

# Two Decades of Water Law and Policy Reform: A Retrospective and Agenda for the Future

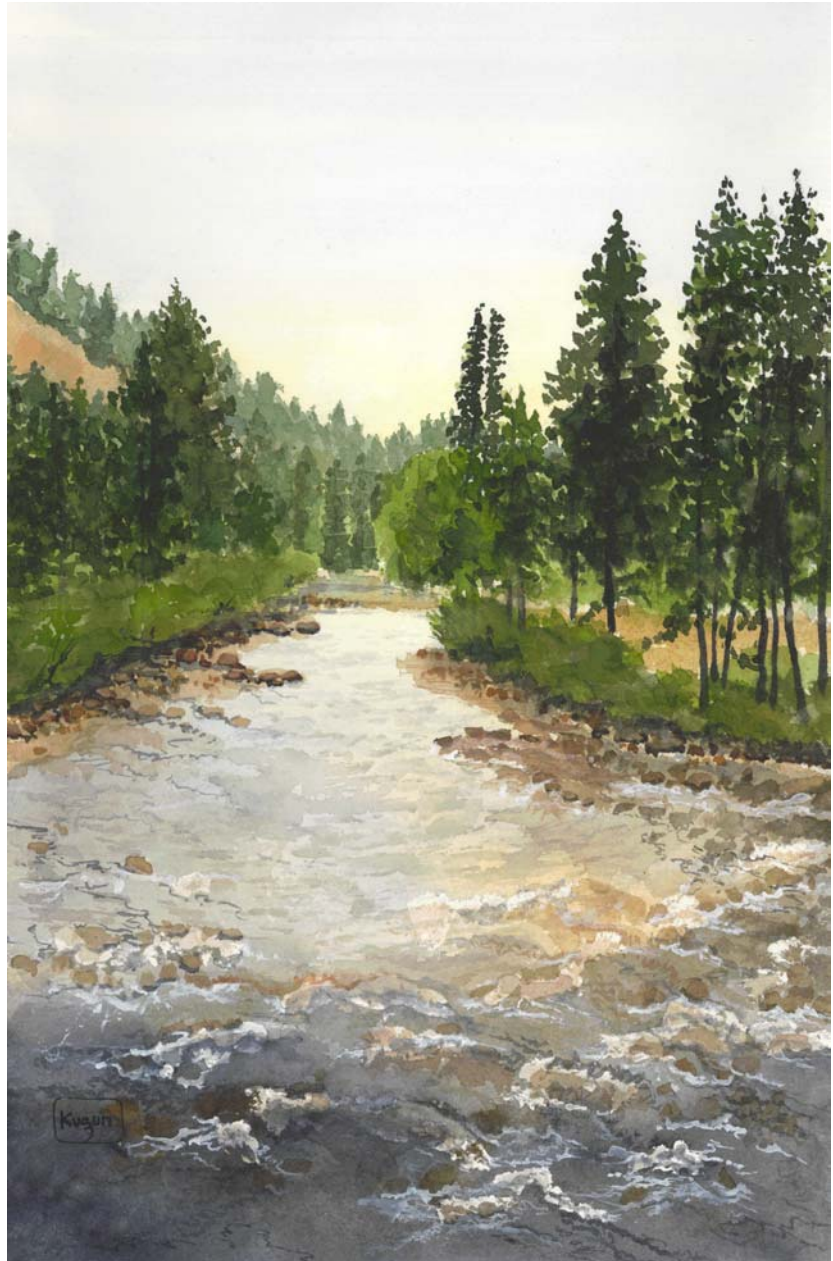
Natural  
Resources  
Law Center

University of  
Colorado  
School of Law



Boulder, CO

June 13-15,  
2001



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CONFERENCE REPORT

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For over two decades, the Natural Resources Law Center has convened conferences in June to discuss changing directions in western water law and policy. These events have focused on a tremendous variety of topics, including new demands on water resources, groundwater allocation and management, instream flow protection, federal/state conflicts, boundary waters, water quality, water transfers, dams and infrastructure, and water organizations. These events have also featured a diversity of presenters and participants, including attorneys, policy-makers, academics, concerned citizens, and others representing federal, tribal, state and local governments, water users, and nongovernmental organizations. With the arrival of a new century and new federal administration, the 2001 conference was an appropriate time to take stock of the many reform proposals that have been discussed and, in some cases, crafted at our annual event.



*Two Decades of Water Law and Policy Reform: A Retrospective and Agenda for the Future* was held June 13-15, 2001, on the University of Colorado campus. This conference was not a debate on the need for reform, nor was it an effort to explicitly redefine the existing reform agenda. Rather, the event was motivated by the observation that the last two decades have featured a wealth of thinking and experimentation in this policy area. Our goals were to identify those reform ideas having the broadest

appeal, to assess the extent to which they have been implemented on the ground, and to determine what this experience suggests regarding future reform efforts. The event was an opportunity to contemplate the ground that has been covered and to speculate on what this means for future efforts aimed at reconciling traditional water laws and institutions with the changing landscape of the American West.



