
Speeches

Expanding the Watershed: Certainty and Sustainability in the Twenty-First Century*

**Second Annual Getches-Wilkinson Center for
Natural Resources, Energy & Environment
Distinguished Lecture Series
University of Colorado Law School
Boulder, Colorado
March 10, 2015**

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* This Article is an adaptation of the speech that was presented by Deputy Secretary Connor at the Second Annual Getches-Wilkinson Center's Distinguished Lecture held on March 10, 2015 in Boulder, Colorado.

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I. INTRODUCTION

It is great to be back here in Boulder, particularly given the last two weeks of Congressional budget hearings. Last year, I was at the University of Colorado on the day I was confirmed as Deputy Secretary of the U.S. Department of the Interior, which seemed appropriate given that I am still convinced I would not be here today in this capacity were it not for my time at CU. This school and most importantly, the people who taught me and supported me—led by the namesakes of this Center, David Getches and Charles Wilkinson—as well as others I worked for such as Larry McDonnell, are as much responsible for the opportunities I have had as others who have also supported and taught me professionally during the course of my career. Thank you for giving me this opportunity.

The topic of my conversation is “Expanding the Watershed: Certainty and Sustainability in the Twenty-First Century.” Tonight, I want to share my perspective on expanding our understanding of the scope and magnitude of the water challenges we are currently facing, and also to share some thoughts on the best ways to meet these challenges through approaches that are efficient, equitable, and ecologically sustainable, a set of laudable goals I borrowed from a David Getches article. I will also revisit some of the history of federal water resources policy in the West and the evolution, belatedly so, to a true watershed approach in our thinking and our solutions. This transition has necessitated broadening our view from paying attention to only a few interests in the watershed, to engaging a broader set of stakeholders.

II. HISTORY

Our history of unsustainable and special interest water management began with the early idea of man’s mastery over nature. A term coined by Charles Dana Wilber in the 1880s in his book *The Great Valleys and Prairies of Nebraska and the Northwest* is “rain follows the plow.”¹ The theory was that the increased settlement in the western United States, and the agricultural development it brought, would ultimately bring increased rainfall. This, of course, was not the case. At the same time, though, John Wesley Powell was pioneering a systematic and scientific assessment of the water resources of key parts of the West. His was really the first, and nearly only, voice of caution as to the degree to which the natural hydrology of the western landscape could support the small family farms

1. CHARLES DANA WILBER, *THE GREAT VALLEYS AND PRAIRIES OF NEBRASKA AND THE NORTHWEST* 143 (1881).

that had populated the lands east of the 100th meridian. Powell's expeditions around the western United States shaped the conclusions in his *Report on the Lands of the Arid Region of the United States*, published in 1879.² The Report concluded that the western region of the United States was not suitable for agriculture and grazing, and instead proposed establishing settlements near watersheds.³ However, as Wallace Stegner made clear in *Beyond the Hundredth Meridian*, "[p]olitically and economically, the West as a boom market depended on vision far more than on facts; the facts could be taken care of later."⁴ Many attacked Powell and the reform group he was associated with, simply because they were bad for business.

The attacks were successful and, needless to say, Congress ignored Powell's proposals and passed legislation that encouraged pioneer settlement of the American West based on agricultural use of land and the traditional rectangular 160 acre plots.⁵ It is not an overstatement to say that the "rain follows the plow" theory prevailed in shaping American settlement policy in the late nineteenth and early twentieth centuries. Years later, people would remember Powell's recommendations; however, it has only been in the last twenty to twenty-five years that we have really started to act in accordance with his teachings.

At the heart of both our previously misguided and, I would now argue, our current more progressive water policy, has been the Bureau of Reclamation ("Reclamation"). Reclamation was established to address hydrologic variability and the chronic shortage of water in the western United States.⁶ The agency built significant infrastructure to store and deliver water and generate hydropower, primarily for agriculture. Operating critical infrastructure in seventeen Western states for more than 100 years, Reclamation has played an important role in developing the western United States.

In the early years of our nation's water resources development, policies were strictly geared toward economic growth and development. In the 1930s, major Depression-era public works projects led to construction of the Hoover and Grand Coulee Dams, among others. The construction of multi-purpose projects to be used for irrigation, power,

2. JOHN WESLEY POWELL, U.S. GEOLOGICAL SURVEY, REPORT ON THE LANDS OF THE ARID REGION OF THE UNITED STATES WITH A MORE DETAILED ACCOUNT OF THE LANDS OF UTAH (1879).

