (concluding that the United States as trustee for Indian tribes was authorized to grant non-Indian landowners a right to use Indian water but that right could not exceed landowners' actual needs at time of grant); *In re* Water Rights in Ahtanum Creek, 245 P. 758, 760 (Wash. 1926).
587. Hurley v. Abbott, 259 F.Supp. 669, 669 (D. Ariz. 1966) (referring to the 1910 case commonly known as the Kent Decree).
588. United States v. Wrightman, 230 F. 277, 282-83 (D. Ariz. 1916).
589. Byers v. Wa-Wa-Ne, 169 P. 121, 128 (Or. 1917).

later a member of the United States Supreme Court, who ruled that the Indians' right to water was an incident of occupancy, that is, a "right to the hidden or latent resources of the land, such as minerals or potential water power."[590] Also, during the 1930s, courts continued to address the rights of Indians to some important western rivers. Arizona's federal court entered a consent decree in 1935, quantifying water rights along the Gila River system. Known as *Globe Equity No. 59*, the decree quantified specific rights for the Gila River Indian Reservation, with an immemorial date of priority, and the San Carlos Apache Tribe, with a priority date of 1846.[591] The decree, however, made no mention of the reserved water rights doctrine or the *Winters* decision.[592]

The question arose in Nevada as to whether reserved water rights could exist for a reservation created by statute or executive order, rather than by treaty or agreement between the United States and a tribe. On two occasions, the federal district court refused to recognize reserved water rights for the Paiute Tribe, distinguishing the *Winters* decision by finding that the Indians were at war with the United States when their reservation was created,[593] and later indicated, "this court is not moved to give a decree destroying the rights of the white pioneers."[594] On review, however, the Ninth Circuit Court of Appeals held that a statute or executive order, as well as a treaty or agreement could evidence an intention to reserve water. The court noted, "The intention had to be arrived at by taking account of circumstances, the situation and needs of the Indians and the purpose for which the lands had been reserved."[595]

3. Allotment Issues

What water rights, if any, followed an allotment of Indian land occupied the courts most frequently between 1908 and the 1950s. In *Skeem v. United States*, the Ninth Circuit Court of Appeals determined that non-Indian lessees of Indian allotments could utilize the Indians' water rights as "neither the actual leasing of their lands under the authority to lease nor the surrender of possession to the lessees operated to relinquish any water rights in the lands which they [the Indians] so choose to retain."[596] Also, in *United States v. Hibner*, the court extended

590. Executive Order Indian Reservations—Leasing Act, 34 Op. Att'y Gen. 171, 178 (1924).
591. United States v. Gila Valley Irrigation Dist., No. E-59-Globe, at 86 (D. Ariz. 1935) (commonly known as the Globe Equity Decree).
592. *See id.*
593. United States v. Walker River Irrigation Dist., 11 F. Supp. 158, 163 (D. Nev. 1935)
594. United States v. Walker River Irrigation Dist., 14 F. Supp. 10, 11 (D. Nev. 1936).
595. United States v. Walker River Irrigation Dist., 104 F.2d 334, 336 (9th Cir. 1939).
596. Skeem v. United States, 273 F. 93, 96 (9th Cir. 1921).

this same principle to the sale of Indian allotments within the Fort Hall Reservation in Idaho.[597] The court held that a purchaser of an Indian allotment acquired the same water rights and priority date of the Indian allottee although the buyer must put the water to beneficial use with reasonable diligence or risk abandonment.

These Indian allotment issues continued in the 1930s. In *United States v. Powers*, the Ninth Circuit Court of Appeals held that the non-Indian assignees' water rights constituted a continuation of the Indian allottees' rights.[598] The Secretary of the Interior was not authorized to deprive any allottee or patentee of his "just and equal right" to the use of the water. The United States Supreme Court sustained the decision in 1939 and interpreted the Treaty of 1868 as implying water rights for individual allottees for farming purposes.[599]

In a case involving Montana's Flathead Reservation, the Ninth Circuit also determined that an individual Indian had no water rights until the selection of an allotment, but after the allotment, the allottee was entitled to a "just and equal distribution" of the water.[600] The Montana Supreme Court also recognized the basis of the reserved water rights doctrine. In a 1938 case arising on the Crow Indian Reservation, the court held the United States reserved water for the use of the Indians; that a portion of the reserved water right was appurtenant to allottees' lands; and when allotments are sold or leased, a portion of the reserved water right goes with the land unless a contrary intention appears.[601]

