

Transcription of Water Conference Opening Remarks by New Mexico Senator Tom Udall

Tom Udall became New Mexico's 17th United States Senator on January 6, 2009, after two decades of public service as U.S. Representative and New Mexico's State Attorney General.

Born to Stewart and Lee Udall in Tucson, Arizona, on May 18, 1948, Tom's roots in New Mexico are deep. His grandmother, Louise Lee, was born in Luna, New Mexico, during territorial days and was part of a ranching family in what is now Catron County. Her family used to drive cattle down the White Mountains to the railroad in Magdalena.

In the Senate, he serves on five committees: the Appropriations Committee, specifically the Subcommittee on Energy and Water Development; the Committee on Foreign Relations; the Committee on Environment and Public Works (EPW); the Committee on Indian Affairs; and the Committee on Rules and Administration.

As a member of the Environment and Public Works Committee, Tom works on important environmental and infrastructure issues, including water policy. That Committee's jurisdiction includes the Army Corps of Engineers Civil Works Program, the Clean Water Act, the Safe Drinking Water Act, and the Endangered Species Act. On the Indian Affairs Committee, he continues his longtime mission of helping shape the unique matters concerning Native Americans, including water settlements, economic development, trust responsibilities, land management, Indian education and health programs.

Tom is married to Jill Cooper and they have one grown daughter. In Tom's spare time he enjoys tennis, fly-fishing, mountain climbing, and staying involved in his community.

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New Mexico Water Resources Research Institute Director Sam Fernald, thank you for that kind introduction. The water resources research institutes, I believe, across the nation are very valuable. Congress authorized these institutes in every state in 1964 and New Mexico's was one of the first in the nation and I believe it is one of the very, very best. I also would like to thank President Barbara Couture. New Mexico State University is a tremendous asset for Las Cruces, Doña Ana County, New Mexico, and the Southwest as a whole, and especially for our state's important water resources and agricultural economy.

We have a full program today packed with a great amount of insight for our state's water challenges. I want to thank everyone who is participating as a moderator, speaker, and panelist. And finally I want to thank everyone who is attending today or watching our webcast online. We need everyone's help to ensure sustainable—and we need to make that word mean something—water for New Mexico.

What we are trying to do here today was very powerfully brought to me when I walked in. One of our participants said in a very frank way, "We want to get to the truth about water in New Mexico; we don't want to hear a lot of lies." He gave it to me straight as you can see. And that's how I've felt for a long time, so I have joined with Barbara Couture to bring people together today.

Secondly, we want to look at the big picture. I'm going to try to lay out the big picture before we move to our panelists. Part of this was exemplified this morning on the front page of the *Albuquerque Journal* where drought was discussed and the Mayan culture of a thousand years ago. The article said we need to look at what happened there and see if there is anything to learn. The

article referred to an archeologist by the name of Jerry Sabloff, and I want to read just a couple of sentences summarizing his thoughts. These are the questions we should be asking as we get into our panels. Sabloff thinks we need to look across the Southwest and ask serious questions about where we are headed given our vulnerability to drought and the changing climate. Sabloff asked, "Are we going to allow unfettered growth? How resilient do we want to be? What sort of steps are we willing to take to get there?" These questions are really what I want this conference to be about. I want you to participate in finding those steps that we are willing to take, build that consensus, and move forward on collaboration so we can come together on water.

Let me start first with the value of water. Adam Smith, one of the creators of modern economics, called water an example of the paradox of value. A diamond is very beautiful, but it has a limited function and it's very expensive. Fresh water is essential to human life and yet it is very inexpensive. The average American uses about 100 gallons of water per day, costing about 20 cents, total. A one-carat diamond can be worth \$3,000, that's worth 1.5 million gallons of tap water, enough to keep 100 people alive for over 80 years for each of them. A simple answer to the paradox is that diamonds are rare and water is plentiful. But Adam Smith's point was that the price does not always equal value. As the famous Irish writer Oscar Wilde once said, "A cynic knows the price of everything and the value of nothing." In New Mexico, we cannot afford to be cynical about the value of water.

Indian tribes and pueblos have a deep spiritual connection to their water sources. Farmers, ranchers, conservationists, city dwellers, and small business people all have some kind of special relationship with water. New Mexicans are very conscious compared to many others Americans about water and about the impacts of water. I believe we face a critical time and need to redouble our efforts when it comes to the preciousness of water and how we think about it.

