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Historic and Future Challenges in Western Water Law: The Case of Wyoming

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HISTORIC AND FUTURE CHALLENGES IN WESTERN WATER LAW: THE CASE OF WYOMING

*Anne MacKinnon**

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INTRODUCTION

It was as a reporter for the *Casper Star-Tribune* in the 1980s that I was first struck by the “Culture of Water” in Wyoming—in two ways. First, there was the hushed silence that overcame the normally obstreperous Agriculture, Public Lands, and Water Resources Committee in the Wyoming House when the State Engineer came to testify. The Committee was ready to authorize whatever change the State Engineer wanted in Wyoming water law.¹ Second, there was the way that even in the depths of the last bust in

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1. In 1985, for example, State Engineer George Christopulos appeared before a respectfully quiet House Agriculture Committee to seek changes to Wyoming Statute section 41-4-514(a) pertaining to amendment of water permits, following the Wyoming Supreme Court’s decision in *Green River Development Co. v. FMC Corp.*, 660 P.2d 339 (Wyo. 1983). Christopulos’ proposal, adopted by the committee and the full Legislature, laid out standards for permit amendment in a section that up to that time had been very general. The intent of the engineer’s proposal was

the 1980s and 1990s—when oil prices had crashed and at times the State's budget would be rescued only by such things as the death intestate of someone with substantial holdings—bills authorizing tens of millions of dollars of spending on water projects breezed through the Legislature with no major challenge.²

What added to my curiosity was a number of events in the 1980s and 90s which suggested that the water management system, however long-standing and revered, was not addressing modern social and environmental concerns. Two examples were the State's water rights litigation with the Native American tribes in Wyoming and the public initiative for an in-stream flow law. These conflicts arose in the 1970s and were still very much alive in the mid-1980s and into the 1990s. It was clear that the State's water law system clashed repeatedly with the water interests of the tribes and with the views of a significant chunk of the population who had no part in agriculture and no water rights. These people included miners, refinery and oilfield workers, schoolteachers, government employees, and others whose real wages in Wyoming may not be their paychecks, but their access to the outdoors and its top-notch hunting and fishing.³ In addition, into the 1990s, the state water system tended to collide with the national will expressed in Congressional directives to protect clean water and endangered species. The State became embroiled in years of disputes over the Wyoming plan to build Sandstone Dam in Carbon County (which ultimately failed its Clean Water Act review), Deer Creek Dam on a tributary to the North Platte River, and the federal effort to protect bird habitat on the Platte in central Nebraska.

It was about 1985 when I first went to the State Engineer to start trying to figure all this out. The State Engineer at the time was George Chris-

to reflect the limits the court had prescribed regarding engineer authority to amend permits, while retaining engineer authority for permit amendments that had typically received routine approval. *See* 1985 Wyo. Sess. Laws, Ch. 108, §1, 134-136. The case had been highly controversial and emotion-charged for Christopoulos, and perhaps because of that the engineer's proposal was received in hushed silence.

2. Oil prices had crashed in 1982, but annual appropriations from the mineral-tax fueled water accounts ranged from \$70 million to over \$100 million in 1985-88. WYO. WATER DEV. COMM'N, LEGISLATIVE REPORTS (1985-1988). On file with author and the Wyoming Water Development Commission, Cheyenne, WY. The water development funding bills are most easily found in the annual compilation of session laws. In the indices, under Water, construction projects appear under the name of each project, while study and design bills appear under "omnibus water bills" or (in much of the 1980s) similar general titles.

3. ERNIE NIEMI, WYO. WATER DEV. COMM'N, WATER AND ECONOMIC VALUE: A CONCEPTUAL FRAMEWORK (Sept. 2005 draft report: on file with author). A final version of that report should be available in summer 2006 as a product of the commission's study, "The Economic Value of Water," which focuses on the Green River Basin. *See* <http://wwdc.state.wy.us/draftreports/GRBWATERVALUEANALYSIS.html>.

topulos.⁴ George handed me a stack of thick, calf-leather bound books, the early Biennial Reports of the State Engineer to the Governor of Wyoming, and sent me off. He was a smart man. The best way to deal with questions from a reporter is to load the reporter down with much more information than it is possible to digest. And here I am, twenty years later, still toiling through the books George gave me, and the issues they raise.

Water law in the western U.S. is very local, very particular to each state. That is what makes it satisfying to study. You learn about the place and its people, and how the two have interacted, by studying water law. In this discussion, I am going to focus on the water law that was developed in Wyoming. In the 1890s, when Wyoming water law was new, it was regarded as what you might call the cutting edge of the avant-garde in water management in the West. Wyoming water law was held up as a model for other states to follow (though not many did follow it in its entirety).⁵ If you look at Wyoming's constitution, written in 1889, it is clear that the water language absorbed much of the creative energies of the constitution writers.⁶

4. State Engineer, 1974-1987.

5. ROBERT G. DUNBAR, FORGING NEW RIGHTS IN WESTERN WATERS 113, 123-24, 132 (1983). [hereinafter DUNBAR]. See also ELWOOD MEAD, IRRIGATION INSTITUTIONS 274 (1903), reprinted 1972 (citing Smythe, *infra* note 5) [hereinafter MEAD IRRIGATION INSTITUTIONS], and WILLIAM E. SMYTHE, THE CONQUEST OF ARID AMERICA 230-31 (1905), reprinted 1970.

6. The key water provisions of the Wyoming Constitution read,

Water being essential to industrial prosperity, of limited amount, and easy of diversion from its natural channels, its control must be in the state, which, in providing for its use, shall equally guard all the various interests involved.

WYO. CONST. art. I, §31.

The water of all natural streams, springs, lakes or other collections of still water, within the boundaries of the state, are hereby declared to be the property of the state.

WYO. CONST. art. VIII, §1.

Priority of appropriation for beneficial uses shall give the better right. No appropriation shall be denied except when such denial is demanded by the public interests.

WYO. CONST. art. VIII, §3.

A compilation of the water debates at the Constitutional Convention, made by former Wyoming Attorney General Archibald McClintock, totals fifty pages and is titled: "Extracts From Journal and Debates of the Constitutional Convention, State

The Wyoming Constitution in many places repeats the boiler-plate language found in other constitutions from the many western states that achieved statehood at the same time.⁷ But the language on water is different, clearly coming straight from people's experience here. Wyoming is a place where people have thought about water.

This paper is best understood as a discussion of the development of Wyoming's water law as a "water management system" rather than as a body of statutory and case law. A complicated water management system, with only its barest features noted in the statutes and court decisions, is in fact what the State has. Frank Trelease, former dean of the University of Wyoming College of Law and dean of water law commentators, pointed the way for consideration of Wyoming water law in this manner, with his studies of the actual practices of the Wyoming Board of Control, whose cases may never reach the courts.⁸

With a focus on surface water,⁹ I plan to discuss here several themes from the development of Wyoming water law as a water management system.

First, at its origins, the idea of Wyoming water law, as the constitution and the statutes were written in 1889-90, was to bring *order out of chaos*. The idea was that by managing a key resource, it would be possible to create and sustain communities.

of Wyoming: Containing all References to Water and Water Officials." (n.d.) On file with author, gift of A.C. McClintock. William E. Chaplin, a delegate to the convention, commented forty-five years later, "Four subjects occupied the most of the time of the members in debate: Suffrage, irrigation and water rights, taxation and revenue, and apportionment." (American Heritage Center, University of Wyoming, W.E. Chaplin biographical file, B-C365-we, newspaper clipping, "Survivor of Constitutional Convention Tells of Meeting," Aug. 26, 1934.). For a short description of the drafting and debates over the water language in the Wyoming Constitution, see Dunbar, *supra* note 5, at 106-08.

7. LEWIS L. GOULD, WYOMING: A POLITICAL HISTORY 1868-1896 112-13 (1968) (citing JOHN D. HICKS, THE CONSTITUTIONS OF THE NORTHWEST STATES (1923)).

8. See, e.g., F.J. Trelease, *Priority and Progress—Case Studies of the Transfer of Water Rights*, 1 LAND & WATER L. REV. 1 (1966).

9. This paper discusses essentially the rules pertaining to agricultural use of surface water, which is by far the largest use of water in Wyoming. Surface water use was approximately seven times the volume of groundwater use as of about 2000. WATER PLANNING TEAM, WYO. WATER DEV. COMM'N., POCKET WATER FACTS. Largely the same rules apply to industry, municipalities, and other water users. The priority and permit system has also applied to groundwater. See, e.g., WYO. STAT. ANN. § 41-3-901 to 938 (LexisNexis 2005) (enacted 1957). Groundwater has been used for irrigation and by municipalities largely in the post-World War II period.

Second, as the water law evolved in practice, a *locally-rooted institution, tenacious yet often flexible*, was created. Wyoming's water law has inevitably changed, moving away from some of the early precepts, and shaped by the pressures of the place and the times. It was and is multi-layered, creating roles and room for significant action for people operating at the local creek-side level, at the Superintendent and State Engineer level, at the legislative level, and at the court level. It is interactive, with people at each level responding to each other. Most changes, however, are initiated at the ground level. As a result, Wyoming's system, for many years, has been vigorous and able to adapt to needs of particular streams and users. It has been an effective system for managing the complex resource that is water.

Third, today, Wyoming's water law system is *in danger of becoming marginalized*, that is, less and less relevant to the needs of Wyoming communities. For the past thirty years or so, the water law system has faced major new challenges in the form of social and economic changes. The national economy has changed sufficiently so that the key products (agricultural) for which Wyoming's water has been managed in the past are less and less valuable on their own. Water itself, however, is seen as increasingly valuable, and Wyoming people are recognizing many more ways (such as recreation and wildlife habitat) to value and use it than were envisioned in 1890. However, these new views on water use, and in some cases the people who hold them, are largely excluded from playing a role in Wyoming's water law system. That does not bode well for managing this resource to sustain the state's communities as they change in this new century.

Fourth, the take-home message, *the water law system in Wyoming has considerable value in itself, yet it must continue to evolve and adapt if it is not to be ultimately sidelined*. Wyoming's water law is a unique institution that has developed out of the needs of the people and the places where they live. As such, it has much to offer in helping everyone in the state meet a wide range of needs, whatever those may be, in the future. The system must, however, meet current challenges in order to remain vital and valuable and to continue to sustain Wyoming communities. There are undoubtedly ways it can adapt and evolve, if those who care about water in the state become engaged in the task.

I will discuss those four themes in more detail, with reference to examples from a variety of places in the state—including Buffalo, Cody, Cheyenne, the North Platte, and the Wind River.

I. *Order Out of Chaos*

In the years that preceded statehood and the adoption of the water language of the constitution, Wyoming was very much a post-war landscape.

Many of the major and minor figures in territorial and early statehood years had fought in the Civil War.¹⁰ They came to Wyoming to fight in the Indian Wars or to find a new life and make their fortunes. After the last battles with the Native American tribes in 1876, herds of Texas cattle were waiting to be driven over the North Platte and into the prime grazing lands of northeast Wyoming, where the big herds of buffalo were no longer there to compete for the grass.¹¹ Onto this landscape, suddenly bereft of the people who had inhabited it, entered the newcomers, who saw the chance here to start fresh and make something new—a new life, or new profits.¹²

They went at it with a will, and water was not left out of their designs. A number of them made use of the notion of prior appropriation. The prior appropriation system had its origins in California and Colorado, places transformed by gold miners and settlers years before new settlement came to Wyoming, as described by Charles Wilkinson at the symposium. Prior appropriation for water was a system that made sense here, too. Essentially, prior appropriation means just that, a kind of squatter's right—you reach out and *appropriate* something for yourself, prior to anyone else doing it, and you've got a right to it better than the right of anyone who comes along later.

In Wyoming's early years as a territory, all that was required to reach out and appropriate that water you saw in a stream was to post a sign up on a nearby tree, saying in effect, "I hereby claim this water and here's

10. The classic example is Francis E. Warren, a Massachusetts farmer's son who enlisted in the Civil War at age seventeen, rose to corporal, won the Congressional Medal of Honor, and arrived in Cheyenne in 1868 at age twenty-four to work in a dry goods store. He soon took over the dry goods operation and plunged into almost every kind of business he could think of from ranching to urban real estate and municipal lighting—but his real talent was politics, and he became territorial Governor, first state Governor, and eventually U.S. Senator for over thirty years. FRANCIS E. WARREN, BIOGRAPHICAL FOLDER 3, American Heritage Center, University of Wyoming, Laramie, WY. Anne C. Hansen, *The Congressional Career of Sen. Francis E. Warren from 1890-1902*. 20 *Annals of Wyoming* 1, 3-8. T.A. LARSON, *HISTORY OF WYOMING* 448 (1978) [hereinafter LARSON].