B. ADJUDICATION OF FEDERAL AND TRIBAL RIGHTS BEFORE MCCARRAN AMENDMENT

Prior to passage of the McCarran Amendment in 1952, most western states did not contemplate the adjudication of federal or tribal reserved water rights. In states with large amounts of federal agency or tribal land, the adjudications ultimately were inconclusive undertakings.[602] The United States almost always succeeded in avoiding involvement in litigation by asserting sovereign immunity.[603] Since the United States served as trustee for most tribal land and water, these tribal water rights also benefited from immunity.

---

597. United States v. Hibner, 27 F.2d 909, 912 (D. Idaho 1928).
598. United States v. Powers, 94 F.2d 783, 786 (9th Cir. 1938).
599. United States v. Powers, 305 U.S. 527, 533 (1939).
600. United States v. McIntire, 101 F.2d 650, 654 (9th Cir. 1939).
601. Anderson v. Spear-Morgan Livestock Co., 79 P.2d 667, 669 (Mont. 1938).
602. *See, e.g., In re* Water Rights in Ahtanum Creek, 245 P. 758 (Wash. 1926) (involving a state court adjudication of which United States was aware but did not participate).
603. *See, e.g.*, Dugan v. Rank, 372 U.S. 609, 610, 626, *aff'd in part sub nom.* City of Fresno v. California, 372 U.S. 627, 629 (1963) (dismissing suit against the United States for lack of jurisdiction).

State or federal court proceedings progressed in locations not implicating federal or tribal lands and the court issued relatively stable resulting decrees. Where disputes involved federal interests, the United States sued other water users in state or federal court or consented to be joined in individual state or federal lawsuits. If the federal government chose not to become involved in an adjudication, however, the litigation would likely not be final or meaningful. A persistent problem, particularly under both the Colorado and Wyoming adjudication models, was that no adjudication could truly be general if it involved the federal government and the United States asserted sovereign immunity.[604]

The federal government initiated suit or consented to be joined in adjudications on several important western rivers resulting in decrees such as Arizona's *Globe Equity* decree,[605] Nevada's *Orr Ditch* decree,[606] and Washington's consent decree in the Yakima River basin,[607] as well as the foundational *Winters v. United States*[608] case on the Milk River in Montana. Still, the large amount of federal and tribal land in the West, comprising 50 percent of the land mass in seven states, set the stage for continued conflict between federal agencies and the owners of state-based water rights.[609]

The ubiquitous presence of federal and tribal lands in the West, many with potential federal reserved water rights, thus cast a shadow on many private and state resource management decisions. Private landholders and permittees of state lands might not appreciate that a nearby federal parcel carried with it a potentially senior water right. Even if private landholders and permittees appreciated this possibility, they had no certain way of calculating the extent or priority of this right. These individuals could not look to the courts for an answer

---

604. *See* WATERS AND WATER RIGHTS, *supra* note 356, § 106, at 106.

605. United States v. Gila Valley Irrigation Dist., No. E-59-Globe, at 86 (D. Ariz. 1935).

606. *See* Nevada v. United States, 463 U.S. 110, 113 (1983) (describing the history of the *Orr Ditch* decree).

607. Kittitas Reclamation Dist. v. Sunnyside Valley Irrigation Dist., 626 F.2d 95, 97 (9th Cir. 1980).

608. Winters v. United States, 207 U.S. 564 (1908).

609. In 1970, the Public Land Law Review Commission described the impact of federal landholdings upon western water:

> Federal lands are the source of most of the water in the 11 coterminous western states, providing approximately 61 percent of the total natural runoff occurring in the region. Most of this runoff comes from land withdrawn or reserved for specific purposes. Forest Service and National Park Service reservations contribute about 88 and 8 percent, respectively, of the runoff from public lands and more than 59 percent of the total yield from all lands of those states. Other public lands, such as the vast acreages administered by the Bureau of Land Management, do not contribute much to the overall yield of western streams, but are so situated that they influence water quality.

ONE THIRD OF THE NATION'S LAND, *supra* note 9, at 141.

either, since the United States could not be involuntarily brought into state or federal court to participate in an adjudication of its water rights.