This report is not a transcript of the presentations, nor is the organization of topics representative of the actual event structure. Rather, it is a synthesis of ideas drawn from presentations and papers, as interpreted and compiled by the conference organizers. The purpose of this report is to present the collective wisdom of all parties assembled, while remaining faithful to the specific ideas and arguments made by individual participants. A list of participants is provided on the following page.

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*The mission of the Natural Resources Law Center is to “promote sustainability in the rapidly changing American West by informing and influencing natural resource laws, policies, and decisions.”*

## CONFERENCE PARTICIPANTS

### PRESENTERS

- Bonnie G. Colby, Professor of Agricultural and Resource Economics, University of Arizona
- Dick Daniel, Senior Project Manager, CH2MHILL, Sacramento
- Denise D. Fort, Professor, University of New Mexico School of Law
- David Getches, Raphael J. Moses Professor of Natural Resources Law, University of Colorado School of Law
- Thomas J. Graff, Regional Director, Environmental Defense, Oakland
- John D. Leshy, former Solicitor, U.S. Department of the Interior
- Larry MacDonnell, Lawrence MacDonnell, P.C., Boulder
- Brian D. Richter, Director, Freshwater Initiative, The Nature Conservancy
- Barton H. "Buzz" Thompson, Robert E. Paradise Professor of Natural Resources Law, Stanford Law School
- John E. Thorson, Attorney and Water Policy Consultant, and former Special Master for the Arizona General Stream Adjudication
- Susan Williams, Williams, Janov & Cooney, P.C., Albuquerque

### PANELISTS

- Jim Corbridge, Professor Emeritus, University of Colorado School of Law
- David M. Freeman, Professor of Sociology, Colorado State University
- Michael A. Gheleta, Attorney, U.S. Department of Justice, Environment and Natural Resources Division, Denver
- David L. Harrison, Moses, Wittemyer, Harrison and Woodruff, P.C., Boulder
- Justice Greg Hobbs, Colorado Supreme Court
- Tracy Labin, Native American Rights Fund, Boulder
- Gordon N. McCurry, Groundwater Hydrologist, Camp Dresser & McKee, Denver
- Bill Paddock, Carlson, Hammond & Paddock, L.L.C., Denver
- David Robbins, Hill & Robbins, Denver
- Lee T. Rozaklis, Hydrosphere Resource Consultants Inc., Boulder
- Hal Simpson, State Engineer, Colorado Division of Water Resources
- Ken Strzepek, Associate Professor of Civil, Environmental and Architectural Engineering, University of Colorado
- Christine Turner, Research Geologist, U.S. Geological Survey, Denver
- Jeanne S. Whiteing, Whiteing & Smith, Boulder

The conference also featured readings by Kathleen Dean Moore, Professor of Philosophy from Oregon State University.

AUDIENCE. The event was attended by 133 registrants representing 15 states (Alaska, Arizona, California, Colorado, Idaho, Kansas, Montana, New Mexico, North Carolina, Tennessee, Texas, Utah, Vermont, Washington and Wyoming), the District of Columbia, three tribes (Pueblo of Jemez, Hualapai Nation of the Grand Canyon, and the Confederated Salish and Kootenai), and one foreign nation (India). The most common affiliations were (in order): federal agencies, non-profit organizations, universities, state and local governments, law firms, and tribes.

## THE REFORM AGENDA: A CONCEPTUAL AND HISTORICAL OVERVIEW

A rich literature exists identifying potential water law and policy reforms. In his presentation reviewing the relevant literature, attorney Larry MacDonnell identified three primary reform perspectives: economic, environmental, and equity. Advocates of the economic perspective generally argue for the treatment of water as an economic commodity, subject to largely unconstrained market exchanges driven by private decisions. Historically, this position has primarily been based on the notion that subsidies, inappropriate pricing policies, and undue restrictions on transfers contribute to growing water scarcities.<sup>1</sup> A different focus is characteristic of writings from the environmental perspective, which has at least two major threads.<sup>2</sup> One thread is the preservation ethic, and the corresponding concern over the ecological impacts of dams and development, and the lack of instream flow protections afforded under strict prior appropriation regimes. The other is the concern for pollution, also largely ignored under state water laws focused narrowly on issues of water allocation. The final perspective, equity, is somewhat less distinct or well-defined than the previous two, but is equally pervasive in the literature. The equity perspective urges greater protections for excluded values and/or interests (e.g., non-rightsholders, tribes, rural communities, public interests, areas of origin) in traditional water laws and decision-making processes.<sup>3</sup> Each of these themes was revisited several times throughout the conference, and therefore provides a useful conceptual framework for considering the existing reform agenda.