11. LARSON, *supra* note 10, at 106, 166. Future U.S. Senator and Governor J.M. Carey was one of the first to take his herds north over the Platte. See Agnes Wright Spring, *Carey Story is a Wyoming Saga*, HEREFORD JOURNAL 10 (July 15, 1938).

12. By the 1830s, the Native Americans in what became Wyoming included the Shoshoni, Crow, Cheyenne, Arapaho, and Sioux tribes. In treaties of 1868, the Shoshoni accepted a reservation on the Wind River, and the Sioux and Arapaho a reservation in the Dakotas, with hunting territory reserved in Wyoming's Powder River Basin. Continuing battles over white inroads into those valuable hunting grounds, climaxing in the battles of 1876, resulted by spring 1877 in the Crow and Cheyenne pushed into Montana, the Arapaho forced onto the Shoshoni reservation, and the Sioux in the Dakotas. See LARSON, *supra* note 10, at 12-35, 95-106.

how much of it I claim.”¹³ Later, the Territorial Legislature decided it might be good to get some record of those claims, so people had to go file them in the county courthouse. That meant someplace 50 or 150 miles or more away—not a handy place for others to go check when they wanted to get water out of that same stream.¹⁴

The man hired as Territorial Engineer, who traveled around the state in 1888 to sort out the water rights situation, commented decades later on his findings: “[T]he virtue of self-denial had not been conspicuous” among Wyoming’s early settlers.¹⁵ Of course not. People who came here were enthusiastic, ambitious, and imaginative. They had big ideas. It was not uncommon to see someone claiming more water than actually flowed in a stream. In one case, someone claimed from one stream more water than actually flowed in the entire State of Wyoming, and he proposed to divert that water with a ditch two feet wide and six inches deep.¹⁶

When people started arguing over conflicting claims, and the fight left the creek-bank and went to court, the territorial courts (where the judges knew little about water) found themselves allocating water by the amount stated on paper in the claim, or perhaps the size of the ditch. They didn’t worry about the fact that such a system resulted, among other things, in more water per acre for one irrigator than for his neighbor just down the stream.¹⁷

Further, with the expansive claims filed at the courthouses, and confirmed by judges, came the danger of speculation. Someone might file on a sizeable amount of water, use a little or none, and plan to sell it to latecomers, based on the value of that “prior right” date. One man said he figured he would use less than half of his claim now and the rest later, “if farming becomes more profitable” in his neighborhood. Imagine how his neighbors who came a little later to the stream (whose irrigated farms would help bring on the railroad and the access to markets that made farming “more profit-

13. MEAD IRRIGATION INSTITUTIONS, *supra* note 5, at 69-71, 248-49. “The law says that the appropriator must post his notice in writing in a conspicuous place at the point of intended diversion. Now usually the conspicuous place where the water is diverted is in some willow thicket, or along the cottonwood-bordered banks in some lonesome bend of the stream . . .” *Id.* at 70.

14. The Wyoming Territory did not require notices to be recorded at the courthouses until 1886. 1886 Wyo. Sess. Laws 297-98.

15. Elwood Mead, *Recollections of Irrigation Legislation in Wyoming*, An enclosure in a letter to Grace Raymond Hebard, March 27, 1930. Mead Collection, American Heritage Center, University of Wyoming, *reprinted in* ANNE MACKINNON AND JOHN SHIELDS, *SELECTED WRITINGS OF ELWOOD MEAD ON WATER ADMINISTRATION IN WYOMING AND THE WEST* 8 (2000), *available at* <http://seo.state.wy.us/PDF/FinalMeadBooklet.pdf> [hereinafter MEAD RECOLLECTIONS].

16. 1891-1892 BIENNIAL REPORT OF THE STATE ENGINEER, at 61-62.

17. MEAD IRRIGATION INSTITUTIONS, *supra* note 5, at 5-9.

able") were going to feel when that man decided to double the acreage he farmed and put them out of business by ballooning the amount of water he used based on the priority of his early date right.¹⁸ Wyoming Territory was rife with excess water claims, covering much more water than people were using or could use.¹⁹ This generated conflict, wasted time, money and energy, bred inequity that would lead to more conflict, and offered an attractive opportunity for speculators.²⁰

The final straw for the demise of the early water system was the famous drought and hard winter of 1886-1887. The open-range stock industry, led by the men who had driven those herds across the Platte in 1876, was suddenly crushed with loss. Cattlemen had tried since 1876 to organize themselves through the Wyoming Stock Growers' Association to manage the incredible resource of rich grasslands.²¹ Their ignorance of the place that they and their herds had so suddenly come to inhabit, however, got the better of them in 1886-87. The free year-round fodder they had banked on (some, via pyramid investment schemes) was wiped out by drought followed by months of freezing, unrelenting blizzards.²² It began to appear to those whose stock operations survived that it might be a good idea to grow some hay in summer to tide the herds over the winter. Further, some started to think about encouraging irrigated agriculture in general as a new endeavor that might be a little more stable than cattle raising, for the sake of future growth in the state's economy.²³ Wyoming stockman and two-time Governor Francis E. Warren helped recruit the first territorial engineer, whom the

18. MEAD IRRIGATION INSTITUTIONS, *supra* note 5, at 260-62.

19. MEAD RECOLLECTIONS, *supra* note 15, at 5 ("If the amount of water claimed had existed, Wyoming would have been a lake.")

20. By 1890, Mead reported later:

The fever of speculative filings had run its course and hundreds of claims had been recorded by parties who had done nothing more than file the statement. The name of one individual was found in the water-right records of every county in the State, although he built only one ditch and that in the county where he lived.

MEAD IRRIGATION INSTITUTIONS, *supra* note 5, at 253.

21. The rich grasslands, emptied of their buffalo, were left by Congress available to all comers at no charge. The cattlemen used their system of branding, of round-ups, and what became the draconian rules on maverick unidentified calves and admittance to the Wyoming Stock Growers' Association in an attempt to manage both the grass and the critical question of who got to use it under what conditions. LARSON, *supra* note 10, 168-190. See also SAMUEL P. HAYS, CONSERVATION AND THE GOSPEL OF EFFICIENCY, THE PROGRESSIVE CONSERVATION MOVEMENT 1890-1920, 49-53 (1959).

22. LARSON, *supra* note 10, 190-194.

23. *Id.* at 162.

Legislature charged with drafting new water laws.²⁴ Warren and his friends wanted a system that would both confirm their own water claims and build a basis for new development of larger-scale irrigation.

How to bring order to this scene? The stockmen brought in Elwood Mead to be Territorial Engineer. Mead was young, in his late twenties.²⁵ He grew up on a southern Indiana farm on the Ohio River, where the main problem with water was getting rid of it, but he had spent his first years out of engineering school along the Front Range in Colorado learning about irrigation. He had also read much about water issues in California, and he had many ideas on how to manage irrigation better.²⁶ Mead believed that wise management of natural resources like water could provide a basis for building and maintaining communities.²⁷ Real communities were scarce in Wyoming—most of its few towns were cowboy watering holes near old forts or ports of call for railroad crews along the Union Pacific lines. Mead saw wise management of water as a way to change that. Like the intellectu-

24. MEAD RECOLLECTIONS, *supra* note 15, at 3-5.

25. Elwood Mead (1858-1936), trained as an engineer at Purdue University, came to Colorado in 1882 to teach math and physics, and became assistant to Colorado's State Engineer in 1885. In 1888, he became Wyoming's first Territorial Engineer and in 1890 the first State Engineer. He left Wyoming in 1898 for a career in Washington, Australia, and California in irrigation investigation and promotion of rural settlement through irrigation. A prominent critic of the U.S. Bureau of Reclamation, he was named Commissioner of the Bureau in 1924 and eventually masterminded the Bureau work on the Colorado River that included the Hoover Dam, which created the giant Lake Mead named for him. He died while still in office in 1936. For a complete biography, see JAMES R. KLUGER, *TURNING ON WATER WITH A SHOVEL: THE CAREER OF ELWOOD MEAD* (1992).

26. J. R. KLUGER, *TURNING ON WATER WITH A SHOVEL: THE CAREER OF ELWOOD MEAD*, 6-13 (University of New Mexico Press 1992). See also DUNBAR, *supra* note 5, 99-108. By the end of the water filings of the territorial period in Wyoming, Mead wrote, "The result was a chaos which all recognized should be brought to an end." MEAD IRRIGATION INSTITUTIONS *supra* note 5, at 251-252. As an old man, Mead recalled his role in ending that chaos as follows:

In my contact with county officials, in examining the claims to water rights, and with the irrigators in their homes and on the banks of their ditches, I became the voice of John crying in the wilderness for a more adequate public control, and for a better understanding of the principles which should govern the determination of water rights and the limitations on those rights.

MEAD RECOLLECTIONS, *supra* note 15, at 9.

27. See Mead's comments as State Engineer in Wyoming State Engineer's Office, Biennial Report, 57-61 (1895-96); see also, MEAD IRRIGATION INSTITUTIONS, *supra* note 5, Preface, v-viii; Elwood Mead, *Government Aid and Direction in Land Settlement*, AMERICAN ECONOMIC REVIEW, March 1918, at 72-74. All of these available on line at MEAD RECOLLECTIONS, *supra* note 15.

als and reformers who created the nationwide Progressive movement only a few years later,²⁸ Mead believed that in managing water as a resource to support communities, it should be possible to strike a balance between private and public interests. Mead wanted to see the resource put in the hands of private individuals, with continuing oversight by the public via their government.²⁹ He wanted to achieve both the stability that would encourage private investment and the flexibility that could adapt to change. With these goals in mind, Mead introduced two key elements new to water law in Wyoming and the West. First, he insisted on the idea of active state ownership of water.³⁰ Many western constitutions talked blandly of how the water belonged to the State. Mead, however, pumped life into that empty language by establishing, in the constitution and then in the water laws of Wyoming, that no one could acquire rights to use water without a permit from the State.³¹ No longer could someone claim water by simply taking the water out of the stream and posting or filing a notice. Rather, people would have to apply to the State for the right to take water. The State's trained engineers would examine the diversion plans to see if they were likely to succeed, and send them back for correction if necessary.³² Here was the Progressive ideal of expert civil servants helping the settler, saving them from costly mistakes.³³ The requirement for a permit, however, also meant that an application could be denied—if the “public interests” so demanded, as the constitution put it.³⁴

From 1890 on, the State's engineers and water superintendents have stuck zealously to the principle of permit requirements: no matter for how many decades you may put water to use in Wyoming, there is no such thing

28. For a discussion of the Progressive movement, see Hays, *supra* note 21, at 51-53, 69, 74-77, 265-276 (1959).

29. MEAD RECOLLECTIONS, *supra* note 15, Preface, v-ix.; Wyoming State Engineer's Office, 1892 BIENNIAL REPORT OF THE STATE ENGINEER, at 34, 65-66; 1894 BIENNIAL REPORT OF THE STATE ENGINEER, at 30-35, 42, 46-48, 124.; 1896 BIENNIAL REPORT OF THE STATE ENGINEER, at 22; Letter from Elwood Mead to Clarence Johnston, State Engineer (July 30, 1908), 1907-1908 BIENNIAL REPORT OF THE STATE ENGINEER, at 76; For easy access to these and other Mead writings, see MEAD RECOLLECTIONS, *supra* note 15.

30. 1889 SECOND ANNUAL REPORT OF THE TERRITORIAL ENGINEER, at 96-98; see MEAD RECOLLECTIONS, *supra*, 15; 1894 BIENNIAL REPORT OF THE STATE ENGINEER, at 46-48.

31. WYO. CONST. art. VIII, §§1,3; see *supra*, note 6. WYO. STAT. ANN. § 41-4-501 (for the original version see Laws 1890, Ch. 8, §34). See DUNBAR, *supra* note 5, at 109-110.