Thus, many individuals formed the perception that unascertained federal and tribal water rights clouded the value and utility of all other water rights in the major watersheds of the West. Whether this perception was mostly truth or myth remains difficult to ascertain. In the early 1950s, however, California altered its proposed California Water Plan to avoid the need for an adjudication of the Sacramento River basin.[610] The Colorado Supreme Court stated "[o]ur situation with respect to water rights [where] priorities are decreed under state laws, but any water rights of the United States in Colorado remain mysterious, largely unknown, uncatalogued and unrelated to decreed rights. This creates an undesirable, impractical and chaotic situation."[611] One federal attorney described the concerns:

> There is perhaps no topic in the field of state-federal relations which raises the hackles of westerners more than the issue of the federal government's acquisition of water rights. As a result of the size of the United States' landholdings, in addition to its broad constitutional authority, the states fear that the federal government will disrupt their already over-appropriated systems for water allocation and usurp their scarce supply.[612]

Senator Patrick McCarran argued "[h]undreds of cases...have been left 'hanging in the balance, because the federal government has adamantly blocked the path of justice' by not consenting to be sued in water right adjudications."[613] Nothing in the official McCarran

---

610. Vincent Ostrom, *State Administration of Natural Resources in the West*, 47 AM. POL. SCI. REV. 478, 479 n.2 (1953).

611. United States v. District Court in and for Eagle County, 458 P.2d 760, 765 (Colo. 1969). This language, coming more than fifteen years after the passage of the McCarran Amendment, may not be an entirely accurate assessment of pre-McCarran circumstances.

> I am coming to believe that "the Feds" were right all along. In 1964, at the height of the debates over the "Western Water Rights Settlements Acts," it was pointed out that "not a single case of harm has been reported," that "for all of the outcry . . . not one state, not one county, not one municipality, not one irrigation district, not one corporation, not one individual has come forward to plead and prove that the United States . . . has destroyed any private right." Twenty-two years after *Pelton Dam* this is still true.

Frank J. Trelease, *Federal Reserved Water Rights Since PLLRC*, 54 DENV. L. J. 473, 491-92 (1977).

612. Sandra Dunn, *Cooperative Federalism in the Acquisition of Water Rights: A Federal Practitioner's Point of View*, 19 PAC. L.J. 1323, 1323 (1988).

613. Catherine Anne Berry, The McCarran Water Rights Amendment of 1952: Policy Development, Interpretation, and Impact on Cross-Cultural Water Conflicts 134 (1993) (unpublished Ph.D. thesis, University of Colorado) (on file with the University

Amendment's legislative history, however, enumerated all these cases. When the legislative history is examined, it is apparent that the difficulties in just one small adjudication provided the catalyst for the McCarran Amendment, and major southern California water controversies that had little to do with the stated purposes of the McCarran Amendment soon overshadowed this adjudication.

C. STATED AND BACKGROUND REASONS FOR THE MCCARRAN AMENDMENT

The original, specific impetus for the McCarran Amendment was the lack of progress in a small Nevada adjudication[614] that continued to distress one of the participating lawyers. Attorney J. D. Skeen represented the Ellison Ranch Company, which owned a large ranch in the Quin River basin in northern Nevada. After the BIA purchased additional land and water rights on the Quin River in 1939, neighboring water users sought to reopen a 1919 decree in order to resolve disputes over water use. The United States objected to state court jurisdiction and removed the case to federal court. The federal court held sovereign immunity precluded suit against the United States. To remedy the situation, Skeen prepared the first draft of what became the McCarran Amendment in 1949, written in broad universal terms, but designed primarily to secure state court jurisdiction over the United States in the Quin River adjudication.[615]

Skeen then found a very receptive United States Senator in Nevada's Patrick McCarran.[616] Early in his career, McCarran represented some litigants in the *Orr Ditch* litigation on the Truckee River and strongly allied himself with the Italian-American irrigators, who homesteaded along the tributaries to Pyramid Lake, against the Indians of the Pyramid Lake Reservation. McCarran's résumé included service on the Nevada Supreme Court where he authored several important water law decisions.