Figure 1 gives you the big picture. This is the picture of drought in America today. Over 50 percent of the United States is in drought. The agricultural losses have been stunning with the highest corn prices on record. The drought in the Midwest is so bad that parts of the Mississippi are impassable for barges, over 100 are stranded. High feed prices are devastating for New Mexico ranchers and dairies. I joined other Senators in calling for a reduction in corn ethanol this year to ease prices. This year the Senate passed an updated, bipartisan farm bill with my support. We're hoping the House will act on that bill or at least a drought disaster bill. Our farm policy needs to adapt to an era of high commodity prices and more drought disasters. Producers will likely need fewer subsidies but more emergency assistance.

Figure 2 is a close-up look of drought in New Mexico. All New Mexico counties have been declared drought disaster areas by the USDA and are eligible for assistance. Unlike many areas in the country in drought, these dry conditions in New Mexico have been going on for several years. The current stretch of drought is the worst since the 1950s and we are not through it yet. Handouts on your tables provide drought assistance information for farmers and ranchers. Of course, our farmers and ranchers would prefer not to need that assistance. Like our rivers, our cities, and towns, and our industry, they need water. Times of drought and shortage lead to short tempers and

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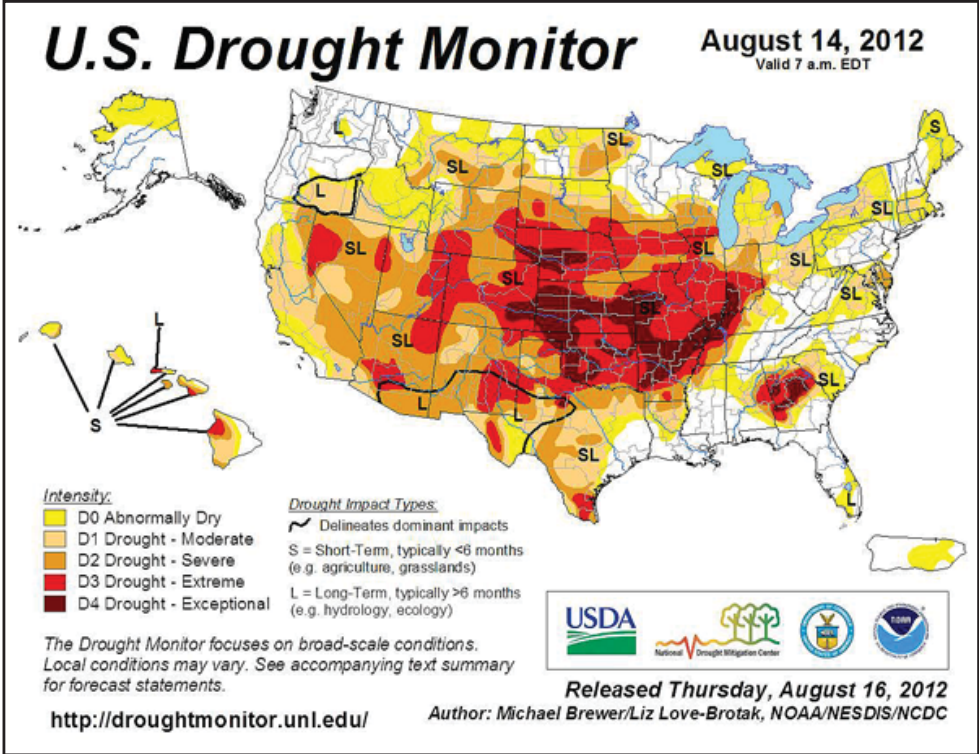