3. *See id.* at 1-4.

4. WALLACE STEGNER, BEYOND THE HUNDREDTH MERIDIAN: JOHN WESLEY POWELL AND THE SECOND OPENING OF THE WEST 238 (1982).

5. *See* Homestead Act of 1862, Pub. L. No. 37-64, 12 Stat. 392.

6. *See* Newlands Act of 1902, Pub. L. No. 109-265, 32 Stat. 388.

and flood control continued into the 1940s and 1950s. Members of Congress from western states supported these federal reclamation projects. In *Cadillac Desert*, Marc Reisner noted “[e]very Senator still wanted a project in his state; every Congressman wanted one in his district; they didn’t care whether they made economic sense or not.”⁷ As all those who work on water in the West know, the saying that “water flows uphill towards money”⁸ is still cited on a daily basis and, at least during the era of large water project construction, was generally regarded as a given. In *Fire on the Plateau*, Charles Wilkinson further discussed the development of a significant part of the West.⁹ Between 1955 and 1975, there was what Charles called the “Big Buildup”: “the cities surrounding the [Colorado] Plateau – Denver, Albuquerque, El Paso, Phoenix, Tucson, Las Vegas, Salt Lake City, San Diego, and Los Angeles – had exhausted their own local resources. Civic leaders organized a concerted campaign for the rapid, wholesale development of the energy and water of the Plateau.”¹⁰ As Charles noted, the modern day Southwest was formed, “transform[ing] it from a backwater region of [eight] million people at the end of WWII, into a powerhouse of roughly 32 million” by 1999,¹¹ and approximately 56 million today in the six Southwest states.¹² “It was one of the most prodigious peacetime exercises of industrial might in the history of the world.”¹³

Without a doubt, Reclamation’s efforts were highly successful in several respects: (1) contributing to the Nation’s food security; (2) providing the backbone for many regional economies; and (3) providing renewable energy for millions. The consequences of this conquest, however—for land, rivers, air and human health—were many, and are still with us today. While many benefited, many others bore the brunt of these negative consequences. By the late 1950s and early 1960s, concerns regarding the environment began to shape water policy. A new emphasis on non-federal cost sharing, scrutiny of project “new starts,”

7. MARC REISNER, *CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER* 116 (rev. ed. 1993).

8. *Id.* at 12.

9. CHARLES F. WILKINSON, *FIRE ON THE PLATEAU: CONFLICT AND ENDURANCE IN THE AMERICAN SOUTHWEST*, at xii (1999).

10. *Id.*

11. *Id.*

12. According to the Department of Commerce’s Bureau of Economic Analysis, the current (2010) population of the Southwest (California, Arizona, Colorado, Utah, Nevada, and New Mexico) is 56 million people. Jonathan Overpeck et al., *Summary for Decisionmakers*, in *ASSESSMENT OF CLIMATE CHANGE IN THE SOUTHWEST UNITED STATES*, at 2 (Gregg Garfin et al., eds. 2013) *available at* <http://swccar.org/sites/all/themes/files/SW-NCA-color-FINALweb.pdf>.

13. WILKINSON, *supra* note 9, at xii.

and questions regarding environmental impacts came to the forefront. During this period, Congress passed major environmental legislation, including the National Environmental Policy Act in 1970,¹⁴ the Clean Water Act in 1972,¹⁵ and the Endangered Species Act in 1973.¹⁶

Fiscal policy, cost sharing requirements, and environmental concerns led to changes in the levels and focus of federal funding for water resources. In 1971, Reclamation's discretionary budget was approximately \$290 million—\$1.7 billion in today's dollars—of which almost two-thirds was for water project construction and twenty percent for Operation and Maintenance (“O&M”), together making up almost ninety percent of the overall budget.¹⁷ Reclamation's budget reached a peak in 1985 at \$1.067 billion—\$2.3 billion in today's dollars—of which over seventy percent was for construction.¹⁸ As major construction on large projects such as the Central Arizona Project and Central Utah Projects wound down, Reclamation's budget transitioned toward more O&M and, by necessity, environmental mitigation.