McCarran's central belief in state authority over water resources probably prompted his introduction of Skeen's bill. While on the bench in 1924, McCarran stated, "[t]he theory that the [federal] government has control over all unappropriated waters, as laid down in

---

of Colorado) (quoting Press Release, Patrick McCarran July 6, 1952). Berry is the source for much of the following history on the origins of the McCarran Amendment.

614. Pac. Live Stock Co. v. Ellison Ranching Co., 192 P. 262 (Nev. 1920), *appeal dismissed,* 286 P. 120, 125 (Nev. 1930).

615. In part, the United States sought to avoid state court jurisdiction over an appeal from a state engineer's decision favorable to the federal government. United States v. District Court, 238 P.2d 1132, 1133 (Utah 1951).

616. *See generally* MICHAEL J. YBARRA, WASHINGTON GONE CRAZY: SENATOR PAT MCCARRAN AND THE GREAT AMERICAN COMMUNIST HUNT (2004) (providing a recent biography on McCarran who was nationally known as a Red-scare, anti-Communist crusader).

the [*Orr*] decree, is, in my opinion, and it is shared by others, revolutionary."[617] Fellow Senator Arthur Watkins of Utah, also active in securing passage of the McCarran Amendment, shared McCarran's sentiments. Watkins had been a farmer, an attorney for a water users' association, a judge, and a newspaper editor. He had been involved in the Provo River adjudication where the United States would not agree to state court jurisdiction.[618] Watkins "believed that reclamation was the 'foundation stone' of the modern economic structure in the western United States and, indeed, the entire country . . . ."[619]

Senator McCarran introduced the original version of the McCarran Amendment as Senate Bill 2305 on July 20, 1949.[620] While much of the original language eventually became law, Senate Bill 2305 varied in one important respect from the final legislation: while waiving the sovereign immunity of the United States, the 1949 version provided that the United States had the right to remove to federal court an adjudication commenced in state court.[621]

Both the United States Departments of Justice and Interior opposed the proposed legislation. The Justice Department, in particular, noted that Congress had the ability to waive sovereign immunity on a case-by-case basis and that the proposal subjected the United States to "a piecemeal adjudication of water rights, in turn resulting in a multiplicity of actions."[622] The Interior Department suggested that the waiver only extend to water rights established under state law by the United States and specifically exclude any water rights held by the United States on behalf of Indians. Senate Bill 2305 died in the Judiciary Committee at the end of the 81st Congress in 1950.

McCarran re-introduced his Bill in January 1951 as Senate Bill 18. Congress assigned the Bill to the Judiciary Committee and thence to a

---

617. Berry, *supra* note 613, at 82.

618. *See* United States v. District Court, 238 P.2d 1132 (Utah 1951) (providing a chronology of this litigation).

619. Berry, *supra* note 613, at 91.

620. *Id.* at 107.

621. The 1949 version read as follows:

> That consent is hereby given to join the United States as a defendant in any suit for the adjudication of rights to the use of water of a river system or other source or for the administration of such rights where it appears that the United States is the owner or is in the process of acquiring water rights by appropriation under State law, by purchase, exchange, or otherwise and that the United States is a necessary party to such suit: Provided, That the United States shall have the right of removal to the Federal court of any such suit to which it is a party: Provided further, That no judgment for costs shall be entered against the United States in any such suit. Summons or other process in any such suit shall be serviced upon the Attorney General or his designated representative.

Id. at 107 n.48 (quoting S. 2305, 81st Cong. (1949)).

622. *Id.* at 108 (quoting Letter from P. Ford, Ass't U.S. Attorney General, to P. McCarran (Feb. 27, 1950)).

subcommittee consisting of "McCarran, as chairman, Watkins, and Warren Magnuson of Washington."[623] The Judiciary Subcommittee held hearings in April and August 1951 presided over by Watkins, the only Senator present. Many representatives of western water resource organizations testified in support of the bill. In particular, Glen Saunders, a Colorado water attorney, argued that the bill did not go far enough and Congress should eliminate the possibility of removal to federal court.[624] No tribal representatives attended the hearings. William Veeder, then a Department of Justice attorney, was the sole witness against the bill. He argued that state law inadequately protected the United States' interests and that the legislation resulted in prolific litigation and "the forward progress of the West, for which we are all fighting, would be impeded tremendously."[625]

During this period, the fate of McCarran's proposed legislation became fatefully intertwined with two major California water controversies. Neither of these controversies directly related to the purpose of McCarran's Bill; but, once the controversies and the Bill became slightly linked, McCarran received considerable support for his legislation from the large and powerful California delegation.