Figure 1. Drought in America as of August 2012

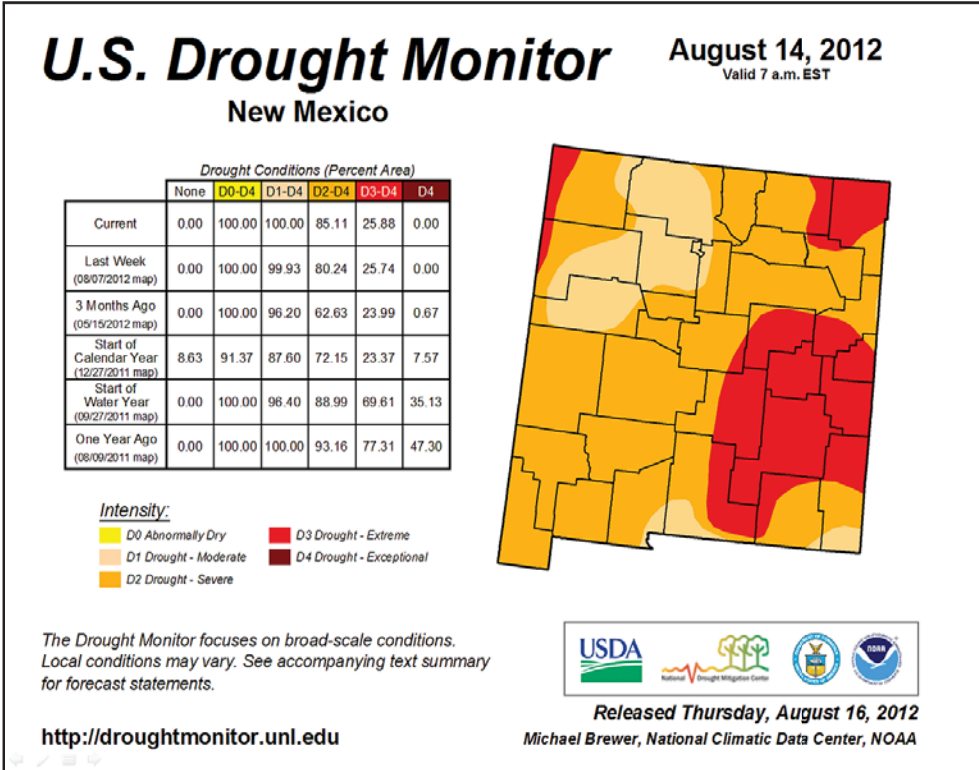


Figure 2. Close-up of drought in New Mexico, August 2012

litigation. I'm sure all of you have heard the old saw many times: in most places in the country, water is for drinking and whiskey is for fighting. But in the West, that is reversed, water is for fighting, whiskey is for drinking. Determining who has rights to what water is a story that is as old as the West.

In the background of the current drought is global climate change. Federal, academic, and international scientific bodies are all warning us of the increasing risk of greenhouse gas emissions. Projections for the Southwest indicate hotter and dryer conditions with the potential for both greater fires and greater floods when water comes. Sandia National Laboratories recently published a peer-reviewed study of the economic impacts of hotter and dryer conditions, focusing on impacts to water. I quote from that study, "The average risk of damage to the U.S. economy from climate change at the national level is on the order of \$1 trillion over the next 40 years.

Figure 3 shows that New Mexico is at particular risk. This map shows state by state impacts. Sandia estimated losses of \$25 billion for New Mexico and over 200,000 jobs lost over that 40-year period from now until 2050. Most of those 200,000 jobs are losses in terms of agriculture. Climate scientists say that climate change loads the dice in favor of drought.