32. 1889 BIENNIAL REPORT OF THE STATE ENGINEER, at 96-98; MEAD IRRIGATION INSTITUTIONS, *supra* note 5, at 266-68.

33. *Id.* at 3.

34. WYO. CONST. art. VIII, §3. Permit denial procedures are discussed in the statutes, WYO. STAT. ANN. § 41-4-503; see also Laws 1890-91, Ch. 8, § 34 and subsequent amendments.

as acquisition of a water right by adverse possession of water. If you have no permit to use the water, you have no legal right to it that can be protected.³⁵ Mead was consciously attempting to get away from the common law of prior appropriation.³⁶

The second key element Mead introduced to water law was the substitution of a lay board for the courts as the arbiters of water disputes. Courts in Wyoming do, of course, review water cases and make decisions on water law. But the vast majority of water disputes do not get that far.³⁷ That, as Mead told contemporaries in 1903, was as it should be: a lack of court decisions on water rights should be regarded as a sign, not of a lack of action on water issues, but of a wise decision to keep the courts out of the action as much as possible.³⁸ Mead created what he called a board of “practical men” (and there have been no women on the Board of Control) consisting of the State Engineer and the superintendents of each of the four main hydrologic basins that compose the state. The board, which now hears approximately 150 petitions or cases a year, controls the establishment, the change, and the loss of water rights.³⁹ Irrigators can usually send their petitions before the board without a lawyer—another of Mead’s ideas, in order to keep irrigators’ costs down.⁴⁰ Most important was his plan to have the decision-makers be people who knew water, knew the streams, and knew irrigation. The leading contemporary commentator on water law, Clesson Kinney of California, commented admiringly that “[i]n the State of Wyoming, at least, there will no longer be the ludicrous spectacle of learned

35. *Lewis v. State Board of Control*, 699 P.2d 822, 823-24 (Wyo. 1985). The Board of Control, the district court, and the Supreme Court all held that, as the Supreme Court put it, “water rights may not be acquired by adverse possession or prescription in this state.”

36. In *Irrigation Institutions*, Mead stated that the Wyoming Legislature has, by adopting the constitutional and 1890 statutory language on water that he drafted, “in effect abandoned the doctrine of appropriation, although retaining the word in their statutes.” MEAD IRRIGATION INSTITUTIONS, *supra* note 5, at 82.

37. From 1890-1902, Wyoming had reportedly settled 3,900 water rights cases with only five district court and three supreme court appeals. Brian Shovers, “*Diversions, Ditches, and District Courts: Montana’s Struggle to Allocate Water.*” MONTANA—THE MAGAZINE OF WESTERN HISTORY, Spring 2005, at 7.

38. MEAD IRRIGATION INSTITUTIONS, *supra* note 5, at 247, 259. Mead was proud that in Wyoming it was not the case that “litigation went with irrigation, as fever with malaria.” *Id.* at 247.

39. The agendas for the four meetings of the Board of Control for the year 2005, for instance, note 165 new cases that came before the board. Board of Control, Wyoming. *Board Meeting Agendas: February 2005, May 2005, August 2005, November 2005.* On file with author and at the office of the Board of Control, Cheyenne, Wyoming.

40. See Mead’s discussion of the low costs for irrigators in Wyoming’s initial stream-wide adjudications. MEAD IRRIGATION INSTITUTIONS, *supra* note 5, at 256-59.

judges solemnly decreeing the rights to from two to ten times the amount of water flowing in the streams⁴¹

There was one key principle on which the Board of Control was to operate, as Mead and his superintendents worked out quickly in the early days of the board's work. It was the principle of tying water rights to actual use.⁴² Water rights would be measured by what was actually put to use, when, and where—not by a paper claim describing what someone simply hoped to use. That principle was in Mead's mind a guard against speculators, whom he saw as the worst threat to development of stable communities in frontier Wyoming.⁴³ The touchstone of actual use was also a way to keep the water management system responsive to change.⁴⁴

The rules and procedure embodying the "actual use" principle were laid out in the statutes, which Mead wrote and which were adopted the first year of statehood. Those rules included:

- *Time limits on permits*—Permits were merely permits and could be cancelled for failure to meet set time limits for commencing construction of irrigation works, for finishing construction, for commencing use, and for accomplishing use.⁴⁵
- *Adjudications of water rights*—Both pre-existing territorial claims and new water uses authorized by the new State permits were to be adjudicated by the Board of Control.⁴⁶ Stream-wide adjudications by the superintendents—the kind of work only now being undertaken in some of Wyoming's neighboring states—were undertaken immediately.⁴⁷ The superintendents took testimony, did inspections,

41. CLESSON S. KINNEY, A TREATISE ON THE LAW OF IRRIGATION § 493 (n.p., W.H. Lowdermilk & Co. 1894). Quoted with approval by the Wyoming Supreme Court in the landmark case upholding Mead's system, *Farm Investment v. Carpenter*, 61 P. 258, 142-43 (Wyo. 1900).

42. See 1891-1892 BIENNIAL REPORT OF THE STATE ENGINEER, at 59-62, 68, and 1893-1894 BIENNIAL REPORT OF THE STATE ENGINEER, at 33-35.

43. See 1891-1892 BIENNIAL REPORT OF THE STATE ENGINEER, at 58-59, and 1895-1896 BIENNIAL REPORT OF THE STATE ENGINEER, at 40.

44. 1891-1892 BIENNIAL REPORT OF THE STATE ENGINEER, at 56-62; MEAD IRRIGATION INSTITUTIONS, *supra* note 5, at 253-59.

45. WYO. STAT. ANN. § 41-4-506 (Wyo Sess. Laws, Ch. 8, §34 (1890-91)).

46. Supervision of Water, Wyo. Sess. Laws, Ch. 8 §§ 20-26, 36 (1890-91). For a description of the processes and issues involved in early adjudications, see MEAD IRRIGATION INSTITUTIONS, *supra* note 5, 252-269.

47. For a discussion of Montana's failure to undertake general adjudication efforts in the early twentieth century, while instead irrigators seemed to prefer to live with "a jumble of conflicting claims," see Shovers, *supra* note 37, at 2. See also R. G. Dunbar, *The Search for A Stable Water Right in Montana*, AGRICULTURAL HISTORY, October 1954, at 138 to 149.

and cut territorial paper claims back to what the evidence showed was actually being used. Water use undertaken under new permits similarly was inspected to determine how the use was actually being made.⁴⁸ The adjudicated rights were what eventually went down in the tabulation of rights, the “tab book” listing priority dates, which superintendents and water commissioners have used for decades (in regularly updated form) to regulate streams when necessary.⁴⁹

- *Abandonment of water rights*—This concept was retained from prior appropriation tradition as developed in other western states and as practiced in Wyoming before statehood.⁵⁰ But in the new State of Wyoming, for the first fifteen years or so, abandonment could by terms of the statute occur quite quickly: lack of use for two years was the standard Mead set.⁵¹

Mead’s concept clearly was to encourage both active investment and new ideas. If a plan for diverting and using water did not work, an irrigator should lose the water right and its priority so someone else with a better idea could put that water to work. Mead hoped that water users would come to regard their water rights as merely on lease from the State, not something they owned.⁵² While the concept of the State as a lessor of water and water

48. WYO. STAT. ANN. §§ 41-4-301 to 317 (2006).

49. WYO. STAT. ANN. § 41-4-208 (2006). Mead’s intention seems to have been to see re-adjudications on a stream-wide basis occur regularly to make sure the water rights on the State’s books conformed to the actual uses being made in the field. 1895-1896 ANNUAL REPORT OF THE STATE ENGINEER, at 40-43. Regular re-adjudications did not occur, apparently due largely to budget and personnel constraints. Updates, however, have been noted in the tabulation books as the board acted to adjudicate individual permits or to rule on petitions for change or abandonment of rights. See *Tabulation of Adjudicated Water Rights of the State of Wyoming*, on file in State Engineer’s Office, Cheyenne, WY.

50. WYO. STAT. ANN. § 41-3-401 (2005).

51. Craig Cooper, *A History of Water Law, Water Rights and Water Development in Wyoming, 1868-2002*, Wyoming Water Development Commission and State Engineer’s Office, June 2004, available at http://wwdc.state.wy.us/history/Wyoming_Water_Law_History.html. The change to five years, made in 1905 was against the better judgment of the State Engineer’s Office. See 1909-1910 BIENNIAL REPORT OF THE STATE ENGINEER, at 121-22.

52. 1895-1896 BIENNIAL REPORT OF THE STATE ENGINEER, at 59-60. Mead wrote:

There is another provision, found in European irrigation laws, which is worthy of careful consideration by our legislators. Under these laws there is no such thing as a free appropriation. Every user of water must pay the state a rental therefor. [sic] These rentals are, in most cases, very small, being only intended to pay the expenses of supervision and to prevent the salaries of Water

users as lessees never fully emerged in Wyoming water law, property rights in water remain distributed between the State and water users. For example, the Board of Control retains the right to control whether a water right can be changed to another location or to a different use.⁵³ Mead's concept of the State as lessor of water is a window on the sense of the private-public, stability-flexibility balance that he sought to build into Wyoming water law.⁵⁴

It is important to realize just what a radical change all of this new water law was for Wyoming. That is what takes us to Buffalo.

Clear Creek, running through Buffalo, was one of the streams slated for stream-wide adjudication of the many claims on water that had been taken out there since about 1879. The adjudication process reached Clear Creek in about 1892, which was also the year of the Johnson County War in Buffalo. The war, familiarly known as the Invasion, was the last desperate move by cattlemen against the tide of settlement. Leading cattlemen killed two men they considered "rustlers" and then found themselves facing the outraged citizenry of Johnson County. Unfortunately for Mead, his superintendent for that water division had joined the cattlemen Invaders.⁵⁵ The superintendent was arrested by federal troops, and the adjudication records were lost.

Commissioners and Superintendents becoming a burden to the general tax-payer. [sic] The great value of the system is its influence in promoting economy. The man who pays for what he gets will not be wasteful. It also places the doctrine of public ownership in a form to be comprehended by all, something not true of our method of free grants in perpetuity.

Id. It is probably too early to seriously consider its adoption. That it will come, however, when increased use and augmented value make systematic distribution a more important consideration than it is at present, is confidently expected.

53. WYO. STAT. ANN. § 41-3-104.

54. Here again Mead shows his kinship to other Progressives, who introduced forest leases and water power permits to federal law, with the idea that they would have to be renewed and that the time of renewal would afford the public interests to be weighed via federal government review, in order to determine whether it still made sense to allow that lease. The significance of such renewals, provided for in legislation from the 1890s through the early 1920s, is very apparent in water issues in modern times. Issues involving endangered species on the Platte River have been brought to a head by the authority of the federal government not only to reorganize the operations of its own dams, but to change or deny longstanding U.S. Forest Service reservoir and diversion use permits and leases, and Federal Energy Regulatory Commission water power permits—often held by private entities—as those leases and permits come up periodically for renewal.

55. See HELENA H. SMITH, *THE WAR ON POWDER RIVER: THE HISTORY OF AN INSURRECTION* (1966).

Mead started afresh with the appointment of a new, young superintendent, Edward Gillette, who had surveyed for the railroad that brought prosperity to northeast Wyoming.⁵⁶ Gillette undertook the work of adjudicating Clear Creek, examining everyone's claims versus their actual use. In 1895 he ended up, as was typical of board adjudications around the state, cutting people's water rights to a good deal less than they had claimed for rights with valuable early priority dates.⁵⁷

That was quite a shock. It was not a decision likely to win support quickly in a place where Mead and the new water system were identified with the stockmen and therefore with the Invaders. The entire new water law system was challenged before the Wyoming Supreme Court. The plaintiff was Mead's ideal nemesis: A company from Fort Collins that dealt in foreclosed property, a speculator.

The company, the Farm Investment Company, had acquired by foreclosure properties in Buffalo that included early, substantial water rights on Clear Creek, though how much the water had been used was unclear.⁵⁸ The company didn't present any claim in Gillette's proceeding, and Gillette accordingly left that particular claim off the tab book list of adjudicated rights.⁵⁹ The company argued that Gillette's omission amounted to a taking of its valuable and vested property right.⁶⁰ It further charged that the new water law of Wyoming was simply a young man's brainchild in a statutory

56. Edward Gillette was more popular with the farmers and townspeople than the cattlemen. He was married to the daughter of Henry Coffeen of Sheridan, who won a seat in the U.S. Congress on the wave of the anti-Invasion reaction. Larson, *supra* note 10, at 287. The town of Gillette was named for Edward. EDWARD GILLETTE, LOCATING THE IRON TRAIL 75 (1925).