The earlier of the two controversies involved California's Central Valley Project, a reclamation project originally commenced by the state but taken over by the federal government during the hard times of the 1930s. The project diverted water from the Sacramento River delta and transported it to the west side of the San Joaquin Valley. In turn, water from the San Joaquin River was impounded at Friant Dam and diverted into canals, thereby drying up the San Joaquin River for 60 miles downstream of the dam (an area near Fresno). While the United States bought out many water users in the dewatered reach, some landowners filed suit in state superior court in 1947 seeking to enjoin the federal officials from storing water at Friant Dam. The United States removed this litigation to federal court. Years later, the United States Supreme Court ruled that this litigation constituted an essentially private action and not a comprehensive proceeding under the McCarran Amendment.[626]

The second, more controversial proceeding that assisted in the passage of the McCarran Amendment was the Santa Margarita water conflict near San Diego. In 1940 the Vail Company, an upstream riparian user of the Santa Margarita River in San Diego County, and Rancho

623. *Id.* at 110.

624. *Id.* at 112.

625. *Id.* at 111.

626. Dugan v. Rank, 372 U.S. 609, 618 (1963). Judge Lawrence K. Karlton recently granted plaintiffs' motion for summary judgment, finding the Bureau of Reclamation liable under the Reclamation Act for damage done to the San Joaquin River fishery due to the dewatering caused by Friant Dam. Natural Res. Def. Council v. Patterson, 333 F. Supp. 2d 906, 925-26 (E.D. Cal. 2004).

Margarita y Las Floras, a downstream riparian reached a stipulated agreement. The judgment stipulated that Vail received almost one-third of the river's flow, the Rancho received almost two-thirds, and four small landowners received very small amounts.[627]

In 1941, the United States Navy purchased Rancho Margarita to establish Camp Pendleton Marine Corps Base. At about the same time, Fallbrook Public Utility District, a supplier of municipal and irrigation water for valuable citrus and avocado crops, started using water in the middle of the Santa Margarita watershed. Fallbrook based its claim on appropriative rights, and Fallbrook argued that a reservoir upon the river, if built with federal reclamation funds, would provide enough water for all. Discussions between the United States and Fallbrook resulted in a preliminary agreement to build the reservoir for both Fallbrook and the Navy. William Veeder, the same Justice Department attorney, objected to this agreement on the basis that the United States already had water rights under the 1940 judgment. Thus, in January 1951, the Department of Justice filed suit in federal court to adjudicate its water rights on the Santa Margarita, naming as defendants hundreds of individuals in the vicinity.[628]

While the United States had a strong legal position, as it advocated the 1940 stipulated judgment, its suit to enforce the judgment was an unmitigated public relations disaster. The public perceived the lawsuit as a hindrance to economic growth. California officials, including then-Governor Earl Warren and then-Senator Richard Nixon, denounced the suit. In "December 1951, *Readers Digest* ran a story condemning the lack of moral sensitivity in our Government which has put into jeopardy thousands of our small landowners; their property, homes, savings and their future."[629]

Using a common form of pleading in riparian rights litigation, the Justice Department alleged "paramount rights" to the Santa Margarita based on the 1940 court judgment. Opponents immediately linked this term with the concept of "paramount rights" in the tidelands litigation brought by the United States against California, Texas, and Louisiana. In these cases, the United States Supreme Court denied the

627. Berry, *supra* note 613, at 125.

628. United States v. Fallbrook Pub. Util. Dist., 101 F. Supp. 298, 300 (S.D. Cal. 1951). The litigation has gone on for years. After one interim victory, one of the parties is reported to have said, "One more such victory for either of us and we will both be in the poorhouse. Let's shake the lawyers and get in a room and make a decision, one way or the other, on this matter." Carl G. Mueller, Jr., Comment, *Federal Ownership of Inland Waters: The Fallbrook Case,* 31 TEX. L. REV. 404, 409 n.34 (1953). On October 4, 2004, the United States House of Representatives passed a resolution which authorized $60 million for groundwater-surface water conjunctive use facilities in the watershed. H.R. 4389, 108th Cong. (2004). The Bush Administration opposes the legislation because of the uncertain affect the project would have on the water rights of the Pechanga, Cahuilla, and Romona tribes, which are still pending in the adjudication.