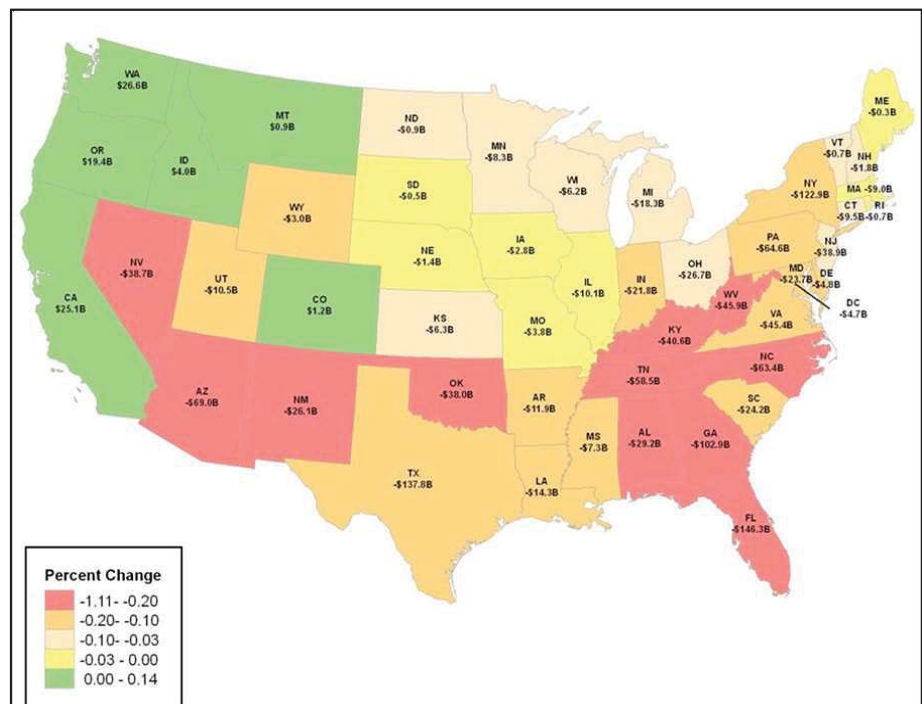


Figure 3. Possible economic state impacts due to climate change

Now how much water do we have? Given the climate risks, New Mexico and other regional watersheds need to ask a basic question—how much water do we realistically have? First, how much surface water can we expect, taking into account historical conditions, current drought conditions, and potential future conditions. We will look to our first panel to help answer this question.

Figure 4 shows that the early 20th century had historically high flows in watersheds that future years might not match. This chart appeared two weeks ago in the *New York Times*. It was based on studies of tree rings from

northern New Mexico. It shows dry and wet years going back over 1,000 years. On the far right we can see the early 20th century and that in recent years, we have experienced historically high rainfall. The Colorado River Compact was signed in 1922, and the Rio Grande Compact was signed in 1938. I believe this kind of data shows that we need to plan for potentially drier times. I want to point out that when looking at this graph, we see that at the time when we were entering into the Compacts, we were experiencing wetter periods. We have been experiencing wetter periods than we've seen in the last 1,000 years. What is striking is to see over 1,000 years is how many more drier times we've had than wetter. It's something we need to realize and deal with, talk about, and understand.