57. 1895-1896 BIENNIAL REPORT OF THE STATE ENGINEER, at 150-151. (Report of Superintendent E. Gillette, Div. II). See also WYOMING BOARD OF CONTROL ORDER RECORD BOOK 2, 186-187, on file with the Wyoming Board of Control, Cheyenne, WY.

58. The Buffalo property involved in the Wyoming case was acquired by the company via foreclosure. Brief of Plaintiff Farm Investment Co. at 76, *Farm Inv. Co. v. Carpenter*, 61 P. 258 (Wyo. 1900). Farm Investment claimed "continued use" of the water rights associated with the property. *Farm Inv. Co. v. Carpenter*, 61 P. 258 (Wyo. 1900). The supreme court (where the case had been promptly certified by the lower court, made no ruling or finding of fact of its own) made no finding of fact on water use. Rather, the undisputed fact critical to the case was that the company, though holding territorial water claims filed at the county courthouse, and having received notice of Gillette's adjudication under the new state process, failed to appear and submit evidence to that adjudication. Brief of Defendant at 5, *Farm Inv. Co. v. Carpenter* Record, 61 P. 258 (Wyo. 1900); *Farm Investment*, 61 P. at 268, 269.

59. *Id.* at 268.

60. Brief of Plaintiff at 10, 24-25, 72, *Farm Inv. Co., v. Carpenter* Record, 61 P. 258 (Wyo. 1900); *Farm Investment*, 61 P. at 258.

reform effort that could not simply change the longstanding common law of prior appropriation.⁶¹

The Wyoming Supreme Court, however, upheld Mead's system in *Farm Investment v. Carpenter*.⁶² The court ruled that it was perfectly appropriate for the State to regulate and register water claims and to determine their extent.⁶³ Over the years in Wyoming, "the welfare of the entire people became deeply concerned in a wise, economical and orderly regulation of the use of the waters of the public streams," the court said.⁶⁴ It also noted that Wyoming via its new water law system was simply exercising its police power to regulate for the sake of that public welfare.⁶⁵ Through an adroit reading of territorial statutes, the court found a steady progression over time of increasing recognition of the importance of centralized state control over the management of this important resource.⁶⁶

At least as important as the court decision, however, was the decision of the irrigators themselves. Gillette's Clear Creek adjudication was followed only a year later, in 1896, by a severe drought. It was then that people, disgruntled by the cutback of their claims by an average ninety percent, realized the value of Mead's system. Cutting them and more importantly cutting their neighbors, to their actual uses made it possible for more people to make it through the drought than would have been possible otherwise. If the old system had been in place, the first few priority claims on the creek could have taken all the water they claimed on paper and perhaps extorted high prices for it from the desperate neighbors. The superintendent

61. The lawyers for *Farm Investment* recognized Mead's system as a comprehensive departure from the common law prior appropriation doctrine in the western U.S., and as such vehemently opposed it:

The prior appropriation doctrine was a "solid, harmonious and beneficial system" of common law based on the environment and the people's experience, and statutory law that departs "radically" from such common law "is but the invention of the theorist or the device of the selfish, and is but a proposal to try an experiment which is generally rejected upon the trial." Brief of Plaintiff at 26-27, *Farm Inv. Co., v. Carpenter* Record, 61 P. 258 (Wyo. 1900). "The act as a whole is an ingenious [sic] combination of provisions supposed to be adapted for the advancement of an enlightened public policy intermixed with others in conflict with the fundamental law and constitutional principles."

Id. at 51.

62. *Farm Inv. Co. v. Carpenter*, 61 P. 258 (Wyo. 1900).

63. *Id.* at 266-67.

64. *Id.* at 260; *see also id.* at 266, 267.

65. *Id.* at 266.

66. *Id.* at 260-61.

reported to the State Engineer a remarkable turn-around in local public feeling, favoring the new water law system.⁶⁷

The depth of the loyalty of Wyoming irrigators to the new system they had adopted at the instance of the young engineer Mead was illustrated a decade later by a unique survey of irrigators' views.

The survey was prompted by a water dispute northeast of Cheyenne on Little Horse Creek. Two irrigation companies, well-connected in the capitol, had come up with a deal to share between them the water rights of the company that had the earliest priority water on the stream. In a somewhat simplified sketch, this was the situation: one company was the senior, there was a local farming family ditch with the next priority, and the second company had the junior right of the three. The first company sold a half-interest in its water right to the second one. The Wyoming Supreme Court thought that was fine. The farming family in between, the State Engineer's Office, and Elwood Mead (who by then had moved on to Australia but wrote outraged letters back to the court) were horrified.

The pattern of use on the creek was that the first company, with its water right of ten cubic feet per second (cfs), had been diverting that much for irrigation perhaps every other week in the summer. The plan under the companies' new deal was that the first company would keep using the ten cfs that way, but the second company would use ten cfs in the off-weeks, that is, every second week all summer. Thus the water that was usually available during the off-weeks for the in-between junior would no longer be there. The first company had in effect doubled its right.⁶⁸

The court simply interpreted ten cfs as ten cfs of continuous use all summer, the way it looked on paper. The irrigators, the State Engineer's Office, and Mead pointed out the pattern of actual use of the ten cfs, and urged that the pattern be protected. Any "practical irrigator" would understand that, Mead thundered from abroad.⁶⁹ The court did not get the idea,

67. 1895-1896 BIENNIAL REPORT OF THE STATE ENGINEER, at 150-152. (Report of Superintendent E. Gillette, Div. II).

68. *Johnston v. Little Horse Creek Irrigating Co.*, 79 P. 22 (Wyo. 1904); Indenture of 10-30-1894 between Springvale Ditch Co. and Little Horse Creek Irrigating Co. Records of the Laramie County District Court, *Johnston v. Little Horse Creek*, Docket # 6-233, Box 2, Wyoming State Archives (explaining the week-by-week rotation the companies had arranged). Mead described his interpretation of these facts in MEAD IRRIGATION INSTITUTIONS, *supra* note 5, at 262-65 (written while the case was pending before the supreme court).

69. The Board of Control had refused to recognize the sale, and the Laramie County District Court overruled it and held the sale valid. While the Wyoming Supreme Court decision was pending, Mead wrote in *Irrigation Institutions*:

though, and ruled to uphold the companies' agreement in *Johnston v. Little Horse Creek Irrigating Co.*⁷⁰

The decision did not stand for long, however. The Legislature appointed a committee to investigate irrigators' views of the water law. The committee did an opinion survey among irrigators which resulted in a resounding "no" to the proposition that a sale such as the one on Little Horse Creek was acceptable.⁷¹ The Legislature, accordingly, in 1909 passed language to reverse the court's decision, explicitly stating that water rights could not be transferred away from the land or the purpose for which they were originally acquired without loss of priority.⁷² In response to recommendations by the State Engineer's Office, the new statutes included the oft-quoted provision that "beneficial use shall be the basis, the measure and the limit of the right to use water" in Wyoming.⁷³ "Measure" and "limit" were important features. The kind of property rights that Wyoming water law put in the hands of water users was limited to the pattern, the fabric, of water use

It is not believed, therefore, that (the district court opinion) will be sustained by the supreme court [sic]. If it is, water rights acquired during the Territorial period will become personal property. The water of the public streams will become a form of merchandise, and limitations to beneficial use a mere legal fiction . . . If water is to be so bartered and sold, then the public should not give streams away, but should auction them off to the highest bidder.

MEAD IRRIGATION INSTITUTIONS, *supra* note 5, at 264. When the Supreme Court ruled in favor of the Little Horse company's transfer, Mead described the implications of the decision as "mischievous." Mead further stated that,

[n]ot only did that decision render meaningless and practically inoperative some of the most important features of the State's water law, but, if carried to its logical conclusion, it would throw Wyoming back into the ruck of the arid States of America, whose water laws belong to the lower Silurian period.

Letter from Mead to State Engineer's Office (July 30, 1908), *reprinted in* 1907-1908 BIENNIAL REPORT OF THE STATE ENGINEER, at 76.

70. *Johnston*, 79 P. at 28.

71. *Report of Commission Appointed to Revise, Codify and simplify the Laws of Wyoming Relating to Water Rights*, 1905-1906 BIENNIAL REPORT OF THE STATE ENGINEER, at 87-91.

72. 1909 Wyo. Sess. Laws Ch. 68 § 1, Ch. 68, §1 (1909). For State Engineer Clarence T. Johnston's exposition of the ideas behind the "beneficial use" language enacted in 1909, see "What is a Water Right?" 1909-1910 BIENNIAL REPORT OF THE STATE ENGINEER, at 17-29.

73. WYO. STAT. ANN. § 41-3-101.

on a stream, how much water, when it was used, and for how long—all that was part of the right.

II. *Evolution under Pressure*

The original tenets of Wyoming water law evolved into a very locally-rooted system, which proved to be both tenacious and flexible. From the beginning as Wyoming water law went into practice, many forces shaped the system's evolution. They included the climate, the terrain, Wyoming's economy, and the economy of the larger nation. Further, Wyoming was a headwaters state, and downstream neighbor states on each river were developing their economies and their water faster than Wyoming could. The demands of those states might limit Wyoming's ability to develop its water later, unless Wyoming water people kept zealous (and jealous) watch. That motivated the State Engineer's Office to try to do everything it could to get Wyoming water put to use and kept in use, whatever it took.

To watch the effect of all these pressures on Wyoming's new water law system, we go to Cody, in the first decade of the new system.

The problem of the 1890s, for Wyoming and the entire West, was how to get big irrigation projects built. The Stinking Water River (whose name was soon changed to the more marketable Shoshone River) illustrated the problem. Through the terrain of semi-level bench lands east of Yellowstone ran this nice big river that was hard for a few farmers and their mules to divert, particularly when the river carved a canyon soon after it exited the mountains. George Beck, the son of a Kentucky senator who created a hunting ranch near Buffalo, went west over the Big Horn Mountains in the early 1890s to the Stinking Water and saw potential. He got Buffalo Bill Cody involved to help sell the idea of a long canal that tapped the river in the mountains before it carved its canyon. They got help from the new Carey Act, initiated by Wyoming Senator Joseph Carey, who had, in turn, received drafting assistance from Mead.⁷⁴ But despite all the help, Beck and Cody failed and their New York investors lost their money, though the Cody Canal

74. Joseph M. Carey was Wyoming's territorial representative to Congress, a U.S. Senator from 1890-95, and Wyoming Governor, 1911-1915. LARSON, *supra* note 10, at 447-48. The goal of the 1894 Carey Act named for him was to help provide financial incentives and protection—via sequestration of public lands for future project use—for private companies and investors to undertake big irrigation projects in the West. Mead joined Carey in drafting the act, which grew partly out of the experience of Carey, Warren, and other stockmen in their financial losses and struggles to develop the Wyoming Development Co. irrigation colony project begun in 1883 near Wheatland. 1891-1892 BIENNIAL REPORT OF THE STATE ENGINEER, at 22-25; 1893-1894 BIENNIAL REPORT OF THE STATE ENGINEER, at 25-30.

they built still serves Cody and surrounding area.⁷⁵ Buffalo Bill, hard to discourage, went ahead and applied for other water rights to build a bigger, more ambitious project with water pulled up onto the flats from a diversion to be sited in the river canyon. He couldn't raise the money, and the people of Cody demonstrated on the streets in favor of the federal government taking over that project in 1904.⁷⁶ The crowds wanted to take advantage of the new federal Reclamation Act of 1902, which had been fueled by the agitation of Wyoming's Senator Warren and other western senators, newly powerful as more western territories won statehood. The new act made building big irrigation projects the job of the federal government. Though the new act went further than the western bloc originally intended, it recognized what many had grudgingly come to admit after experiences like Cody's were repeated all over the West: only the federal government could take on the job of big irrigation projects and succeed.⁷⁷

Still, the federal government and the eager citizens of Cody had to face reality: the climate, the terrain, the U.S. economy were all forces arrayed against easy and fast transformation of the desert terraces around the Shoshone into fruitful irrigated farms. Eventually it happened (though *all* the land once imagined ripe for irrigation in the Shoshone valley has never been watered), but it took decades longer than anyone expected. It took years of hardship of the settlers. It also took the unique ability of the federal government to weather the disappointments that would force a private company into bankruptcy. On many a Reclamation project, the federal government was able to stay the course, swallow major costs, delay irrigators' loan repayments, and finally wipe out the irrigators' obligation to pay interest on project loans.⁷⁸

All those hopes and all that disappointment and delay had a notable effect on Wyoming water law. Mead and his successors were engagingly

75. The project failed partly due to Mead's inept practical advice on how big the project should be and what it would cost. Mead apparently was better at thinking through the theory and structure of water management than at practical engineering. Robert E. Bonner, *Elwood Mead, Buffalo Bill Cody, and the Carey Act in Wyoming*, MONTANA—THE MAGAZINE OF WESTERN HISTORY, Spring 2005, at 1, 36-51.