Reclamation's Fiscal Year (“FY”) 2016 Budget request is \$1.05 billion, of which over forty percent is for O&M.¹⁹ Water project construction is a significantly smaller portion, directed primarily at projects authorized as part of water rights settlements and rural water projects in Montana, the Dakotas, and New Mexico. Beginning in the 1990s, Congress created several new programs to mitigate environmental impacts of water projects, including the Central Valley Project Improvement Act, the California Bay-Delta Restoration Act, and now, San Joaquin River Restoration. These new programs total over \$120 million in President Obama's FY 2016 budget. In addition, over \$150 million is included in Reclamation's Water and Related Resources account for River Restoration work and “Fish and Wildlife Management.” Combined, over twenty-five percent of Reclamation's FY 2016 Budget is now for environmental purposes, while another ten percent is for conservation, research & development (“R&D”), and

14. 42 U.S.C. §§ 4321–4370(h) (2012).

15. 33 U.S.C. §§ 1251–1387.

16. 16 U.S.C. §§ 1531–1544.

17. OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, BUDGET OF THE UNITED STATES GOVERNMENT, FISCAL YEAR 1971, at 110–12 (1970).

18. OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, BUDGET OF THE UNITED STATES GOVERNMENT, FISCAL YEAR 1985, at 5-48–5-54 (1984).

19. BUREAU OF RECLAMATION, U.S. DEP'T OF INTERIOR, RECLAMATION – HISTORIC BUDGET PERSPECTIVE (2015) (on file with the *Colorado Natural Resources, Energy & Environmental Law Review*); BUREAU OF RECLAMATION, U.S. DEP'T OF INTERIOR, *General Statement*, in BUDGET JUSTIFICATIONS AND PERFORMANCE INFORMATION, FISCAL YEAR 2016, at 2, 5, available at http://www.usbr.gov/budget/2016/FY16_Budget_Justifications.pdf [hereinafter FY 2016 BUDGET].

strategic planning.²⁰ That leaves less than twenty-five percent of Reclamation's budget for all other activities, including project construction. Needless to say, Reclamation today is vastly different than it was in its first ninety years of existence.

III. EVOLUTION OF THINKING/ACTIONS

With new laws, new thinking, and even a new Bureau of Reclamation, it was time to take care of the facts that were ignored during Powell's time. New solutions and approaches were possible and necessary to address the imbalances of the past. Charles articulated this vision in *Crossing the Next Meridian*, where he called on us to "redefine the overarching ideas that create the context for our whole treatment of the land and waters of the American West."²¹ In the early 1990s, Charles noted that "sustainability is still largely untried in the United States."²² He said that installing it would bring changes to many parts of our lives, and that it requires, "not just a simple adjustment in focus but rather a fundamental change in concept and approach. Still, the future lies with sustainability."²³

To me, this has been the elusive link in the ongoing pursuit of a workable water policy. My recent predecessors and I at Reclamation recognized these changing dynamics and have tried to operate in a different manner. We are now operating in a more holistic way, pursuing that notion of sustainability. We now look at a basin-wide or watershed approach to address water resource challenges. Moreover, and maybe more importantly, we routinely seek out the views and inclusion of the diverse interests within the watershed that have a stake in the precious and limited water supplies of the West.

In his 1997 law review article on *Colorado River Governance*, David Getches advocated for the Secretary of the Interior to rely on a multi-interest group to develop policies for governing the Colorado River – particularly, traditionally excluded interests such as tribal governments, recreationists, environmentalists, and scientists.²⁴ His logical presumption was that everyone would benefit if equitable means were found to eliminate the uncertainty that results from the exclusion of

20. RECLAMATION – HISTORIC BUDGET PERSPECTIVE (2015); FY 2016 BUDGET at 7.

21. CHARLES WILKINSON, *CROSSING THE NEXT MERIDIAN* 297 (1992).

22. *Id.* at 298.

23. *Id.*

24. David H. Getches, *Colorado River Governance: Sharing Federal Authority as an Incentive to Create a New Institution*, 68 U. COLO. L. REV. 573, 581 (1997).

affected interests from decision-making.²⁵ Inclusion has played out much the way David envisioned.