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<sup>1</sup> See, for example, Ernest A. Engelbert with Ann Foley Scheuring, Water Scarcity: Impacts on Western Agriculture (Berkeley: University of California Press, 1984); and Terry L. Anderson, Water Crisis: Ending the Policy Drought (Baltimore: The Johns Hopkins University Press, 1983).

<sup>2</sup> See, for example, Marc Reisner, Cadillac Desert (New York: Viking Penguin, 1986); and Sarah F. Bates, David H. Getches, Lawrence J. MacDonnell, and Charles F. Wilkinson, Searching Out the Headwaters (Washington, D.C.: Island Press, 1993).

<sup>3</sup> See, for example, F. Lee Brown and Helen M. Ingram, Water and Poverty in the Southwest (Tucson: University of Arizona Press, 1987); Daniel McCool, Command of the Waters: Iron Triangles, Federal Water Development, and Indian Water (Berkeley: University of California Press, 1987); Charles F. Wilkinson, Aldo Leopold and Western Water Law: Thinking Perpendicular to the Prior Appropriation Doctrine, 24 Land and Water Law Review 1 (1989); and David H. Getches, From Ashkhadad, to Welton-Mohawk, to Los Angeles: The Drought in Water Policy, 64 University of Colorado Law Review 523 (1993).

*“The 21<sup>st</sup> century is the century of administration of over-appropriated rivers.”*

— JUSTICE GREG HOBBS, Colorado Supreme Court

*“The challenge is dealing with embedded decisions.”*

— LARRY MACDONNELL, Lawrence MacDonnell, P.C.

*“Why is conservation considered less of a federal and regulatory issue than water quality?”*

— PROFESSOR BUZZ THOMPSON, Stanford Law School

*“The way we think about water and the environment needs to change, and it needs to change pretty substantially.”*

— BRIAN RICHTER, The Nature Conservancy

*“There is a need for more integrated and holistic views of ecosystems.”*

— CHRISTINE TURNER,  
U.S. Geological Survey

*“We haven’t made tremendous progress in the West—with the exception of some ad hoc negotiations—in dealing with these area of origin issues.”*

— PROFESSOR DAVID  
GETCHES, University of  
Colorado School of Law

*“I’m bothered by the ad hoc approach to choosing rivers for restoration. States with fewer electoral votes seem to have fewer worthy rivers.”*

— PROFESSOR DENISE  
FORT, University of New  
Mexico School of Law

A related framework was provided by Tom Graff of Environmental Defense, based on the two intellectual architects of the seminal 1973 report of the National Water Commission: Charley Meyers and Joe Sax.<sup>4</sup> Meyers was an advocate of the economic perspective, urging the use of markets to overcome water misallocations. Sax, on the other hand, is primarily concerned with the frequent disregard for environmental values, urging a greater respect for public interests in water law and policy.<sup>5</sup> This agenda primarily rests on environmental litigation, a central element of western law and policy over the past two decades.



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<sup>4</sup> Water Policies for the Future (Final report of the National Water Commission, 1973). At the time of the Commission, Meyers was Dean of the Stanford Law School; Sax was a law professor at the University of Michigan. Several presenters mentioned the importance of the Commission’s report—although noting that it extends past the “two decades” focus of the conference.

<sup>5</sup> In particular, Sax has been a champion of the public trust doctrine (Joseph Sax, *The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention*, 68 Michigan Law Review 471 (1970)). This doctrine is the basis of the legal protections now afforded Mono Lake (*National Audubon Society v. Superior Court*, 658 P.2d 709, cert denied, 464 U.S. 977 (1983)).

As Graff and many other conference presenters noted, these perspectives (economic and environmental) are often most persuasive when joined together by reforms promising to reduce or eliminate environmental abuses through the exercise of economic instruments.<sup>6</sup> One of the best examples of this was the canal lining deal between Metropolitan Water District (of Southern California) and the Imperial Irrigation District, prompted by a 1983 study by the Environmental Defense Fund.<sup>7</sup> Another prominent California example involves the reduction of subsidies and increased water rates to fund restoration codified in the Central Valley Project Improvement Act (CVPIA) of 1992, described by Graff as “the most significant piece of water policy reform legislation in American history.” This assessment was echoed by Project Manager Dick Daniel, who identified CVPIA as one of several California initiatives where economic tools have been successfully used to create water for the environment.