629. Berry, *supra* note 613, at 127 (internal quotations omitted).

states revenue from valuable offshore oil leases in the marginal sea, the three-mile zone seaward of the low-water mark.[630] Thus, the public viewed the Santa Margarita litigation as another front of an unrelenting federal campaign to diminish state responsibility over local natural resources.

The Santa Margarita conflict helped the McCarran Amendment secure a powerful alliance between Senator McCarran and Senator William F. Knowland of California and other members of the California delegation because California also wanted state control of its water resources. While Senate Bill 18 passed the Senate on June 21, 1952, McCarran, who also served on the Joint Senate-House Committee on Appropriations, saw the opportunity to include the language of his bill as an amendment to the 1953 appropriations bill. Senator Knowland further amended the appropriations bill to prohibit the Department of Justice from spending funds for the water rights adjudication of the Santa Margarita River. Senator Knowland's amendment apparently created a powerful engine, linked in the legislators' mind with McCarran's proposal, which resulted in both houses rapidly approving both provisions. While several executive agencies counseled President Harry Truman to veto the appropriations bill due to these add-ons, Truman reluctantly signed the legislation on July 9, 1952.[631]

Ironically, in September 1951, attorney J. D. Skeen reported to Senator McCarran that the resolution of the problem of securing the Justice Department's participation in the Quin River adjudication had occurred. Although the issue that prompted the legislation had been resolved, the proposed McCarran Amendment now had a life of its own. California's Central Valley Project and Santa Margarita water conflicts sufficiently enraged western politicians and led to the necessary mobilization to secure passage of the McCarran Amendment.

D. WHAT TYPE OF ADJUDICATION DID CONGRESS HAVE IN MIND?

Passage of the McCarran Amendment did not immediately resolve all federal-state tensions over western water, but instead left state officials wondering how to proceed. Courts and lawyers were unsure how to interpret the congressional waiver of immunity that applies "in any suit... for the adjudication of rights to the use of water of a river system or other source . . . ."[632] Would adjudication proceedings continue as they had in the early 1900s, as illustrated in the following discussion of

630. United States v. California, 332 U.S. 19, 23, 41 (1947); United States v. Louisiana, 339 U.S. 699, 701, 706 (1950); United States v. Texas, 339 U.S. 707, 709, 720 (1950).

631. Berry, *supra* note 613, at 134.

632. 43 U.S.C. § 666(a) (2000).

cases in Oregon and Nevada, or would a substantial modification be required in how states adjudicated water rights?

The United States Supreme Court's important *Pacific Live Stock v. Lewis* decision, written by Justice Willis Van Devanter from Wyoming, described the pre-McCarran Oregon adjudication system.[633] A California corporation, which owned land along Oregon's Silvies River, brought suit in federal court challenging the constitutionality of Oregon's 1909 (amended in 1913) adjudication statute. In the process of sustaining the adjudication statute against challenges of due process and Fourteenth Amendment violations, the Court described the features of this adjudication.

Under the Oregon statute, the three-member Oregon Water Board (OWB) can begin an adjudication based upon a petition of a water user. Notice is provided to all water users at every material step. Claimants file their claims with the division superintendent, and then the state engineer makes measurements and observations and prepares a report. Claimants may contest the claim of any other claimant. Objectors receive a hearing before the OWB division superintendent where they may introduce evidence and subpoena witnesses. Thereafter, the evidence, sworn statements of witnesses, and the engineer's observations and measurements are submitted to the board. The board makes findings of fact and a provisional order of determination. The board transmits the evidence and provisional order of determination to the court. The court hears exceptions to the board's findings or proposed order. The court may hear further evidence or the matter may be resubmitted to the board for additional hearings. The court enters a final order that may be appealed to the state supreme court. At the conclusion of the adjudication, assuming adequate proof, claimants received a certificate of water right. The United States Supreme Court upheld this statutory arrangement in its 1916 decision.[634]