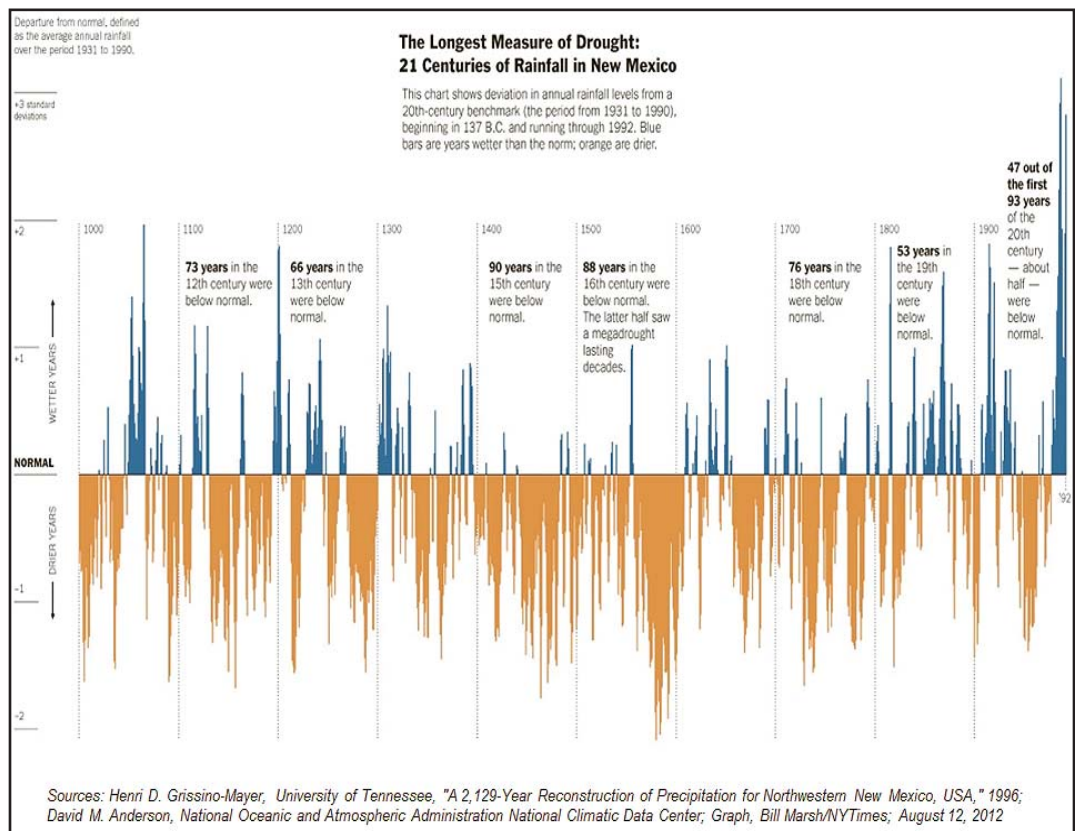


Figure 4. Measuring drought in New Mexico over 21 centuries

New Mexico's surface waters have been completely allocated for decades. Paper water often exceeds wet water and conflict can result. As shown in a 2004 water supply study of the Middle Rio Grande, New Mexico would not meet Compact obligations over 50 percent of the time under drought condition (Fig. 5). If conservation actions were taken, we could almost meet our obligations as seen by the blue bars in the chart, an average deficit of 7,100 acre-feet. Under drought conditions, New Mexico would be out of balance even with conservation measures. It would fail obligations more than 50 percent of the time. This is shown by the maroon bar, an average deficit of 41,000 acre-feet.

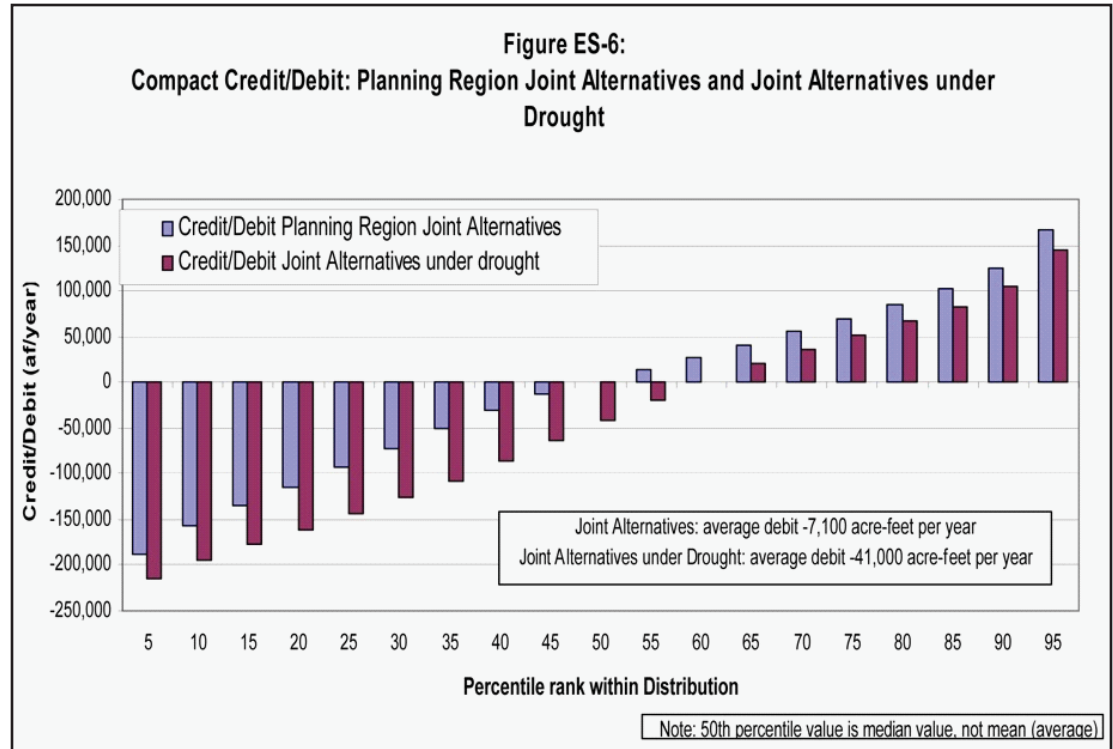


Figure 5. Meeting Compact obligations in the Middle Rio Grande under drought conditions (2004)

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In addition to Compact obligations, surface water is also affected by the Endangered Species Act (ESA). A new biological opinion is due this year. The ESA can be a blunt instrument, but seemingly insignificant species can be the canaries in the coal mine. If our rivers cannot support their traditional life, how long can we live off it?

As with surface water, New Mexico’s water supply is uncertain since groundwater is out of sight. There is a natural tendency to be optimistic, but in eastern New Mexico, the Ogallala aquifer is dropping. Pumping in the Albuquerque area has had to be curtailed to allow the aquifer to recover. Here in the southern New Mexico, drought and unregulated pumping in Mexico are having a major impact.