An example here in Colorado is the Black Canyon of the Gunnison Agreement.²⁶ The Black Canyon is a magnificent landscape with incredible scientific and aesthetic values created by the high spring flows of the Gunnison River over geologic time. Directly above the Canyon is the Aspinall Unit, one of Colorado's and the Upper Basin's facilities that both safeguard the ability to fully utilize compact apportionment, and also provide protection from downstream calls. The very high flows that created the canyon are the same high flows needed for endangered fish near the confluence of the Gunnison and the Colorado Rivers, and both these needs are at odds with the Aspinall Unit's congressional purpose of capturing these flows to protect Colorado's Compact entitlement. After more than thirty years of acrimonious litigation, the federal, state, and local water users, and NGOs were able to craft a solution that reflects historical and environmental values while also protecting present and future needs.²⁷ Crafting a solution with all these diverse interests linked ESA compliance with protecting Colorado's compact entitlement interests—a long-overdue win that should withstand the test of time.

IV. EXPANDING THE WATERSHED

Taking notice of the success of inclusion, this shift in focus has been a hallmark of the work of the Obama administration. Our focus in developing resource management strategies is now very much on a watershed or landscape-level basis. Our goal is to move beyond litigation-driven initiatives and toward more strategic and collaborative approaches to water management. We do not necessarily get to dictate what gets litigated and what does not, but it certainly seems that the amount of litigation concerning the Colorado River, for example, is inversely proportional to the level of stakeholder inclusion associated with individual issues.

We have brought new players to the table and are improving efforts to ensure that local communities and tribal nations have a stronger voice. We are also investing in new initiatives, providing the resources to help

25. *Id.* at 582.

26. *See generally* Decree Quantifying the Federal Reserved Water Right for Black Canyon of the Gunnison National Park, Concerning the Application for Water Rights of the United States of America in Montrose County, No. 01 CW 05 (Colo. Water Ct. Div. 4, Jan. 8, 2009).

27. *See id.*

perform studies and analyses, and carry out the work necessary to craft creative solutions to tough water resource issues.

One example of expanding the watershed is the Basin Studies carried out through the Department of the Interior's WaterSMART program.²⁸ These are collaborative efforts with a wide array of cost-share partners, to evaluate long-term water supply and demand imbalances in specific watersheds. These Basin Studies begin to craft the strategies needed to bridge the gap between supply and demand. There have been a total of twenty-two Basin Studies selected for funding since the beginning of the program in 2009. Currently, we have five completed Basin Studies: Colorado River (spanning parts of the seven states of Arizona, California, Colorado, New Mexico, Nevada, Utah, and Wyoming); Yakima (Washington); Milk/St. Mary's (Montana); Santa Ana River (California); and the Lower Rio Grande (Texas).²⁹ Seventeen studies are ongoing or soon to be started.³⁰

Another example is the federal government's long-standing commitment to Indian water rights settlements. The Obama administration reenergized the negotiation process as a forum for basin-wide solutions through (1) constructive engagement with tribes and neighboring communities that rely on the same water supplies; (2) active support for settlements on Capitol Hill; and (3) most importantly, funding the implementation of settlements. Six Indian water settlements have been signed into law in the past six years, and the opportunity exists for securing more settlements before January 2017.

As a third example, at the Department of the Interior, promoting water conservation as a tool to help alleviate water conflicts has been one of our highest priorities. In addition to supporting the Basin Studies described above, Reclamation's WaterSMART program supports water conservation initiatives; science and data gathering; and technological breakthroughs that promote water reuse, recycling, and infrastructure improvements.³¹ Since 2009, more than \$469 million in federal funding

28. See generally Bureau of Reclamation, *WaterSMART*, U.S. DEP'T OF INTERIOR, <http://www.usbr.gov/WaterSMART/> (last updated Mar. 3, 2015).

29. Bureau of Reclamation, *WaterSMART: Completed Basin Studies*, U.S. DEP'T OF INTERIOR, <http://www.usbr.gov/WaterSMART/bsp/completed.html> (last updated Jan. 13, 2014).

30. U.S. DEP'T OF INTERIOR, *WATERSMART: A THREE-YEAR PROGRESS REPORT 10* (Oct. 2012), available at www.usbr.gov/WaterSMART/docs/WaterSMART-three-year-progress-report.pdf.