Two years later, in 1918, litigants challenged Nevada's adjudication statute, substantially similar to Oregon's.[635] Patrick McCarran, then Chief Justice of the Nevada Supreme Court, dissented in that case, and the length and complexity of both majority and dissenting opinions indicated the court's working knowledge of all aspects of the adjudication. The court sustained Nevada's statute over challenges that it violated the separation of powers doctrine. The court also held that the state engineer exercised only quasi-judicial powers. Justice McCarran, in his dissent, indicated his belief that the statute invaded the judiciary's province. "The district court assumes to take jurisdiction of this matter after determination by a ministerial officer, and can only review to ultimately affirm or modify that determination. In this it permits

633. Pac. Live Stock Co. v. Lewis, 241 U.S. 440 (1916).
634. *Id.* at 454-55.
635. *See* Vineyard Land & Stock Co. v. District Court, 171 P. 166 (Nev. 1918).

itself to be divested of original jurisdiction and assumes an appellate jurisdiction forbidden by the Constitution."[636]

During the 1951 hearings on the proposed McCarran Amendment, several witnesses also described the adjudications in their states. Denver water attorney Glen Saunders provided a detailed description of the Colorado system, which is much more a judicial process than Oregon's. The Colorado process was an ongoing adjudication that decreed all significant state law water rights. Courts also adjudicate new water uses and add them to existing decrees.

The senators supporting the McCarran Amendment did go to some lengths to ensure that one type of state litigation would not qualify for a waiver of federal sovereign immunity. In particular, Senator Warren Magnuson of Washington was concerned that some water users, frustrated with the federal reclamation program, might use the waiver provided to frustrate progress on federal reclamation projects in western states. In correspondence between the senators, McCarran assured Magnuson that the bill was not meant to authorize such suits. Federal courts faithfully refused to recognize a waiver of sovereign immunity in such instances.

We cannot know exactly what type of adjudication McCarran or Congress intended when enacting the McCarran Amendment. McCarran and Watkins, who were primarily involved in the amendment, no doubt knew of the many approaches used by western states in adjudicating water. *Pacific Live Stock, Vineyard Land,* and the testimony of Senate witnesses portrayed the adjudication processes underway when the McCarran Amendment passed. Certainly, Oregon and Colorado represented polar opposites on the spectrum of approaches. Although McCarran appeared to personally oppose an administrative adjudication like Oregon's,[637] he probably tolerated the diversity of state adjudications if his amendment restored control of water resources to the western states.

Most other western senators were probably more interested in the amendment as a way to prevent perceived federal over-reaching in cases like Santa Margarita. Members of the House of Representatives likely gave the matter little thought as the provision sped through that chamber, without hearings, as part of an appropriations measure.

E. IMMEDIATE AFTERMATH OF MCCARRAN AMENDMENT

The passage of the McCarran Amendment did not clarify all the uncertainties about quantifying federal water rights. Procedural issues remained, such as what processes constituted a general stream adjudi-

636. *Id.* at 186.
637. *See id.* at 175-85.

cation and whether the amendment really waived immunity as to the reserved rights of federal agencies.

The federal government continued to frustrate state efforts to adjudicate rights even after passage of the federal McCarran Amendment in 1952. In several important conflicts, the United States routinely asserted sovereign immunity. Examples included: *United States v. United States District Court,*[638] which challenged the administration of the Central Valley Project in California; a claim that the United States breached its contract by delivering water from the Rio Grande Project to a non-Project irrigation district;[639] an appropriator's suit to prevent the diversion of water to New Mexico's Bosque del Apache Wildlife Refuge;[640] and Texas' effort to enforce provisions of the Rio Grande Compact.[641]

The United States Attorney General ordered some of the federal attorneys to withdraw from pending stream adjudications on the basis that these were not comprehensive proceedings and did not afford jurisdiction for the courts to adjudicate federal paramount rights:

> Accordingly, the United States withdrew from *Denver v. Northern Colorado Conservancy District* [pending before the Colorado state court], adjudicating the transwatershed diversion rights of Denver and the Bureau of Reclamation, and from *Rank v. Krug* [pending before the California federal district court], adjudicating the rights of the United States and San Joaquin water users to the Central Valley Project water. In the latter case nine years of testimony, at tremendous expense to the litigants, has very probably been wasted by the refusal of the government to submit its claims to litigation in the Central Valley case.[642]

Similarly, in Nevada, the commanding officer of the Hawthorne Naval Reserve withdrew applications for drilling permits from the state of Nevada, indicating that state approval was not necessary.[643]

Despite the federal government's challenge to many state adjudicative proceedings, the McCarran Amendment laid the foundation for modern general stream adjudications beginning in the 1970s.