Clearly, the past two decades have featured an impressive body of thought urging reform of western water law and policy. As former Interior solicitor John Leshy observed, “We have not lacked for good advice.” But has the reform agenda moved forward? Most presenters concluded the answer is yes, although the pace of change is rarely sufficient to satisfy the reformers, and the need for change remains unproven among a significant segment of water users and policy-makers. MacDonnell described this change as being “incremental rather than fundamental,” featuring “accommodation rather than revolution.” Several other presenters reach similar conclusions, but caution that recent years have featured both victories and losses for the reformers and for the “counter-reformers.” As Graff observed, “for every Counter-Reformation yin one can find a corresponding reformist yang.”

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<sup>6</sup> See, for example, Marc Reisner and Sarah Bates, *Overtapped Oasis: Revolution or Reform for Western Water* (Washington: Island Press, 1990); and Zach Wiley and Tom Graff, *Federal Water Policy in the United States—An Agenda for Economic and Environmental Reform*, 13 *Columbia Journal of Environmental Law* 325 (1988). Perhaps the best illustration of economics and environmentalism working together is the general demise of the dam-building era. Many projects initially challenged on environmental grounds (e.g., President Carter’s “hit list” of projects in 1977) were ultimately derailed only when higher economic standards (e.g., more stringent cost-sharing rules) were enacted in the 1980s.

<sup>7</sup> *Trading Conservation Investments for Water: A Proposal for the Metropolitan Water District of Southern California to Obtain Additional Colorado River Water by Financing Water Conservation Investments for the Imperial Irrigation District* (Environmental Defense Fund, 1983). The arrangement called for MWD to fund canal lining within IID, with the conserved water made available to MWD. The arrangement is environmentally beneficial in that it reduces the demand for new development.



## SOME TOOLS OF THE TRADE

*“I think water conservation is a good thing. ... I have many good friends who are water*

*conservationists.”*

— DAVID HARRISON, Moses, Wittemyer, Harrison & Woodruff, P.C.

*“Legislatures need to take a more active and prescriptive role if conservation is to return water to rivers.”*

— PROFESSOR BUZZ THOMPSON, Stanford Law School

*“There’s only a handful of well-established water markets in the western U.S.”*

— PROFESSOR BONNIE COLBY, University of Arizona

Much of the conference focused on the strategies and tools employed by reformers. One of those strategies is water conservation, necessary, according to Professor Buzz Thompson, to mitigate the inefficiencies endemic to traditional western water law and policy.<sup>8</sup> Incentives for excessive use take many forms, including subsidies and average cost (rather than marginal cost) pricing regimes, and the failure to enforce “reasonable use” provisions in water codes. Conservation strategies are also multi-faceted, and include at least four types of strategies: (1) voluntary (appeals to conscience), (2) price signals, (3) technology, and (4) mandates. Each approach can be effective, but often entails substantial effort and, in the case of pricing mechanisms, can create significant public opposition. Technology-based programs often provide a desirable blend of efficacy and political viability; e.g., a variety of low-flow water fixtures can painlessly reduce municipal water use by approximately ten percent.<sup>9</sup> Even greater savings are possible in the agricultural sector. Hydrologist Gordon McCurry, for example, observed that efficiencies can almost double by moving from furrow irrigation to sprinkler or, better yet, drip systems.

Ultimately, however, Thompson sees the greatest potential in strategies reliant on “price reforms and markets,” and challenges policy-makers and water managers to use these tools more aggressively. Economic incentives were also the focus of remarks by Professor Bonnie Colby, who proposed a water pricing “wish list” including metering (with billing based on volume), elimination of water and power subsidies,



increasing block rate structures, and special surcharges for factors such as season of use, current availability of water, and unique transmission expenses.

<sup>8</sup> Perhaps the seminal work on western water conservation and efficiency was the report of Bruce Driver entitled, Western Water: Tuning the System, prepared for the Western Governors’ Association (1986).

<sup>9</sup> See, Mary E. Renwick and Sandra O. Archibald, *Demand Side Management Policies for Residential Water Use: Who Bears the Conservation Burden*, 74 Land Economics 343, 354-355 (1998).

Colby also provided a compelling argument for water marketing, arguing that vast economic disparities associated with different types of water use suggest both a need and an opportunity for reallocating water in the West.<sup>10</sup> Many types of market exchanges are possible, distinguished by the mechanisms used to establish prices, the ways in which buyers and sellers locate each other, and the permanence of the arranged transfer. Most current water markets in the West are “thin,” featuring only a handful of buyers and sellers. Still, many notable exchanges can be identified. One example is the Arizona Water Bank, which strategically uses Central Arizona Project water (and capacity), groundwater reserves, and artificial recharge technologies to diffuse conflicts and extend water supplies in Arizona and, through a complex interstate arrangement, with Southern Nevada. Also significant is the experience with the California Water Bank during the 1991-1992 drought. The bank acquired over 800,000 acre-feet of water in a six-week period in 1991, more than enough to meet municipal demands, and prompting Colby to observe: “In spurring innovation, one good drought is more effective than 1,000 speeches by economists.”