31. Secretarial Order No. 3297 on the Department of the Interior's WaterSMART Program (Feb. 22, 2010), issued by the Secretary of the Interior, available at <http://elips.doi.gov/ELIPS/0/doc/162/Page1.aspx>; see also Reclamation Projects Authorization and Adjustments Act of 1992, Pub. L. No. 102-575, 106 Stat. 4600

has been leveraged with non-federal cost share partners through WaterSMART Grants and the Title XVI Program to implement water management improvements and water reuse projects across the West.³² More than 860,000 acre-feet per year of water has been saved, conserved, or created under this program—an amount of water that is sufficient to supply the Phoenix metropolitan area. The President's FY 2016 budget includes a request for an additional \$58.1 million to support the WaterSMART program.³³

V. NEW CHALLENGES AHEAD

While addressing the deficiencies of the past is incredibly important, it is not sufficient to meet the emerging and heightened challenges we are facing across the West. Climate change, and the multiple levels at which it impacts water supply, is at the top of the list of urgent challenges. Decreased stream flows, higher water temperatures, less snowpack, and extreme weather events all need to be addressed in the context of current water management strategies.

Additional stressors to the challenge are population growth, declining aquifers, new energy demands, and ongoing environmental stressors. While the increasing potential for conflicts may provide excellent opportunities for future law school graduates, it wreaks havoc on water managers' need to provide certainty to water users. Quite simply, while the new and improved paradigms for constructive engagement are helpful, effectively addressing the challenging new landscape requires other approaches—both to continue engaging the diverse interests we have been engaging, and to expand our view of the watershed to address new threats and engage new parties.

Fortunately, good examples already exist which demonstrate the benefits of expanding the watershed. The best example is probably our engagement with Mexico on the Colorado River, culminating with the November 20, 2012 bilateral adoption of Minute 319.³⁴ Since the beginning of the current fifteen-year drought cycle, federal agencies,

(directing the Secretary to undertake a program to investigate and identify opportunities for reclamation and reuse of wastewater).

32. Dept. of Interior, WaterSMART Grants and Title XVI (FY 2009 – 2015) (2015) (unpublished table) (on file with author).

33. Press Release, Bureau of Reclamation, President Obama's Fiscal Year 2016 Budget Request for Reclamation is \$1.1 Billion (Feb. 2, 2015), *available at* <http://www.usbr.gov/newsroom/newsrelease/detail.cfm?RecordID=48687>.

34. Minute 319, November 20, 2012 Amendment to the Treaty Respecting Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, U.S.-Mex., Feb. 3, 1944, 59 Stat. 1219 [hereinafter Minute 319].

seven basin states, NGOs, Indian tribes, and scientists have all contributed to various agreements to conserve water; improve the environment, and bring certainty to water allocations. Examples include (1) 2003 California “4.4 Agreements”: Quantification Settlement Agreement and Colorado River Water Delivery Agreement;³⁵ (2) 2007 Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead;³⁶ (3) 2009 Navajo San Juan Settlement;³⁷ and (4) the unique fifty-year Endangered species protection program on the lower Colorado River, known as the Lower Colorado River Multi-Species Conservation Program (adopted by the Secretary of the Interior in 2005).³⁸ Notwithstanding those efforts, the pace of change, ongoing drought, and future projections of water supply and demand imbalance have outpaced the agreements and strategies in place.

Minute 319, is the latest—and *most important*—in a recent series of historic agreements that are designed to improve bi-national cooperation between the U.S. and Mexico on the Colorado River.³⁹ Minute 319 is about expanding the playing field—cooperating on a range of Colorado River activities and stretching existing water supplies. Minute 319 recognizes that we share much more than just a border with Mexico—we share in solutions regarding our mutual concern over water availability in the Colorado River system. Minute 319 was founded on a bi-national set of benefits for both countries that provides the following: (1) certainty for Colorado River operations; (2) shared infrastructure investments to further water conservation actions in Mexico; and (3) water for the environment—addressing the resources of the Colorado River Delta. Not only did we expand the scope of those who will play a role in solutions, but we also expanded the scope of those benefiting from our arrangement. I will never forget the joy and excitement during the pulse

35. Notice of Availability of a Record of Decision for the Colorado River Water Delivery Agreement Implementation Agreement, Inadvertent Overrun and Payback Policy, and Related Federal Actions Final Environmental Impact Statement, 69 Fed. Reg. 12,202 (Mar. 15, 2004).