F. *ARIZONA V. CALIFORNIA* AND THE REEMERGENCE OF FEDERAL RESERVED RIGHTS

With the passage of the McCarran Amendment, western states freely pursued different approaches to stream adjudications with the

638. United States v. United States District Court, 206 F.2d 303 (9th Cir. 1953).
639. Hudspeth County Conservation & Reclamation Dist. v. Robbins, 213 F.2d 425, 428 (5th Cir. 1954).
640. Elephant Butte Irrigation Dist. v. Gatlin, 294 P.2d 628, 628-29 (N.M. 1956).
641. Texas v. New Mexico, 352 U.S. 991 (1957).
642. Martz, *supra* note 529, at 644.
643. Nevada v. United States, 165 F. Supp. 600, 603 (D. Nev. 1958).

promise that the federal government could no longer assert sovereign immunity. In reality, states had little incentive in the early 1950s to undertake large-scale, basin-wide or statewide adjudications. State officials focused on the potential impact of large federal agency projects, such as Camp Pendleton. States were less concerned with Indian water rights since they were based on that largely forgotten, half-century old *Winters* case–and, in any event, the tribes lacked the financial ability to develop their water.[644]

Western state officials were familiar with the judicially created federal reserved rights doctrine, but in reality this doctrine proved not to be an obstacle in adjudications. For fifty years, officials recognized federal Indian reserved water rights in the abstract but ignored them on the land. Western illusions would soon be shattered.

The realities of western water fundamentally changed in 1963 with the United States Supreme Court's decision in *Arizona v. California*.[645] In recognizing a congressional apportionment of the Colorado River among basin states, the Court also examined the water rights of the lower Colorado River Indian reservations. In its decision, the Court reaffirmed the reserved rights doctrine of the *Winters* case but also extended the doctrine to include other federal reservations, such as wildlife refuges. The Court affirmed the special master's recognition of reserved water rights for five Indian tribes along the river and also to various national forests and monuments. Most importantly, the Supreme Court approved the standard of "practicable irrigable acreage," clarifying how Indian reserved rights might be quantified based on how much reservation land could be successfully irrigated. The Court also held that the Secretary of the Interior, as the river master, could apportion and distribute Colorado River water among the users within each state without regard to state permitting procedures.

The potential of large Indian reserved water right claims on all of the West's major rivers sent shock waves through the region. The Supreme Court also extended the reserved rights doctrine to public lands reserved for a particular governmental purpose, including national parks and forests. Today if Congress creates a park, national forest, wildlife refuge, military base, or other use of public land without explicitly addressing water, the reservation of land implies Congress' intention to reserve water sufficient to accomplish congressional purposes. As is the case with Indian water rights, the priority date for the federal water right is the date Congress withdrew the public land from the public domain or reserved the land for a particular purpose. The water need not actually be put to use; but, when it is, the use has prior-

644. *See generally* DANIEL MCCOOL, COMMAND OF THE WATERS: IRON TRIANGLES, FEDERAL WATER DEVELOPMENT, AND INDIAN WATER (1987) (discussing the federal government's failure to develop Indian water).

645. Arizona v. California, 373 U.S. 546 (1963).

ity over intervening rights created under a state system of prior appropriation. As water law professor Frank Trelease commented, "the worst fears of the westerners had come true; federal administrative control of water . . . [had been] substituted for the appropriation system of . . . [water] . . . rights."[646]

VI. CONCLUSION

After *Arizona v. California, Winters* was no longer a dusty turn-of-the century novelty but a powerful legal doctrine. With *Arizona v. California* came a new set of legal questions that threatened to undo the McCarran Amendment. Must Indian reserved water right claims be litigated in federal court? Did the McCarran Amendment waive sovereign immunity as to *these* rights so they might also be adjudicated in state court? As explored in a forthcoming article, twenty more years of costly and divisive litigation would be required before the United States Supreme Court answered these questions. Western states soon faced a mature and expanded reserved rights doctrine, prompting state officials to view modern adjudication proceedings as a means for finality.

646. Mark Basham, Note, *In re Water of Hallett Creek System*, 30 NAT. RESOURCES J. 187, 193 (1990) (internal citations omitted).