One barrier to water marketing, and to improved water management in general, is the extent of unquantified or disputed water rights in the West. One area where this issue arises is tribal water rights. During the Reagan and (first) Bush administrations, tribal water rights settlements were a priority. However, as reported by tribal attorney Sue Williams, progress has slowed dramatically during the Clinton and (current) Bush administrations due to federal budgetary constraints and to the increasingly complex challenge of finding water supplies within already overappropriated systems. Tribal water settlements are also often burdened with larger issues of tribal sovereignty, and the degree to which the federal government is reluctant to aggressively exercise (or relinquish to the tribes) its responsibilities for protecting tribal interests in water.<sup>11</sup>

<sup>10</sup> The literature on western water marketing is extensive. See, for example, National Research Council, Water Transfers in the West (Washington, D.C.: National Academy Press, 1996); Lawrence MacDonnell, The Water Transfer Process as a Management Option for Meeting Changing Water Demands, report to the U.S. Geological Survey prepared by the Natural Resources Law Center, University of Colorado-Boulder (1990); Richard W. Wahl, Markets for Federal Water: Subsidies, Property Rights, and the Bureau of Reclamation (Washington, D.C.: Resources for the Future, 1989); and Zach Wiley and Tom Graff, Federal Water Policy in the United States—An Agenda for Economic and Environmental Reform, 13 Columbia Journal of Environmental Law 325 (1988).

<sup>11</sup> Panelist and attorney Tracy Labin suggested that the tribal/federal relationship has been further impaired by a recent court decision based on the Freedom of Information Act that opens up private communications between tribes and their federal attorneys to outside scrutiny (see, *United States v. Klamath Water Users Association*).

*“Get the damn rights quantified and then we can trade.”*

— DAVID HARRISON,  
Moses, Wittemyer,  
Harrison & Woodruff,  
P.C.

*“[Tribal] settlements result in new forms of governance in many of our watersheds.”*

— JOHN THORSON,  
attorney and consultant



*“How in the world can the average citizen follow these adjudications ... they’re not going to live long enough.”*  
— JOHN THORSON,  
attorney and consultant

*“The Endangered Species Act has been the uninvited guest at every western water policy dinner party.”*  
— JOHN LESHY, former  
Interior Solicitor



Another strategy employed to better quantify existing water rights is stream adjudications. The mechanics of stream adjudications vary somewhat from state to state, depending on whether the state has a predominantly judicial, administrative, or mixed system of tracking water rights. Early adjudications were primarily motivated by the desire to facilitate water projects, whereas modern adjudications frequently are prompted by concerns over tribal and federal reserved rights, and more generally, the increased competition for water associated with population growth, energy development, and water marketing schemes.

John Thorson, attorney and former Special Master of the Arizona General Stream Adjudication, provided conference attendees with a status report on these efforts. While some states (such as Colorado and Wyoming) are near the end of the adjudication process and others (such as Idaho and Montana) have made extensive progress, progress in other states (including Nevada, New Mexico and Washington) is limited to specific basins. Additionally, some states (namely Arizona and Oregon) are only in the beginning stages, while several others (e.g., Alaska, California, Kansas, Nebraska, North Dakota, South Dakota and Texas) have generally not embarked on stream adjudications. Adjudications are normally difficult, lengthy, and expensive processes, and are often flawed by omitting concerns such as groundwater resources, water quality and environmental constraints, and reasonable use and conservation issues. Their chief benefit, according to Thorson, appears to be in “forcing resolution of tribal and federal water rights.”

Environmental litigation also remains an important tool for reform. At the heart of litigation-inspired reforms is the Endangered Species Act (ESA). The importance of this act in promoting reform was most forcefully expressed by Lesly who argued that “compliance with the Endangered Species Act has driven water policy” in the West, and that “apart from ESA-inspired changes in particular settings, there seems to have been very little reform in state water policy and management in the past fifteen years or so, except in the area of groundwater storage and recovery.” While many conference participants suggested Lesly understated the record of state-based innovation<sup>12</sup>, the central role of the Endangered Species Act was widely acknowledged. Even advocates of local (bottom-up) reform, such as Professor David Freeman, acknowledged the importance of federal hammers (such as ESA) in promoting on-the-ground reforms in how water is physically managed. The role of collaborative processes, often stimulated and buttressed by regulation and litigation, was also a common theme among many presenters, suggesting that litigation is increasingly viewed as a stimulus, rather than a vehicle, for reform and problem-solving.