36. Notice of Availability of the Record of Decision for the Adoption of Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead, 73 Fed. Reg. 19,873 (Apr. 11, 2008).

37. San Juan River Basin in New Mexico: Navajo Nation Water Rights Settlement Agreement, *available at* <https://www.usbr.gov/uc/rm/navajo/nav-gallup/NavStlmt/NavSanJuanStlmtAgr.pdf>. The agreement was authorized by the 2009 Omnibus Public Lands Management Act. Pub. L. No. 111-11, 123 Stat. 1367.

38. OFFICE OF THE SEC’Y, DEP’T OF INTERIOR, RECORD OF DECISION: LOWER COLORADO RIVER MULTI-SPECIES CONSERVATION PLAN (Apr. 2005), *available at* http://www.lcrmscp.gov/publications/rec_of_dec_apr05.pdf.

39. *See* Minute 319, *supra* note 34.

flow event on March 2014, when citizens from the community of San Luis, Baja California, converged upon a flowing Colorado River—*for the first time in history seeing the River flow for environmental purposes*—for an impromptu fiesta. That was a special—unique and historic—moment.

Beyond seeking a broader panoply of affected parties, we need to address new threats. Climate change is exacerbating the threat of wildfire across the West. Since 1980, the number of fires on average has doubled, the acreage tripled, and the fire season is about three months longer. Water resources and water infrastructure are particularly at risk. Flows of sediment, debris, and ash into streams and rivers after wildfires can damage water quality and often require millions of dollars to repair damage to habitat, reservoirs and facilities. As part of the President's Climate Action Plan, we have initiated the Western Watershed Enhancement Partnership (WWEP). Special thanks to Harris Sherman for this program by which the U.S. Department of Agriculture and Department of the Interior are working together with local water users to identify and mitigate the risks of wildfire to parts of our water supply, irrigation, and hydroelectric facilities.

We have an active and successful pilot with the Colorado Headwaters, Big Thompson Partnership, which has brought together Northern Colorado Water Conservancy District, Colorado State Forest Service, U.S. Forest Service, Bureau of Reclamation, and Western Area Power Administration to proactively treat vegetation and plan for post-wildfire restoration in the Colorado-Big Thompson water system. This is a watershed that is critical to over 850,000 people in eight counties in Colorado.⁴⁰ In this time of constrained resources and increasing threats to our natural resources, we need more and more proactive partnerships like this.

VI. NEW GOVERNANCE

So, are we done? Do we have a proven formula for addressing the challenges ahead? Notwithstanding the progress being made, I think not. To keep pace with increasingly complex challenges, those of us at the federal level also need to govern more effectively by bringing parties together and developing effective solutions that will stand the test of time. In that regard, David Getches also had some very insightful views

40. See News Release, U.S. Dep't of Agriculture, USDA and Interior Announce Partnership to Protect America's Water Supply from Increased Wildfire Risk (July 19, 2013), available at <http://www.usda.gov/wps/portal/usda/usdamediafb?contentid=2013/07/0147.xml&printable=true&contentidonly=true>.

using the Colorado River as an example. In the 1997 article I referenced earlier, David stated the following:

In general, the federal government should exercise restraint in the use of its great statutory powers to manage the Colorado River. It should promote cooperative basin solutions that fulfill federal legal obligations. To accomplish this, the Secretary should share the authority recognized in statutes, treaties, and Supreme Court decisions with all the interests that are significantly affected. Constrained only by the requirements of existing legal mandates, the Secretary could heed the advice of a consortium of these interests, effectively delegating a degree of decision-making authority to them.⁴¹

It is hard to delegate authority, but I do think that this is the model we have been moving towards over time. It is merely an extension of the concepts I have already discussed. Indeed, Minute 319 represented this approach as the federal government shared authority in working with the seven basin states in an unprecedented manner to negotiate with a foreign country to secure that agreement.⁴²