76. Robert E. Bonner, *Buffalo Bill Cody and Wyoming Water Politics*, 33 WESTERN HISTORICAL QUARTERLY 4, 433 (2002), available at <http://www.history-cooperative.org/journals/whq/33.4/bonner.html>.

77. William Lilley III & Lewis L. Gould, *The Western Irrigation Movement, 1878-1902: A Reappraisal*, in GENE M. GRESSLEY, *THE AMERICAN WEST: A REORIENTATION* 71-74 (1966).

78. Bonner, *supra* note 76, at 9. See also M.C. Robinson, *Water for the West: The Bureau of Reclamation 1902-1977*, 37-48 (Chicago Pub. Works Hist. Soc., 1979); R.W. WAHL, *MARKETS FOR FEDERAL WATER: SUBSIDIES, PROPERTY RIGHTS AND THE BUREAU OF RECLAMATION* 27-46, (1989); Kluger, *supra* note 26, at 115-128.

eager to see Wyoming developed into the leading agricultural state they believed it could be (State Engineer Reports did not lack for flowery language on Wyoming's agricultural prospects).⁷⁹ They worked personally to make that dream come true. In the 1890s, Mead did the survey for both of Buffalo Bill's projects.⁸⁰ Mead also pushed the idea that investors, whether they be private companies or the federal government, needed to be able to pre-empt public lands and keep them out of settlement until the new canals were ready.

That idea of pre-emption was a critical one. It took hold and broadened in the years that followed, with impact on Wyoming water law.

When the U.S. Reclamation Service took over Buffalo Bill's second, bigger project on the Shoshone, the federal engineers and lawyers were very careful to acquire Buffalo Bill's original water right for the project—a permit dated May 1899, signed by Mead.⁸¹ They wanted that date. The permit, of course, had all kinds of time limits built into it, as the new Wyoming water law system required. There were deadlines, with permit expiration dates attached, for the start and the finish of project construction and the start and completion of the job of putting project water to use. It turned out it was impossible for the Reclamation Service to meet either of those timetables, or its own rosy predictions of a quick blooming of irrigated farms.

Yet the State Engineer's Office never canceled the 1899 Buffalo Bill permit. Nor was it ever limited to just the amount of acreage that had been irrigated by the permit deadline. Successive State Engineers tried to accomplish that in 1909, in 1922, and in 1935, but failed.⁸² Instead, they extended

79. Mead wrote:

No State of the arid region excels [Wyoming] in the distribution and volume of its water supply, and no section of this country is better adapted to growing grain or raising stock. If these resources are rightly employed, the farmers of this State ought to, not only fully supply the home market, but successfully compete with eastern farmers in the markets of the world. . . . [Proper use of irrigable lands and grazing lands in combination] would make Wyoming one of the most attractive and prosperous stock raising districts on this continent.

1895-1896 BIENNIAL REPORT OF THE STATE ENGINEER, at 18.

80. In the survey work, Mead once again proved that his best qualities were not those of a practical engineer. See Robinson, *supra* note 78.

81. Bonner, *supra* note 76, at 5, 8.

82. E.W. Burritt, *Report on Water Rights of Shoshone Irrigation District*, STATE ENG'G REP (1935); 1921-1922 BIENNIAL REPORT OF THE STATE ENGINEER, at 51-58.

the permit regularly. Only in 2006 is the old permit expected to be closed out, with a final adjudication.⁸³

So, early on, the original statutory rules began to bend. Successive State Engineers agonized over the Buffalo Bill permit example. They were torn between their fidelity to a system they believed in and the individual irrigators who had rights under it and their worries about downstream states and the need to get Wyoming's water in use before down-streamers demanded it.

The duty to other irrigators was real. There were a number of other irrigators on the Shoshone in Wyoming, who came in a little later and whose rights could be affected by steady expansion of irrigation (and therefore water demand) under the senior Buffalo Bill permit. They complained enough about the extension of the Buffalo Bill permit to prompt State Engineer (and future Governor) Frank Emerson to hold a lengthy hearing on the matter in Cody in 1922. The concern about downstream states was very real as well. Emerson wrote:

In considering problems of this nature the state engineer has a large responsibility. He is primarily charged with the protection of the public interest. In such a situation as is now presented upon the Shoshone River the public interest must be viewed in two principal ways. First, there is a responsibility to every appropriator of water upon the river. Second, there is a responsibility to the State of Wyoming by reason of the fact that the Shoshone River is an important tributary of the Big Horn River, an interstate stream. The individual appropriator is entitled to the full protection of the laws of this State, and his valid rights should not be prejudiced by others. The State of Wyoming, for its part, is materially interested in the interstate phase of the question, and in having priorities sustained in this State as far as possible. . . . [T]he State Engineer of Wyoming must consider the interests of the State and sustain priorities to the use of water so far as same can be validly held. . . . Without question permit 2111 should apply just as far as it can be validly held, and that far only, in fairness both to the interests of all appropriators of

83. Telephone interview with Nancy McCann, Big Horn Manager in the office of the Wyoming Board of Control, Cheyenne, WY (Jan. 23, 2006). Buffalo Bill's original 1899 permit # 2111 is well known in the State Engineer's Office for its tortured history, reflected by year after year of notations on the permit books. See Permit # 2111, on file in the Wyoming State Engineer's Office, Cheyenne, WY.

water from the Shoshone River and to the interests of the State of Wyoming.⁸⁴

In the end it was that concern about getting Wyoming water put to use, whatever it took, that won out. The rights under Buffalo Bill's 1899 permit were "sustained," and the permit was extended beyond the limits that Emerson proposed to impose in 1922. The engineers bet on the federal government as the best horse to get that water put to use. Also, the federal government—the only fount of cash in an impoverished state in the 1920s, 30s and long after—could and did put considerable pressure on the engineer to leave the old permit alone.⁸⁵

The Buffalo Bill permit decision signaled an important change in Wyoming's water rights system. Mead had put in place a system that clearly saw permits as a temporary permission from the State for individuals or companies or the federal government to attempt a water use scheme. If the scheme did not quickly succeed, it could be replaced by the next applicant for a water right, who had a better idea for using water in the same area. The persistence of a permit like Buffalo Bill's of 1899 meant that the first comer with a likely scheme could, once granted State permission, obtain a water right which would pre-empt the next comers from attempting their plans on that stream. It made a water permit a little more like property right in land—more like water rights were treated in other states. In effect, it put in place a water right serving an acreage number that could balloon over time. The actual use of water under that right would grow as the project backers slowly got more land under irrigation. The initial permit might not and most probably would not, result in diversion or use of all the water covered under the permit *right away*. Over time, however, the water actually diverted and used could grow within the limits of that permit, up to the total amount of water originally applied for.

That is quite a different principle than the original idea of recognizing only actual use and protecting the pattern of actual uses that are thereby created. It is the reason that State Engineers like Emerson were torn. They felt strongly their duty to the junior appropriators who came along on the Shoshone River soon after 1899, and who might years later have their water cut back due to expansion of the Buffalo Bill permit use.⁸⁶

In fact, the Shoshone River Buffalo Bill 1899 permit did not wreak that kind of havoc on junior appropriators. A key part of the federal pro-

84. 1921-1922 BIENNIAL REPORT OF THE STATE ENGINEER, at 54-55.

85. See, e.g., Burritt, *supra* note 82 (outlining key activities of the Reclamation office regarding permit #2111 and includes copies of its correspondence with the State Engineer's Office from 1904-1935 regarding the permit).

86. 1921-1922 BIENNIAL REPORT OF THE STATE ENGINEER, at 53-54.

posal, which had been so attractive to Cody people, was the construction of the Shoshone Dam (now known as the Buffalo Bill Dam) and a big reservoir on the Shoshone. Buffalo Bill's original permit was only for direct flow; the dam, with its own later permit, made the federal project a success.⁸⁷ The dam effectively kept everyone downstream on the river in plenty of water, whether they had rights under the federal project or not. The passage of years after 1920 or so helped, too, giving federal engineers some practice in managing their reservoir to keep everyone in water. Protests over the extensions of the 1899 permit were almost literally drowned out.⁸⁸

The pressures on Wyoming that changed the water management system via permit extensions, however, set an important precedent in the expectations of users. Irrigators in the Shoshone River valley, for instance, with a steady and indeed over-abundant water supply, ended up in a placid complacency and the general belief that *they* held all the significant property rights in that water. State plans in 2004 to protect winter in-stream flows in the river, via releases of water through recent expansion of the old dam, met with some shocked resistance.⁸⁹ In summer 2004, the State Engineer in response wrote Shoshone River users a strict reminder that despite their customary ability to make use of several fills of the Buffalo Bill Reservoir each year, Wyoming law entitles irrigators to only a single reservoir fill.⁹⁰ Thus, a second fill could serve the State of Wyoming's right under the reservoir expansion authorized in 1983, providing the state with water to use for winter in-stream flows.

Meanwhile, the federal government harbored the expectation that its money was so important to Wyoming water development that the State would never interfere with federal plans. Elwood Mead found this expecta-

87. Buffalo Bill's original 1899 permit, #2111, is a permit for only a direct flow right. However, water supply for the Reclamation projects on the Shoshone depends heavily on stored water under the reservoir right taken out by the Reclamation Service a few years later. Permit #2111 covers rights to substantial volumes of water, though only as direct flow, and Reclamation has always treated it as a permit integral and crucial to the overall operation of Reclamation's irrigation projects on the Shoshone River. See Burritt, *supra* note 82.

88. 1921-1922 BIENNIAL REPORT OF THE STATE ENGINEER, at 55-56; R. E. Bonner, *The Dam and the Valley: Land, People, and Environment Below Buffalo Bill Dam in the Twentieth Century*, 76 AGRIC. HIST. 272-88 (2002).

89. Letters received by the Wyoming Water Development Commission, July-August 2002, re "Proposed Winter Release Operation Agreement" for the Buffalo Bill Reservoir. On file with author and the Wyoming Water Development Commission, Cheyenne, WY.

90. Letter from Patrick Tyrrell, State Engineer, to Lawrence M. Besson, Director, Wyoming Water Development Commission, titled "Re: Multiple Fills at Buffalo Bill Reservoir" (July 1, 2004). On file in State Engineer's Office and Wyoming Water Development Commission.

tion to be sound—to his sorrow. In the 1920s, as head of the U.S. Bureau of Reclamation, he could not rely upon Wyoming or any other state to provide a credible threat of turning down federal reclamation dollars in order to force Congress to attend effectively to the socio-economic problems of irrigator-settlers, who were living in squalid conditions on federal projects.⁹¹

The precedent set in Cody probably had its worst impact in other parts of the state where other permits were similarly extended. One such place was the Wind River, where an oft-extended permit exacerbated tension over water rights litigation between the State and the Shoshone and Arapahoe tribes (*See* later discussion, part III).

The State's financial picture, which was dismal enough that Mead often had to dig into his own pocket to keep the State Engineer's Office going, also influenced the development of Wyoming water law. The re-adjudication and extensive monitoring of actual use that were originally envisioned were not possible given budget considerations. The engineer's office had to rely more and more on irrigators to manage their own affairs, without intervention from the regional-state office unless dry seasons, drought, and therefore irrigator complaints called them in. Most likely, this was largely to the liking of both the irrigators and the legislators who controlled the engineer's budget.