The conference also considered the role of science and technology in reform efforts. Professor Ken Strzepek observed that reformers have made greater use of technology than science, as evidenced in tools for water conservation and efficiency, and in modeling and decision-support applications. Applying advances in scientific thinking are proving to be more challenging. One of those advances is the “natural flow” paradigm, which suggests that protecting ecological resources should not merely be defined in terms of minimum instream flows, but rather as devising hydrologic management regimes that mimic natural variabilities. This perspective, outlined in detail by Brian Richter of The Nature Conservancy, can be exceedingly difficult to accommodate into the existing (and still evolving) legal framework of instream flow protection. Also difficult to reconcile is the functional and geographic specialization of agencies charged with managing water systems physically defined by watershed and river basin level processes. Science, increasingly, challenges water managers to think in a more holistic and comprehensive manner than is typical of western water institutions. The challenge for reformers is to craft these ideas into understandable and workable innovations that can be understood and accommodated by the water management community.

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<sup>12</sup> Some notable reforms occurring at the state level include the Arizona Groundwater Management Act, the Northwest Power Planning Council, the Idaho water bank, the Oregon instream flow program, the exercise of the public trust doctrine in California, the California Coastal Commission, and management of the Edwards Aquifer in Texas.

*“If the Federal hammer is destroyed, sheathed, or used too lightly, the status quo will prevail. However, if it is used too heavily, we’ll destroy these local water organizations that are critical to actually managing water.”*

— PROFESSOR DAVID FREEMAN, Colorado State University

*“Environmentalists aren’t litigating quite as much as a first or second resort.”*

— TOM GRAFF, Environmental Defense

*“As scientists, we have to get much more engaged in showing the public what we know.”*

— CHRISTINE TURNER, U.S. Geological Survey

*“How much alteration of natural flow regimes is too much?”*

— BRIAN RICHTER, The Nature Conservancy

*“What is the problem we are trying to solve with water conservation?”*

— DAVID HARRISON, Moses, Wittemyer, Harrison & Woodruff, P.C.

Conservation is a *“clever pursuit of insane goals.”*

— UNIDENTIFIED AUDIENCE MEMBER

## A FLAWED AGENDA?

Each of the strategies and tools used by the reformers is problematic in various ways. In fact, a discussion of these shortcomings was a central theme in many presentations. McCurry, for example, emphasized the drawbacks of conservation programs, observing “one farmer’s waste is another farmer’s diversion amount.” The impact of conservation and efficiency programs on water supplies and hydrologic regimes can be widespread, especially if greater water-use efficiency is not offset with corresponding reductions in streamflow diversions.<sup>13</sup> Additionally, the economic and political costs of many conservation strategies can be formidable. Referring to the ouster of several political leaders in Tucson following a conservation-minded water rate increase, Colby quipped “no good deed goes unpunished.” Colby also forcefully articulated the negative qualities that some water transfers have on excluded third parties, such as rural agricultural communities decimated by water exports. Of course, as later noted by Professor David Getches, any effort to mitigate these impacts is likely to limit the economic benefits of the possible transfers by raising transactions costs. What, then, is the proper balance between market efficiency and social equity?



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<sup>13</sup> This concern was raised by Colorado State Engineer, Hal Simpson, who argued that return flows on the South Platte and Arkansas Rivers, in particular, are essential to maintain streamflows, satisfy other rightsholders, and honor interstate compacts.

Several questions also arose about the efficacy of the legal tools. Tribal settlements, for example, were shown only to be viable as long as non-Indian water users remained whole and as long as federal funds were available to broker deals. Even this does not ensure the tribes will actually enjoy the benefits of water development, as environmental restrictions (e.g., Endangered Species Act) impede new development. Attorney Jeanne Whiteing succinctly articulated this reality: “Some tribes are not on the politically correct side of development anymore.” Marketing of tribal water is also generally prohibited.

Similarly, the value of stream adjudications was directly questioned. Several participants, including Professor Jim Corbridge, suggested that ongoing adjudications are likely to have very limited value, largely due to key omissions—namely, the failure to consider surface water/groundwater connections, the frequent focus on diversion rates rather than consumptive use, and largely ignored issues of waste and inefficiency. Others, such as Colorado Supreme Court Justice Greg Hobbs and attorney David Harrison, countered that the adjudications must be completed to maintain the integrity of prior appropriation and to allow healthy markets in water to evolve. But can these goals really be achieved through narrowly focused and imperfect adjudications, especially given emerging scientific norms stressing a more comprehensive and holistic approach to water management?



*“Tribal water development is of the ‘back of the bus’ mentality.”*

— JEANNE WHITEING,  
Whiteing & Smith

*“I see no alternative to completing the adjudications. ... I do not know how to render a judgment without the law and the facts.”*

— JUSTICE GREG  
HOBBS, Colorado  
Supreme Court

*“Fundamentally, my bias is, at the end of the day, environmentalists have to advocate for the environment, tribes for the tribes.”*  
— TOM GRAFF,  
Environmental Defense

*“Making liaisons between environmentalists and the tribes is a lot more difficult than it seems.”*  
— SUE WILLIAMS,  
Williams, Janov &  
Cooney, P.C.