Another good example is the Klamath Basin of south-central Oregon and Northwestern California. There, diverse parties (agricultural water users, Indian tribes, two states, counties, and NGOs) took the lead in setting aside their differences and realizing that lasting resolution of water conflicts means that supplies must be shared in order to secure the future. Since 2001, the Klamath Basin has seen irrigation shut-offs, the largest fish die-off in the West, and temporary closure of Klamath Basin stocks to commercial fishing. Yet, through all of this, and under the specter of a devastating ongoing drought, the parties traded in conflict for the simple premise of seeking only what is needed, not what is wanted. With a light, but important federal touch, the parties themselves have changed the dialogue, agreed with each other's priorities, and secured the agreement of a large corporation to remove four dams under its ownership. The basin community now stands on the precipice of resolving one of the most difficult and acrimonious water wars in the West. We will see if Congress will assist in getting these folks across the finish line.

The ultimate test, however, of any new approach at developing solutions may concern California, now undergoing one of its worst droughts in history. The California water situation exemplifies the most complex of situations, likely to redefine water management in the 21st Century. The consequences of management decisions in the Sacramento-San Joaquin Delta region are measured in billions, not millions, of

41. Getches, *supra* note 24, at 574.

42. *See generally* Minute 319, *supra* note 34.

dollars. What we do there has serious implications for millions of people whose lives depend—directly or indirectly—on the Delta. The current drought, combined with ever-increasing stresses on the state's limited resources and the ecosystem that they support, is forcing both the state and the federal government to shift to a new paradigm in water management. The complexity of the situation is exacerbated by the fact that the massive infrastructure of both the Central Valley Project and SWP provide water to a majority of Californians, both north and south. This means that most everyone in California is interested in any and all strategies affecting the projects themselves, or the Delta.

The five federal and state agencies primarily responsible for drought response have worked this year to develop drought operations plans and strategies that build upon actions taken in previous years in order to optimize water supplies while maintaining environmental protections. Much has already been litigated, and I hope we can increasingly engage the broader public and interested parties in ongoing operations, as well as mid to long-term strategies, that will help all interests, and facilitate their increased input in decision-making. Governor Jerry Brown is leading this effort, and we at the federal level are committed to a strong partnership with the State of California.

VII. CONCLUSION

In sum, we have come a long way in our approach to managing water resources. And the changes I have noted at the federal level are also taking place at the state level. From that standpoint, I would like to congratulate Governor John Hickenlooper and his team on the release of the impressive Colorado Water Plan,⁴³ which is consistent with and demonstrates many of the themes I mentioned tonight. I mention this because it is absolutely critical that we work together at all levels of government—federal, state, tribal, and local. Each of us has a role in conducting the outreach necessary to develop workable and comprehensive water resource strategies.

With this in mind, I want to offer a defense of the Bureau of Reclamation. One of my predecessors, Dan Beard, has written a book entitled *Deadbeat Dams: Why We Should Abolish the U.S. Bureau of Reclamation and Tear Down Glen Canyon Dam*. I must admit that I have not read the book, which is just coming out so I am not aware of the specific arguments that Dan is making. Also, I want to make clear that I

43. COLORADO WATER CONSERVATION BD., COLORADO'S WATER PLAN: FIRST DRAFT (2014), available at <https://www.colorado.gov/pacific/sites/default/files/2014-Draft-Colorado%27sWaterPlan%28FULL%29.pdf>.

have tremendous respect for Dan, who helped initiate a lot of changes at Reclamation at the right time, and was very gracious to me when I was nominated to take the job back in 2009. Nonetheless, to say the least, the title is very provocative and likely to spark debate. But let me be clear: I think the men and women of the Bureau of Reclamation have aggressively embraced and led in the effort to transform how we conduct water policy in the American West. A lot of what I know, and the successes I now discuss, are based on being in the trenches with these folks for five years and supporting them in their work. It is an experience I would not change for the world.

My final takeaway is that the federal government needs a facilitator, even as it strives to relinquish as much control as possible consistent with its statutory responsibilities. Reclamation is well positioned to play that role. If it continues over the next couple of decades the way it has conducted business in recent history, we will continue to make progress. Success, however, which I still view as defined by the elusive concepts of certainty and sustainability, will depend on all of us continuing to evolve in our approach to water management and expanding our own views of the scope of the watershed.

Thank you again for the opportunity to talk about this important issue.