Figure 6 is an image from a recent report from the scientific journal, *Nature*. The color scale represents their estimate of groundwater stress that is going on around the world. As you can see, the U.S./Mexico border region from Texas to Arizona is seeing heavy stress. Areas with similar stress are in the Ogallala and areas around the world like the Middle East, Iran, India, and China. A U.S. intelligence agency report recently predicted this situation could cause political instability in these areas overseas, and of course we want to avoid that.

I believe we are at a crossroads where we will have to make hard choices. The hardest choice is between conflict and cooperation. I realize how difficult this is. In this room, we have organizations that are actively suing each other over water. Municipalities and agriculture have had disputes in several New Mexico areas. Texas and New Mexico have a long history of litigation over the Rio Grande. The U.S. and Mexico disputed the Treaty of 1944 for many

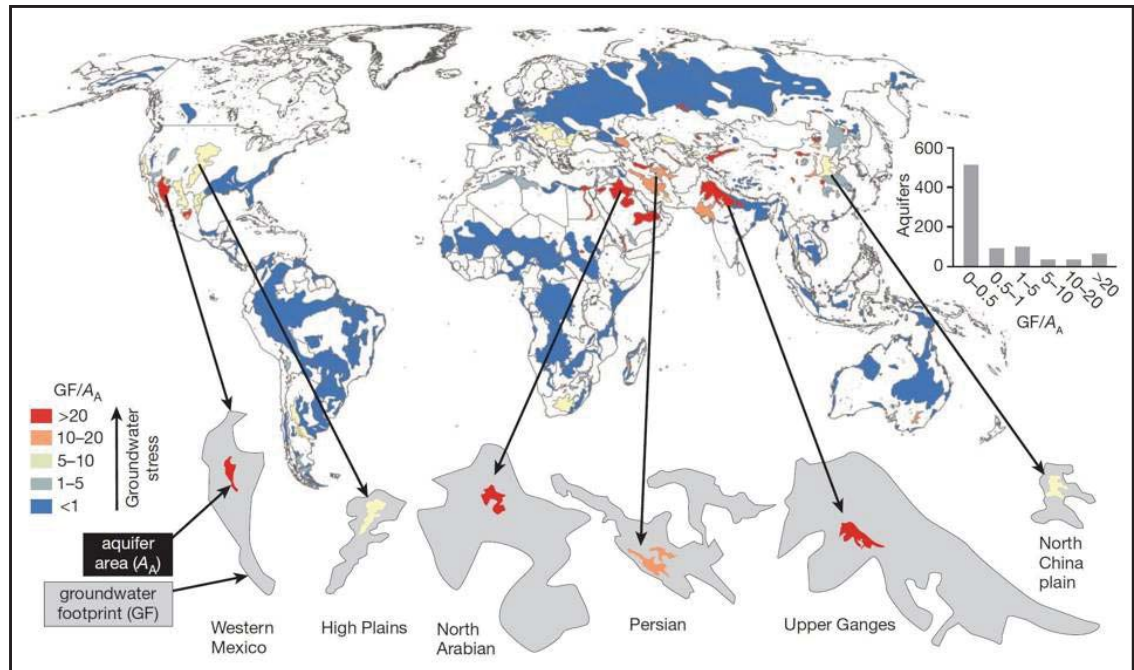


Figure 6. Groundwater stress across the world

years. This spring we had a dispute when the International Boundary and Water Commission sent water to Mexico early in the irrigation season with little coordination with other relevant agencies. New Mexico is involved in litigation with the Bureau of Reclamation. Developers are filing controversial plans to transfer water outside regions. Recently the federal government brought litigation to claim groundwater rights associated with our surface water flows.

Some people may think it is a little ironic for a member of Congress to offer their thoughts on cooperation versus conflict. One poll has the Congress’s generic approval rate as low as 12 percent. As John McCain has said, we’re down to staffers and blood relatives at this point. But I hope you will bear with me for a minute. I do not believe that most members of Congress are bad people. Most of us have a higher individual approval rating than 12 percent. I sure hope I do. But the wrong rules and process can lead good people to unproductive conflicts—our campaign finance system for most special interests and fund raising over the public interest and legislation is an example. Rules in the Senate like holes and filibusters allow one senator or a small minority to block the process of voting on nominations or legislative ideas. I proposed a number of ideas to improve Congress by reforming these kinds of rules and at the very least we need to discuss and debate which rules are best.