The liabilities of existing reform tools and strategies interact in ways that can compound their significance, as each of three reform viewpoints—economic, environmental, and equity—is at least occasionally in conflict with the other two. For example, improving the economic efficiency of water allocation may leave little for non-market public goods (such as endangered species), impoverished tribes, or rural communities brought into existence by past water law and policy decisions emphasizing low-value agriculture. Managing for environmental protection will undoubtedly constrain some economic activity, and block some parties—such as tribes—from enjoying the benefits of new water development. Similarly, a management scheme emphasizing equal treatment of all users and values is likely to run afoul of any notion of economic efficiency, and offers little help for ecosystems in need of restoration. It also can lead to situations of “competing equity,” where the remedy for a past injustice may entail imposing a new burden on another party. A variety of the “takings” arguments demonstrate this element, and are a key reason why the reform agenda remains unwelcome among many water users. Even advocates of reform must concede that while the agenda has been remarkably consistent over the past two decades, it is not always particularly coherent.<sup>14</sup>



<sup>14</sup> The consistency of the reform agenda is readily apparent in comparing the final reports of the National Water Commission (Water Policies for the Future, 1973) and the Western Water Policy Review Advisory Commission (Water in the West: Challenge for the Next Century, 1998).



Presumably, these challenges and inconsistencies can be managed. The basic goals of reform remain widely accepted (although the devil is in the details), and progress has been made on several fronts. But lurking in the weeds is the realization that the existing reform agenda does not provide a lasting solution to the underlying problems facing the region, especially given the high rates of population growth seen in the arid and semi-arid West. For the foreseeable future, we can strategically exploit the slack (or “slop”) in the system to accommodate diverging values and objectives, but where does that lead? If, as MacDonnell argues, “accommodation is the name of the game,” how can the West win if conservation, reallocation, settlements, adjudications, and other tools are manipulated to fuel more growth and more inflated (and unrealistic) expectations concealing the finite nature of water resources? The answer likely lies in the concept of sustainability, the latest concept in the lexicon of natural resources reform. Unless the concept of sustainability can be more effectively integrated into the nuts-and-bolts of reform strategies, the current path of reform may lead to a region more vulnerable to drought than ever before, and to water systems offering increasingly less certainty—the goal underlying most water law and infrastructure decisions.

*“For the past 20 years, we have been living on the slop, the excess, in the system. As long as we have that excess, we can play the accommodation game.”*

— LARRY  
MACDONNELL,  
Lawrence MacDonnell,  
P.C.

*“Much of what we argue about is allocating the uncertainty of things.”*

— DAVID HARRISON,  
Moses, Wittemyer,  
Harrison & Woodruff,  
P.C.

*“It is important to create an institutional context within which you can revisit decisions.”*

— BRIAN RICHTER, The Nature Conservancy

*“We’re making water decisions whenever we make land-use decisions.”*

— PROFESSOR DAVID GETCHES, University of Colorado School of Law

*“Reformers have failed to develop a compelling message.”*

— JOHN LESHY, former Interior Solicitor

To institutionalize the concept of sustainability into reform efforts, reformers may find it necessary to broaden their focus beyond the accommodation game. One area may be governance arrangements; i.e., those processes and rules used to make decisions about water allocation, use and management. Professor Denise Fort, for example, suggests part of the answer lies in basin-level management, agency restructuring or dismantling (with an eye toward the Corps of Engineers), more collaboration, and disassembling the “iron triangles” associated with federal subsidies and congressional involvement in western water development decisions. It may also be necessary, according to Getches, to better integrate land-use considerations into water law and policy forums. Or the solutions may entail even more fundamental changes regarding how we view water and water management. Harrison, for example, suggests many observed resource management problems might lie in the risk-averse traditions of water managers: “Everything is overlain by Mother Nature’s randomness; we should get used to that.” Similarly broad thinking was found in Thompson’s suggestion that, ultimately, “states must start charging for the water itself.” The implications of this type of thinking are, admittedly, significant, but no greater than the consequences of ignoring these issues and their possible solutions.



## LOOKING AHEAD

Advocates of water law and policy reform have covered a lot of ground in the last two decades. It is evident, however, that achieving goals of economic rationality, environmental protection, and universal equity, all nested within an evolving framework of sustainability, is destined to be a much longer journey. If the course of water institutions is to be changed to reflect the values and priorities of the New West, then this process will not—cannot—be easy. As attorney Bill Paddock reminded the conference audience, “a whole series of entanglements” are associated with reform, as people have “lives predicated on how water was allocated in the past.”