That "self-help" feature gave Wyoming's water law system, in the end, a good deal of its vitality—its tenacity and its flexibility. It became a system where the initiative for action has depended a good deal on irrigators at the ground level—and that has made the system responsive to the requirements of individual streams and the people who live along them.

A change in rules in Wyoming's water law typically occurs from the bottom up. A key example is the evolution of rules on whether a water right can be transferred to another place and use while keeping its original priority date—the issue met on Little Horse Creek in Cheyenne, discussed earlier in this article.

The transfer issue has remained a live one, and despite the Legislature's effort to settle it with the "no transfer" statute in 1909, the Wyoming rule has continued to change. Though the 1909 statute has remained on the

91. *E.g.*, Mead discussed proposals he put before Congress that failed in a speech in Cheyenne in 1925: WYOMING S. TRIBUNE AND CHEYENNE ST. LEADER, (June, 1925), Elwood Mead Collection, Scrapbooks, Box 1, item no. 3, American Heritage Center, University of Wyoming, Laramie, WY. For a report Mead authorized which revealed the squalid living conditions on Shoshone River federal projects which had not received the kind of socio-economic program work Mead sought, *see* DOROTHY LAMPEN, A REPORT OF AN ECONOMIC INVESTIGATION OF HOME CONDITIONS ON FEDERAL RECLAMATION PROJECTS (1929).

books, it has seen amendments, exceptions, and finally the birth of new sections.⁹² As a result, it is no longer true that water rights cannot be transferred off the land in Wyoming without loss of priority. The impetus for that change came from the water users.⁹³

Despite the emphatic opinion of the water users that resulted in the 1909 “no transfer” statute, people who needed to make more effective use of water eventually succeeded in making transfers happen. For example, water-short irrigators in the Wheatland district pushed the envelope, looking for ways to get more good early-date water on their lands.⁹⁴ Similarly, the needs of growing towns like Lander led to transfer of agricultural rights to the town governments, and the needs of new coal-fired power plants for secure water supplies led power companies to acquire senior agricultural rights to provide water for boilers and cooling towers.⁹⁵ The Board of Control, in cases over several decades, slowly puzzled over how to make such obviously necessary transfers work under Wyoming water law. The question was how to allow some transfers without injuring junior appropriators and the patterns of actual water use upon which Mead’s system suggested the juniors should be able to rely.⁹⁶

92. See WYO. STAT. ANN. §§ 41-3-101-04 (2005). Frank Trelease, Dean of the College of Law at the University of Wyoming, ably traced these changes through Board of Control and court decisions in the inaugural edition of the *Land & Water Law Review* (now the *Wyoming Law Review*) in 1966. Trelease, *supra* note 8, at 29-76.

93. See generally Trelease, *supra* note 8.

94. Trelease noted that the needs of state agencies led to exceptions that appeared in the form of water transfer authorizations—sometimes in other, non-water statutes. Trelease, *supra* note 8, at 11-19, 61-68. For exceptions in non-water statutes, see Frank J. Trelease, *Transfer of Water Rights—Errata and Addenda—Sales for Recreational Purposes and to Districts*, 2 LAND & WATER L. REV. 321-26 (1967). Further, that the needs of water-short irrigators, like the Wheatland district, led to transfer attempts and the slow working out, at the Board of Control, of ways to allow transfers that did not injure other water rights. Trelease, *supra* note 8, at 40-46, 57-61.

95. For the Lander transfer, see IN THE MATTER OF THE PETITION OF THE TOWN OF LANDER, WYOMING BOARD OF CONTROL, ORDER RECORD BOOK 7 593 (1933), on file in the Wyoming Board of Control, Cheyenne, WY. Current State Engineer’s Office Director of the Surface Water Division, John Barnes, has documented the board’s changing approaches to water transfers sought by Pacific Power and Light Co. for its power plants from the 1940s to the 1990s. John Barnes, *Pacific Power and Light Company and Water Transfers in Wyoming*, Plan B thesis, Public Administration 199 (University of Wyoming) (on file with author and with J. Barnes, State Engineer’s Office, Cheyenne, WY.)

96. The board made use of the “preference” for domestic and industrial uses over irrigation, which was part of the 1909 enactments, to help make transfers happen

The board's own internal unwritten rules on approving transfers changed as the board worked its way through the transfer proposals made by water users. In the 1940s and 1950s the board allowed "one-to-one" transfers of water rights. In other words, a transfer of a 10-cfs right from a farm to a town or to a power plant meant the town or the power plant ended up with a 10-cfs right. But over time, as the board considered and lived with the implications of such transfers, it began to make its rules more sophisticated, considering when the water was used for irrigation, exactly how much had been diverted, how much water had really been consumed by the crops, and what kind of return flows there had been.⁹⁷

That sophisticated approach, the product of decades of water user proposals and Board of Control experience, was put into statute by the Legislature in 1973.⁹⁸ The new provision said, in brief, that any water right holder seeking to change the use of the water or the place where the water is used can do so if a test of special scrutiny is met. Specifically, all that can be transferred is the amount of water actually consumed, in the season it was consumed, by the crops historically grown, and there can be no increase in water diverted or change in the return flow patterns created by the former use.⁹⁹

It is important to emphasize, again, the direction of innovation—it comes from below. Only after a new practice is worked out by the users and the board is it then codified into statute. That process appears to be typical of the route of change in Wyoming water law, once the original statutes were in place.¹⁰⁰

while emphasizing the limits on when they could happen. WYO. STAT. ANN. § 41-3-102 (2005).

97. Barnes, *supra* note 95.

98. WYO. STAT. ANN. § 41-3-104 (2005).

99. In most western states, prior appropriation has generally evolved to mean that users have the right to change the place or manner of their use as long as there is "no injury" to other users. In Wyoming, as demonstrated by the Board of Control practice codified in the 1973 statute, the test of "no injury" is applied with special scrutiny. That is because of the history of the Wyoming system and the frontier antipathy to speculation that was built into it at the outset and embodied by the 1909 statute. The Wyoming pattern of evolution started from a ban on transfers, rather than the common law prior appropriation acceptance of transfers.

100. Evolution on the transfers issue did not stop in 1973. As of 2005, for instance, the Board of Control declined to read the portion of the statute that calls for special scrutiny of proposals to change the place of use of water to mean that the Board will *require* a proponent of a change in use to file a consumptive use report. Remarks at the Meeting of the Wyoming Board of Control in Thermopolis, Wyoming: Action on Petition II-2004-4-1 (Aug. 2005). The board's interest in excruciating detail is aroused only by a proposal to change the *type of use* (known in WYO. STAT. ANN. § 41-3-104 (2005) as a "change of use") to which the water is put,

From the beginning, the Wyoming statutes have left ample room for changing the definition of a key term—the “beneficial use” of water. No Wyoming statute proposes a laundry list of beneficial uses.¹⁰¹ The recognition of beneficial use for the most part is left to the eye of the State Engineer who beholds it in the proposal of a water user. As with other rules in the system, the list of purposes considered beneficial has evolved into a longer and longer catalog over time as the State Engineer ruled on various proposals and permit applications. By the late 1990s, the number of recognized beneficial uses totaled more than forty.¹⁰² The evolving definition of beneficial use opens the door for a great deal of flexibility in Wyoming’s water system management in the future.

This brief review sketches a picture of how Wyoming’s water law system functions. Rules and changes in rules run through layers of people who interact: from the users, to the State Engineer and the Board of Control, to the Legislature, and to the courts. After decades of evolution in the system, it is clear that property rights in Wyoming water are not held exclusively by users or by the State—the rights are distributed between them.¹⁰³

not the *place of use*. In recent years, other states, which have allowed transfers more easily, have considered adding more restrictions, generally described as “basin of origin protection” statutes, to require consideration of what it means to have a functioning water right moved out of a basin where it has supported a local pattern of water use and the local economy. Concerns over water rights moved out of Colorado’s Arkansas River agricultural valley to serve municipal needs (often, simply green lawns) on the Front Range have prompted such discussion in Colorado. Wyoming water law had in this arena generally been considered backward by economists concerned about making water rights more freely transferable to the “highest and best use.” Wyoming, however, may now have become the envy of other states, which now see some disadvantages to “too-free” transfers of water rights.

101. An exception is the 1986 action of the Legislature to define flows left in-stream for fish as a beneficial use. WYO. STAT. ANN. §§ 41-3-1001-14 (2005). See *infra* notes 135 and accompanying text.

102. Todd Rhodes, Wyoming Water Rights Consulting, Inc., Presentation in Buffalo, Wyoming (June 2000), available from T. Rhodes, through <http://wyoagcenter.com/wywater>.

103. The view of traditional economists that water rights are simply private property rights that should be part of a free market, and therefore freely transferable, is the root of the problem many states are experiencing in trying to prevent large scale water transfers from “basins of origin.” A completely different view of water, originating in political science decades ago, suggests that what water rights in fact may represent is the right to have a say in the management of this unique resource—in a way, a right to a vote on what happens. See Vincent Ostrom & Elinor Ostrom, *Legal and Political Conditions for Water Resource Development*, in POLYCENTRIC GOVERNANCE & DEV., READINGS FROM THE WORKSHOP IN POLITICAL THEORY & POLICY ANALYSIS 42, 48-51 (1999). That view may explain why many water users

Individual water users can access the water, divert it, manage it to a great extent, propose transfers, and seek to get others' rights declared abandoned. The State Engineer and the Board of Control retain the right to decide who gets to be a user—who gets a water permit or a water right—and retains its own major say in water management, including how much water is used and when, if supplies are short. The board also determines (with considerable caution) whether the transfer or other change in a right will be allowed. Meanwhile, the board alone can declare a water right abandoned, in response to a neighbor's request. The Legislature typically acts to change water law only at the instance of the State Engineer. Wyoming courts, meanwhile, intervene occasionally to readjust the rules and the distribution of rights.¹⁰⁴

The water users operate on the local level and can create all kinds of entities with their own local rules—from a few people who each have their own canal or who share stretches of canal, to canal companies and mutual ditch companies and reservoir companies, to irrigation districts where irrigators elect a governing board which has powers to assess their irrigators to pay expenses. At that local level, water users set the normal pattern of water use. They can take as much water as they can get when the stream runs high (a “free river” in the eyes of the State Engineer), they can share water surpluses and shortages equally, they can leave a little water in the stream for stock or fish, they can distribute water according to priority, they can (within the boundaries of an irrigation district, at least) move water around to better lands, they can work with a senior right holder to allow junior rights to get water out of priority for the sake of the return flow they generate later, or, sometimes, they can get water only at the whim of a bully on the creek who takes his when and however he wants it.

All that and more can and does go on, as long as no one calls in the aid of the state water commissioners and their superintendents (the members of the Board of Control,) or the State Engineer himself. Once these representatives of the State are called upon—which happens typically in dry seasons of the year or in drought years—then there is no more “free river.” The

in Wyoming, 100 years ago and today, welcome state supervision of how water rights change hands, and why many fear, rather than seek, a “free market in water rights.”

104. The Board of Control has continued to be willing to find abandonment due to non-use under Wyoming Statute Section 41-3-401, only to be overruled by the Wyoming courts. *See, e.g.,* Scott v. McTiernan, 974 P.2d 966 (Wyo. 1999), *appeal after remand*, McTiernan v. Scott, 2001 WY 87, 31 P.3d 749 (Wyo. 2001). Although non-use of water rights may be common, abandonment cases are not. The board considers abandonment only if one user brings such a claim to them, filed against another user. Although the State Engineer technically has the power independently to bring an abandonment action (WYO. STAT. ANN. § 41-3-402), that power has been used, abortively, only once.

official priority system and the rights prescribed in the books of tabulations of rights go into effect. The stream goes “into regulation,” as the superintendents say. Some streams never do, some always do—it depends upon the streams and often upon the people using them. Due to the recent drought, some streams have lately gone into regulation that have rarely or never been regulated. While many of the Board of Control’s powers are called into play only by initiative of the water users, some can be used at the board’s instigation. A regional superintendent can prompt irrigators to apply for changes in water rights by exerting steady pressure on irrigators to submit their water rights for board “clean-up,” so the tabulation book matches the diversions and the rights in use. If they hang back, irrigators may face the prospect of no State regulation in time of dry seasons or drought.¹⁰⁵ Meanwhile, the State Engineer, with occasional supportive bursts of funding from the Legislature, retains the authority to negotiate or litigate with other states in an attempt to secure certain amounts of water in each river basin for Wyoming’s potential future use.