Figure 7. John Wesley Powell’s suggested state boundaries based on watershed boundaries

Like Congress and the federal government as a whole, western water policy has arcane rules and overlapping agencies and jurisdictions. When John Wesley Powell first surveyed the American West, he traveled western rivers (Fig. 7). Most famously he led the first European expedition down the Colorado River through the Grand Canyon—and he only had one arm. He realized the importance of river basins and watersheds as shown on his land-marked maps. You can see by this figure how he thought the West should be

organized. In fact, he made recommendations and a big fight ensued in the Congress. He recommended that western state lines be drawn according to watersheds to promote the best management of the most valuable resource. He felt the most precious resource in the West is water, and the states should be organized around watersheds.

Well, you know what can happen to a good idea. Figure 8 shows current state lines. The rivers are all on there but little square boundaries were drawn to create states.

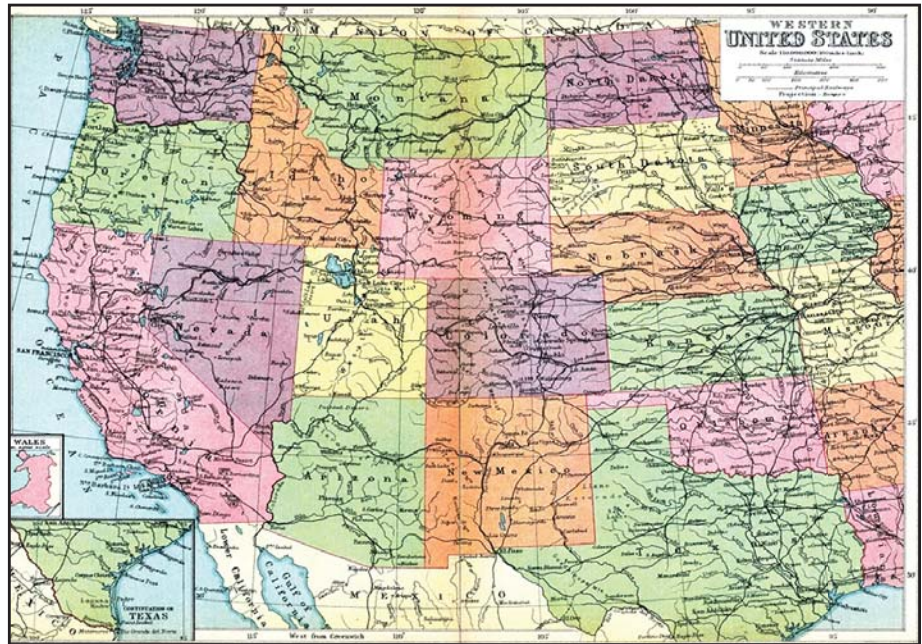


Figure 8. State boundaries

By one count, there are at least a dozen federal agencies with some authority over water. States also have multiple interested agencies involved with water and local governments do as well. All of these factors can make conflict more likely than cooperation.


Our conference is focused on water policy in the context of drought, but I do not have a specific policy agenda I'm trying to promote. My agenda for today's conference is to improve our process and to try to build some consensus. NMSU and the WRRI have brought together some of the best and brightest in a collaborative format. We are also seeking audience input both during and after the conference. Following the conference, my staff and the water institute are going to get together and produce a compilation of options from what we hear today. We are going to post that report on our websites and solicit further input. Any specific policy options may or may not have broad consensus or be fleshed out in complete detail, but they will be available for anyone to use as a resource, whether as a citizen, an advocate, or a local, state, or federal official.

I want to be the first to tell you, I don't have all of the answers. I know there are many of you in this room who worry every day about water—from farmers and ranchers to engineers. There are some goals that I would like to lay out for us today in terms of water policy: focus on the reality of supply

and on the future, not past disagreements; maintain sustainable New Mexico agriculture—once again the keyword is “sustainable,” let’s make that mean something; enable sustainable municipal and industrial growth; restore living river systems and streams in New Mexico for fishing, recreation and wildlife; avoid litigation when possible; understand surface and groundwater supply through monitoring and data; adapt to the new era of federal policy and earmark moratorium resulting in fewer projects, tighter budgets; create opportunities for regional planning and coordination especially for drought conditions; and improve communication and coordination among numerous agencies.