No element of western water law is more entrenched than the doctrine of prior appropriation. Looking forward to the unfinished elements of the reform agenda, conference participants did not anticipate nor advocate abandoning prior appropriation in the name of reform. Nonetheless, inspired by a whimsical debate in 1991 between Professor Charles Wilkinson and Justice Hobbs regarding the alleged death of “Prior,” conference participants occasionally debated the salience of the doctrine in shaping future reform.<sup>15</sup> Ultimately, Getches provided the most pragmatic spin on the issue suggesting that “We are living in old Prior’s house, and it’s in a Historic District; so rather than remodel it, lets try to get comfortable in it.”

Exactly how to “remodel” prior appropriation is a controversial issue, even among the reformers, in part because it is closely linked to federal/state issues. Many westerners clearly resent the key role the federal government has played in promoting reform in recent decades, and resist additional federal initiatives as inappropriate meddling and contrary to notions of local control. However, the issue is probably not best described as being between federal and state, but rather is between proponents of reform and proponents of the status quo, with the former generally finding a more sympathetic ear at the federal level.<sup>16</sup>

<sup>15</sup> Wilkinson had pronounced “Prior” dead after the veto of Two Forks dam in 1990. (See, Charles F. Wilkinson, *In Memoriam: Prior Appropriation 1848-1991*, 21 *Environmental Law* v (1991), and Gregory J. Hobbs Jr., *The Reluctant Marriage: The Next Generation* (A Response to Charles Wilkinson), 21 *Environmental Law* 1087 (1991).)

<sup>16</sup> This issue was raised in an audience discussion with panelist David Robbins regarding the prohibition in Colorado barring federal agencies from holding state instream flow rights. While it should not matter, in principle, who holds the right, Robbins conceded that water users wary of the instream flow program feel more comfortable with these rights being subject to state, not federal, oversight. Conversely, environmentalists typically do not trust the state to adequately enforce instream flow rights and feel that the prohibition on both private and federal ownership is unwarranted.

*“This isn’t a problem unique to the federal government. .... Every state in the western United States—every state in the Union—has dealt with issues of changing objectives.”*

— DAVID ROBBINS, Hill & Robbins

*“I’m not for scrapping the prior appropriation doctrine.”*

— PROFESSOR EMERITUS JIM CORBRIDGE, University of Colorado School of Law





*“We ought to seriously consider a federal program to induce the states to reform their systems.”*

— JOHN LESHY, former Interior Solicitor

*“We need to devote more resources to water management problems.”*

— LEE ROZAKLIS, Hydrosphere Resource Consultants

One proposal for easing this intergovernmental tension while promoting improved water management was offered by Leshy, who suggested that the federal government should consider funding state efforts at water law and policy reform.<sup>17</sup> While the specifics of this idea were not developed and the politics of the arrangement were conceded to be “difficult but not impossible,” at least three elements of the initiative were generally well received. First, the proposal acknowledged that water management in the West is not funded at a level consistent with its importance. Second, the idea that the public (i.e., taxpayers) should pay for reforms having broad public benefits was widely viewed as equitable. And third, the proposal acknowledged that the federal government can play a role in facilitating change, but recognized the state as the level where specific reforms should originate.



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<sup>17</sup> Leshy did not offer a specific model upon which to base the program, but suggested it may have similarities to state capacity building elements associated with federal air and water pollution management programs, and planning grants associated with the Water Resources Planning Act of 1965.

In lieu of a renewed federal investment in western water of the type envisioned by Leshy, the short-term strategy of the reformers will likely emphasize the better use of existing tools. A variety of opportunities exist to better use price signals and markets in water management. Water freed up through conservation can more aggressively be targeted to resolve environmental and equity problems, rather than merely feeding new sprawl. Tribal settlements can be given a higher priority among policy-makers, and results improved by limiting negotiations to issues of water. Stream adjudications can perhaps be streamlined by relying more heavily on administrative (rather than judicial) processes,<sup>18</sup> and can yield more useful outcomes if a broader range of hydrologic connections and relationships are acknowledged. Litigation can be used selectively to set agendas, but perhaps more importantly, to nudge voluntary negotiations toward resolution. Scientific learning can better shape how we define problems and possible solutions, with technological advances used to realize tangible gains. All this is possible and, perhaps, essential, if water law and policy reform is to continue its march forward.



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<sup>18</sup> Panelist and attorney Mike Gheleta suggested that administrative processes have an informality, a give-and-take, and a use of technical information that is often not present in judicial processes. Consequently, judicial review of administrative processes may be preferable to exclusively judicial or administrative adjudications.

*“Only local organizations can manage water 24/7.”*

— PROFESSOR DAVID FREEMAN, Colorado State University

*“We may be moving away generally from litigation as a problem-solving vehicle in our society.”*

— PROFESSOR DAVID GETCHES, University of Colorado

*“We need to see more collaboration, more grassroots efforts.”*

— PROFESSOR DENISE FORT, University of New Mexico School of Law