It is a complicated system, and it needs to be. Governing water resources so as to serve many different needs is notoriously difficult. In the case of flowing streams in particular, it is hard to exclude people from using water, and yet one person’s use may make the water completely unavailable to anyone else. Political scientists and economists call this kind of resource a “common pool resource.” If everyone can have “open access” to such a resource, simply using it at will, it will be destroyed. To keep the resource in general use, some form of management is needed. Yet how to decide who has what rights in such a resource is not an easy task. Still tougher is the job of continuing to decide who has what rights, so that the water can keep supporting stable communities as time moves on, people and technology come and go, and the economy changes.¹⁰⁶

Wyoming has developed its own special version of such water management. When the “free grass” of the 19th century open range—another, famous common pool resource—was Wyoming Territory’s prime resource, Wyoming stockmen failed to figure out how to manage it so as to prevent its destruction. But where water is concerned, the system that started up in Wyoming soon after has been far more successful. Wyoming’s water law

105. See, e.g., Edward Fenus et al., Docket # IV-99-2-2 in Division IV, (Aug. 2005) for a series of board cases, on file with the Board of Control, Cheyenne, WY.

106. For an introduction to the work of political scientists and economists on common property management of water and other resources, see E. Ostrom, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* (1990); S. Y. Tang, *Institutions and Performance in Irrigation Systems, in RULES, GAMES AND COMMON-POOL RESOURCES* (1994); A. Agrawal, *Common Resources and Institutional Sustainability, in THE DRAMA OF THE COMMONS* (2002); T. Dietz et al., *The Struggle to Govern the Commons*, 302 *SCIENCE* 1907, 1907-12 (2003).

system has managed water as a common property reasonably well for over a century. It is a valuable system, worth keeping, if we can.

III. *The Danger of Becoming Irrelevant*

Despite its success in accommodating change through much of the last century, Wyoming's water system is now in danger of becoming marginalized. Wyoming has traditionally valued water primarily as a commodity, with its chief use seen as generating a rather limited range of commodity products—mostly hay for cattle and certain row crops suitable to the climate. These products no longer have the prime value they once had. It is not that water itself, and its many uses, are not valued. If anything, they are probably valued more highly now than in the past. However, the dominant value placed on water by people in Wyoming may be changing. If the water law system cannot adapt to manage for a wider variety of water uses and values, people in Wyoming may begin to see it as irrelevant and turn elsewhere for a means of managing water.

There is a series of causes for this potential marginalization. The shifting global and, in turn, national economy—where information and services, rather than heavy industry and manufacturing, have become the most promising arena for the United States—presents new pressures as well as opportunities for Wyoming. At the moment the State is reveling in budget surpluses (like no other state in the nation) because of its role producing the fuels that are bringing in high prices. The optimistic expectations are that Wyoming will continue to play the role of well-paid energy provider for years to come. In the modern economy, however, energy production is not necessarily a driver for in-state economic growth. No major energy corporation offices, no mid-management jobs, need be situated in the state to get the fuels produced.

In other fields, the state's communities, whether supported by the energy or the ranching industries, find themselves at a competitive disadvantage. Improved transportation, telecommunications, and education have reached the state as a spin-off of the national information and services economy and Wyoming's own energy wealth. Those improved services mean that even though the state remains isolated and rural, many people in it, including ranchers, compete in worldwide markets. Local communities, too, compete with much of the rest of the world to attract consumer purchases of food, clothing, vehicles, and entertainment, and (particularly important in many people's minds) to attract young people with challenging places to live

and work. Wyoming's rural population is "graying," the agricultural producers in particular.¹⁰⁷

It is not clear that the ranching way of life (and its ways of using water), or the little towns that ranching has supported, will survive. At the same time, however, the scarcely populated, open landscapes and green valleys of Wyoming, preserved as if in a time warp by that ranching way of life, offer intense attractions to an increasingly urban and fast-moving population in the rest of the country. Second homes in Wyoming are growing quickly—led by Jackson, but not at all limited to that area.¹⁰⁸ The CEOs of both Pepsi and Coca-Cola each have bought massive irrigated ranches in Wyoming, in counties away from Jackson (and suitably far away from each other).¹⁰⁹ Part of what those people are buying is the landscape produced by the water management system.

But can the ranchers stay on that land to keep producing the landscape? Can they live (and resist selling out the home place) on production of only hay and cows? More important, can their children take over and live there? How will the new owners manage the land? Some, who have enough wealth to do it, are determined to keep the land in agriculture, and hire locals to keep on irrigating despite losing money. Others subdivide, not always with concern about protecting the landscape that attracts home seekers. What about the former "incidentals" that now attract people—riparian areas, wild-life habitat, fishing in isolated canyons or on a creek right through town? Some of those attractions are enhanced, some reduced, by the water use practices that have prevailed thus far; some may be lost by changes out of irrigated agriculture.¹¹⁰

107. Eight percent of Wyoming's population was over sixty-five in 1980; as of 2004 that figure is over twelve percent. Population Estimates Branch of the U.S. Bureau of the Census, *Wyoming Population Estimates by Age and Sex: 1980 - 1990*, (Aug. 1995), available at <http://eadiv.state.wy.us/pop/a&sx8090.htm> (last visited Apr. 22, 2006); Economic Analysis Division of the Wyoming Dept. of Admin. & Information, *Wyoming 2005—Just the Facts!*, (Mar. 10, 2006), available at http://eadiv.state.wy.us/Wy_facts/facts06.pdf (last visited Apr. 22, 2006).

108. David T. Taylor & Scott Lieske, *Second Home Growth in Wyoming, 1990-2000*, WYOMING OPEN SPACES (Apr. 2002), available at <http://www.uwyo.edu/ces/PUBS/B1120.pdf> (last visited Apr. 22, 2006).

109. Sublette and Johnson Counties, on the Green and Powder Rivers, respectively.

110. Nationally, attention is focused increasingly on the economic value of water uses that have until recently been left out of most economic analyses. See NATIONAL RESEARCH COUNCIL, *VALUING ECOSYSTEM SERVICES: TOWARD BETTER ENVIRONMENTAL DECISION-MAKING* (2004); R. A. YOUNG, *DETERMINING THE ECONOMIC VALUE OF WATER: CONCEPTS AND METHODS* (2005). In Wyoming, the Water Development Commission has underway in 2005-06 a study of the "Economic Value of Water in Wyoming's Green River Basin" (final report due June

In the past 30 years or so, Wyoming's water law system has already faced some major challenges stemming from social and economic change. In several instances the system has not handled those challenges well.

The prime example is the water rights of the two Native American tribes in Wyoming, the Eastern Shoshone and Northern Arapaho. The short history up until the 1970s is that the tribes were forced to live on the same reservation, they were convinced to cede a considerable portion back to the federal government to be opened for non-Indian settlement, and they then saw more federal investment go into the settlers' irrigation systems than into tribal systems. By the 1970s, the Wyoming tribes began to assert more rights, as part of a growing Indian rights consciousness nationwide borne on the crest of the civil rights movement.¹¹¹ In 1977, the tribes questioned the right of Riverton to tap into groundwater, which the tribes considered theirs under the broad water rights granted by the 1868 treaty establishing the reservation. The Legislature, at the behest of Riverton people, eagerly passed an emergency measure to take the question of determining the tribes' water rights into state court.¹¹² The Legislature clearly expected the state court to rule in favor of non-Indian rights.

The state district and supreme courts did not perform quite as the Legislature hoped. They did limit the tribes' rights to water needed for agriculture, ignoring environmental or fisheries claims, and they restricted the rights from being marketed off the reservation. But they also awarded the tribes an amount of water much greater than the State had anticipated, based partly on agricultural lands that could be irrigated in the future. The courts dated the water right back to 1868, so that it has priority over any other right

2006); see <http://wwdc.state.wy.us/draftreports/GRBWATERVALUEANALYSIS.html>. See TROUT UNLIMITED, THE ECONOMIC VALUE OF HEALTHY FISHERIES IN WYOMING: A TROUT UNLIMITED WYOMING WATER PROJECT REPORT IN SUPPORT OF THE CREATION OF THE WYOMING WILDLIFE AND NATURAL RESOURCES FUNDING ACT (2005), available at <http://www.tu.org/site/pp.asp?c=7dJEKTNuFmG&b=275420>.

111. John Echohawk, Remarks at the Buffalo Bill Historical Center Conference on The Culture of Water: The Evolution of Ownership, Control, and Conflict in the West (Oct. 2005) (transcript on file with the Buffalo Bill Historical Center, Cody, Wyoming).

112. As the Wyoming Supreme Court has noted of the McCarran Amendment, 43 U.S.C. § 666 (1976), regarding Wyoming courts' jurisdiction to adjudicate the tribes' rights in the Wind River case: "Congress's policy under the McCarran Amendment is to allow state courts to adjudicate Indian water rights as part of general stream adjudications," i.e. adjudications of water rights in the entire river basin in the state involved. *In re Gen. Adjudication of All Rights to Use Water in the Big Horn River Sys.*, 753 P.2d 76, 87 (Wyo. 1988) [hereinafter Big Horn I].

in the Wind River.¹¹³ These decisions were upheld (just barely—by default, under a tie vote) by the U. S. Supreme Court.¹¹⁴

The state courts' award to the tribes was significant, though smaller than the tribes sought. However, the restrictions were significant as well. To restrict the tribes to agricultural use of their water in the late 1980s, when no new irrigation project in that area could make economic sense, was a very narrow interpretation of the original treaty goal of creating a home place for the tribes. To restrict them from marketing that water to others (including nervous non-Indian irrigators on the Wind River with later rights—the most likely buyers) was equally blind to modern economic reality.

In the early 1990s, the tribes tried to put in place a use of their water award that expressed a fundamental aspect of the way they value water. It was an in-stream flow right, created under the tribes' new water code and designed to allow the tribes' "future" water rights to be used to keep water flowing through the reservation in stretches of the Wind River that were often dried up by the diversions of major projects on the river.¹¹⁵ Those included federal projects built to serve off-reservation lands and settlers—though the picture is complex: a number of tribal members are among the irrigators farming under the off-reservation federal canals. The tribes envisioned that federal and private projects would have to divert less in order to keep the senior 1868 right flowing in the river. They planted fish to swim in those flows. The State Engineer and the regional superintendent adamantly opposed all those moves, and the tribes took the matter back to the court.¹¹⁶ Though the district court sided with the tribes, the Wyoming Supreme Court reversed and ruled for the State, refusing to recognize what the State considered the tribes' unilateral declaration of a tribal in-stream flow right. If the tribes wanted to protect flows in-stream, that could only be done in compliance with Wyoming water law, the court said.¹¹⁷ Though the tribes were appalled by this Wyoming Supreme Court decision, they did not appeal to the U.S. Supreme Court for fear of an adverse opinion, which would impose such limits on tribal water rights nationwide.¹¹⁸ The lesser of two evils, in the tribes' view, was to let stand the state decision, which applied in Wyoming alone.

113. *Id.*

114. *Wyoming v. United States*, 492 U.S. 406 (1989).

115. *In re Gen. Adjudication of All Rights to Use Water in the Big Horn River Sys.*, 835 P.2d 273, 275-76 (Wyo. 1992).

116. *Id.* at 276.

117. *Id.* at 278-79. The court went on to point out that the tribes' plan could not meet the requirements of the state in-stream flow law since it provides that only the State can hold an in-stream flow water right. *Id.* at 279 (citing WYO. STAT. ANN. § 41-3-1002(e) (1977)).

118. *Echohawk*, *supra* note 111.

This series of decisions has left the tribes with considerable paper rights that still have not been put into action, some fifteen years after the first award of 1868-date water. It has been a victory for the non-Indian irrigators, but a defeat for greater prosperity in the Wind River valley. The tribes have not been able to put a major asset to work to improve social conditions on the reservation. What they might be able to do with investment and creative use of water resources is demonstrated by the capacity they have built in water quality and quantity administration within the tribal government. Tribal members, who have gone away to earn scientific and engineering degrees; now have a chance of finding professional jobs on the reservation in the tribes' water offices. Racial tensions in the valley, never absent, were exacerbated by the decisions and the exaggerated "threat" of tribal water rights portrayed in the public discussion accompanying the state lawsuits.