Drought is not the most uplifting topic as we all know, but I think there are reasons for optimism. I will list just a few here: slow but steady progress toward an accommodation between agricultural water use and urban use and between acequia use and city use; combining interests of agriculture and the environment to encourage greater instream flows; progress in recycling water in municipalities and in the oil and gas industry; progress in the desalinization of brackish aquifers using solar power; the development of algae biofuel projects in New Mexico, which can utilize brackish water for an agricultural and energy enterprise; smart water technology that can reduce the massive amounts of leakage from our aging infrastructure; a new federal role of technology leadership with assistance and facilitation building on past successes of regional watershed planning both locally and among western states. We will hear more about these and other ideas from our panelists today.

As I wrap up, I would like to talk specifically about the federal role in water. Figure 9 is a list of the active major water supply construction projects to be built in the coming years. As you can see, the 21st century will still see some new major water supply projects in New Mexico. Almost all of these result from tribal settlements.



MAJOR FEDERAL ONGOING WATER SUPPLY PROJECTS IN NEW MEXICO

Aamodt Settlement—San Ildefonso, Nambe, Pojoaque, and Tesuque Pueblos and surrounding communities. Regional Water System cost - \$106.4 million. Claims Resolution Act of 2010.

Abeyta Settlement—Water projects for Taos Pueblo and local water users including acequias. Cost \$144 million. Claims Resolution Act of 2010.

Animas-La Plata Project – includes the Navajo Nation Municipal Pipeline in NM. Cost estimate \$586 million. Colorado Ute Settlement Act of 2000.

Jicarilla Apache Rural Water Systems Act –\$45 million authorized for water infrastructure. Jicarilla Apache Rural Water Systems Act in 2002.

Navajo Indian Irrigation Project –Part of the Colorado River Storage Project, irrigation for the Navajo Agricultural Products Industry (NAPI).

Navajo Water Settlement - Navajo Gallup Pipeline to supply the Navajo Nation, Gallup, and Jicarilla Apache Nation. Total cost estimated at \$995 million. Omnibus Public Land Management Act of 2009.

Eastern New Mexico Rural Water Project –Ute Reservoir pipeline to Curry and Roosevelt counties to replace Ogallala water. Estimated cost is \$500 million. Omnibus Public Land Management Act of 2009.

Figure 9. Major ongoing federal water supply projects in New Mexico

The 20th century federal water policy was defined by big projects and big laws. Think of Hoover Dam and all the dams and reservoirs in New Mexico and across the West that were authorized and funded by Congress. Congress also passed the Clean Water Act, the Endangered Species Act, National Flood Insurance Act, and the Agricultural Assistance Program.

Much of recent decades has been spent maintaining, implementing, and litigating these projects and laws. Outside of tribal settlements, future funding is unlikely except for a few major projects. Major new water laws are also unlikely in the current climate. So if the era of major federal water projects and legislation is coming to an end, what can we expect in the future? My vision is for a more flexible, adaptive, and collaborative federal role. The federal government is in a great position to do pilot projects with new technology. For example, I think the federal government can lead with smart water pilot projects that reduce leakages and losses using information technology. The federal government can also act as an information and best practices clearinghouse. I proposed legislation for EPA to promote, but not mandate, the use of more natural green infrastructure for stormwater management that can help recharge groundwater, reduce flooding, and save on construction costs. The federal government must continue to lead on research, monitoring, and data collection. Funding cuts to these functions are dangerous and it's like flying blind.

My vision is for a more flexible, adaptive, and collaborative federal role. . . The federal government must continue to lead on research, monitoring, and data collection.

Finally, I hope the federal government can facilitate regional water planning. As we saw on John Wesley Powell's map, our state boundaries and our watershed boundaries do not match up. Back in the 1960s and 70s, river basin commissions and interstate compacts agreed to by states with a federal role were quite popular. They still exist in some places, mostly in the eastern half of the U.S. We need not revive them exactly, but regional and interstate planning is a must. To improve the federal role we must also look to reforming and coordinating federal water agencies. After 9/11, Congress quickly reformed many different security agencies. Secretary Salazar did the same after the BP Deepwater Horizon Spill. Drought is a natural disaster with contribution by climate change, and it may acquire a similar response.

I want to thank you all for being here. Let's get started with the conference.