The State water law and management system failed dismally in this instance. Irrigators with state water rights were protected effectively, but no accommodation of the goals of the tribal government was achieved. Litigation was seized upon early on as the only course. Serious negotiation of a settlement that would work on the ground, because designed by people on the ground, was attempted only after it was clear how big a defeat the State case faced. After the decree, when the tribes sought to put their values for water to work via an in-stream flow right, there appears to have been no effort to help make that initiative work. For other tribes across the country, the Wyoming cases made it clear that negotiation of settlements was the way to go, and the federal government for more than a decade proved itself willing to provide cash to sweeten such settlements.¹¹⁹ Meanwhile, the precedent set with Buffalo Bill's old permit persisted, allowing decades of extensions for the non-Indian water project on the Wind River.¹²⁰ A ballooning number of irrigators and their water demands came in under the old date and took more and more water for irrigation as the extensions multiplied. Permit extensions on the Wind River, however, had much more serious effect than on the Shoshone since the Wind had no big reservoir that provided plenty of water to all regardless of priority. Rather, the old permit with its ballooning right put increasing pressure on later-date irrigators, who in turn then reacted with even more anger to the courts' awards to the tribes.

119. Echohawk, *supra* note 111. Echohawk notes the government's attitude was due partly to executive and Congressional consciousness of the long betrayal of federal treaty obligations to the tribes, made worse by the federal Reclamation program's enthusiastic efforts to attract non-Indian settlers to move in and use rivers in which the tribes had latent rights. See also Tom Jensen, Remarks, Oct. 2005 (speech delivered to the Culture of Water Symposium, Oct. 2005) (transcript on file with the Buffalo Bill Historical Center, Cody, Wyoming).

120. Interview with Nancy McCann, *supra* note 83.

Wyoming's water law and management system has faced other challenges in recent years and met them with more creative and successful responses. A few examples follow.

On the North Platte River, construction of a series of federal (and a few private) big diversions and reservoirs starting at the headwaters in Wyoming and Colorado has over time completely changed the nature of the river downstream in Nebraska—to the point of nearly destroying habitat for migratory birds protected by the Endangered Species Act.¹²¹ Under that act, the U.S. Fish & Wildlife Service has contemplated proposed major changes in the way the reservoirs operate, as well as a moratorium on most new development.¹²² Since the mid-1990s, the states of Wyoming, Colorado, and Nebraska and the U.S. Department of Interior have attempted to forestall the proposed changes by coming up with a more acceptable solution they will design to rebuild the bird habitat through a variety of experimental approaches, including changes in irrigator and reservoir practices upstream.¹²³

Their new proposal (calling for such things as groundwater management, adjustments to reservoir size and operations, etc.) comes before the state legislatures in 2006. Wyoming's part of the plan calls for increasing the size of Pathfinder Reservoir to provide water for birds as well as for Wyoming towns.¹²⁴ Planners say it will cut back irrigators' water primarily downstream of the dam, and state money aiding those irrigators has helped win their support of the overall Platte plan. Irrigators upstream believe they face more losses than the State expects, and a number of them oppose it. What the negotiators are trying to craft is a way to prompt all users along the Platte to adjust their water use patterns to meet the birds' needs while still reasonably accommodating their own. It is no wonder it takes some elaborate negotiation. As one participant noted at the Culture of Water Symposium, it is like writing a new constitution for that region.¹²⁵ Many interests must weigh in the balance. Wyoming's two most recent State Engineers, along with the two most recent directors of the Wyoming Water Development Commission, have led the effort to convince Wyoming irrigators that

121. Western Water Policy Review Commission, *Water in the West: Challenge for the Next Century: Platte River Basin Report* 8-9 (June 1998).

122. *Id.*

123. *Cooperative Agreement for Platte River Research and Other Efforts Relating to Endangered Species Habitats Along the Central Platte River, Nebraska*, July 1997, available at www.platteriver.org.

124. 2006 Wyo. Sess. Laws, Ch. 105 (enacting WYO. STAT. ANN § 99-3-1105 (b)).

125. Daniel F. Luecke, *The Platte River and the Endangered Species Act: The Law Creates the Conflicts*. *The Culture of Water: Watering the West: The Evolution of Ownership, Control, and Conflict in the West* (Oct. 13-15, 2006) (transcript available from the Buffalo Bill Historical Center, Cody, Wyoming).

this arrangement is in the “public interests” the engineer is required to protect and is, in fact, in the irrigators’ interests.

Many other challenges, on a smaller scale, have also come before the regional and statewide water officials in recent years. Second-home owners in Jackson just want a babbling brook running through their land for the sake of the way it looks and sounds. Can they get a water right for that? How about Pinedale, where the town council wants to keep water in Pine Creek, which runs through the town, so tourists will stop and fish there? What about coal-bed methane, which brings a lot of money to the State in taxes while producing a lot of extra water? Can the gas company treat that water as waste, simply for disposal? What about changes in water use, such as moving from ditch irrigation to sprinklers, or to other uses entirely? Should the State Engineer consider the effect of the old flood irrigation run-off patterns on riparian areas which support wildlife?

Some of these issues have made their way to the Board of Control and the State Engineer. In the case of the “aesthetic” streams and ponds for second homes in Jackson, the board and the engineer frequently find they can recognize beneficial use and therefore a water right (with certain limits).¹²⁶ Pinedale, however, has not been able to protect releases of the water it stores in Fremont Lake, to keep the releases safe from irrigators’ diversions, so as to keep a steady flow in Pine Creek through the town.¹²⁷ State engineer permits allow CBM gas producers to produce as much water as they want to get the gas out.¹²⁸ Riparian areas supported by flood irrigation survive largely by grace of an economic calculus of an irrigator or a second-home owner, while no support for riparian values is provided by the water law and management under the water rights system.

In 1986, political feeling statewide culminated in a legislative, top-down change in water law to recognize leaving water in a stream for fish as a beneficial use.¹²⁹ The strength of the popular push for in-stream-flow pro-

126. See, e.g., State Engineer’s Office permits #U.W. 125157 and 139426, Teton County, and other groundwater permit proofs from that county submitted to the Board of Control, May 2003.

127. See Record of Decision, Wyoming State Engineer Pat Tyrrell, Surface Water Permit # 33 IF. In the course of approving this permit for releasing stored water owned by the Wyoming Game and Fish Department, the engineer denied the portion of the permit request that involved stored water owned by the town of Pinedale and transferred to the game and fish department by lease.

128. The volume amounts in CBM well permits are amounts inserted by CBM producers, not scrutinized and set by the State Engineer’s Office. See discussion in Anne MacKinnon and Kate Fox, *Demanding Beneficial Use: Opportunities and Obligations for Wyoming Regulators in Coalbed Methane*, 6 WYO. L. REV. 369 (2006).

129. WYO. STAT. ANN. §§ 41-3-1001 to 1014.

tection, which built throughout the 1970s and 80s, clearly indicated that many Wyoming people, few of them irrigating much more than their lawns, place a high value on water that is left in streams for fish. More than forty in-stream flow rights are now on the State Engineer's records.¹³⁰ However, strong divisions of feeling are still aroused by discussions of in-stream flow and perhaps resulted in the only statutory pronouncement defining a particular beneficial use.¹³¹ Consequently, the State Engineer in recent years has been wary of taking a more familiar, evolutionary path that might slowly recognize an in-stream flow right that does not specifically fit the statutory criteria. Accordingly, Pinedale still does not have the right to flow its stored water down Pine Creek for fish, although the State Engineer has approved in Pine Creek much smaller Game & Fish Department in-stream flow rights, which match the restrictive statutory definition.¹³²

On some issues, like tribal rights and in-stream flow, Wyoming's water law and management system have lost flexibility; on others, like the proposals to deal with endangered birds on the North Platte, there have been creative solutions. The economy and the society of the state, as well as its role in the nation, continue to change. The need to accommodate different views on the best use of water is bound to increase, not disappear. The Wyoming water system has its own value, as a very locally-grown institution that has in the past done well meeting the needs of people in the state. What is needed now are more ways to help that institution adapt and remain resilient.

IV. *Next Steps in Evolution*

In the language of the founders of Wyoming's water law and management system, that system may now no longer serve the entire community it is designed to sustain. It seems to serve, instead, only its "constituents"—water rights holders, yes, but not everyone in the community who depends upon water. The solution, in that original language, should be to make changes that allow and encourage the system to recognize and serve the broader community.

What is needed is change that will work as it has in the past for this system—from the bottom up. There are two ways to approach this. One very valuable way is the traditional process of proposals by individual water rights holders, followed with review and action by the board and the engineer. It is also worth considering new ways to give people on the ground—

130. *Wyoming Instream Flow Applications*, Wyoming State Engineer's Water Right Database (Jan. 10, 2006).

131. See *supra* note 104 and accompanying text.

132. See *infra* note 131. Surface Water Permits #33 IF and #34 IF grant the Game and Fish in-stream flow rights for both direct flow and stored water releases.

the wide variety of people who depend upon water and may or may not hold water rights—ways to come together to create water proposals and submit them to the other levels of water management.

There are a number of initiatives potentially worthy of further research and action—by individual water-right holders, by the State Engineer's Office officials, and by other Wyoming entities also associated with water issues. A partial list of such initiatives follows:

- *Individuals can work with neighbors to change the pattern of use so as to provide more water for desired uses at desired times—for stock, irrigation, recreation, fish, wildlife, riparian habitat, etc. This can be done by making new agreements among everyone on the creek, including, of course, plans for what will happen in drought.*
- *Individuals could seek to change their water rights to include uses not previously recognized by the Board of Control, such as maintenance of riparian areas. Formal recognition of water used for new purposes could complement the current Wyoming Water Development (WWDC) study of the value of water in the Green River Basin.¹³³*
- *Individuals and local advocacy groups could seek to have the Board of Control consider the impact of proposed water rights changes on other resources besides irrigated neighboring lands. The board could be asked to consider the effect on fish, wildlife, and riparian areas whenever proposals to change water rights come before the board for review.*
- *Existing local water-related institutions could be encouraged to take on a variety of new initiatives. Such institutions include irrigation districts, watershed improvement districts, conservation districts, or other watershed groups authorized by the Legislature. The Legislature could approve financial incentives for local organizations which met certain criteria to take on new initiatives through agencies like the WWDC. New initiatives might include the following:*
 - Researching the needs of and the threats to the environmental health of their watersheds.
 - Increasing the value of water in their districts, either protecting or changing uses (through appropriate action by water rights holders at the Board of Control) as desired.

133. ECONorthwest, *The Economic Value of Water in Wyoming's Green River Basin*, Wyo. Water Dev. Comm'n, (final report due June 2006), *supra* note 110.

- Providing for local exchanges of water use information or temporary trades of water rights (through appropriate action by water rights holders at the Board of Control).
- Proposing potential changes in water statutes.
- *Informal river basin advisory groups already created by the WWDC could be formalized, required to be representative of all water interests, and given authority to propose water-related investments that must receive priority consideration by the development agency and the Legislature.*
- *A joint management agency with authority over the construction and operation of reservoirs, diversion,s and all water uses on the Wind River could be considered.* Creation of such an agency would require state, tribal, and federal approval, but its constitution could be proposed by a fully representative river basin advisory group (*see above*). Creation of such an agency may be far in the future, after state and tribal water managers become accustomed to working with each other over the years on day-to-day, smaller issues. Such an agency would have a unique capacity, nowhere now present on the river, to propose and implement management of the river as a whole to serve the complex Wind River community. It could access federal and state funds now available only for projects that both state and tribes agree upon. It could integrate water management for both quality and quantity. Such an agency would have to be composed of locally knowledgeable individuals, but it could continue to rely on multiple levels of state and tribal water administrators, without replacing those entities.

Such options may not be the best available; others concerned with Wyoming water management should suggest alternatives. Working with the traditions of the Wyoming water law system, it should be possible to explore further the new efforts Wyoming can make to meet new challenges in water. In the end, such efforts will help Wyoming's water law and management system to better serve its historic goal of supporting the state's communities.